

October 10, 2013

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

Dear Ms. Walli

In accordance with *G-2011-0001 Guideline, Smart Meter Funding and Cost Recovery – Final Disposition*, dated December 15, 2011, Niagara Peninsula Energy Inc. hereby submits its Application for Final Disposition of Smart Meter Costs.

As outlined in the filing instruction guidelines, Niagara Peninsula Energy Inc. has included two paper copies and one CD with all electronic files. All electronic files have also been submitted in the RESS.

Please contact myself should anything further be required, I can be reached at 905-353-6004.

Sincerely,



Suzanne Wilson, CPA, CA
Vice-President, Finance
Niagara Peninsula Energy Inc.
(905) 353-6004
Suzanne.Wilson@npei.ca

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

AND IN THE MATTER OF an application by Niagara
Peninsula Energy Inc. for an order or orders approving or
fixing just and reasonable distribution rates relating to final
disposition of Smart Meter deployment, to be effective
February 1, 2014 and May 1, 2014.

APPLICATION

Niagara Peninsula Energy Inc. (the “Applicant” or “NPEI”) is a corporation incorporated under the Ontario *Business Corporations Act* with its head office in the City of Niagara Falls, Ontario. The Applicant carries on the business of distributing electricity within the City of Niagara Falls, the Town of Lincoln, the Township of West Lincoln, and the Town of Pelham as a licensed electricity distributor operating pursuant to license ED-2007-0749.

The Applicant hereby applies to the Ontario Energy Board (the “OEB” or “the Board”) pursuant to Section 78 of the *Ontario Energy Board Act, 1998* (the “OEB Act”) for final approval of Smart Meter Rate Riders to effect the recovery of its Smart Meter costs effective February 1, 2014 and May 1, 2014.

Specifically, NPEI hereby applies for an order or orders in accordance with the G-2011-0001 *Guideline, Smart Meter Funding and Cost Recovery – Final Disposition*, December 15, 2011, (“the Guideline”) including the following:

a) Addition of a Smart Meter Disposition Rate Rider (“SMDR”) of (\$0.04) per metered Residential customer per month and \$2.32 per metered General Service < 50 kW customer per month, effective February 1, 2014; and

b) Addition of a Smart Meter Incremental Revenue Requirement Rate Rider ("SMIRR") of \$0.90 per metered Residential customer per month and \$1.53 per metered General Service < 50 kW customer per month, effective May 1, 2014.

This Application is supported by written evidence that may be amended from time to time, prior to the Board's final decision on this Application.

The Applicant requests that, pursuant to Section 34.01 of the Board's *Rules of Practice and Procedure*, this proceeding be conducted by way of written hearing.

The Applicant requests that a copy of all documents filed with the Board in this proceeding be served on the Applicant as follows:

Niagara Peninsula Energy Inc.
7447 Pin Oak Drive
Box 120
Niagara Falls, Ontario L2E 6S9

Attention: Ms. Suzanne Wilson
Vice President, Finance
Phone: (905) 353-6004
Fax: (905) 356-0118
E-mail: Suzanne.Wilson@npei.ca.

DATED at Niagara Falls, Ontario, this 10th day of October, 2013.

All of which is respectfully submitted.

NIAGARA PENINSULA ENERGY INC.

Original signed by

Suzanne Wilson, CPA, CA
Vice President, Finance

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Appendix A: Monthly Smart Meter Reports (Dec. 2009, Dec. 2010, Dec. 2011, & Dec. 2012)

Appendix B: Letter from Fairness Commissioner

Appendix C: Portion of Exhibit 4, from NPEI’s 2011 COS Application (EB-2010-0138)

Appendix D: Smart Meter Model

MANAGER'S SUMMARY

INTRODUCTION

NPEI's Smart Meter Funding Adder ("SMFA"), as approved in the Board's Decision in NPEI's 2011 COS Rate Application (EB-2010-0138), was effective until April 30, 2012. No SMFA was included on the Tariff for NPEI's rates, effective May 1, 2012, as approved in NPEI's 2012 IRM Application (EB-2011-0185). The G-2011-0001 *Guideline, Smart Meter Funding and Cost Recovery – Final Disposition*, December 15, 2011, states "*The Board indicated that, for those distributors that are scheduled to file a cost of service application for 2012 distribution rates, the Board expects that they will apply for the disposition of smart meter costs and subsequent inclusion in rate base. For those distributors that are expected to remain on IRM, the Board expects these distributors to file a stand-alone application with the Board seeking final approval for smart meter related costs.*" Accordingly, NPEI submits this stand-alone application for the recovery of the costs the utility incurred in implementing its Smart Meter Program.

The Total Smart Meter cost claimed is indicated in Table 1 below.

Table 1 – Summary of Cost Claim

Total Smart Meter Capital Costs	\$ 6,088,399
Total Smart Meter OM&A Costs	\$ 1,602,232
Total Smart Meter Costs	\$ 7,690,631

NPEI notes that Table 1 above includes \$4,175,010 of capital costs that were approved for inclusion in rate base in NPEI's 2011 Cost of Service Rate Application, EB-2010-0138.

In the EB-2010-0138 Cost of Service Application, NPEI explained:

"NPEI books all smart meter related expenditures, expenses and recoveries to accounts 1555 and 1556. However, as further explained in Exhibit 9, NPEI is applying for approval to include an amount of \$4,175,010 of smart meter capital in rate base for 2011. Accordingly, this balance is shown in Table 2-7, as an addition to account 1860 in

2010. In this manner, if approved, the smart meter capital amount is then included as part of the 2011 opening balance, allowing for a full year of revenue requirement on this balance for 2011.”

The inclusion of \$4,175,010 of smart meter capital costs in rate base was one of the settled issues in the Partial Settlement Agreement in NPEI’s 2011 COS Application, which was approved by the Board in its Decision on Partial Settlement and Procedural Order No. 3, dated May 16, 2011.

Further details on how the amount of \$4,175,010 has been included in the Smart Meter model in the current application are given below in the Section ‘Capital and Operating Costs’ on page 24.

The Cost Allocation methodology is detailed in the Section ‘Determination of Specific Smart Meter Rate Riders’ on page 33 below.

The incurred smart meter costs are partially offset (to April 30, 2012) by the Smart Meter Funding Adder, including simple interest, in the amount of \$2.46 million (see Table 13).

The resulting rate riders being proposed are presented in Table 2 below, and are based on the period of recovery from Feb 1, 2014 to April 30, 2015 for the SMDR, and the recovery period from May 1, 2014 to April 30, 2015 for the SMIRR.

Table 2 – Summary of Proposed Rate Riders and Adders

Rate Rider	Residential			GS < 50		
	\$ per customer per month			\$ per customer per month		
	Current	Proposed	Change	Current	Proposed	Change
Smart Meter Funding Adder (SMFA)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Smart Meter Disposition Rate Rider (SMDR)	\$ -	\$ (0.04)	\$ (0.04)	\$ -	\$ 2.32	\$ 2.32
Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)	\$ -	\$ 0.90	\$ 0.90	\$ -	\$ 1.53	\$ 1.53
Total Smart Meter Rate Change	\$ -	\$ 0.86	\$ 0.86	\$ -	\$ 3.85	\$ 3.85

The SMDR recovers, over a specified time period, the variance between: 1) the deferred revenue requirement for the installed smart meters up to the time of disposition; and 2) the SMFA revenues collected and associated interest. NPEI is requesting approval for SMDRs to recover the difference between the 2006 to 2013

revenue requirement related to smart meter costs as of December 31, 2013 (plus interest on operations, maintenance, administration and depreciation expense) and the SMFA revenues collected from May 1, 2006 to April 30, 2012 (plus corresponding interest on the principal balance of SMFA revenues).

When smart meter disposition occurs in a stand-alone application, a SMIRR is calculated as the proxy for the incremental change in the distribution rates that would have occurred if the assets and operating expenses were incorporated into the rate base and the revenue requirement. The SMIRR is calculated as the annualized revenue requirement for the test years for the capital and operating costs for smart meters. NPEI is requesting approval for SMIRRs to recover the incremental revenue requirement for smart meter costs relating to 2014, to be in effect from May 1, 2014 until NPEI rebases rates through a cost of service rate application. NPEI is scheduled to file a COS rate application for rates effective May 1, 2015.

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 [based on 3,053,931 meters (64% complete) with a capital cost of \$570,339,200 as at September 30, 2009]. The review period was January 1, 2006 to September 30, 2009. The Average Total Cost per Meter (capital and OM&A) is \$207.37 [based on 3,503,931 meters (64% complete) with a total cost of \$633,294,140 as at September 30, 2009].

The Board's "Monitoring Report Smart Meter Investment – September 2010", dated March 3, 2011, indicates an Average Total Cost per Meter of \$226.92 [based on 4,382,194 meters (94% complete) with a total cost of \$994,426,187 as at September 30, 2010].

All costs associated with completing NPEI's Smart Meter Program have been prudently incurred as is evidenced by a \$118.53 per meter Average Capital Cost and a \$149.72 Average Total Cost per Meter, both which include costs exceeding minimum functionality. The calculations are presented in Tables 3A and 3B below and demonstrate that NPEI compares favourably to the sector average of \$186.76 capital cost per meter and \$207.37 total cost per meter (based on September 2009 data), and the total cost per meter of \$226.92 (based on September 2010 data), as presented in the Board's Audit Review and Monitoring Reports discussed above.

Table 3A – Average Capital Cost per Meter

Smart Meter Capital Costs, Includes Costs Exceeding Minimum Functionality	6,088,399
Remove Smart Capital Costs Exceeding Minimum Functionality	(193,248)
Smart Meter Capital Costs, Excludes Costs Exceeding Minimum Functionality	5,895,151
Number of Meters Installed	51,366
Average Capital Cost per Meter, Includes Costs Exceeding Minimum Functionality	\$ 118.53
Average Capital Cost per Meter, Excludes Costs Exceeding Minimum Functionality	\$ 114.77

Table 3B – Average Total Cost per Meter

Smart Meter Capital Costs, Includes Costs Exceeding Minimum Functionality	6,088,399
Remove Smart Capital Costs Exceeding Minimum Functionality	(193,248)
Smart Meter OM&A Costs, Includes Costs Exceeding Minimum Functionality	1,602,232
Remove Smart OM&A Costs Exceeding Minimum Functionality	(298,470)
Total Smart Meter Costs, Excludes Costs Exceeding Minimum Functionality	7,198,913
Number of Meters Installed	51,366
Average Cost per Meter, Includes Costs Exceeding Minimum Functionality	\$ 149.72
Average Cost per Meter, Excludes Costs Exceeding Minimum Functionality	\$ 140.15

No cost associated with stranded meters has been included in the application in accordance with the *Board's Smart Meter Funding and Cost Recovery – Final Disposition Guideline* (G-2011-001). Appendix A-1 states:

“There are two accounting treatment options for stranded meters related to the installation of smart meters:

(1) Leave them recorded in Account 1860, Meters; or

(2) Record them in “Sub-account Stranded Meter Costs” of Account 1555.”

NPEI has recorded stranded meter costs in a sub-account of Account 1555. NPEI's stranded meter balance, at December 31, 2012, is \$1,617,308, which represents the net book value of stranded meters. NPEI has also recorded, in a separate sub-account, a credit of (\$11,451), which represents the net proceeds received from recycling the replaced meters.

Section 3.7 of the Guideline states:

"Consequently, starting in the 2012 EDR process, distributors seeking recovery of stranded meter costs should bring forward these requests in a cost of service application."

NPEI will address the recovery of stranded meter costs in its next cost of service application, which is scheduled for rates effective May 1, 2015.

This application is structured in six distinct sections, specifically;

- 1) Background - Procurement
- 2) Status of Smart Meter and Time of Use Implementation
- 3) Capital and Operating Cost
- 4) Determination of Specific Smart Meter Rate Riders
- 5) Bill Impacts Summary
- 6) Conclusion

BACKGROUND - PROCUREMENT

Combined Proceeding

In 2007, the Board conducted a combined proceeding in relation to smart meter costs, (“the Combined Proceeding”, under Board File No. EB-2007-0063), for the thirteen distributors that were at that time authorized by regulation to conduct smart metering activities. In its Decision with Reasons, issued on August 8, 2007, the Board addressed the following issues:

- the interpretation of minimum functionality;
- the smart meter procurement process;
- smart meter costs;
- dealing with stranded meters;
- accounting procedures related to smart meter costs; and
- The methodology for recovery of smart meter costs through rates.

Other Distributors

The Guideline contains a summary of applicable Smart Meter Regulations. The description of O.Reg. 427/06 contains the following:

“For other distributors, authorization for smart meter activities if smart meter procurement is pursuant to and in compliance with the parameters and process established by the Request for Proposal for Advanced Metering Infrastructure (AMI) – Phase 1 Smart meter Deployment dated August 14, 2007.”

Accordingly, NPEI is authorized to procure and deploy smart meters under O. Reg. 427/06, pursuant to the RFP process mentioned above.

Smart Meter Investment Plan

As part the NEPA (“Niagara Erie Power Alliance”) group, a consortium of like sized and geographically located distributors, NPEI retained the services of Util-Assist to consult

on the management of its Smart Meter Initiative. Util-Assist is a Canadian owned and operated consulting firm with extensive experience dealing with AMI technologies in a cost effective manner. In conjunction with Util-Assist, the NEPA group filed its Smart Meter Investment Plan ("SMIP") with the Board in December 2006.

The SMIP identified the following steps in NEPA's Smart Meter deployment strategy:

- Planning
- Procurement Process / Vendor Selection
- OEB Rate Approval
- Negotiation with Qualified Vendors
- Customer Communication
- Implementation/Deployment of Meters
- Meter Disposal
- Acceptance Testing
- Security and Authentication
- Back Office Integration
- Customer Presentment

Each step of the SMIP is discussed further below.

Planning

During this stage, NPEI produced requirements specific to regulated functional and technical specifications, detailed project plans, including budget, specific to the smart meter initiative. All tasks were identified that needed to be completed as well as the

resources and technologies required to achieve these tasks. Part of this planning process included understanding and collecting the information required by the qualified AMI (meter types, propagation studies) and installation vendors (location types i.e. inside outside, rural, etc.).

Procurement Process/Vendor Selection

The goal of this process was to produce a list of qualified vendors with which NEPA members could enter into final vendor negotiations and subsequent selection. Based on the “Request for Proposal for Advanced Metering Infrastructure (AMI) – Phase I Smart meter deployment”, issued August 14, 2007, the preferred proponent for NPEI was KTI/Sensus Limited, and the second ranked proponent was Elster Metering. This is supported by the Attestation Letter of the Fairness Commissioner, dated August 1, 2008, which is included as Appendix B of this application.

OEB Rate Approval

The NEPA SMIP stated:

“It is critical that NEPA members completely understand the rate approval process and the associated recovery allocation before they enter into final negotiations and contract signing with qualified smart meter vendor(s). ... Without rate approval, the next stages of the smart meter implementation process will be delayed.”

NPEI notes that the Board has provided substantial guidance to LDCs on the manner in which Smart Meter deployment costs should be recorded and subsequently recovered.

This guidance includes:

- The Board’s Decision with Reasons (EB-2007-0063) to Combined Proceeding on Smart Meter Costs, issued on August 8, 2007;
- Guideline (G-2008-0002) Smart Meter Funding and Cost Recovery issued on October 22, 2008, subsequently superseded by the updated Guideline (G-2011-0001) Smart Meter Funding and Cost Recover – Final Disposition, issued December 15, 2011;

- Ontario Energy Board Accounting Procedures Handbook Frequently Asked Questions (December 2010 and July 2012); and
- Various Board Decisions on applications for Smart Meter cost disposition.

NPEI has been guided by these sources in accounting for Smart Meter costs and revenues, and in preparing this Application for Smart Meter cost disposition.

Negotiation with Qualified Vendors

Having acquired a level of comfort regarding the functionality of the qualified vendors considered appropriate for mass deployment, NPEI entered into contract negotiations with its identified preferred proponent, KTI/Sensus Limited (“Sensus”) and ultimately proceeded with the Sensus FlexNet AMI system. An agreement with Sensus was completed and signed to acquire 100% of the smart meters required. The AMI purchased meets the minimum functionality adopted in O.Reg.425/06 “Criteria and Requirements for Meters and Metering Equipment, Systems and Technology” with the attachment “Functional Specification for Advanced Metering Infrastructure – Version 2” dated July 5, 2007.

Customer Communication

The NEPA SMIP stated:

“The success of the smart metering implementation and the switch to TOU rates may be more dependent on the effectiveness of our communications planning than any other portion of our strategy.

First and foremost, all of our staff must be educated ambassadors for smart metering and TOU. We must be able to explain how this new technology will assist in managing current and future residential energy consumption practices and be aware of the status of the implementation and deployment progress.”

NPEI carried out extensive education and information campaigns of NPEI’s Smart Meter project status and Time of use (“TOU”) rollout schedule and impacts. The communication materials were designed to provide customers with an awareness and

understanding of the installation of a Smart Meter at their location, the benefits of Smart Metering, TOU rates, and to inform customers of tools that are available to assist them.

NPEI employed several methods of communicating with customers on Smart Meter and TOU implementation, including bill inserts, newspaper and radio advertisements, and several information sessions that were held in public locations throughout NPEI's service territory. These sessions provided NPEI and their customers with a face to face forum allowing NPEI to inform customers of upcoming TOU changes and explain the impact that these changes would have on their bill commencing in October 2011.

Throughout the installation period, a Smart Meter door hanger package, "Leave Behind Materials", was left with each customer on the day of their specific installation. This package included a notice from NPEI that their smart meter had been installed, the Ministry of Energy booklet "Getting Smart About Smart Meter's Answer Book", and a TOU Peak Magnet identifying the mid-, on-, and off-peak periods. NPEI's customer contact centre fielded calls relative to the time of use rates, time periods and the change in the bill. In addition, during the deployment of the smart meters, NPEI utilized the services of its smart meter installer, Olameter, with a customer contact centre specifically for the use of scheduling the smart meter change, and to report issues as a result of the meter change itself. NPEI staff worked with Olameter on the resolution of any scheduling or customer service issues.

Implementation/Deployment of Meters

The NEPA SMIP stated:

"The first priority will be to ensure that all field processes and safety procedures are well documented; ensuring implementation is performed safely and without incident. NEPA members will maximize the value of the site visit while maintaining the highest level of quality to help control the need for return visits which will increase overall costs. Any opportunities that are presented which can improve the installation process should be strongly considered, once it is determined what the priorities are with respect to this process."

Installation Vendor Selection

Working with Util-Assist, an Installation Services Request for Proposal (“RFP”) was created for NEPA and seven vendors from across North America were invited to respond. NEPA’s clearly stated requirement for the highest possible standards with regards to Safety were evident in every stage of the procurement process. The Request for Proposal identified NEPA’s stringent Safety requirements, and included a requirement for bidder’s to state their ability to either meet or exceed NEPA’s guidelines. In addition to comprehensive Safety policies and procedures, NEPA’s preference for a turnkey solution with the successful vendor performing all site related services and workforce management (i.e. customer communication, installation and commissioning, scheduling, dispatch and integration to back office systems, etc.) was expressed.

As a result of the proposal evaluations, it was determined that Olameter was the preferred vendor to provide Smart Meter installation services to the NEPA group. Accordingly, NPEI contracted with Olameter for meter installation.

ODS Vendor Selection

NEPA member utilities recognized early on that an Operational Data Store (“ODS”) would be of value to support their needs for the introduction of efficiencies which would become possible through the use of the operational data available from the AMI system as the MDM/R didn’t store operational data.

According to the Ministry of Energy’s Functional Specification, the Advanced Metering Control Computer (AMCC – AMI network server) is limited to a maximum of 60 days for the storage of AMI data. Whereas ODS systems act as a repository to store unlimited data and have the architecture with the mechanisms in place to retain and archive data for analysis by the utility.

Many benefits can be realized through the use of an ODS system, one of which is to use the ODS to audit the mass meter installation to prevent the situation of deploying the AMI network “blind”. The AMI systems traditionally will indicate that the meters are

communicating but the ODS will verify the quality of the data coming from the AMI system.

Other examples of the available functionality in ODS systems include verification of all data fields being transmitted from AMI, such as:

- Readings (kWh, kW)
- Alarm Filtering (Tamper, Outage)
- Power Quality Data (Voltage)
- Perform Data Gap Analysis
- Service Level Agreement (“SLA”) management of AMI system

The ODS Request for Proposal (RFP) was distributed to selected vendors in North America with thirty vendors invited to respond. Of the vendors invited to bid on the RFP, six vendors chose to submit a written response for an ODS solution. These vendors included local representation as well as vendors with extensive experience in larger markets. NEPA was confident that the most qualified and successful vendors were given the opportunity to submit proposals in response to the RFP.

Following the RFP process, the top two vendors, Harris Computer Corporation (“Harris”) and Kinetiq Canada / Savage Data Systems (“Savage”), were invited to deliver software demonstrations, leading to the selection of Harris as the successful vendor. Accordingly, NPEI contracted with Harris as their ODS service provider.

Meter Disposal

The NEPA SMIP stated:

“Accompanying the challenges of determining the right technology fit, labour considerations, and back office integration, is the problem of disposing of the redundant meters. Perhaps more importantly than the cost of the disposal of the meters, is the environmental and political considerations associated with this process.”

NPEI utilized Greenport Environmental Managers Ltd. ("Greenport") for the recycling of scrapped conventional meters. The scrapped meters were stored in containers, which were picked up by Greenport for recycling. Greenport then issued payment to NPEI, based on the market price of copper. Each payment was accompanied by a "Certificate of Recycling/Disposal Electrical Scrap Meters."

As mentioned above, the total amount of proceeds received by NPEI for recycling of scrapped meters is (\$11,451), which has been recorded in a separate sub-account of 1555. This amount will be deducted from NPEI's Stranded Meter balance when NPEI applies for disposition of Stranded Meter costs in its next COS application scheduled for May 1, 2015.

Acceptance Testing

The NEPA SMIP stated:

"During the later stages of implementation, test scripts will be executed on the systems as they are deployed to ensure that the proper amount of infrastructure has been installed to accommodate the performance requirements of the industry. Acceptance testing will be initiated to ensure that the infrastructure is operating according to the requirements, thereby minimizing the risk associated with mass deployments."

Ontario Regulation 393/07: Designation of Smart Metering Entity would authorize the Independent Electricity System Operator ("IESO") as the Smart Metering Entity responsible for processing all meter read interval data to provide billing quantity data to all LDCs in Ontario. This centralized system is termed as the Provincial Centralized Meter Data Management /Repository ("MDM/R").

NPEI conducted extensive testing on its Smart Meter systems, as required by the IESO, to ensure successful integration with the MDM/R. This testing included Advanced Metering Control Computer ("AMCC") internal testing, CIS internal testing, unit testing, system integration testing, qualification testing, and regression user acceptance testing on all NPEI systems integrated with the MDM/R. NPEI was able to complete each

milestone on time, in accordance with the scheduled completion dates filed with the OEB and the IESO.

Security and Authentication

The NEPA SMIP stated:

“With the introduction of AMI systems, utilities will become susceptible to new levels of potential security breaches. By installing network infrastructure in the field, there is now a requirement for additional security measures in order to ensure that utility data, and equipment, are kept secure from manipulation, or other forms of control. Industry reports show a worldwide trend in cyber security breaches from “hacking” where the utilities are the recipients of extortion threats.

The minimum Functional Specification for an Advanced Metering Infrastructure (AMI) released in July 2006 identified the need for security within the AMI network - Section 2.11 Security and Authentication: ‘The AMI shall have security features to prevent unauthorized access to the AMI and meter data and to ensure authentication to all AMI elements’”

NPEI has participated as part of a group of 31 LDCs working with Util-Assist in the issuance of the May 2010 RFP, “Smart Meter Network Security Audit Services”. The objective of the RFP was to select an audit partner who would perform an annual security audit of the Sensus AMI systems for the group members who had the Sensus technology in place, and to work with Sensus towards the implementation of viable countermeasures to resolve all security concerns. The selected audit firm was to first complete an in-depth security review at one of the participating LDCs that has the Sensus AMI system. Once this initial review was complete, the audit firm would then review the technology at all remaining participating LDCs to confirm that their Sensus AMI systems were configured to the same standard as that declared as the standard for the group audit. Audits were to include end-to-end from the meter to LDC’s systems and

home area network. Bell Wurldtech ("Bell") was the vendor selected to provide the audit services for the Smart Meter network security.

The physical security audit would only take place at the location of the Regional Network Interface ("RNI"), which is controlled and managed by Sensus and housed centrally at PowerStream Inc. ("PowerStream"). Every other LDC of the audit group would complete a "Utility Checklist for Sensus AMI Threat Risk Assessment" as provided by Bell to highlight internal policies where applicable and to verify comments provided by Sensus.

Back Office Integration

The NEPA SMIP stated:

"The integration of the data being acquired from the chosen AMI system(s) into daily processes is a critical component in ensuring that operational efficiencies are maximized by the chosen system. Clearly the Meter Data Management/Repository (MDM/R) will become an integral piece of technology; interfacing with the CIS for the purposes of billing as well as to other operational entities that may be interested in using the information acquired from the AMI network. The NEPA group understands that the Meter Data Repository will be a centralized entity. It will be important for NEPA members to work with AMI Operational Verification Tools for the purpose of evaluating the performance of the AMI network until the AMI infrastructure is live within the centralized MDM/R. As part of their commitment to the successful implementation of the Smart Meter deployment and systems integration, the NEPA group has a representative working with and on the IESO Smart Meter System Implementation Plan workgroup."

As mentioned above, NPEI was able to complete each milestone of the implementation plan on time, in accordance with the scheduled completion dates filed with the IESO and the OEB.

In order to ensure successful implementation, NPEI conducted an evaluation of its business processes. In general, LDCs have widely recognized a number of business

processes, some of which are new account setup, meter installations, meter changes, move-in / move-outs, and final billing that require analysis and procedural modifications to ensure that MDM/R integrations are optimized. NPEI acquired the Harris Meter Exchange Workforce Management (“mCare”) software to automate the upload of meter change information into the Northstar billing system to accommodate the smart meter mass deployment.

Customer Presentment

The NEPA SMIP stated:

“With the drastic changes in our energy market, there is a growing emphasis on conservation and consumer education. Traditionally, the problem faced by the end consumers is the lack of information regarding the daily use of electricity.

To effectively educate end users on their consumption habits, a technology infrastructure will need to be implemented that will provide granular information regarding consumer usage over the course of a day. This new information combined with innovative pricing structures such as time of use will help motivate changes to a consumers usage patterns.”

In order to provide its customers with detailed consumption data, NPEI implemented the Harris eCare software, a web presentment tool fully integrated with NPEI's Harris billing system. NPEI rolled out eCare in conjunction with TOU billing and encouraged customers, by way of bill inserts, to sign up for eCare access and informed them of the benefits. Some of these benefits being online access to hourly usage data with a one day lag period using the Demand Side Management view, web presentment of account status, balance of account, billing and usage history and access to inquire about meter or other account related activity requests.

Currently, 10.2% of NPEI's customers are registered for eCare access.

STATUS OF SMART METER AND TIME OF USE IMPLEMENTATION

Smart Meter Installations

NPEI's full-scale smart meter deployment commenced in 2009 and the installation activity is detailed in Table 4 below.

Table 4 – Smart Meter Installations by Year

Year of Installation	Smart Meters Installed						% Installed in Year	% Installed Cumulative
	Residential	GS < 50 kW	Other	Total in Year	Cumulative Total (Res. And GS<50	Cumulative Total (incl. Other)		
2009	5,217	300	0	5,517	5,517	5,517	10.74%	10.74%
2010	37,687	1,685	18	39,390	44,889	44,907	76.68%	87.43%
2011	2,521	481	124	3,126	47,891	48,033	6.09%	93.51%
2012	458	950	72	1,480	49,299	49,513	2.88%	96.39%
2013	718	824	89	1,631	50,841	51,144	3.18%	99.57%
2014	222	0	0	222	51,063	51,366	0.43%	100.00%
Total	46,823	4,240	303	51,366	51,063	51,366	100.00%	100.00%

NPEI filed monthly Smart Meter Time of Use reports with the Board, from October 2009 until June 2013, which include the cumulative number of smart meters installed to date for Residential and General Service Less Than 50kW customers. NPEI notes that cumulative totals for Residential and GS<50 kW customers in Table 4 above agree with the December Smart Meter Time of Use reports filed with the Board. The December reports for 2009 to 2012 have been included as Appendix A to this Application.

Time of Use Implementation

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, increasing to 3.6 million customers by June 2011. On June 24, 2010, the Board issued a proposed determination regarding mandated TOU pricing for RPP 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 the date of commencement of meter enrolment with the MDM/R.

In a letter dated August 4, 2010, the Board provided direction to all LDCs on mandated dates by which each distributor must bill its RPP customers that have eligible TOU meters using TOU pricing. NPEI's mandated date for TOU billing was October 2011.

NPEI was able to implement TOU billing for RPP customers that have an eligible TOU meter, commencing with the first billing cycle that began after October 1, 2011.

NPEI's progress on SME milestones, which resulted in successful implementation of TOU billing, is shown below. These completion dates were filed with the Board in NPEI's monthly Smart Meter Time of Use Reports.

- NPEI's MDM/R Registration Application was submitted on October 13, 2010.
- Unit testing was completed on March 11, 2011.
- CIS internal testing was completed on March 31, 2011.
- NPEI submitted the completed Self Certification for Enrolment Testing SME_Form_0007 to the IESO on May 2, 2011.
- NPEI submitted its Enrollment Wave request on May 6, 2011.
- System Integration testing was completed on June 3, 2011.
- Qualification testing was completed on July 12, 2011.
- NPEI submitted its Self-Certification for Cutover on July 20, 2011.
- Transition to Production Operations was completed on September 15, 2011.
- AMCC Internal Testing was completed November 16, 2011.

CAPITAL AND OPERATING COSTS

The Guideline G-2011-0001, Section 3.5 states that *“The Board expects that the majority (i.e. 90% or more) of the total program costs for which the distributor is seeking recovery will be audited.”*

NPEI has included actual capital and OM&A costs for January to June 2013, and forecast costs from July to December 2013. NPEI has not included any capital costs for new installations in 2014, but has included 2014 forecast OM&A costs, in accordance with the instructions on Sheet “2 Smart Meter Costs” of the 2014 Smart Meter Model provided by the Board. The instructions state: *“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.”*

NPEI has forecast the total number of smart meters purchased to December 31, 2013 as 51,366. The forecast for the total number of meters installed at December 31, 2013 is 51,144. The difference of 222 meters represents the number of smart meters that NPEI forecasts will remain in inventory as at December 31, 2013. In order to keep the meter count consistent with the costs incurred, NPEI has included these 222 meters as installations for 2014, representing meter installations for new customers.

NPEI has 90.21% of its costs audited, as shown in Table 5 below. This table shows that total forecast costs for 2013 and 2014 is \$752,796, which represents 9.79% of the total cost of \$7,690,631. NPEI, thus, exceeds the 90% threshold set in the Smart Meter Guideline and all costs should be considered for disposition.

Table 5 – 2013-2014 Costs as a Percentage of Total Costs

2013-2014 Capital Costs	\$ 59,083
2013-2014 Operating Costs	\$ 693,713
2013-2014 Total Costs	\$ 752,796
Total Capital Costs	\$ 6,088,399
Total Operating Costs	\$ 1,602,232
Total Costs	\$ 7,690,631
2013-2014 % of Total Costs	9.79%

In this application, NPEI is seeking recovery for the 51,144 smart meters forecast to be installed in its service area by the end of 2013, plus an additional 222 meters to be installed in 2014 for new customers from meters purchased prior to December 31, 2013. Apart from installing meters for new customers in 2014 and beyond, NPEI's smart meter installation is complete. The capital cost of new smart meters to be purchased in 2014 and beyond is not included in this application. Forecast operating costs for 2014 have been included in this application, in accordance with the model instructions.

Full details of the various cost components by year are shown in Sheet 2 of the Smart Meter Model attached as Appendix D. Table 6 below provides an intermediate-level break down of the summary costs shown above.

Table 6 – Smart Meter Costs Claimed for Recovery

Cost Element	Cost Sub-Element	Total Costs
Capital	1.1 Advanced Metering Communications Devices (AMCD)	\$ 5,455,965
	1.2 Advanced Metering Regional Collector (AMRC) (Includes LAN)	\$ 259,944
	1.3 Advanced Metering Control Computer (AMCC)	\$ 11,011
	1.4 Wide Area Network (WAN)	\$ -
	1.5 Other AMI Capital Costs Related to Minimum Functionality	\$ 168,230
	1.6 Capital Costs Beyond Minimum Functionality	\$ 193,248
	Total Smart Meter Capital Costs	\$ 6,088,399
OM&A	2.1 Incremental AMCD OM&A Costs	\$ -
	2.2 Incremental AMRC OM&A Costs	\$ 33,223
	2.3 Incremental AMCC OM&A Costs	\$ 399,680
	2.4 Wide Area Network (WAN)	\$ -
	2.5 Other AMI OM&A Costs Related to Minimum Functionality	\$ 870,859
	2.6 OM&A Costs Beyond Minimum Functionality	\$ 298,470
	Total Smart Meter OM&A Costs	\$ 1,602,232
Total	Total Smart Meter Costs	\$ 7,690,631

As previously presented in Tables 3A and 3B on page 9, all costs associated with completing NPEI's Smart Meter Program have been prudently incurred as is evidenced by a \$118.53 per meter Average Capital Cost and a \$149.72 per meter Average Total Cost. Both of these averages include costs exceeding minimum functionality and compare favourably to the sector average of \$207.37 total cost per meter (based on 2009 data) and \$226.92 total cost per meter (based on 2010 data) discussed above.

NPEI submits that its total program costs and thus its cost per installed meter are reasonable and were prudently incurred.

Projected 2014 operating costs include monthly fees for operation, monitoring and maintenance of NPEI's AMI and ODS systems, and salary expense for two incremental Smart Meter Coordinator staff positions to administer the Smart Meter and TOU programs.

NPEI notes that these staff positions were created in 2009 and 2010 solely due the installation of Smart Meters and implementation of TOU billing. The salary for these positions was not included in NPEI's approved 2011 COS Rate Application (EB-2010-0138) therefore these costs are not included in NPEI's current rates.

NPEI has included, as Appendix C to this Application, a portion of Exhibit 4 from NPEI's 2011 COS Application, in which NPEI notes that the wages for the two Smart Meter Coordinator positions are recorded in Account 1556.

Operational Efficiencies

The Guideline, in section 3.5, states: *"In considering the recovery of smart meter costs, the Board also expects that a distributor will provide evidence on any operational efficiencies and cost savings that result from smart meter implementation. As an example, meter reading expenses may be reduced with the activation of remote meter reading through the AMI network for residential and small general service customers."*

NPEI notes that in several decisions on Smart Meter cost recovery, the Board has found that operational efficiencies and cost savings should be addressed in cost of service applications.

The September 20, 2012, Decision and Order in Festival Hydro's Smart Meter application (EB-2012-0260) states: *"The Board agrees with both Board staff and Festival that realized savings should be addressed in Festival's next cost of service application, when there should be better information on actual costs and savings and these will be factored into rebased rates."*

The November 1, 2012, Decision and Order in Entegrus Powerlines' Smart Meter application (EB-2012-0289) states: *"The Board concurs with EPI that any savings or efficiencies should be evaluated and brought forward in its next cost of service application. At that time, the Board will expect EPI to have evaluated the impact of smart meters on EPI's costs or operations more rigorously and report to the Board on its findings. "*

Consistent with these decisions, NPEI has not incorporated any cost savings from operational efficiencies in this current Smart Meter application. NPEI proposes to address the issue of cost savings from smart meter implementation in its next cost of service rate application.

Variance Analysis

NPEI has not previously applied to the Board for partial recovery of its smart meter costs after installation of 50% of the meters. Accordingly, a variance analysis comparing actual costs to previously-approved recovery of costs has not been performed.

Minimum Functionality

The costs exceeding minimum functionality that NPEI has incurred for TOU rate implementation, CIS system upgrades, web presentment, bill presentment, integration with MDM/R, etc. were incremental costs necessary for implementing the Smart Meter program and a functioning TOU system.

All costs claimed in this application are strictly incremental, they have been incurred solely for the purpose of implementing the Smart Meter and TOU programs, and they otherwise would not have been incurred. No cost is included for which the Smart Meter Entity has exclusive authority to act pursuant to O. Reg. 393/07.

NPEI has provided details of costs exceeding minimum functionality in Tables 7 and 8 below.

Table 7 – Capital Costs Exceeding Minimum Functionality

Expenditure	2010	2011	2012	2013	2014	Total
Integration with MDM/R	5,458					5,458
CIS Upgrades	7,500	171,540				179,040
Web Presentment		8,750				8,750
Total Capital Costs Exceeding Minimum Functionality	12,958	180,290	-	-	-	193,248

Table 8 – OM&A Costs Exceeding Minimum Functionality

Expenditure	2010	2011	2012	2013	2014	Total
TOU Communications	-	27,199	17,769			44,968
Web presentation, Integration with MDM/R	22,501	73,999	72,365	42,294	42,344	253,502
Total OM&A Costs Exceeding Minimum Functionality	22,501	101,198	90,134	42,294	42,344	298,470

Customer Owned Equipment

In the combined Smart Meter Proceeding EB-2007-0063, the Board directed that all labour and associated costs incurred, with the exception of material and parts costs for customer owned equipment, shall be capitalized and tracked in a sub-account of the Smart Meter Capital and Recovery Offset Variance Account 1555. 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. NPEI has presented these costs in Table 9 below.

Table 9 – Costs for Customer Owned Equipment

Year	Total	Number of Meter Base Repairs
2009	\$ 3,236	6
2010	\$ 37,127	79
2011	\$ 8,527	21
2012		
2013		
2014		
Total	\$ 48,890	106

Balance Transferred to Rate Base

As noted in the introduction above, \$4,175,010 of smart meter capital costs were approved for inclusion in rate base in NPEI's 2011 Cost of Service Rate Application, EB-2010-0138.

In the EB-2010-0138 Cost of Service Application, NPEI explained:

"NPEI books all smart meter related expenditures, expenses and recoveries to accounts 1555 and 1556. However, as further explained in Exhibit 9, NPEI is applying for approval to include an amount of \$4,175,010 of smart meter capital in rate base for 2011. Accordingly, this balance is shown in Table 2-7, as an addition to account 1860 in 2010. In this manner, if approved, the smart meter capital amount is then included as

part of the 2011 opening balance, allowing for a full year of revenue requirement on this balance for 2011.”

The inclusion of \$4,175,010 of smart meter capital costs in rate base was one of the settled issues in the Partial Settlement Agreement in NPEI's 2011 COS Application, which was approved by the Board in its Decision on Partial Settlement and Procedural Order No. 3, dated May 16, 2011.

Since the balance of \$4,175,010 was included as an addition in the 2010 Bridge Year in NPEI's 2011 COS Application, NPEI has earned the full amount of approved revenue requirement on the balance included in rate base for the years 2011 and later in distribution rates. Therefore, NPEI submits that the appropriate treatment of the \$4,175,010 capital costs in this current application is to include the revenue requirement on this balance up to December 31, 2010 in the SMDR calculation, but to exclude it from the years 2011 and after. In order to accomplish this, NPEI requested that Board staff modify the 2014 Smart Meter Model, so that the amount of \$4,175,010 that was incorporated into rate base is deducted from the opening 2011 balances in the revenue requirement calculations. Specifically, on Sheet '4 SM Assets and Rate Base', the 2011 opening gross value in column Q for Smart Meters has been modified to reflect the deduction of the \$4,175,010. Similarly, on Sheet '6 UCC Calculation', the 2011 opening UCC balance in column L has been modified to reflect the deduction of \$3,878,634 in Smart Meter UCC, which is the remaining UCC balance on the \$4,175,010 at the end of 2010.

Table 10 below shows the capital components of the \$4,175,010 which have been deducted from 2011 opening gross capital and Table 11 below shows the calculation of the 2010 closing UCC balance on this amount, of \$3,878,634 which has been deducted from the 2011 opening UCC balance.

Table 10 – Balance Included in Rate Base

<u>Amounts Transferred to Rate Base in EB-2011-0138</u>			
Smart Meters		\$ 4,175,010	
Computer Hardware			
Computer Software			
Other Equipment			
Total		<u>\$ 4,175,010</u>	

Table 11 – UCC on Balance Transferred to Rate Base

For PILs Calculation						
UCC - Smart Meters						
	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	Total Capital Additions
Opening UCC	\$ -	\$ 44,549.40	\$ 55,080.70	\$ 50,674.24	\$ 1,466,893.53	
Capital Additions	\$ 46,405.63	\$ 14,682.55	\$ -	\$ 1,479,451.28	\$ 2,634,470.54	\$ 4,175,010
Retirements/Removals (if applicable)						
UCC Before Half Year Rule	\$ 46,405.63	\$ 59,231.95	\$ 55,080.70	\$ 1,530,125.52	\$ 4,101,364.07	
Half Year Rule (1/2 Additions - Disposals)	\$ 23,202.82	\$ 7,341.28	\$ -	\$ 739,725.64	\$ 1,317,235.27	
Reduced UCC	\$ 23,202.82	\$ 51,890.68	\$ 55,080.70	\$ 790,399.88	\$ 2,784,128.80	
CCA Rate Class	47	47	47	47	47	
CCA Rate	8%	8%	8%	8%	8%	
CCA	\$ 1,856.23	\$ 4,151.25	\$ 4,406.46	\$ 63,231.99	\$ 222,730.30	
Closing UCC	\$ 44,549.40	\$ 55,080.70	\$ 50,674.24	\$ 1,466,893.53	\$ 3,878,633.77	
UCC - Computer Equipment						
	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ -	
Capital Additions Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	
Capital Additions Computer Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)						
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ -	\$ -	
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ -	\$ -	
Reduced UCC	\$ -	\$ -	\$ -	\$ -	\$ -	
CCA Rate Class	10	10	10	10	10	
CCA Rate	30%	30%	30%	30%	30%	
CCA	\$ -	\$ -	\$ -	\$ -	\$ -	
Closing UCC	\$ -	\$ -	\$ -	\$ -	\$ -	
UCC - General Equipment						
	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	
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	8	8	8	8	8	
CCA Rate	20%	20%	20%	20%	20%	
CCA	\$ -	\$ -	\$ -	\$ -	\$ -	
Closing UCC	\$ -	\$ -	\$ -	\$ -	\$ -	
UCC - Applications Software						
	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	
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	12	12	12	12	12	
CCA Rate	100%	100%	100%	100%	100%	
CCA	\$ -	\$ -	\$ -	\$ -	\$ -	
Closing UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,175,010.00
Total Closing UCC as at Dec. 31, 2010						
On the balance transferred to Rate Base					\$ 3,878,633.77	

DETERMINATION OF SPECIFIC RATE RIDERS

In the Board's March 21, 2006 Generic Decision (RP-2005-0020, EB-2005-0529) local distribution companies that had not already installed smart meters were allocated advance funding equivalent to \$0.30 per *residential* customer per month. The advance funding was provided in the form of a Smart Meter Funding Adder (SMFA) which was spread across all *metered* customers thus reducing the actual amount included in all metered customers' bills to generally between \$0.25 and \$0.28 per metered customer per month.

In the Board's April 12, 2006 Decision (RP-2005-0020, EB-2005-0394) on Niagara Falls Hydro's 2006 rates, a \$0.27 SMFA was applied to all metered customers and embedded in the monthly Service Charge commencing May 1, 2006.

In the Board's April 12, 2006 Decision (RP-2005-0020, EB-2005-0405) on Peninsula West Utilities' 2006 rates, a \$0.26 SMFA was applied to all metered customers and embedded in the monthly Service Charge commencing May 1, 2006.

In the Board's April 12, 2007 Decision (EB-2007-0558) on Niagara Falls Hydro's 2007 rates, the \$0.27 SMFA was approved to continue in rates commencing May 1, 2007.

In the Board's April 12, 2007 Decision (EB-2007-0570) on Peninsula West Utilities' 2007 rates, the \$0.26 SMFA was approved to continue in rates commencing May 1, 2007.

In the Board's April 18, 2008 Decision on NPEI's rates (EB-2007-0866, EB-2007-0870), the \$0.27 SMFA for the Niagara Falls Hydro service area and the \$0.26 SMFA for the Peninsula West service area were approved to continue in rates commencing May 1, 2008.

In the Board's March 13, 2009 Decisions on NPEI's rates (EB-2008-0199, EB-2008-0200), a SMFA of \$1.00 per metered customer was approved for both the Niagara Falls and Peninsula West service areas beginning May 1, 2009.

The \$1.00 SMFA amount was approved to continue in the Board's April 8, 2010 Rate Order (EB-2009-0205 & EB-2009-0206) on NPEI's 2010 rates when the amount was included explicitly on the tariff sheet effective May 1, 2010.

The \$1.00 SMFA amount was approved to continue in the Board's June 15, 2011 Decision (EB-2010-0138) on NPEI's 2011 rates, effective June 1, 2011.

In the Board's March 22, 2012 Decision on NPEI's 2012 Rates (EB-2011-0185), no SMFA was included on the Tariff of Rates and Charges effective May 1, 2012.

In the Board's Decision on PowerStream Inc.'s Smart Meter disposition, EB-2011-0128, it stated: *"The Board directs PowerStream to allocate the smart meter adder amounts collected from the GS > 50 kW and Large Use customer classes evenly to the residential and GS < 50 kW classes when calculating the true-up for the SMDR."* NPEI has complied with the methodology approved in the PowerStream Decision and the details are provided below.

Table 12 below shows the actual revenue collected.

Table 12 – Smart Meter Funding Adder Revenues by Rate Class (No Interest)

Rate Class	Actual							Forecast		Total
	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Residential	77,751	141,432	144,396	383,687	549,650	544,161	226,437	-	-	2,067,514
GS < 50 kW	8,392	14,904	13,680	36,111	50,477	50,405	20,889	-	-	194,858
GS > 50 kW	1,565	3,402	2,714	7,495	10,289	9,599	4,204	-	-	39,268
Total For Year	87,708	159,738	160,790	427,293	610,416	604,165	251,530	-	-	2,301,640
Total Life-To-Date	87,708	247,446	408,235	835,529	1,445,945	2,050,110	2,301,640	2,301,640	2,301,640	2,301,640

Then, simple interest is included and added to the revenue recovery. The GS > 50 kW revenue is then re-allocated evenly to the Residential and GS < 50 kW rate classes. The results are presented in Table 13. Details are included in the Smart Meter Model attached as Appendix D.

Table 13– Smart Meter Funding Adder Revenues by Rate Class – Including Interest and Re-allocation of GS>50 kW

Rate Class	Smart Meter Recovery	Smart Meter Recovery % of Total	Total Carrying Charge per SM Model	Allocate Carrying Chg by % of Total Collected	Total Recovery by Rate Class Before Re-Allocation	Re-Allocate GS > 50 evenly to Res & GS < 50	Total Recovery by Rate Class After Re-Allocation
			\$ 161,879				
Residential	2,067,514	89.83%		145,413	2,212,926	21,015	2,233,941
GS < 50 kW	194,858	8.47%		13,705	208,563	21,015	229,578
GS > 50 kW	39,268	1.71%		2,762	42,030	(42,030)	0
Total	2,301,640	100.00%	-	161,879	2,463,519	-	2,463,519

Cost Allocation

The Guideline, in Section 3.5, states:

“In the Board’s decision with respect to PowerStream’s 2011 Smart Meter Disposition Application (EB-2011-0128), the Board approved an allocation methodology based on class-specific revenue requirement, offset by class-specific revenues. The Board noted that this approach may not be feasible for all distributors as the necessary data may not be readily available.

The Board views that, where practical and where the data is available, class-specific SMDRs should be calculated based on full cost causality. The methodology approved by the Board in EB-2011-0128 should serve as a suitable guide. A uniform SMDR would be suitable only where adequate data is not available.”

NPEI does not record smart meter capital costs separately by rate class. However, meter purchases are tracked by meter type, allowing NPEI to calculate total and average cost per meter by type. Then, using data from NPEI’s CIS system for the number of meters installed by rate class, costs by meter type have been allocated to the Residential and General Service < 50 kW rate classes. A summary of the number of single phase and poly phase meters by rate class is included in Table 14 below.

Table 14 – Number of Single and Poly Phase Meters by Rate Class

Allocation	Residential	GS < 50	Other	Total
Total Customers Installed	46,823	4,240	303	51,366
Single Phase	46,823	2,605	286	49,714
Poly Phase	0	1,635	17	1,652
Total	46,823	4,240	303	51,366

The resulting allocation of 1.1 Advanced Metering Communication Device (“AMCD”) capital costs is shown in Table 15 below.

Table 15 – Allocation of 1.1 AMCD Capital Costs

Cost	Residential	GS <50	Other	Total
Single Phase Meters	3,701,675	313,494	22,225	4,037,394
Poly Phase Meters	0	696,168	14,236	710,404
Installation	517,896	141,261	5,101	664,258
Workforce Automation	27,407	7,475	270	35,152
Total 1.1 AMCD Capital Costs	4,246,978	1,158,398	41,832	5,447,208
Number of Meters Installed by Rate Class	46,823	4,240	303	51,366
Total 1.1 AMCD Capital Costs per Meter	\$ 90.70	\$ 273.21	\$ 138.06	\$ 106.05

In order to complete the cost allocation for the SMDR and SMIRR, the relative total costs for the Residential and General Service < 50 kW are considered:

Residential: $\$4,246,978 / (\$4,246,978 + \$1,158,398) = 78.57\%$

GS<50 kW: $\$1,158,398 / (\$4,246,978 + \$1,158,398) = 21.43\%$.

NPEI then applied the methodology approved by the Board in the EB-2011-0128 PowerStream Decision, in allocating costs for the purpose of calculating the SMDR and SMIRR as follows:

- Return (deemed interest plus return on equity) and Amortization have been allocated between the customer classes based on the capital costs of the meters installed for each class, as discussed above.
- OM&A has been allocated based on the number of meters installed for each class.
- PILs has been allocated based on the revenue requirement allocated to each class before PILs.

NPEI has presented the detailed calculation of the cost allocation for the proposed rate riders in the following section.

Smart Meter Disposition Rate Rider (SMDR)

NPEI is seeking Board approval for a Smart Meter Disposition Rate Rider in the amount of (\$0.04) per Residential customer per month and \$2.32 per GS < 50 kW customer per month, for the fifteen month period February 1, 2014 to April 30, 2015. The calculation was made utilizing the Board's Smart Meter Model (Appendix B). NPEI has used the 2014 Smart Meter Model v 4.0 that was on the Board's website, issued July 17, 2013, and modified by Board Staff, as discussed above.

NPEI has presented the WACC and Tax Rates reflected in its Smart Meter Model in Table 16 below. The tax rates agree to those approved in each year's respective approved rates for 2006 through 2013, and the 2014 rate reflects the tax rate that was calculated for NPEI in the Board's 2014 Incentive Regulation Shared Tax Savings Model, as filed in NPEI's 2014 IRM Rate Application (EB-2013-0154).

Table 16 – WACC and Tax Rate Inputs

Year	2006 COS	2007 IRM	2008 IRM	2009 IRM	2010 IRM	2011 COS	2012 IRM	2013 IRM	2014 IRM
WACC	8.07%	8.07%	8.00%	7.94%	7.18%	6.82%	6.82%	6.82%	6.82%
Tax Rates	36.12%	36.12%	33.50%	33.00%	30.99%	28.25%	25.48%	26.50%	25.70%

The SMDR recovers, over a specified time period, the variance between: 1) the deferred revenue requirement for the installed smart meters up to the time of disposition; and 2) the SMFA revenues collected and associated interest. NPEI is requesting approval for SMDRs to recover the difference between the 2006 to 2013 revenue requirement related to smart meters costs as of December 31, 2013 (plus interest on operations, maintenance, administration and depreciation expense) and the SMFA revenues collected from May 1, 2006 to April 30, 2012 (plus corresponding interest on the principal balance of SMFA revenues). NPEI proposes to recover the incremental revenue requirement of \$119,045 over a fifteen month period, from February 1, 2014 to April 30, 2015.

NPEI notes that in some applications for Smart Meter disposition, the effective date of the SMIRR has been later than the start of the LDC's appropriate rate year. In these cases, the amount of foregone SMIRR revenue has been incorporated into the calculation of the SMDR (For example, Waterloo North Hydro Inc.'s smart meter application, EB-2012-0266). Since NPEI anticipates that the SMIRR can be approved in time for the beginning of NPEI's 2014 rate year (i.e. May 1, 2014), NPEI has not included any amount of foregone SMIRR revenue in the calculation of the SMDR.

The value of the SMDR is based on the net amount resulting from:

- Deferred and forecasted Smart Meter Incremental Revenue Requirement from 2006 to December 31, 2013

Plus

- Interest on Deferred and forecasted OM&A and Amortization Expenses 2006 to December 31, 2013

Less

- SMFA Revenues collected (including carrying charges) from May 1, 2006 to April 30, 2012 (Table 13 above)

Table 17 below shows the calculation of the SMDR for each rate class, including the cost allocation between the rate classes.

Table 17 – Smart Meter Disposition Rate Rider (SMDR)

SMDR – Summary Calculations

	Component of Revenue Requirement	Allocate between classes based on	Residential	GS < 50	Total
A	Return (Deemed interest plus return) & Amortization	Capital Costs of the meters installed	\$ 933,900	\$ 254,729	\$ 1,188,629
B	OM&A	# Meters installed for each class	\$ 1,183,832	\$ 107,200	\$ 1,291,032
C	PILs	Revenue Requirement before PILs	\$ 87,883	\$ 15,020	\$ 102,903
	Total Revenue Requirement		\$ 2,205,615	\$ 376,949	\$ 2,582,564
	SMFA Revenue including Carrying Charges		\$ (2,233,941)	\$ (229,578)	\$ (2,463,519)
	Net Deferred Revenue Requirement		\$ (28,326)	\$ 147,371	\$ 119,045
	Number of Metered Customers		46,823	4,240	51,063
	Number of Years Proposed for Recovery		1.25	1.25	1.25
	Calculation of Smart Meter Disposition Rider	Per metered customer per month	\$ (0.04)	\$ 2.32	\$ 0.16

SMDR – Detailed Calculations

	Component	Allocator		Return	Amortization	OM&A	PILs	Total	Residential	GS < 50	Total
A	Return	Capital costs of the meters installed for each class	%						78.57%	21.43%	100.00%
	Amortization		\$	\$ 467,020	\$ 721,609			\$ 1,188,629	\$ 933,900	\$ 254,729	\$ 1,188,629
B	OM&A	# Meters installed for each class	%						91.70%	8.30%	100.00%
			\$			\$ 1,291,032		\$ 1,291,032	\$ 1,183,832	\$ 107,200	\$ 1,291,032
	Revenue Requirement Before PILs								\$ 2,117,732	\$ 361,929	\$ 2,479,662
C	PILs	Revenue Requirement allocated to each class	\$						\$ 2,117,732	\$ 361,929	\$ 2,479,662
			%						85.40%	14.60%	100.00%
			\$				102,903	\$ 102,903	\$ 87,883	\$ 15,020	\$ 102,903
	Total Revenue Requirement		\$	\$ 467,020	\$ 721,609	\$ 1,291,032	\$ 102,903	\$ 2,582,564	\$ 2,205,615	\$ 376,949	\$ 2,582,564
			%						85.40%	14.60%	100.00%

SMDR – Allocation of Costs

	Allocator		Residential	GS < 50	Total
A	Capital Costs of Meters Installed - AMCD 1.1	\$	\$ 4,246,978	\$ 1,158,398	\$ 5,405,376
		%	78.57%	21.43%	100.00%
B	# Meters Installed	#	46,823	4,240	51,063
		%	91.70%	8.30%	100.00%
C	Revenue Requirement before PILs	\$	2,117,732	361,929	2,479,662
		%	85.40%	14.60%	100.00%
	Total Revenue Requirement	\$	2,205,615	376,949	2,582,564
		%	85.40%	14.60%	100.00%

Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)

NPEI is seeking Board approval for Smart Meter Incremental Revenue Requirement Rate Rider in the amount of \$0.90 per metered Residential customer per month and \$1.53 per metered GS < 50 kW customer per month, beginning May 1, 2014, and continuing until NPEI's rates are rebased. NPEI is scheduled to file a COS Application for rates effective May 1, 2015. The calculation is presented in Table 18 below.

When smart meter disposition occurs in a stand-alone application, a SMIRR is calculated as the proxy for the incremental change in the distribution rates that would have occurred if the assets and operating expenses were incorporated into the rate base and the revenue requirement. The SMIRR is calculated as the annualized revenue requirement for the test years for the capital and operating costs for smart meters. NPEI is requesting approval for SMIRRs to recover the incremental revenue requirement of \$581,900 for smart meter costs relating to 2014. Consistent with NPEI's rate year, NPEI is proposing that the SMIRR be effective beginning May 1, 2014, and remain in effect until NPEI's next COS Rate Application rates become effective. NPEI is scheduled to file a COS Application for rates effective May 1, 2015.

Table 18 – Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)

SMIRR – Summary Calculations

Component of Revenue Requirement	Allocate between classes based on	Residential	GS < 50	Total
Return (Deemed interest plus return) & Amortization	Capital Costs of the meters installed	\$ 171,101	\$ 46,669	\$ 217,770
OM&A	# Meters installed for each class	\$ 320,942	\$ 29,063	\$ 350,005
PILs	Revenue Requirement before PILs	\$ 12,241	\$ 1,884	\$ 14,125
Total Revenue Requirement including Grossed-up Taxes/PILs		\$ 504,284	\$ 77,616	\$ 581,900
Number of Metered Customers		46,823	4,240	51,063
Calculation of Smart Meter Incremental Revenue Requirement Rate Rider	Per Metered customer per month	\$ 0.90	\$ 1.53	\$ 0.95

SMIRR – Detailed Calculations

Component	Allocator		Return	Amortization	OM&A	PILs	Total	Residential	GS < 50	Total
Return	Capital costs of the meters	%						78.57%	21.43%	100.00%
Amortization	installed for each class	\$	\$ 81,219	\$ 136,551			\$ 217,770	\$ 171,101	\$ 46,669	\$ 217,770
OM&A	# Meters installed for each class	%						91.70%	8.30%	100.00%
		\$			\$ 350,005		\$ 350,005	\$ 320,942	\$ 29,063	\$ 350,005
Revenue Requirement Before PILs								\$ 492,043	\$ 75,732	\$ 567,775
PILs	Revenue Requirement allocated to each class	\$						\$ 492,043	\$ 75,732	\$ 567,775
		%						86.66%	13.34%	100.00%
		\$				14,125	\$ 14,125	\$ 12,241	\$ 1,884	\$ 14,125
Total Revenue Requirement		\$	\$ 81,219	\$ 136,551	\$ 350,005	\$ 14,125	\$ 581,900	\$ 504,284	\$ 77,616	\$ 581,900
		%						86.66%	13.34%	100.00%

SMIRR – Allocation of Costs

	Allocator		Residential	GS < 50	Total
A	Capital Costs of Meters Installed - AMCD 1.1	\$	\$ 4,246,978	\$ 1,158,398	\$ 5,405,376
		%	78.57%	21.43%	100.00%
B	# Meters Installed	#	46,823	4,240	51,063
		%	91.70%	8.30%	100.00%
C	Revenue Requirement before PILs	\$	492,043	75,732	567,775
		%	86.66%	13.34%	100.00%
	Total Revenue Requirement	\$	504,284	77,616	581,900
		%	86.66%	13.34%	100.00%

BILL IMPACTS SUMMARY

Table 19 below shows the bill impacts for typical Residential and General Service < 50 kW customers in NPEI's Niagara Falls Service Area. Table 20 below shows the bill impacts for typical Residential and General Service < 50 kW customers in NPEI's Peninsula West Service Area.

The current Board-approved values correspond to NPEI's currently approved rates as reflected in the Decision and Order, Tariff of Rates and Charges, EB-2012-0150, dated April 4, 2013, for Distribution Rates effective May 1, 2013.

The Energy cost reflects the average of May 2013 TOU rates (based on the Board's estimate of On-Peak, Off-Peak and Mid-Peak percentages).

The implementation of the SMDR and SMIRR, as proposed, would result in a bill impact of an increase of 0.73% for a typical Residential customer and an increase of 1.36% for a typical GS < 50 kW customers in the Niagara Falls Service Area.

The implementation of the SMDR and SMIRR, as proposed, would result in a bill impact of an increase of 0.72% for the typical Residential customer and an increase of 1.33% for the typical GS < 50 kW customers in the Peninsula West Service Area.

Table 19 – Bill Impacts (Niagara Falls Service Area)

Customer Class:		Residential								
		Consumption	800	kWh						
		Charge Unit	Current Board-Approved			Proposed			Impact	
			Rate (\$)	Volume	Charge (\$)	Rate (\$)	Volume	Charge (\$)	\$ Change	% Change
1	Monthly Service Charge	monthly	\$ 15.8400	1	\$ 15.84	\$ 15.8400	1	\$ 15.84	\$ -	0.00%
	Smart Metering Entity									
2	Charge	monthly	\$ 0.7900	1	\$ 0.79	\$ 0.7900	1	\$ 0.79		0.00%
3	Smart Meter Rate Adder	monthly		1	\$ -		1	\$ -	\$ -	0.00%
4	Smart Meter - SDMR	monthly		1	\$ -	\$ (0.04)	1	\$ (0.04)	\$ (0.04)	0.00%
5	Smart Meter - SMIRR	monthly		1	\$ -	\$ 0.90	1	\$ 0.90	\$ 0.90	0.00%
6	Distribution Volumetric Rate	per kWh	\$ 0.0159	800	\$ 12.72	\$ 0.0159	800	\$ 12.72	\$ -	0.00%
7	Low Voltage Rate Adder	per kWh	\$ 0.0005	800	\$ 0.40	\$ 0.0005	800	\$ 0.40	\$ -	0.00%
8	Volumetric Rate Adder(s)			800	\$ -		800	\$ -	\$ -	0.00%
9	Volumetric Rate Rider(s)			800	\$ -		800	\$ -	\$ -	0.00%
	Smart Meter Disposition									
10	Rider			800	\$ -		800	\$ -	\$ -	0.00%
11	LRAM & SSM Rate Rider	per kWh		800	\$ -		800	\$ -	\$ -	0.00%
	Deferral/Variance Account									
12	Disposition Rate Rider	per kWh	\$ (0.0011)	800	\$ (0.88)	\$ (0.0011)	800	\$ (0.88)	\$ -	0.00%
13									\$ -	0.00%
14	Deferred PILs Rate Rider	per kWh	\$ (0.0034)	800	\$ (2.72)	\$ (0.0034)	800	\$ (2.72)	\$ -	0.00%
15									\$ -	0.00%
16	Tax Change Rate Rider	per kWh	\$ (0.0001)	800	\$ (0.08)	\$ (0.0001)	800	\$ (0.08)	\$ -	0.00%
17	Sub-Total A - Distribution				\$ 26.07			\$ 26.93	\$ 0.86	3.30%
18	RTSR - Network	per kWh	\$ 0.0068	844.8	\$ 5.74	\$ 0.0068	844.8	\$ 5.74	\$ -	0.00%
	RTSR - Line and									
19	Transformation Connection	per kWh	\$ 0.0045	844.8	\$ 3.80	\$ 0.0045	844.8	\$ 3.80	\$ -	0.00%
20	Sub-Total B - Delivery (including Sub-Total A)				\$ 35.62			\$ 36.48	\$ 0.86	2.41%
21	Wholesale Market Service Charge (WMSC)	per kWh	\$ 0.0044	844.8	\$ 3.72	\$ 0.0044	844.8	\$ 3.72	\$ -	0.00%
22	Rural and Remote Rate Protection (RRRP)	per kWh	\$ 0.0012	844.8	\$ 1.01	\$ 0.0012	844.8	\$ 1.01	\$ -	0.00%
23	Special Purpose Charge	per kWh		844.8	\$ -		844.8	\$ -	\$ -	0.00%
	Standard Supply Service									
24	Charge	monthly	\$ 0.2500	1	\$ 0.25	\$ 0.2500	1	\$ 0.25	\$ -	0.00%
	Debt Retirement Charge									
25	(DRC)	per kWh	\$ 0.0070	800	\$ 5.60	\$ 0.0070	800	\$ 5.60	\$ -	0.00%
	Energy - Average TOU									
26	Pricing	per kWh	\$ 0.08390	844.8	\$ 70.88	\$ 0.08390	844.8	\$ 70.88	\$ -	0.00%
27									\$ -	0.00%
28									\$ -	0.00%
29	Total Bill (before Taxes)				\$ 117.08			\$ 117.94	\$ 0.86	0.73%
30	HST		13.00%		\$ 15.22	13.00%		\$ 15.33	\$ 0.11	0.73%
	Total Bill (including Sub-total B)				\$ 132.30			\$ 133.27	\$ 0.97	0.73%
	Ontario Clean Energy Benefit (OCEB)		-10.00%		\$ (13.23)	-10.00%		\$ (13.33)	\$ (0.10)	0.73%
	Total Bill (less OCEB)				\$ 119.07			\$ 119.94	\$ 0.87	0.73%
31	Loss Factor (%)		5.60%			5.60%				

Customer Class:		General Service < 50 kW									
		Consumption	2000 kWh								
		Charge Unit	Current Board-Approved			Proposed			Impact		
			Rate (\$)	Volume	Charge (\$)	Rate (\$)	Volume	Charge (\$)	\$ Change	% Change	
1	Monthly Service Charge Smart Metering Entity	monthly	\$ 37.2700	1	\$ 37.27	\$ 37.2700	1	\$ 37.27	\$ -	0.00%	
2	Charge	monthly	\$ 0.7900	1	\$ 0.79	\$ 0.7900	1	\$ 0.79	\$ -	0.00%	
3	Smart Meter Rate Adder	monthly		1	\$ -		1	\$ -	\$ -	0.00%	
4	Smart Meter - SDMR	monthly		1	\$ -	\$ 2.3200	1	\$ 2.32	\$ 2.32	0.00%	
5	Smart Meter - SMIRR	monthly		1	\$ -	\$ 1.5300	1	\$ 1.53	\$ 1.53	0.00%	
6	Distribution Volumetric Rate	per kWh	\$ 0.0136	2000	\$ 27.20	\$ 0.0136	2000	\$ 27.20	\$ -	0.00%	
7	Low Voltage Rate Adder	per kWh	\$ 0.0004	2000	\$ 0.80	\$ 0.0004	2000	\$ 0.80	\$ -	0.00%	
8	Volumetric Rate Adder(s)			2000	\$ -		2000	\$ -	\$ -	0.00%	
9	Volumetric Rate Rider(s) Smart Meter Disposition			2000	\$ -		2000	\$ -	\$ -	0.00%	
10	Rider			2000	\$ -		2000	\$ -	\$ -	0.00%	
11	LRAM & SSM Rate Rider	per kWh		2000	\$ -		2000	\$ -	\$ -	0.00%	
12	Deferral/Variance Account										
13	Disposition Rate Rider	per kWh	\$ (0.0011)	2000	\$ (2.20)	\$ (0.0011)	2000	\$ (2.20)	\$ -	0.00%	
14	Deferred PILs Rate Rider	per kWh	\$ (0.0030)	2000	\$ (6.00)	\$ (0.0030)	2000	\$ (6.00)	\$ -	0.00%	
15									\$ -	0.00%	
16	Tax Change Rate Rider	per kWh	\$ (0.0001)	2000	\$ (0.20)	\$ (0.0001)	2000	\$ (0.20)	\$ -	0.00%	
17	Sub-Total A - Distribution				\$ 57.66			\$ 61.51	\$ 3.85	6.68%	
18	RTSR - Network	per kWh	\$ 0.0062	2112	\$ 13.09	\$ 0.0062	2112	\$ 13.09	\$ -	0.00%	
19	RTSR - Line and Transformation Connection	per kWh	\$ 0.0040	2112	\$ 8.45	\$ 0.0040	2112	\$ 8.45	\$ -	0.00%	
20	Sub-Total B - Delivery (including Sub-Total A)				\$ 79.20			\$ 83.05	\$ 3.85	4.86%	
21	Wholesale Market Service Charge (WMSC)	per kWh	\$ 0.0044	2112	\$ 9.29	\$ 0.0044	2112	\$ 9.29	\$ -	0.00%	
22	Rural and Remote Rate Protection (RRRP)	per kWh	\$ 0.0012	2112	\$ 2.53	\$ 0.0012	2112	\$ 2.53	\$ -	0.00%	
23	Special Purpose Charge	per kWh		2112	\$ -		2112	\$ -	\$ -	0.00%	
24	Standard Supply Service Charge	monthly	\$ 0.2500	1	\$ 0.25	\$ 0.2500	1	\$ 0.25	\$ -	0.00%	
25	Debt Retirement Charge (DRC)	per kWh	\$ 0.0070	2000	\$ 14.00	\$ 0.0070	2000	\$ 14.00	\$ -	0.00%	
26	Energy - Average TOU Pricing	per kWh	\$ 0.08390	2112	\$ 177.20	\$ 0.08390	2112	\$ 177.20	\$ -	0.00%	
27									\$ -	0.00%	
28									\$ -	0.00%	
29	Total Bill (before Taxes)				\$ 282.48			\$ 286.33	\$ 3.85	1.36%	
30	HST		13.00%		\$ 36.72	13.00%		\$ 37.22	\$ 0.50	1.36%	
	Total Bill (including Sub-total B)				\$ 319.20			\$ 323.55	\$ 4.35	1.36%	
	Ontario Clean Energy Benefit (OCEB)		-10.00%		\$ (31.92)	-10.00%		\$ (32.35)	\$ (0.44)	1.36%	
	Total Bill (less OCEB)				\$ 287.28			\$ 291.19	\$ 3.92	1.36%	
31	Loss Factor (%)		5.60%			5.60%					

Table 20 – Bill Impacts (Peninsula West Service Area)

Customer Class:		Residential								
		Consumption	800 kWh							
		Charge Unit	Current Board-Approved			Proposed			Impact	
			Rate (\$)	Volume	Charge (\$)	Rate (\$)	Volume	Charge (\$)	\$ Change	% Change
1	Monthly Service Charge	monthly	\$ 15.8400	1	\$ 15.84	\$ 15.8400	1	\$ 15.84	\$ -	0.00%
	Smart Metering Entity									
2	Charge	monthly	\$ 0.7900	1	\$ 0.79	\$ 0.7900	1	\$ 0.79		0.00%
3	Smart Meter Rate Adder	monthly		1	\$ -		1	\$ -	\$ -	0.00%
4	Smart Meter - SDMR	monthly		1	\$ -	\$ (0.0400)	1	\$ (0.04)	\$ (0.04)	0.00%
5	Smart Meter - SMIRR	monthly		1	\$ -	\$ 0.9000	1	\$ 0.90	\$ 0.90	0.00%
6	Distribution Volumetric Rate	per kWh	\$ 0.0159	800	\$ 12.72	\$ 0.0159	800	\$ 12.72	\$ -	0.00%
7	Low Voltage Rate Adder	per kWh	\$ 0.0005	800	\$ 0.40	\$ 0.0005	800	\$ 0.40	\$ -	0.00%
8	Volumetric Rate Adder(s)			800	\$ -		800	\$ -	\$ -	0.00%
9	Volumetric Rate Rider(s)			800	\$ -		800	\$ -	\$ -	0.00%
	Smart Meter Disposition									
10	Rider			800	\$ -		800	\$ -	\$ -	0.00%
11	LRAM & SSM Rate Rider	per kWh		800	\$ -		800	\$ -	\$ -	0.00%
	Deferral/Variance Account									
12	Disposition Rate Rider	per kWh	\$ (0.0011)	800	\$ (0.88)	\$ (0.0011)	800	\$ (0.88)	\$ -	0.00%
13									\$ -	0.00%
14	Deferred PILs Rate Rider	per kWh	\$ 0.0005	800	\$ 0.40	\$ 0.0005	800	\$ 0.40	\$ -	0.00%
15									\$ -	0.00%
16	Tax Change Rate Rider	per kWh	\$ (0.0001)	800	\$ (0.08)	\$ (0.0001)	800	\$ (0.08)	\$ -	0.00%
17	Sub-Total A - Distribution				\$ 29.19			\$ 30.05	\$ 0.86	2.95%
18	RTSR - Network	per kWh	\$ 0.0068	844.8	\$ 5.74	\$ 0.0068	844.8	\$ 5.74	\$ -	0.00%
	RTSR - Line and									
19	Transformation Connection	per kWh	\$ 0.0045	844.8	\$ 3.80	\$ 0.0045	844.8	\$ 3.80	\$ -	0.00%
	Sub-Total B - Delivery									
20	(including Sub-Total A)				\$ 38.74			\$ 39.60	\$ 0.86	2.22%
21	Wholesale Market Service Charge (WMSC)	per kWh	\$ 0.0044	844.8	\$ 3.72	\$ 0.0044	844.8	\$ 3.72	\$ -	0.00%
	Rural and Remote Rate									
22	Protection (RRRP)	per kWh	\$ 0.0012	844.8	\$ 1.01	\$ 0.0012	844.8	\$ 1.01	\$ -	0.00%
23	Special Purpose Charge	per kWh		844.8	\$ -		844.8	\$ -	\$ -	0.00%
	Standard Supply Service									
24	Charge	monthly	\$ 0.2500	1	\$ 0.25	\$ 0.2500	1	\$ 0.25	\$ -	0.00%
	Debt Retirement Charge									
25	(DRC)	per kWh	\$ 0.0070	800	\$ 5.60	\$ 0.0070	800	\$ 5.60	\$ -	0.00%
	Energy - Average TOU									
26	Pricing	per kWh	\$ 0.08390	844.8	\$ 70.88	\$ 0.08390	844.8	\$ 70.88	\$ -	0.00%
27									\$ -	0.00%
28									\$ -	0.00%
29	Total Bill (before Taxes)				\$ 120.20			\$ 121.06	\$ 0.86	0.72%
30	HST		13.00%		\$ 15.63	13.00%		\$ 15.74	\$ 0.11	0.72%
	Total Bill (including Sub-total B)				\$ 135.82			\$ 136.79	\$ 0.97	0.72%
	Ontario Clean Energy Benefit (OCEB)		-10.00%		\$ (13.58)	-10.00%		\$ (13.68)	\$ (0.10)	0.72%
	Total Bill (less OCEB)				\$ 122.24			\$ 123.11	\$ 0.87	0.72%
31	Loss Factor (%)		5.60%			5.60%				

Customer Class:		General Service < 50 kW									
		Consumption	2000 kWh								
		Charge Unit	Current Board-Approved			Proposed			Impact		
			Rate (\$)	Volume	Charge (\$)	Rate (\$)	Volume	Charge (\$)	\$ Change	% Change	
1	Monthly Service Charge Smart Metering Entity	monthly	\$ 37.2700	1	\$ 37.27	\$ 37.2700	1	\$ 37.27	\$ -	0.00%	
2	Charge	monthly	\$ 0.7900	1	\$ 0.79	\$ 0.7900	1	\$ 0.79	\$ -	0.00%	
3	Smart Meter Rate Adder	monthly		1	\$ -		1	\$ -	\$ -	0.00%	
4	Smart Meter - SDMR	monthly		1	\$ -	\$ 2.3200	1	\$ 2.32	\$ 2.32	0.00%	
5	Smart Meter - SMIRR	monthly		1	\$ -	\$ 1.5300	1	\$ 1.53	\$ 1.53	0.00%	
6	Distribution Volumetric Rate	per kWh	\$ 0.0136	2000	\$ 27.20	\$ 0.0136	2000	\$ 27.20	\$ -	0.00%	
7	Low Voltage Rate Adder	per kWh	\$ 0.0004	2000	\$ 0.80	\$ 0.0004	2000	\$ 0.80	\$ -	0.00%	
8	Volumetric Rate Adder(s)			2000	\$ -		2000	\$ -	\$ -	0.00%	
9	Volumetric Rate Rider(s) Smart Meter Disposition			2000	\$ -		2000	\$ -	\$ -	0.00%	
10	Rider			2000	\$ -		2000	\$ -	\$ -	0.00%	
11	LRAM & SSM Rate Rider	per kWh		2000	\$ -		2000	\$ -	\$ -	0.00%	
12	Deferral/Variance Account										
13	Disposition Rate Rider	per kWh	\$ (0.0011)	2000	\$ (2.20)	\$ (0.0011)	2000	\$ (2.20)	\$ -	0.00%	
14	Deferred PILs Rate Rider	per kWh	\$ 0.0006	2000	\$ 1.20	\$ 0.0006	2000	\$ 1.20	\$ -	0.00%	
15									\$ -	0.00%	
16	Tax Change Rate Rider	per kWh	\$ (0.0001)	2000	\$ (0.20)	\$ (0.0001)	2000	\$ (0.20)	\$ -	0.00%	
17	Sub-Total A - Distribution				\$ 64.86			\$ 68.71	\$ 3.85	5.94%	
18	RTSR - Network	per kWh	\$ 0.0062	2112	\$ 13.09	\$ 0.0062	2112	\$ 13.09	\$ -	0.00%	
19	RTSR - Line and Transformation Connection	per kWh	\$ 0.0040	2112	\$ 8.45	\$ 0.0040	2112	\$ 8.45	\$ -	0.00%	
20	Sub-Total B - Delivery (including Sub-Total A)				\$ 86.40			\$ 90.25	\$ 3.85	4.46%	
21	Wholesale Market Service Charge (WMSC)	per kWh	\$ 0.0044	2112	\$ 9.29	\$ 0.0044	2112	\$ 9.29	\$ -	0.00%	
22	Rural and Remote Rate Protection (RRRP)	per kWh	\$ 0.0012	2112	\$ 2.53	\$ 0.0012	2112	\$ 2.53	\$ -	0.00%	
23	Special Purpose Charge	per kWh		2112	\$ -		2112	\$ -	\$ -	0.00%	
24	Standard Supply Service Charge	monthly	\$ 0.2500	1	\$ 0.25	\$ 0.2500	1	\$ 0.25	\$ -	0.00%	
25	Debt Retirement Charge (DRC)	per kWh	\$ 0.0070	2000	\$ 14.00	\$ 0.0070	2000	\$ 14.00	\$ -	0.00%	
26	Energy - Average TOU Pricing	per kWh	\$ 0.08390	2112	\$ 177.20	\$ 0.08390	2112	\$ 177.20	\$ -	0.00%	
27									\$ -	0.00%	
28									\$ -	0.00%	
29	Total Bill (before Taxes)				\$ 289.68			\$ 293.53	\$ 3.85	1.33%	
30	HST		13.00%		\$ 37.66	13.00%		\$ 38.16	\$ 0.50	1.33%	
	Total Bill (including Sub-total B)				\$ 327.33			\$ 331.68	\$ 4.35	1.33%	
	Ontario Clean Energy Benefit (OCEB)		-10.00%		\$ (32.73)	-10.00%		\$ (33.17)	\$ (0.44)	1.33%	
	Total Bill (less OCEB)				\$ 294.60			\$ 298.52	\$ 3.92	1.33%	
31	Loss Factor (%)		5.60%			5.60%					

CONCLUSION

It is respectfully submitted that the costs requested for recovery in this application have been necessary to fulfill NPEI's obligations under the Provincially-mandated Smart Meter Initiative; have been prudently incurred in accordance with Board guidelines; the proposed rate riders are just and reasonable; the associated customer bill impacts are reasonable; and it is therefore appropriate that the Board approve the proposed rate riders for implementation effective February 1, 2014 (for the SMDR) and May 1, 2014 (for the SMIRR) as requested.

Appendix A

**Monthly Smart Meter Time of Use Reports
(Dec. 2009, Dec. 2010, Dec. 2011, Dec. 2012)**

Summary

Distributor Name	Niagara Peninsula Energy Inc.	For the Period To	December 31, 2009	First Submitted On	March 21, 2010
For the Period From	October 1, 2009	Status	Submitted	Due Date	January 19, 2010
Submitter Name	Mehdi Raza	Report Version	0	Edit Date	March 21, 2010 9:51 PM
RRR Filing No	67				
Expiry Date	July 1, 2010				

RPP Eligible Consumers:

Description	Residential Class	General Service Less Than 50kW Class	Total
Total Number of RPP-eligible consumers	38,125	4,129	42,254
Number of smart meters installed in the period	5,217	0	5,217
Number of smart meters registered with the MDM/R in the period	0	0	0
Number of RPP consumers being charged TOU prices added in the period	0	0	0
Total cumulative number of smart meters installed in the service area at the end of the period	5,217	300	5,517
Total cumulative number of smart meters registered with the MDM/R at the end of the period	0	0	0
Total cumulative number of consumers being charged TOU prices at the end of the period	0	0	0

Percentages (Calculated on Save)

Percentage of RPP-eligible consumers with smart meters installed at the end of the period

Residential Class	General Service Less Than 50kW Class	Total
13.70	7.30	13.10

Percentage of total smart meters installed that are registered with the MDM/R at the end of the period

Residential Class	General Service Less Than 50kW Class	Total
0.00	0.00	0.00

Percentage of total RPP-eligible consumers being charged TOU prices at the end of the period

Residential Class	General Service Less Than 50kW Class	Total

[0.00

]0.00

]0.00

Progress Report on SME Milestones

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
		No Records		

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
		No Records		

Activity	Yes or No?	Expected Completion Date	Actual Completion Date
		No Records	

Activity	Yes or No?	Status, if Yes	Expected Completion Date	Actual Completion Date
		No Records		

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
		No Records		

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
		No Records		

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
		No Records		

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
		No Records		

No Records

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
		No Records		

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
		No Records		

Additional Comments and Information

Additional Comments
No Records

Declaration: I confirm that the information contained in this report is true, accurate, and complete.
IMPORTANT: Choose Yes to submit this filing. Otherwise the form will be saved but not submitted.

* Submit Form
No

Summary

Distributor Name	Niagara Peninsula Energy Inc.	
For the Period From	For the Period To	First Submitted On
December 1, 2010	December 31, 2010	January 12, 2011
Submitter Name	Status	Due Date
Margaret Battista	Submitted	January 10, 2011
RRR Filing No	Report Version	Edit Date
137	0	January 12, 2011 1:15 PM
Expiry Date		
January 14, 2011		

RPP Eligible Consumers:

Description	Residential Class	General Service Less Than 50kW Class	Total
Total Number of RPP-eligible consumers	44,696	4,384	49,080
Number of smart meters installed in the period	120	25	145
Number of smart meters registered with the MDM/R in the period	0	0	0
Number of RPP consumers being charged TOU prices added in the period	0	0	0
Total cumulative number of smart meters installed in the service area at the end of the period	42,904	1,985	44,889
Total cumulative number of smart meters registered with the MDM/R at the end of the period	0	0	0
Total cumulative number of consumers being charged TOU prices at the end of the period	0	0	0

Percentages (Calculated on Save)

Percentage of RPP-eligible consumers with smart meters installed at the end of the period

Residential Class General Service Less Than 50kW Class Total

96.00

45.30

91.50

Percentage of total smart meters installed that are registered with the MDM/R at the end of the period

Residential Class General Service Less Than 50kW Class Total

0.00

0.00

0.00

Percentage of total RPP-eligible consumers being charged TOU prices at the end of the period

Residential Class General Service Less Than 50kW Class Total

[0.00]

[0.00]

[0.00]

Progress Report on SME Milestones

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
1. AMCC Internal Testing	November 16, 2010	Complete	November 16, 2010	November 16, 2010

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
2. CIS Internal Testing	February 14, 2011	On Sched	February 14, 2011	

Activity	Yes or No?	Expected Completion Date	Actual Completion Date
3. MDM/R Registration Application submitted	Yes		October 13, 2010

Activity	Yes or No?	Status, if Yes	Expected Completion Date	Actual Completion Date
4. Enrolment Wave requested and confirmed (Note: the SME will either confirm the requested start date or suggest an alternate)	Yes	On Schedule	May 6, 2011	

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
5. Unit Testing	March 11, 2011	On Sched	March 11, 2011	

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
6. Submitted a completed Self Certification for Enrolment Testing SME_FORM_0007 (Note: This must be submitted at least one week prior to the confirmed enrolment wave start date)	February 14, 2011	On Sc	February 14, 2011	

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
7. System Integration Testing (SIT)	March 25, 2011	On Sche	March 25, 2011	

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
8. Qualification Testing (QT)	April 22, 2011	On Sche	April 22, 2011	

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
9. Self Certification - Cutover	April 25, 2011	On Sche	April 25, 2011	

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
10. Transition to Production Operations	September 30, 2011	On Sch	September 30, 2011	

Additional Comments and Information

Additional Comments

Declaration: I confirm that the information contained in this report is true, accurate, and complete.

IMPORTANT: Choose Yes to submit this filing. Otherwise the form will be saved but not submitted.

* Submit Form

No

Summary

Distributor Name	Niagara Peninsula Energy Inc.	First Submitted On	February 10, 2012
For the Period From	December 1, 2011	Due Date	January 10, 2012
Submitter Name	Margaret Battista	Edit Date	February 10, 2012 7:19 PM
RRR Filing No	336		
Expiry Date	February 11, 2012		

RPP Eligible Consumers:

Description	Residential Class	General Service Less Than 50kW Class	Total
Total Number of RPP-eligible consumers	45,425	4,451	49,876
Number of smart meters installed in the period	86	19	105
Number of smart meters registered with the MDM/R in the period	86	19	105
Number of RPP consumers being charged TOU prices added in the period	930	111	1,041
Total cumulative number of smart meters installed in the service area at the end of the period	45,425	2,466	47,891
Total cumulative number of smart meters registered with the MDM/R at the end of the period	45,425	2,466	47,891
Total cumulative number of consumers being charged TOU prices at the end of the period	40,457	2,226	42,683

Percentages (Calculated on Save)

Percentage of RPP-eligible consumers with smart meters installed at the end of the period

Residential Class	Total
General Service Less Than 50kW Class	96.00

Percentage of total smart meters installed that are registered with the MDM/R at the end of the period

Residential Class	Total
General Service Less Than 50kW Class	100.00

Percentage of total RPP-eligible consumers being charged TOU prices at the end of the period

Residential Class	Total
General Service Less Than 50kW Class	100.00

[89.10

[50.00

[85.60

Progress Report on SME Milestones

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
1. AMCC Internal Testing	November 16, 2010	Complete	November 16, 2010	November 16, 2010

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
2. CIS Internal Testing	February 14, 2011	Complete	March 31, 2011	March 31, 2011

Activity	Yes or No?	Expected Completion Date	Actual Completion Date
3. MDM/R Registration Application submitted	Yes	October 13, 2010	October 13, 2010

Activity	Yes or No?	Status, if Yes	Expected Completion Date	Actual Completion Date
4. Enrolment Wave requested and confirmed (Note: the SME will either confirm the requested start date or suggest an alternate)	Yes	Ahead of Schedule	May 6, 2011	April 29, 2011

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
5. Unit Testing	March 11, 2011	Completed	March 11, 2011	March 11, 2011

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
6. Submitted a completed Self Certification for Enrolment Testing SME_FORM_0007 (Note: This must be submitted at least one week prior to the confirmed enrolment wave start date)	February 14, 2011	Complete	May 2, 2011	May 2, 2011

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
7. System Integration Testing (SIT)	March 25, 2011	Complete	June 10, 2011	June 3, 2010

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
8. Qualification Testing (QT)	April 22, 2011	Complete	July 15, 2011	July 12, 2011

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
9. Self Certification - Cutover	April 25, 2011	Complete	July 18, 2011	July 20, 2011

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
10. Transition to Production Operations	September 30, 2011	Ahead	September 30, 2011	September 15, 2011

Additional Comments and Information

Additional Comments

We continue to switch to Time of Use as we are working through communication issues within AMI and deployment of GS<50kW.

Declaration: I confirm that the information contained in this report is true, accurate, and complete.

IMPORTANT: Choose Yes to submit this filing. Otherwise the form will be saved but not submitted.

* Submit Form

No

Summary

Distributor Name
Niagara Peninsula Energy Inc.

For the Period From
December 1, 2012

For the Period To
December 31, 2012

First Submitted On
January 14, 2013

Submitter Name
Margaret Battista

Status
Revised

Due Date
January 10, 2013

RRR Filing No
1,756

Report Version
2

Edit Date
January 14, 2013 11:59 PM

Expiry Date
January 15, 2013

RPP Eligible Consumers:

Description	Residential Class	General Service Less Than 50kW Class	Total
Total Number of RPP-eligible consumers	45,524	4,274	49,798
Number of smart meters installed in the period	27	717	744
Number of smart meters registered with the MDM/R in the period	27	717	744
Number of RPP consumers being charged TOU prices added in the period	0	0	0
Total cumulative number of smart meters installed in the service area at the end of the period	45,883	3,416	49,299
Total cumulative number of smart meters registered with the MDM/R at the end of the period	45,883	3,416	49,299
Total cumulative number of consumers being charged TOU prices at the end of the period	41,714	2,276	43,990

Percentages (Calculated on Save)

Percentage of RPP-eligible consumers with smart meters installed at the end of the period

Residential Class	Total
General Service Less Than 50kW Class	79.90
Total	99.00

Percentage of total smart meters installed that are registered with the MDM/R at the end of the period

Residential Class	Total
General Service Less Than 50kW Class	100.00
Total	100.00

Percentage of total RPP-eligible consumers being charged TOU prices at the end of the period

Residential Class	Total
General Service Less Than 50kW Class	100.00
Total	100.00

91.60

53.30

88.30

Progress Report on SME Milestones

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
1. AMCC Internal Testing	November 16, 2011	Complete	November 16, 2011	November 16, 2011

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
2. CIS Internal Testing	February 14, 2011	Complete	March 31, 2011	March 31, 2011

Activity	Yes or No?	Expected Completion Date	Actual Completion Date
3. MDM/R Registration Application submitted	Yes	October 13, 2010	October 13, 2010

Activity	Yes or No?	Status, if Yes	Expected Completion Date	Actual Completion Date
4. Enrolment Wave requested and confirmed (Note: the SME will either confirm the requested start date or suggest an alternate)	Yes	Ahead of Sc	May 6, 2011	May 6, 2011

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
5. Unit Testing	March 11, 2011	Complete	March 11, 2011	March 11, 2011

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
6. Submitted a completed Self Certification for Enrolment Testing SME_FORM_0007 (Note: This must be submitted at least one week prior to the confirmed enrolment wave start date)	February 14, 2011	Comp	May 2, 2011	May 2, 2011

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
7. System Integration Testing (SIT)	March 25, 2011	Complete	June 10, 2011	June 3, 2011

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
8. Qualification Testing (QT)		Complete		

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
9. Self Certification - Cutover		Complete		

Activity	Original Scheduled Completion Date	Status	Expected Completion Date	Actual Completion Date
10. Transition to Production Operations		Ahead (

Additional Comments and Information

Additional Comments

Declaration: I confirm that the information contained in this report is true, accurate, and complete.
 IMPORTANT: Choose Yes to submit this filing. Otherwise the form will be saved but not submitted.

* Submit Form

No

Appendix B

Letter from the Fairness Commissioner



PRP International, Inc.

Fairness Advisory Services

August 1, 2008

Mr. Brian Wilkie
President & CEO
Niagara Peninsula Energy Inc.
7447 Pin Oak Drive, Box 120
Niagara Falls, ON L2E 6S9

Dear Mr. Wilkie:

Subject: Attestation of the Fairness Commissioner
Advanced Metering Infrastructure RFP, August-July 2008
London Hydro, Consortium & Add-On 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 Add-On 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 **NEPA Collective of LDCs (Brant County Power Inc., Brantford Power Inc., Canadian Niagara Power Inc. (Fortis), Grimsby Power Incorporated, Haldimand County Hydro Inc., Niagara-on-the-Lake Hydro Inc., Niagara Peninsula Energy Inc., Norfolk Power Distribution Inc., and Welland Hydro Electric System Corp.)** requirements are:*

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

LDC Name: NEPA Collective

Results of Request for Proposal for Advanced Metering Infrastructure (AMI) for LDC Named Above

Proponent	Technical Score (with LDC-specific weightings applied)	Cost Score (based on LDC-specific meter population & other LDC assumptions)	Common “Other Factors”	Bidder’s Overall Score
(Col 1)	(Col 2)	(Col 3)	(Col 4)	(Col 5)
KTI / Sensus Metering	38.4	28.4	18	84.8
Elster Metering	33.5	30.0	19	82.5
Silver Spring Networks	36.5	25.5	15	77.0
	50 points	30 points	20 points	100 points

The designated Fairness Commissioner will be issuing a letter attesting that these RFP results are in accordance with the parameters and process established in the document entitled: *Request for Proposal for Advanced Metering Infrastructure (AMI) – Phase I Smartmeter Deployment*, and the document entitled: *Evaluation Plan of Bid Submissions for “Advanced Metering Infrastructure (AMI) - Phase I Smartmeter Deployment”*.

Appendix C

**Portion from Exhibit 4 from NPEI's
2011 Rate Application (EB-2010-0138)**

2009 Actual vs. 2008 Actual

There was a net increase of 6 FTE's during the 2009 year.

In January 2009, the VP of Corporate Services retired and in August 2009 the VP of Business Development retired. These duties were combined and a new position Manager of CDM and Public Relations was created. This position was filled internally by the Executive Assistant in August 2009.

The Executive Assistant was back filled internally in September 2009 by a customer service clerk. The customer service clerk was then back filled externally in 2010.

An Assistant to the EA position was created in October 2009 and was filled on by a customer service clerk on a contract basis. This position was then hired full time in February 2010. The customer service vacancy was filled in 2010.

In February 2009 a lineman retired. Two apprentice linemen were hired full time as lineman in 2009.

In March 2009 a Regulatory Financial and Rate Analyst was hired to assist with the regulatory financial reporting requirements and rate application preparation.

In May 2009, NPEI hired three additional apprentice linemen from the Cambrian College Power line Technician program.

In June 2009 a Smart Meter Coordinator was hired on a contract basis to help with the implementation of smart meters. NPEI commenced installing smart meters in December 2009 and will complete its installation in September of 2010. The Smart Meter Coordinator's wages are recorded in account 1556.

1 An HR clerk was hired in 2009 to assist with health and safety initiatives and
2 requirements stemming from a WSIB audit as well as prepare documentation and
3 training for Bill 168.

4
5 A receptionist was hired on a contract basis in October 2009 and the outsourcing for
6 this service ceased.

2010 Bridge Year vs. 2009 Actual

There was a net increase of 6 FTE's in 2010.

One customer service clerk and one billing clerk retired in 2010.

Two contract customer service clerks were hired in 2010, one replacing the retirement and one replacing the vacancy created by the filling of the Executive Assistant in 2009.

A co-op accountant was hired from one of the colleges to assist in the accounting and cashiering departments. This co-op position will end at the end of 2010 and will not be filled in 2011.

A second smart meter coordinator was hired in August of 2010 on a contract basis to assist with the implementation of smart meters and billing. This second smart meter coordinators wages are recorded in Account 1556.

Two business analysts were hired on contract basis to prepare documentation of work flow, testing of the billing system, preparation of the web for e-billing and ultimately as part of a succession plan for the two billing supervisors. Both billing supervisors are eligible to retire within the next 2 to 5 years.

Two apprentices from the Cambrian College Power line Technician program started their work term in September 2010.

Appendix D

Smart Meter Model



Smart Meter Model for Electricity Distributors (2014 Filers)

Version 4.00

Utility Name	Niagara Peninsula Energy Inc.
Assigned EB Number	
Name and Title	Suzanne Wilson, Vice-President Finance
Phone Number	905-353-6004
Email Address	Suzanne.Wilson@npei.ca
Date	
Last COS Re-based Year	2011

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.



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	2007	2008	2009	2010	2011	2012	2013	2014	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
Residential				5,217	37,687	2,521	458	718	222	46823
General Service < 50 kW				300	1,685	481	950	824		4240
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	0	5517	39372	3002	1408	1542	222	51063
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	10.80%	87.91%	93.79%	96.55%	99.57%	100.00%	100.00%
Actual/Planned number of GS > 50 kW meters installed							1	14		15
Other (please identify) MicroFIT					18	124	71	75		288
Total Number of Smart Meters installed or planned to be installed	0	0	0	5517	39390	3126	1480	1631	222	51366

1 Capital Costs

1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)

	Asset Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
	Asset type must be selected to enable calculations	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
1.1.1 Smart Meters (may include new meters and modules, etc.)	Smart Meter				1,153,992	2,384,966	451,558	739,692	26,347		\$ 4,756,555
1.1.2 Installation Costs (may include socket kits, labour, vehicle, benefits, etc.)	Smart Meter	37,457	5,665		63,251	398,956	132,514	26,414			\$ 664,258
1.1.3a Workforce Automation Hardware (may include fieldwork handhelds, barcode hardware, etc.)	Computer Hardware					1,600	710	2,945			\$ 5,255
1.1.3b Workforce Automation Software (may include fieldwork handhelds, barcode hardware, etc.)	Computer Software					29,897					\$ 29,897
Total Advanced Metering Communications Devices (AMCD)		\$ 37,457	\$ 5,665	\$ -	\$ 1,217,244	\$ 2,813,819	\$ 585,673	\$ 766,815	\$ 29,292	\$ -	\$ 5,455,965

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

	Asset Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
		Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
1.2.1 Collectors	Smart Meter				143,246						\$ 143,246
1.2.2 Repeaters (may include radio licence, etc.)											\$ -
1.2.3 Installation (may include meter seats and rings, collector computer hardware, etc.)	Smart Meter				70,398	37,227	9,073				\$ 116,698
Total Advanced Metering Regional Collector (AMRC) (includes LAN)		\$ -	\$ -	\$ -	\$ 213,644	\$ 37,227	\$ 9,073	\$ -	\$ -	\$ -	\$ 259,944

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	Forecast	Forecast	
										\$ -
										\$ -
Computer Software						11,011				\$ 11,011
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,011	\$ -	\$ -	\$ -	\$ 11,011

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	Forecast	Forecast	
										\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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	Forecast	Forecast	
Smart Meter										\$ -
Computer Software					2,850	2,250				\$ 5,100
Smart Meter	8,949	9,017		27,543	18,301	17,759	17,628	17,000	12,000	\$ 128,196
										\$ -
										\$ -
Smart Meter				21,021		5,938	7,185	790		\$ 34,935
	\$ 8,949	\$ 9,017	\$ -	\$ 48,564	\$ 21,151	\$ 25,947	\$ 24,813	\$ 17,790	\$ 12,000	\$ 168,230
	\$ 46,406	\$ 14,683	\$ -	\$ 1,479,451	\$ 2,872,197	\$ 631,704	\$ 791,628	\$ 47,083	\$ 12,000	\$ 5,895,151

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	Forecast	Forecast	
										\$ -
										\$ -
Computer Software					12,958	180,290				\$ 193,248
	\$ -	\$ -	\$ -	\$ -	\$ 12,958	\$ 180,290	\$ -	\$ -	\$ -	\$ 193,248
	\$ 46,406	\$ 14,683	\$ -	\$ 1,479,451	\$ 2,885,154	\$ 811,994	\$ 791,628	\$ 47,083	\$ 12,000	\$ 6,088,399

2 OM&A Expenses

2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)

2.1.1 Maintenance (may include meter reversion 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

(please specify)

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	Forecast	Forecast	
										\$ -
										\$ -
										\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
				14,658	18,565					\$ 33,223
										\$ -
	\$ -	\$ -	\$ -	\$ 14,658	\$ 18,565	\$ -	\$ -	\$ -	\$ -	\$ 33,223
										\$ -
					6,300	40,821	73,535	138,906	140,118	\$ 399,680
										\$ -
	\$ -	\$ -	\$ -	\$ -	\$ 6,300	\$ 40,821	\$ 73,535	\$ 138,906	\$ 140,118	\$ 399,680
										\$ -
										\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
										\$ -
				81,152	11,423					\$ 92,575
	25,434			19,749	48,828	139,486	152,758	162,508	167,544	\$ 716,306
	660	119		248	6,339	2,063				\$ 9,429
										\$ -
				3,236	39,792	9,520				\$ 52,549
	\$ 26,094	\$ 119	\$ -	\$ 104,385	\$ 106,382	\$ 151,069	\$ 152,758	\$ 162,508	\$ 167,544	\$ 870,859
	\$ 26,094	\$ 119	\$ -	\$ 119,044	\$ 131,246	\$ 191,891	\$ 226,293	\$ 301,415	\$ 307,661	\$ 1,303,762
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
										\$ -
										\$ -
					22,501	101,198	90,134	42,294	42,344	\$ 298,470
	\$ -	\$ -	\$ -	\$ -	\$ 22,501	\$ 101,198	\$ 90,134	\$ 42,294	\$ 42,344	\$ 298,470
	\$ 26,094	\$ 119	\$ -	\$ 119,044	\$ 153,747	\$ 293,089	\$ 316,426	\$ 343,708	\$ 350,005	\$ 1,602,232

3 Aggregate Smart Meter Costs by Category

3.1	Capital											
3.1.1	Smart Meter	\$ 46,406	\$ 14,683	\$ -	\$ 1,479,451	\$ 2,839,450	\$ 616,842	\$ 790,918	\$ 44,138	\$ 12,000	\$ 5,843,887	
3.1.2	Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,600	\$ 710	\$ 2,945	\$ -	\$ 5,255	
3.1.3	Computer Software	\$ -	\$ -	\$ -	\$ -	\$ 45,705	\$ 193,551	\$ -	\$ -	\$ -	\$ 239,256	
3.1.4	Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
3.1.5	Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
3.1.6	Applications Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
3.1.7	Total Capital Costs	<u>\$ 46,406</u>	<u>\$ 14,683</u>	<u>\$ -</u>	<u>\$ 1,479,451</u>	<u>\$ 2,885,154</u>	<u>\$ 811,994</u>	<u>\$ 791,628</u>	<u>\$ 47,083</u>	<u>\$ 12,000</u>	<u>\$ 6,088,399</u>	
3.2	OM&A Costs											
3.2.1	Total OM&A Costs	<u>\$ 26,094</u>	<u>\$ 119</u>	<u>\$ -</u>	<u>\$ 119,044</u>	<u>\$ 153,747</u>	<u>\$ 293,089</u>	<u>\$ 316,426</u>	<u>\$ 343,708</u>	<u>\$ 350,005</u>	<u>\$ 1,602,232</u>	



Smart Meter Model for Electricity Distributors (2014 Filers)

	2006	2007	2008	2009	2010	2011	2012	2013	2014
Cost of Capital									
Capital Structure¹									
Deemed Short-term Debt Capitalization						4.0%	4.0%	4.0%	4.0%
Deemed Long-term Debt Capitalization	50.0%	50.0%	53.3%	56.7%	60.0%	56.0%	56.0%	56.0%	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									
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of Capital Parameters									
Deemed Short-term Debt Rate						2.46%	2.46%	2.46%	2.46%
Long-term Debt Rate (actual/embedded/deemed) ²	7.13%	7.13%	7.13%	7.13%	5.97%	5.16%	5.16%	5.16%	5.16%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	9.00%	9.00%	9.58%	9.58%	9.58%	9.58%
Return on Preferred Shares									
WACC	8.07%	8.07%	8.00%	7.94%	7.18%	6.82%	6.82%	6.82%	6.82%
Working Capital Allowance									
Working Capital Allowance Rate	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
(% of the sum of Cost of Power + controllable expenses)									
Taxes/PILs									
Aggregate Corporate Income Tax Rate	36.12%	36.12%	33.50%	33.00%	30.99%	28.25%	25.48%	26.50%	25.70%
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	15	15
- rate (%)	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%
Computer Hardware - years	5	5	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Computer Software - years	3	3	3	3	3	3	3	3	3
- rate (%)	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%
Tools & Equipment - years	10	10	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Other Equipment - years	10	10	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%

CCA Rates

Smart Meters - CCA Class	47	47	47	47	47	47	47	47	47
Smart Meters - CCA Rate	8%	8%	8%	8%	8%	8%	8%	8%	8%
Computer Equipment - CCA Class	10	10	10	10	10	10	10	10	10
Computer Equipment - CCA Rate	30%	30%	30%	30%	30%	30%	30%	30%	30%
General Equipment - CCA Class	8	8	8	8	8	8	8	8	8
General Equipment - CCA Rate	20%	20%	20%	20%	20%	20%	20%	20%	20%
Applications Software - CCA Class	12	12	12	12	12	12	12	12	12
Applications Software - CCA Rate	100%	100%	100%	100%	100%	100%	100%	100%	100%

Assumptions

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



Smart Meter Model for Electricity Distributors (2014 Filers)

Amounts Transferred in EB-2010-0138

Smart Meters	\$ 4,175,010
Computer Software	\$ -
Other Equipment	\$ -

NOTE: This model was modified on September 25, 2013 by Board staff, at the request of NPEI, to account for amounts transferred from USoA account 1555 to USoA account 1860, as per the settlement agreement in EB-2010-0138.

	2006	2007	2008	2009	2010	2011	2012	2013	2014
Net Fixed Assets - Smart Meters									
Gross Book Value									
Opening Balance		\$ 46,406	\$ 61,088	\$ 61,088	\$ 1,540,539	\$ 204,979	\$ 821,821	\$ 1,612,740	\$ 1,656,877
Capital Additions during year (from Smart Meter Costs)	\$ 46,406	\$ 14,683	\$ -	\$ 1,479,451	\$ 2,839,450	\$ 616,842	\$ 790,918	\$ 44,138	\$ 12,000
Retirements/Removals (if applicable)									
Closing Balance	\$ 46,406	\$ 61,088	\$ 61,088	\$ 1,540,539	\$ 4,379,989	\$ 821,821	\$ 1,612,740	\$ 1,656,877	\$ 1,668,877
Accumulated Depreciation									
Opening Balance		-\$ 1,547	-\$ 5,130	-\$ 9,203	-\$ 62,590	-\$ 259,941	-\$ 294,168	-\$ 375,320	-\$ 484,307
Amortization expense during year	-\$ 1,547	-\$ 3,583	-\$ 4,073	-\$ 53,388	-\$ 197,351	-\$ 34,227	-\$ 81,152	-\$ 108,987	-\$ 110,858
Retirements/Removals (if applicable)									
Closing Balance	-\$ 1,547	-\$ 5,130	-\$ 9,203	-\$ 62,590	-\$ 259,941	-\$ 294,168	-\$ 375,320	-\$ 484,307	-\$ 595,166
Net Book Value									
Opening Balance	\$ -	\$ 44,859	\$ 55,958	\$ 51,886	\$ 1,477,949	-\$ 54,962	\$ 527,654	\$ 1,237,420	\$ 1,172,570
Closing Balance	\$ 44,859	\$ 55,958	\$ 51,886	\$ 1,477,949	\$ 4,120,048	\$ 527,654	\$ 1,237,420	\$ 1,172,570	\$ 1,073,712
Average Net Book Value	\$ 22,429	\$ 50,408	\$ 53,922	\$ 764,917	\$ 2,798,999	\$ 236,346	\$ 882,537	\$ 1,204,995	\$ 1,123,141
Net Fixed Assets - Computer Hardware									
Gross Book Value									
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,600	\$ 2,310	\$ 5,255
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,600	\$ 710	\$ 2,945	\$ -
Retirements/Removals (if applicable)									
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,600	\$ 2,310	\$ 5,255	\$ 5,255
Accumulated Depreciation									
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-\$ 160	-\$ 551	-\$ 1,308
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	-\$ 160	-\$ 391	-\$ 757	-\$ 1,051
Retirements/Removals (if applicable)									
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	-\$ 160	-\$ 551	-\$ 1,308	-\$ 2,359
Net Book Value									
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,440	\$ 1,759	\$ 3,948
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,440	\$ 1,759	\$ 3,948	\$ 2,897
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 720	\$ 1,600	\$ 2,853	\$ 3,422

Net Fixed Assets - Computer Software (including Applications Software)

Gross Book Value													
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 45,705	\$ 239,256	\$ 239,256	\$ 239,256			
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -			\$ 45,705	\$ 193,551	\$ -	\$ -	\$ -			
Retirements/Removals (if applicable)													
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ 45,705		\$ 239,256	\$ 239,256	\$ 239,256	\$ 239,256			
Accumulated Depreciation													
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,617	\$ 55,111	\$ 134,863	\$ 214,615			
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ 7,617	\$ -	\$ 47,493	\$ 79,752	\$ 79,752	\$ 24,641			
Retirements/Removals (if applicable)													
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ 7,617	\$ -	\$ 55,111	\$ 134,863	\$ 214,615	\$ 239,256			
Net Book Value													
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 38,087	\$ 184,145	\$ 104,393	\$ 24,641			
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 38,087	\$ 184,145	\$ 104,393	\$ 24,641	\$ -			
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 19,044	\$ 111,116	\$ 144,269	\$ 64,517	\$ 12,322			

Net Fixed Assets - Tools and Equipment

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

Net Fixed Assets - Other Equipment

[illegible]



Smart Meter Model for Electricity Distributors (2014 Filers)

	2006	2007	2008	2009	2010	2011	2012	2013	2014
Average Net Fixed Asset Values (from Sheet 4)									
Smart Meters	\$ 22,429	\$ 50,408	\$ 53,922	\$ 764,917	\$ 2,798,999	\$ 236,346	\$ 882,537	\$ 1,204,995	\$ 1,123,141
Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 720	\$ 1,600	\$ 2,853	\$ 3,422
Computer Software	\$ -	\$ -	\$ -	\$ -	\$ 19,044	\$ 111,116	\$ 144,269	\$ 64,517	\$ 12,321
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Net Fixed Assets	\$ 22,429	\$ 50,408	\$ 53,922	\$ 764,917	\$ 2,818,042	\$ 348,182	\$ 1,028,405	\$ 1,272,366	\$ 1,138,884
Working Capital									
Operating Expenses (from Sheet 2)	\$ 26,094	\$ 119	\$ -	\$ 119,044	\$ 153,747	\$ 293,089	\$ 316,426	\$ 343,708	\$ 350,005
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	\$ 3,914	\$ 18	\$ -	\$ 17,857	\$ 23,062	\$ 43,963	\$ 47,464	\$ 51,556	\$ 52,501
Incremental Smart Meter Rate Base	\$ 26,343	\$ 50,426	\$ 53,922	\$ 782,774	\$ 2,841,104	\$ 392,145	\$ 1,075,869	\$ 1,323,922	\$ 1,191,384
Return on Rate Base									
Capital Structure									
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,686	\$ 43,035	\$ 52,957	\$ 47,655
Deemed Long Term Debt	\$ 13,172	\$ 25,213	\$ 28,740	\$ 443,833	\$ 1,704,663	\$ 219,601	\$ 602,487	\$ 741,396	\$ 667,175
Equity	\$ 13,172	\$ 25,213	\$ 25,182	\$ 338,941	\$ 1,136,442	\$ 156,858	\$ 430,348	\$ 529,569	\$ 476,554
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Capitalization	\$ 26,343	\$ 50,426	\$ 53,922	\$ 782,774	\$ 2,841,104	\$ 392,145	\$ 1,075,869	\$ 1,323,922	\$ 1,191,384
Return on									
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 386	\$ 1,059	\$ 1,303	\$ 1,172
Deemed Long Term Debt	\$ 939	\$ 1,798	\$ 2,049	\$ 31,645	\$ 101,751	\$ 11,321	\$ 31,058	\$ 38,219	\$ 34,393
Equity	\$ 1,185	\$ 2,269	\$ 2,266	\$ 30,505	\$ 102,280	\$ 15,027	\$ 41,227	\$ 50,733	\$ 45,654
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Return on Capital	\$ 2,125	\$ 4,067	\$ 4,316	\$ 62,150	\$ 204,030	\$ 26,733	\$ 73,344	\$ 90,255	\$ 81,219
Operating Expenses	\$ 26,094	\$ 119	\$ -	\$ 119,044	\$ 153,747	\$ 293,089	\$ 316,426	\$ 343,708	\$ 350,005
Amortization Expenses (from Sheet 4)									
Smart Meters	\$ 1,547	\$ 3,583	\$ 4,073	\$ 53,388	\$ 197,351	\$ 34,227	\$ 81,152	\$ 108,987	\$ 110,858
Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 160	\$ 391	\$ 757	\$ 1,051
Computer Software	\$ -	\$ -	\$ -	\$ -	\$ 7,617	\$ 47,493	\$ 79,752	\$ 79,752	\$ 24,641
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Amortization Expense in Year	\$ 1,547	\$ 3,583	\$ 4,073	\$ 53,388	\$ 204,968	\$ 81,880	\$ 161,295	\$ 189,496	\$ 136,551
Incremental Revenue Requirement before Taxes/PILs	\$ 29,765	\$ 7,769	\$ 8,388	\$ 234,581	\$ 562,746	\$ 401,702	\$ 551,066	\$ 623,459	\$ 567,775
Calculation of Taxable Income									
Incremental Operating Expenses	\$ 26,094	\$ 119	\$ -	\$ 119,044	\$ 153,747	\$ 293,089	\$ 316,426	\$ 343,708	\$ 350,005
Amortization Expense	\$ 1,547	\$ 3,583	\$ 4,073	\$ 53,388	\$ 204,968	\$ 81,880	\$ 161,295	\$ 189,496	\$ 136,551
Interest Expense	\$ 939	\$ 1,798	\$ 2,049	\$ 31,645	\$ 101,751	\$ 11,706	\$ 32,117	\$ 39,522	\$ 35,565
Net Income for Taxes/PILs	\$ 1,185	\$ 2,269	\$ 2,266	\$ 30,505	\$ 102,280	\$ 15,027	\$ 41,227	\$ 50,733	\$ 45,654
Grossed-up Taxes/PILs (from Sheet 7)	\$ 629.95	\$ 1,087.74	\$ 1,090.22	\$ 13,501.36	\$ 34,312.02	\$ 6,127.85	\$ 17,438.27	\$ 28,715.30	\$ 14,125.24
Revenue Requirement, including Grossed-up Taxes/PILs	\$ 30,395	\$ 8,857	\$ 9,478	\$ 248,082	\$ 597,058	\$ 407,830	\$ 568,504	\$ 652,174	\$ 581,900



Smart Meter Model for Electricity Distributors (2014 Filers)

UCC from Amounts Transferred in EB-2010-0138

Smart Meters	\$ 3,878,634
Computer Software	
Other Equipment	

NOTE: This model was modified on September 25, 2013 by Board staff, at the request of NPEI, to account for amounts transferred from USoA account 1555 to USoA account 1860, as per the settlement agreement in EB-2010-0138.

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 Forecast	2014 Forecast
Opening UCC	\$ -	\$ 44,549.40	\$ 55,080.70	\$ 50,674.24	\$ 1,466,893.53	\$ 196,779.94	\$ 773,206.12	\$ 1,470,631.12	\$ 1,395,352.95
Capital Additions	\$ 46,405.63	\$ 14,682.55	\$ -	\$ 1,479,451.28	\$ 2,839,449.64	\$ 616,842.27	\$ 790,918.22	\$ 44,137.83	\$ 12,000.00
Retirements/Removals (if applicable)									
UCC Before Half Year Rule	\$ 46,405.63	\$ 59,231.95	\$ 55,080.70	\$ 1,530,125.52	\$ 4,306,343.17	\$ 813,622.21	\$ 1,564,124.34	\$ 1,514,768.95	\$ 1,407,352.95
Half Year Rule (1/2 Additions - Disposals)	\$ 23,202.82	\$ 7,341.28	\$ -	\$ 739,725.64	\$ 1,419,724.82	\$ 308,421.14	\$ 395,459.11	\$ 22,068.92	\$ 6,000.00
Reduced UCC	\$ 23,202.82	\$ 51,890.68	\$ 55,080.70	\$ 790,399.88	\$ 2,886,618.35	\$ 505,201.07	\$ 1,168,665.23	\$ 1,492,700.04	\$ 1,401,352.95
CCA Rate Class	47	47	47	47	47	47	47	47	47
CCA Rate	8%	8%	8%	8%	8%	8%	8%	8%	8%
CCA	\$ 1,856.23	\$ 4,151.25	\$ 4,406.46	\$ 63,231.99	\$ 230,929.47	\$ 40,416.09	\$ 93,493.22	\$ 119,416.00	\$ 112,108.24
Closing UCC	\$ 44,549.40	\$ 55,080.70	\$ 50,674.24	\$ 1,466,893.53	\$ 4,075,413.71	\$ 773,206.12	\$ 1,470,631.12	\$ 1,395,352.95	\$ 1,295,244.71

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 Forecast	2014 Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 38,849.00	\$ 193,073.04	\$ 135,754.63	\$ 97,531.49
Capital Additions Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,600.00	\$ 710.00	\$ 2,945.00	\$ -
Capital Additions Computer Software	\$ -	\$ -	\$ -	\$ -	\$ 45,704.70	\$ 193,551.46	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)									
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ -	\$ 45,704.70	\$ 234,000.46	\$ 193,783.04	\$ 138,699.63	\$ 97,531.49
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ -	\$ 22,852.35	\$ 97,575.73	\$ 355.00	\$ 1,472.50	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ -	\$ 22,852.35	\$ 136,424.73	\$ 193,428.04	\$ 137,227.13	\$ 97,531.49
CCA Rate Class	10	10	10	10	10	10	10	10	10
CCA Rate	30%	30%	30%	30%	30%	30%	30%	30%	30%
CCA	\$ -	\$ -	\$ -	\$ -	\$ 6,855.71	\$ 40,927.42	\$ 58,028.41	\$ 41,168.14	\$ 29,259.45
Closing UCC	\$ -	\$ -	\$ -	\$ -	\$ 38,849.00	\$ 193,073.04	\$ 135,754.63	\$ 97,531.49	\$ 68,272.04

- 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

[illegible]

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

[illegible]



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 Forecast	2014 Forecast
INCOME TAX									
Net Income	\$ 1,185.46	\$ 2,269.19	\$ 2,266.34	\$ 30,504.70	\$ 102,279.76	\$ 15,027.01	\$ 41,227.31	\$ 50,732.68	\$ 45,653.85
Amortization	\$ 1,546.85	\$ 3,583.13	\$ 4,072.55	\$ 53,387.59	\$ 204,968.40	\$ 81,880.16	\$ 161,295.09	\$ 189,495.79	\$ 136,550.62
CCA - Smart Meters	-\$ 1,856.23	-\$ 4,151.25	-\$ 4,406.46	-\$ 63,231.99	-\$ 230,929.47	-\$ 40,416.09	-\$ 93,493.22	-\$ 119,416.00	-\$ 112,108.24
CCA - Computers	\$ -	\$ -	\$ -	\$ -	\$ 6,855.71	\$ 40,927.42	\$ 58,028.41	\$ 41,168.14	\$ 29,259.45
CCA - Applications Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA - Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Change in taxable income	\$ 876.09	\$ 1,701.06	\$ 1,932.43	\$ 20,660.30	\$ 69,462.99	\$ 15,563.67	\$ 51,000.77	\$ 79,644.33	\$ 40,836.79
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	30.99%	28.25%	25.48%	26.50%	25.70%
Income Taxes Payable	\$ 316.44	\$ 614.42	\$ 647.36	\$ 6,817.90	\$ 21,526.58	\$ 4,396.74	\$ 12,995.00	\$ 21,105.75	\$ 10,495.06
ONTARIO CAPITAL TAX									
Smart Meters	\$ 44,858.78	\$ 55,958.20	\$ 51,885.65	\$ 1,477,949.35	\$ 4,120,048.03	\$ 527,653.62	\$ 1,237,419.81	\$ 1,172,570.41	\$ 1,073,711.91
Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,440.00	\$ 1,759.00	\$ 3,947.50	\$ 2,896.50
Computer Software (Including Application Software)	\$ -	\$ -	\$ -	\$ -	\$ 38,087.25	\$ 184,145.23	\$ 104,393.18	\$ 24,641.13	\$ -
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Base	\$ 44,858.78	\$ 55,958.20	\$ 51,885.65	\$ 1,477,949.35	\$ 4,158,135.28	\$ 713,238.85	\$ 1,343,571.99	\$ 1,201,159.03	\$ 1,076,608.41
Less: Exemption									
Deemed Taxable Capital	\$ 44,858.78	\$ 55,958.20	\$ 51,885.65	\$ 1,477,949.35	\$ 4,158,135.28	\$ 713,238.85	\$ 1,343,571.99	\$ 1,201,159.03	\$ 1,076,608.41
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)	\$ 134.58	\$ 125.91	\$ 116.74	\$ 3,325.39	\$ 3,118.60	\$ -	\$ -	\$ -	\$ -
Change in Income Taxes Payable	\$ 316.44	\$ 614.42	\$ 647.36	\$ 6,817.90	\$ 21,526.58	\$ 4,396.74	\$ 12,995.00	\$ 21,105.75	\$ 10,495.06
Change in OCT	\$ 134.58	\$ 125.91	\$ 116.74	\$ 3,325.39	\$ 3,118.60	\$ -	\$ -	\$ -	\$ -
PILs	\$ 451.02	\$ 740.33	\$ 764.11	\$ 10,143.29	\$ 24,645.18	\$ 4,396.74	\$ 12,995.00	\$ 21,105.75	\$ 10,495.06
Gross Up PILs									
Tax Rate	36.12%	36.12%	33.50%	33.00%	30.99%	28.25%	25.48%	26.50%	25.70%
Change in Income Taxes Payable	\$ 495.37	\$ 961.84	\$ 973.48	\$ 10,175.97	\$ 31,193.42	\$ 6,127.85	\$ 17,438.27	\$ 28,715.30	\$ 14,125.24
Change in OCT	\$ 134.58	\$ 125.91	\$ 116.74	\$ 3,325.39	\$ 3,118.60	\$ -	\$ -	\$ -	\$ -
PILs	\$ 629.95	\$ 1,087.74	\$ 1,090.22	\$ 13,501.36	\$ 34,312.02	\$ 6,127.85	\$ 17,438.27	\$ 28,715.30	\$ 14,125.24



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	\$ -	\$ 3,883.62	4.14%	\$ -	\$ 3,883.62		
2007 Q3	4.59%	5.18%	Jul-06	2006	Q3	\$ 3,883.62	\$ 12,318.92	4.59%	\$ 14.85	\$ 16,217.39		
2007 Q4	5.14%	5.18%	Aug-06	2006	Q3	\$ 16,202.54	\$ 13,488.11	4.59%	\$ 61.97	\$ 29,752.62		
2008 Q1	5.14%	5.18%	Sep-06	2006	Q3	\$ 29,690.65	\$ 13,393.02	4.59%	\$ 113.57	\$ 43,197.24		
2008 Q2	4.08%	5.18%	Oct-06	2006	Q4	\$ 43,083.67	\$ 12,391.79	4.59%	\$ 164.80	\$ 55,640.26		
2008 Q3	3.35%	5.43%	Nov-06	2006	Q4	\$ 55,475.46	\$ 13,104.26	4.59%	\$ 212.19	\$ 68,791.91		
2008 Q4	3.35%	5.43%	Dec-06	2006	Q4	\$ 68,579.72	\$ 19,127.78	4.59%	\$ 262.32	\$ 87,969.82	\$ 88,537.20	
2009 Q1	2.45%	6.61%	Jan-07	2007	Q1	\$ 87,707.50	\$ 14,198.74	4.59%	\$ 335.48	\$ 102,241.72		
2009 Q2	1.00%	6.61%	Feb-07	2007	Q1	\$ 101,906.24	\$ 11,161.19	4.59%	\$ 389.79	\$ 113,457.22		
2009 Q3	0.55%	5.67%	Mar-07	2007	Q1	\$ 113,067.43	\$ 15,885.16	4.59%	\$ 432.48	\$ 129,385.07		
2009 Q4	0.55%	4.66%	Apr-07	2007	Q2	\$ 128,952.59	\$ 10,677.90	4.59%	\$ 493.24	\$ 140,123.73		
2010 Q1	0.55%	4.34%	May-07	2007	Q2	\$ 139,630.49	\$ 14,091.10	4.59%	\$ 534.09	\$ 154,255.68		
2010 Q2	0.55%	4.34%	Jun-07	2007	Q2	\$ 153,721.59	\$ 13,493.77	4.59%	\$ 587.99	\$ 167,803.35		
2010 Q3	0.89%	4.66%	Jul-07	2007	Q3	\$ 167,215.36	\$ 12,907.54	4.59%	\$ 639.60	\$ 180,762.50		
2010 Q4	1.20%	4.01%	Aug-07	2007	Q3	\$ 180,122.90	\$ 14,371.93	4.59%	\$ 688.97	\$ 195,183.80		
2011 Q1	1.47%	4.29%	Sep-07	2007	Q3	\$ 194,494.83	\$ 11,742.90	4.59%	\$ 743.94	\$ 206,981.67		
2011 Q2	1.47%	4.29%	Oct-07	2007	Q4	\$ 206,237.73	\$ 13,517.85	5.14%	\$ 883.38	\$ 220,638.96		
2011 Q3	1.47%	4.29%	Nov-07	2007	Q4	\$ 219,755.58	\$ 13,793.83	5.14%	\$ 941.29	\$ 234,490.70		
2011 Q4	1.47%	3.92%	Dec-07	2007	Q4	\$ 233,549.41	\$ 13,896.37	5.14%	\$ 1,000.37	\$ 248,446.15	\$ 167,408.90	
2012 Q1	1.47%	3.92%	Jan-08	2008	Q1	\$ 247,445.78	\$ 12,602.91	5.14%	\$ 1,059.89	\$ 261,108.58		
2012 Q2	1.47%	3.51%	Feb-08	2008	Q1	\$ 260,048.69	\$ 11,448.91	5.14%	\$ 1,113.88	\$ 272,611.48		
2012 Q3	1.47%	3.51%	Mar-08	2008	Q1	\$ 271,497.60	\$ 14,653.40	5.14%	\$ 1,162.91	\$ 287,313.91		
2012 Q4	1.47%	3.23%	Apr-08	2008	Q2	\$ 286,151.00	\$ 12,589.78	4.08%	\$ 972.91	\$ 299,713.69		
2013 Q1	1.47%	3.23%	May-08	2008	Q2	\$ 298,740.78	\$ 17,179.83	4.08%	\$ 1,015.72	\$ 316,936.33		



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)
2013 Q2	1.47%	3.23%	Jun-08	2008	Q2	\$ 315,920.61	\$ 12,671.07	4.08%	\$ 1,074.13	\$ 329,665.81		
2013 Q3	1.47%	3.23%	Jul-08	2008	Q3	\$ 328,591.68	\$ 13,978.03	3.35%	\$ 917.32	\$ 343,487.03		
2013 Q4			Aug-08	2008	Q3	\$ 342,569.71	\$ 12,030.32	3.35%	\$ 956.34	\$ 355,556.37		
2014 Q1			Sep-08	2008	Q3	\$ 354,600.03	\$ 14,150.51	3.35%	\$ 989.93	\$ 369,740.47		
2014 Q2			Oct-08	2008	Q4	\$ 368,750.54	\$ 12,402.60	3.35%	\$ 1,029.43	\$ 382,182.57		
2014 Q3			Nov-08	2008	Q4	\$ 381,153.14	\$ 13,534.70	3.35%	\$ 1,064.05	\$ 395,751.89		
2014 Q4			Dec-08	2008	Q4	\$ 394,687.84	\$ 13,547.63	3.35%	\$ 1,101.84	\$ 409,337.31	\$ 173,248.04	
			Jan-09	2009	Q1	\$ 408,235.47	\$ 14,371.07	2.45%	\$ 833.48	\$ 423,440.02		
			Feb-09	2009	Q1	\$ 422,606.54	\$ 11,716.88	2.45%	\$ 862.82	\$ 435,186.24		
			Mar-09	2009	Q1	\$ 434,323.42	\$ 14,139.41	2.45%	\$ 886.74	\$ 449,349.57		
			Apr-09	2009	Q2	\$ 448,462.83	\$ 12,367.25	1.00%	\$ 373.72	\$ 461,203.80		
			May-09	2009	Q2	\$ 460,830.08	\$ 53,107.89	1.00%	\$ 384.03	\$ 514,322.00		
			Jun-09	2009	Q2	\$ 513,937.97	\$ 77,620.33	1.00%	\$ 428.28	\$ 591,986.58		
			Jul-09	2009	Q3	\$ 591,558.30	\$ 73,303.53	0.55%	\$ 271.13	\$ 665,132.96		
			Aug-09	2009	Q3	\$ 664,861.83	\$ 20,785.85	0.55%	\$ 304.73	\$ 644,380.71		
			Sep-09	2009	Q3	\$ 644,075.98	\$ 52,660.11	0.55%	\$ 295.20	\$ 697,031.29		
			Oct-09	2009	Q4	\$ 696,736.09	\$ 45,149.00	0.55%	\$ 319.34	\$ 742,204.43		
			Nov-09	2009	Q4	\$ 741,885.09	\$ 48,126.00	0.55%	\$ 340.03	\$ 790,351.12		
			Dec-09	2009	Q4	\$ 790,011.09	\$ 45,517.62	0.55%	\$ 362.09	\$ 835,890.80	\$ 432,954.83	
			Jan-10	2010	Q1	\$ 835,528.71	\$ 50,365.00	0.55%	\$ 382.95	\$ 886,276.66		
			Feb-10	2010	Q1	\$ 885,893.71	\$ 50,075.00	0.55%	\$ 406.03	\$ 936,374.74		
			Mar-10	2010	Q1	\$ 935,968.71	\$ 49,561.00	0.55%	\$ 428.99	\$ 985,958.70		
			Apr-10	2010	Q2	\$ 985,529.71	\$ 49,648.00	0.55%	\$ 451.70	\$ 1,035,629.41		
			May-10	2010	Q2	\$ 1,035,177.71	\$ 49,630.00	0.55%	\$ 474.46	\$ 1,085,282.17		
			Jun-10	2010	Q2	\$ 1,084,807.71	\$ 67,375.00	0.55%	\$ 497.20	\$ 1,152,679.91		
			Jul-10	2010	Q3	\$ 1,152,182.71	\$ 49,412.00	0.89%	\$ 854.54	\$ 1,202,449.25		
			Aug-10	2010	Q3	\$ 1,201,594.71	\$ 49,312.00	0.89%	\$ 891.18	\$ 1,251,797.89		
			Sep-10	2010	Q3	\$ 1,250,906.71	\$ 44,958.00	0.89%	\$ 927.76	\$ 1,296,792.47		
			Oct-10	2010	Q4	\$ 1,295,864.71	\$ 52,260.00	1.20%	\$ 1,295.86	\$ 1,349,420.57		
			Nov-10	2010	Q4	\$ 1,348,124.71	\$ 48,730.00	1.20%	\$ 1,348.12	\$ 1,398,202.83		



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				Board Approved Smart Meter Funding Adder (from Tariff)
									Interest	Closing Balance	Annual amounts	
			Dec-10	2010	Q4	\$ 1,396,854.71	\$ 49,090.00	1.20%	\$ 1,396.85	\$ 1,447,341.56	\$ 619,771.64	
			Jan-11	2011	Q1	\$ 1,445,944.71	\$ 49,080.00	1.47%	\$ 1,771.28	\$ 1,496,795.99		
			Feb-11	2011	Q1	\$ 1,495,024.71	\$ 48,464.00	1.47%	\$ 1,831.41	\$ 1,545,320.12		
			Mar-11	2011	Q1	\$ 1,543,488.71	\$ 53,052.00	1.47%	\$ 1,890.77	\$ 1,598,431.48		
			Apr-11	2011	Q2	\$ 1,596,540.71	\$ 48,446.00	1.47%	\$ 1,955.76	\$ 1,646,942.47		
			May-11	2011	Q2	\$ 1,644,986.71	\$ 54,890.00	1.47%	\$ 2,015.11	\$ 1,701,891.82		
			Jun-11	2011	Q2	\$ 1,699,876.71	\$ 48,016.00	1.47%	\$ 2,082.35	\$ 1,749,975.06		
			Jul-11	2011	Q3	\$ 1,747,892.71	\$ 50,971.00	1.47%	\$ 2,141.17	\$ 1,801,004.88		
			Aug-11	2011	Q3	\$ 1,798,863.71	\$ 50,845.00	1.47%	\$ 2,203.61	\$ 1,851,912.32		
			Sep-11	2011	Q3	\$ 1,849,708.71	\$ 51,681.00	1.47%	\$ 2,265.89	\$ 1,903,655.60		
			Oct-11	2011	Q4	\$ 1,901,389.71	\$ 48,756.00	1.47%	\$ 2,329.20	\$ 1,952,474.91		
			Nov-11	2011	Q4	\$ 1,950,145.71	\$ 49,603.00	1.47%	\$ 2,388.93	\$ 2,002,137.64		
			Dec-11	2011	Q4	\$ 1,999,748.71	\$ 50,361.00	1.47%	\$ 2,449.69	\$ 2,052,559.40	\$ 629,490.17	
			Jan-12	2012	Q1	\$ 2,050,109.71	\$ 50,292.00	1.47%	\$ 2,511.38	\$ 2,102,913.09		
			Feb-12	2012	Q1	\$ 2,100,401.71	\$ 50,439.00	1.47%	\$ 2,572.99	\$ 2,153,413.70		
			Mar-12	2012	Q1	\$ 2,150,840.71	\$ 50,320.00	1.47%	\$ 2,634.78	\$ 2,203,795.49		
			Apr-12	2012	Q2	\$ 2,201,160.71	\$ 50,162.00	1.47%	\$ 2,696.42	\$ 2,254,019.13		
			May-12	2012	Q2	\$ 2,251,322.71	\$ 50,317.00	1.47%	\$ 2,757.87	\$ 2,304,397.58		
			Jun-12	2012	Q2	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Jul-12	2012	Q3	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Aug-12	2012	Q3	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Sep-12	2012	Q3	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Oct-12	2012	Q4	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Nov-12	2012	Q4	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Dec-12	2012	Q4	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22	\$ 284,440.01	
			Jan-13	2013	Q1	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Feb-13	2013	Q1	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Mar-13	2013	Q1	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Apr-13	2013	Q2	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			May-13	2013	Q2	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		



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)
			Jun-13	2013	Q2	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Jul-13	2013	Q3	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Aug-13	2013	Q3	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Sep-13	2013	Q3	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Oct-13	2013	Q4	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Nov-13	2013	Q4	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Dec-13	2013	Q4	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22	\$ 33,834.12	
			Jan-14	2014	Q1	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Feb-14	2014	Q1	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Mar-14	2014	Q1	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Apr-14	2014	Q2	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			May-14	2014	Q2	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Jun-14	2014	Q2	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Jul-14	2014	Q3	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Aug-14	2014	Q3	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Sep-14	2014	Q3	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Oct-14	2014	Q4	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Nov-14	2014	Q4	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22		
			Dec-14	2014	Q4	\$ 2,301,639.71		1.47%	\$ 2,819.51	\$ 2,304,459.22	\$ 33,834.12	
Total Funding Adder Revenues Collected							\$ 2,301,639.71		\$ 161,879.32	\$ 2,463,519.03	\$ 2,463,519.03	



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	\$ -		\$ 129	\$ 129	0.00%	\$ -	\$ -
2006 Q2	4.14%	4.68%	Feb-06	2006	Q1	\$ 129		\$ 129	\$ 258	0.00%	\$ -	\$ -
2006 Q3	4.59%	5.05%	Mar-06	2006	Q1	\$ 258		\$ 129	\$ 387	0.00%	\$ -	\$ -
2006 Q4	4.59%	4.72%	Apr-06	2006	Q2	\$ 387		\$ 129	\$ 516	4.14%	\$ 1	\$ 1
2007 Q1	4.59%	4.72%	May-06	2006	Q2	\$ 516		\$ 129	\$ 645	4.14%	\$ 2	\$ 3
2007 Q2	4.59%	4.72%	Jun-06	2006	Q2	\$ 645		\$ 129	\$ 773	4.14%	\$ 2	\$ 5
2007 Q3	4.59%	5.18%	Jul-06	2006	Q3	\$ 773		\$ 129	\$ 902	4.59%	\$ 3	\$ 8
2007 Q4	5.14%	5.18%	Aug-06	2006	Q3	\$ 902		\$ 129	\$ 1,031	4.59%	\$ 3	\$ 12
2008 Q1	5.14%	5.18%	Sep-06	2006	Q3	\$ 1,031		\$ 129	\$ 1,160	4.59%	\$ 4	\$ 16
2008 Q2	4.08%	5.18%	Oct-06	2006	Q4	\$ 1,160	\$ 13,800	\$ 129	\$ 15,089	4.59%	\$ 4	\$ 20
2008 Q3	3.35%	5.43%	Nov-06	2006	Q4	\$ 15,089	\$ 11,634	\$ 129	\$ 26,852	4.59%	\$ 58	\$ 78
2008 Q4	3.35%	5.43%	Dec-06	2006	Q4	\$ 26,852	\$ 660	\$ 129	\$ 27,641	4.59%	\$ 103	\$ 181
2009 Q1	2.45%	6.61%	Jan-07	2007	Q1	\$ 27,641		\$ 299	\$ 27,939	4.59%	\$ 106	\$ 286
2009 Q2	1.00%	6.61%	Feb-07	2007	Q1	\$ 27,939		\$ 299	\$ 28,238	4.59%	\$ 107	\$ 393
2009 Q3	0.55%	5.67%	Mar-07	2007	Q1	\$ 28,238		\$ 299	\$ 28,537	4.59%	\$ 108	\$ 501
2009 Q4	0.55%	4.66%	Apr-07	2007	Q2	\$ 28,537		\$ 299	\$ 28,835	4.59%	\$ 109	\$ 610
2010 Q1	0.55%	4.34%	May-07	2007	Q2	\$ 28,835		\$ 299	\$ 29,134	4.59%	\$ 110	\$ 721
2010 Q2	0.55%	4.34%	Jun-07	2007	Q2	\$ 29,134		\$ 299	\$ 29,432	4.59%	\$ 111	\$ 832
2010 Q3	0.89%	4.66%	Jul-07	2007	Q3	\$ 29,432		\$ 299	\$ 29,731	4.59%	\$ 113	\$ 945
2010 Q4	1.20%	4.01%	Aug-07	2007	Q3	\$ 29,731		\$ 299	\$ 30,030	4.59%	\$ 114	\$ 1,058
2011 Q1	1.47%	4.29%	Sep-07	2007	Q3	\$ 30,030		\$ 299	\$ 30,328	4.59%	\$ 115	\$ 1,173
2011 Q2	1.47%	4.29%	Oct-07	2007	Q4	\$ 30,328		\$ 299	\$ 30,627	5.14%	\$ 130	\$ 1,303
2011 Q3	1.47%	4.29%	Nov-07	2007	Q4	\$ 30,627		\$ 299	\$ 30,925	5.14%	\$ 131	\$ 1,434
2011 Q4	1.47%	3.92%	Dec-07	2007	Q4	\$ 30,925	\$ 119	\$ 299	\$ 31,343	5.14%	\$ 132	\$ 1,567
2012 Q1	1.47%	3.92%	Jan-08	2008	Q1	\$ 31,343		\$ 339	\$ 31,682	5.14%	\$ 134	\$ 1,701
2012 Q2	1.47%	3.51%	Feb-08	2008	Q1	\$ 31,682		\$ 339	\$ 32,022	5.14%	\$ 136	\$ 1,837
2012 Q3	1.47%	3.51%	Mar-08	2008	Q1	\$ 32,022		\$ 339	\$ 32,361	5.14%	\$ 137	\$ 1,974
2012 Q4	1.47%	3.23%	Apr-08	2008	Q2	\$ 32,361		\$ 339	\$ 32,700	4.08%	\$ 110	\$ 2,084
2013 Q1	1.47%	3.23%	May-08	2008	Q2	\$ 32,700		\$ 339	\$ 33,040	4.08%	\$ 111	\$ 2,195
2013 Q2	1.47%	3.23%	Jun-08	2008	Q2	\$ 33,040		\$ 339	\$ 33,379	4.08%	\$ 112	\$ 2,307
2013 Q3	1.47%	3.23%	Jul-08	2008	Q3	\$ 33,379		\$ 339	\$ 33,719	3.35%	\$ 93	\$ 2,401
2013 Q4	0.00%	0.00%	Aug-08	2008	Q3	\$ 33,719		\$ 339	\$ 34,058	3.35%	\$ 94	\$ 2,495
2014 Q1	0.00%	0.00%	Sep-08	2008	Q3	\$ 34,058		\$ 339	\$ 34,397	3.35%	\$ 95	\$ 2,590
2014 Q2	0.00%	0.00%	Oct-08	2008	Q4	\$ 34,397		\$ 339	\$ 34,737	3.35%	\$ 96	\$ 2,686
2014 Q3	0.00%	0.00%	Nov-08	2008	Q4	\$ 34,737		\$ 339	\$ 35,076	3.35%	\$ 97	\$ 2,783

2014 Q4

0.00%

0.00%

Dec-08	2008	Q4	\$	35,076		\$	339	\$	35,416	3.35%	\$	98	\$	2,881	
Jan-09	2009	Q1	\$	35,416	\$	7,926	\$	4,449	\$	47,790	2.45%	\$	72	\$	2,953
Feb-09	2009	Q1	\$	47,790	\$	55,404	\$	4,449	\$	107,643	2.45%	\$	98	\$	3,051
Mar-09	2009	Q1	\$	107,643			\$	4,449	\$	112,092	2.45%	\$	220	\$	3,270
Apr-09	2009	Q2	\$	112,092	\$	402	\$	4,449	\$	116,943	1.00%	\$	93	\$	3,364
May-09	2009	Q2	\$	116,943			\$	4,449	\$	121,392	1.00%	\$	97	\$	3,461
Jun-09	2009	Q2	\$	121,392			\$	4,449	\$	125,841	1.00%	\$	101	\$	3,562
Jul-09	2009	Q3	\$	125,841	\$	4,134	\$	4,449	\$	134,424	0.55%	\$	58	\$	3,620
Aug-09	2009	Q3	\$	134,424	\$	2,428	\$	4,449	\$	141,301	0.55%	\$	62	\$	3,682
Sep-09	2009	Q3	\$	141,301	\$	2,329	\$	4,449	\$	148,079	0.55%	\$	65	\$	3,746
Oct-09	2009	Q4	\$	148,079	\$	8,399	\$	4,449	\$	160,927	0.55%	\$	68	\$	3,814
Nov-09	2009	Q4	\$	160,927	\$	28,000	\$	4,449	\$	193,376	0.55%	\$	74	\$	3,888
Dec-09	2009	Q4	\$	193,376	\$	10,022	\$	4,449	\$	207,847	0.55%	\$	89	\$	3,977
Jan-10	2010	Q1	\$	207,847	\$	7,959	\$	17,081	\$	232,886	0.55%	\$	95	\$	4,072
Feb-10	2010	Q1	\$	232,886	\$	4,979	\$	17,081	\$	254,946	0.55%	\$	107	\$	4,179
Mar-10	2010	Q1	\$	254,946	\$	9,438	\$	17,081	\$	281,465	0.55%	\$	117	\$	4,296
Apr-10	2010	Q2	\$	281,465	\$	3,690	\$	17,081	\$	302,235	0.55%	\$	129	\$	4,425
May-10	2010	Q2	\$	302,235	\$	11,107	\$	17,081	\$	330,423	0.55%	\$	139	\$	4,563
Jun-10	2010	Q2	\$	330,423	\$	7,675	\$	17,081	\$	355,178	0.55%	\$	151	\$	4,715
Jul-10	2010	Q3	\$	355,178	\$	8,369	\$	17,081	\$	380,628	0.89%	\$	263	\$	4,978
Aug-10	2010	Q3	\$	380,628	\$	7,123	\$	17,081	\$	404,832	0.89%	\$	282	\$	5,260
Sep-10	2010	Q3	\$	404,832	\$	7,780	\$	17,081	\$	429,693	0.89%	\$	300	\$	5,561
Oct-10	2010	Q4	\$	429,693	\$	10,612	\$	17,081	\$	457,385	1.20%	\$	430	\$	5,990
Nov-10	2010	Q4	\$	457,385	\$	7,778	\$	17,081	\$	482,243	1.20%	\$	457	\$	6,448
Dec-10	2010	Q4	\$	482,243	\$	67,238	\$	17,081	\$	566,562	1.20%	\$	482	\$	6,930
Jan-11	2011	Q1	\$	566,562	\$	16,789	\$	6,823	\$	590,174	1.47%	\$	694	\$	7,624
Feb-11	2011	Q1	\$	590,174	\$	19,513	\$	6,823	\$	616,510	1.47%	\$	723	\$	8,347
Mar-11	2011	Q1	\$	616,510	\$	24,748	\$	6,823	\$	648,082	1.47%	\$	755	\$	9,102
Apr-11	2011	Q2	\$	648,082	\$	20,474	\$	6,823	\$	675,379	1.47%	\$	794	\$	9,896
May-11	2011	Q2	\$	675,379	\$	19,075	\$	6,823	\$	701,277	1.47%	\$	827	\$	10,723
Jun-11	2011	Q2	\$	701,277	\$	24,311	\$	6,823	\$	732,411	1.47%	\$	859	\$	11,582
Jul-11	2011	Q3	\$	732,411	\$	15,640	\$	6,823	\$	754,874	1.47%	\$	897	\$	12,480
Aug-11	2011	Q3	\$	754,874	\$	31,111	\$	6,823	\$	792,809	1.47%	\$	925	\$	13,404
Sep-11	2011	Q3	\$	792,809	\$	28,574	\$	6,823	\$	828,207	1.47%	\$	971	\$	14,375
Oct-11	2011	Q4	\$	828,207	\$	25,695	\$	6,823	\$	860,725	1.47%	\$	1,015	\$	15,390
Nov-11	2011	Q4	\$	860,725	\$	42,093	\$	6,823	\$	909,641	1.47%	\$	1,054	\$	16,444
Dec-11	2011	Q4	\$	909,641	\$	25,067	\$	6,823	\$	941,531	1.47%	\$	1,114	\$	17,559
Jan-12	2012	Q1	\$	941,531	\$	32,038	\$	13,441	\$	987,010	1.47%	\$	1,153	\$	18,712
Feb-12	2012	Q1	\$	987,010	\$	36,289	\$	13,441	\$	1,036,741	1.47%	\$	1,209	\$	19,921
Mar-12	2012	Q1	\$	1,036,741	\$	15,566	\$	13,441	\$	1,065,748	1.47%	\$	1,270	\$	21,191
Apr-12	2012	Q2	\$	1,065,748	\$	22,680	\$	13,441	\$	1,101,870	1.47%	\$	1,306	\$	22,497
May-12	2012	Q2	\$	1,101,870	\$	27,065	\$	13,441	\$	1,142,376	1.47%	\$	1,350	\$	23,847
Jun-12	2012	Q2	\$	1,142,376	\$	21,541	\$	13,441	\$	1,177,358	1.47%	\$	1,399	\$	25,246
Jul-12	2012	Q3	\$	1,177,358	\$	19,733	\$	13,441	\$	1,210,533	1.47%	\$	1,442	\$	26,688
Aug-12	2012	Q3	\$	1,210,533	\$	18,698	\$	13,441	\$	1,242,672	1.47%	\$	1,483	\$	28,171
Sep-12	2012	Q3	\$	1,242,672	\$	22,112	\$	13,441	\$	1,278,225	1.47%	\$	1,522	\$	29,693
Oct-12	2012	Q4	\$	1,278,225	\$	34,715	\$	13,441	\$	1,326,382	1.47%	\$	1,566	\$	31,259
Nov-12	2012	Q4	\$	1,326,382	\$	38,943	\$	13,441	\$	1,378,766	1.47%	\$	1,625	\$	32,884
Dec-12	2012	Q4	\$	1,378,766	\$	27,045	\$	13,441	\$	1,419,253	1.47%	\$	1,689	\$	34,573
Jan-13	2013	Q1	\$	1,419,253	\$	18,949	\$	15,791	\$	1,453,993	1.47%	\$	1,739	\$	36,312
Feb-13	2013	Q1	\$	1,453,993	\$	23,927	\$	15,791	\$	1,493,711	1.47%	\$	1,781	\$	38,093
Mar-13	2013	Q1	\$	1,493,711	\$	28,598	\$	15,791	\$	1,538,100	1.47%	\$	1,830	\$	39,923
Apr-13	2013	Q2	\$	1,538,100	\$	28,612	\$	15,791	\$	1,582,503	1.47%	\$	1,884	\$	41,807
May-13	2013	Q2	\$	1,582,503	\$	27,234	\$	15,791	\$	1,625,529	1.47%	\$	1,939	\$	43,745
Jun-13	2013	Q2	\$	1,625,529	\$	27,595	\$	15,791	\$	1,668,915	1.47%	\$	1,991	\$	45,737
Jul-13	2013	Q3	\$	1,668,915	\$	31,179	\$	15,791	\$	1,715,885	1.47%	\$	2,044	\$	47,781
Aug-13	2013	Q3	\$	1,715,885	\$	27,850	\$	15,791	\$	1,759,526	1.47%	\$	2,102	\$	49,883
Sep-13	2013	Q3	\$	1,759,526	\$	27,850	\$	15,791	\$	1,803,167	1.47%	\$	2,155	\$	52,038
Oct-13	2013	Q4	\$	1,803,167	\$	31,011	\$	15,791	\$	1,849,969	1.47%	\$	2,209	\$	54,247
Nov-13	2013	Q4	\$	1,849,969	\$	27,850	\$	15,791	\$	1,893,611	1.47%	\$	2,266	\$	56,513
Dec-13	2013	Q4	\$	1,893,611	\$	43,055	\$	15,791	\$	1,952,457	1.47%	\$	2,320	\$	58,833
Jan-14	2014	Q1	\$	1,952,457	\$	31,011	\$	11,379	\$	1,994,847	1.47%	\$	2,392	\$	61,225

Feb-14	2014	Q1	\$	1,994,847	\$ 27,850	\$ 11,379	\$	2,034,076	1.47%	\$	2,444	\$	63,669
Mar-14	2014	Q1	\$	2,034,076	\$ 27,850	\$ 11,379	\$	2,073,305	1.47%	\$	2,492	\$	66,160
Apr-14	2014	Q2	\$	2,073,305	\$ 31,011	\$ 11,379	\$	2,115,696	1.47%	\$	2,540	\$	68,700
May-14	2014	Q2	\$	2,115,696	\$ 27,850	\$ 11,379	\$	2,154,925	1.47%	\$	2,592	\$	71,292
Jun-14	2014	Q2	\$	2,154,925	\$ 27,850	\$ 11,379	\$	2,194,154	1.47%	\$	2,640	\$	73,932
Jul-14	2014	Q3	\$	2,194,154	\$ 31,011	\$ 11,379	\$	2,236,544	1.47%	\$	2,688	\$	76,619
Aug-14	2014	Q3	\$	2,236,544	\$ 27,850	\$ 11,379	\$	2,275,773	1.47%	\$	2,740	\$	79,359
Sep-14	2014	Q3	\$	2,275,773	\$ 27,850	\$ 11,379	\$	2,315,003	1.47%	\$	2,788	\$	82,147
Oct-14	2014	Q4	\$	2,315,003	\$ 31,011	\$ 11,379	\$	2,357,393	1.47%	\$	2,836	\$	84,983
Nov-14	2014	Q4	\$	2,357,393	\$ 27,850	\$ 11,379	\$	2,396,622	1.47%	\$	2,888	\$	87,871
Dec-14	2014	Q4	\$	2,396,622	\$ 31,011	\$ 11,379	\$	2,439,012	1.47%	\$	2,936	\$	90,807
				\$	1,602,232	\$	836,780	\$	2,439,012	\$	90,807	\$	90,807



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	\$ 26,094.00	\$ 1,546.85	\$ 27,640.85	\$ 13,820.43	4.37%	\$ 603.26
2007	\$ 119.00	\$ 3,583.13	\$ 31,342.98	\$ 29,491.92	4.73%	\$ 1,394.23
2008	\$ -	\$ 4,072.55	\$ 35,415.53	\$ 33,379.25	3.98%	\$ 1,328.49
2009	\$ 119,043.52	\$ 53,387.59	\$ 207,846.63	\$ 121,631.08	1.14%	\$ 1,383.55
2010	\$ 153,747.43	\$ 204,968.40	\$ 566,562.47	\$ 387,204.55	0.80%	\$ 3,087.96
2011	\$ 293,088.78	\$ 81,880.16	\$ 941,531.41	\$ 754,046.94	1.47%	\$ 11,084.49
2012	\$ 316,426.45	\$ 161,295.09	\$ 1,419,252.94	\$ 1,180,392.17	1.47%	\$ 17,351.76
2013	\$ 343,708.19	\$ 189,495.79	\$ 1,952,456.92	\$ 1,685,854.93	1.47%	\$ 24,782.07
2014	\$ 350,004.80	\$ 136,550.62	\$ 2,439,012.34	\$ 2,195,734.63	1.47%	\$ 32,277.30
Cumulative Interest to 2012						\$ 36,233.75
Cumulative Interest to 2013						\$ 61,015.82
Cumulative Interest to 2014						\$ 93,293.12



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)	\$ 30,395.40	\$ 8,856.75	\$ 9,478.29	\$ 248,082.45	\$ 597,058.25	\$ 407,830.19	\$ 568,504.14	\$ 652,173.88	\$ 581,899.91	\$ 2,522,379.36
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B) (Check one of the boxes below)	\$ 180.55	\$ 1,386.21	\$ 1,313.98	\$ 1,095.98	\$ 2,953.12	\$ 10,628.90	\$ 17,014.29	\$ 24,260.10		\$ 58,833.12
<input checked="" type="checkbox"/> Sheet 8A (Interest calculated on monthly balances)	\$ 180.55	\$ 1,386.21	\$ 1,313.98	\$ 1,095.98	\$ 2,953.12	\$ 10,628.90	\$ 17,014.29	\$ 24,260.10	\$ 31,973.48	\$ 58,833.12
<input type="checkbox"/> Sheet 8B (Interest calculated on average annual balances)										
SMFA Revenues (from Sheet 8)	\$ 87,707.50	\$ 159,738.28	\$ 160,789.69	\$ 427,293.24	\$ 610,416.00	\$ 604,165.00	\$ 251,530.00	\$ -	\$ -	\$ 2,301,639.71
SMFA Interest (from Sheet 8)	\$ 829.70	\$ 7,670.62	\$ 12,458.35	\$ 5,661.59	\$ 9,355.64	\$ 25,325.17	\$ 32,910.01	\$ 33,834.12	\$ 33,834.12	\$ 161,879.32
Net Deferred Revenue Requirement	-\$ 57,961.24	-\$ 157,165.94	-\$ 162,455.77	-\$ 183,776.40	-\$ 19,760.27	-\$ 211,031.08	\$ 301,078.41	\$ 642,599.86	\$ 548,065.79	\$ 117,693.46

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 Disposition Rider (per metered customer per month)

Years for collection or refunding	1.25		
Deferred Incremental Revenue Requirement from 2006 to December 31, 2013 plus Interest on OM&A and Amortization	\$	2,581,212.49	
SMFA Revenues collected from 2006 to 2014 test year (inclusive) Plus Simple Interest on SMFA Revenues	\$	2,463,519.03	
Net Deferred Revenue Requirement	\$	117,693.46	} Match
SMDR Feb 1, 2014 to Apr 30, 2015	\$	0.15	
Check: Forecasted SMDR Revenues	\$	114,891.75	

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

Incremental Revenue Requirement for 2014	\$	581,899.91	} Match
SMIRR	\$	0.95	
Check: Forecasted SMIRR Revenues	\$	582,118.20	



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	GS < 50 kW	GS 50 to 4999 kW	Other (please specify)	Total
											X	X			2
											%	%	%	%	
Return on Capital	\$ 2,124.60	\$ 4,066.88	\$ 4,315.53	\$ 62,149.99	\$ 204,030.40	\$ 26,733.40	\$ 73,344.34	\$ 90,254.60	\$ 467,019.73	Weighted Meter Cost - Capital Allocated per class	78.57%	21.43%			100%
Depreciation/Amortization expense and related interest	\$ 1,546.85	\$ 3,583.13	\$ 4,072.55	\$ 53,387.59	\$ 204,968.40	\$ 81,880.16	\$ 161,295.09	\$ 189,495.79		Weighted Meter Cost - Capital Allocated per class	79%	21%	0%	0%	100%
	\$ 1,556.96	\$ 4,924.78	\$ 5,386.52	\$ 53,726.92	\$ 206,655.89	\$ 84,201.14	\$ 167,039.69	\$ 198,117.60			\$ 566,965.03	\$ 154,644.38	\$ -	\$ -	
Operating Expenses and related interest	\$ 26,094.00	\$ 119.00	\$ -	\$ 119,043.52	\$ 153,747.43	\$ 203,088.78	\$ 316,426.45	\$ 343,708.19		Number of Smart Meters installed by Class	# 46,823	# 4,240	#	#	
	\$ 180.55	\$ 1,355.21	\$ -	\$ 756.65	\$ 1,265.72	\$ 8,307.92	\$ 11,269.69	\$ 15,639.28		Allocated per class	\$ 1,183,831.92	\$ 107,200.46	0	0	
Revenue Requirement before Taxes/PILs	\$ 26,274.55	\$ 1,505.21	\$ -	\$ 119,800.17	\$ 155,013.15	\$ 301,396.70	\$ 327,696.13	\$ 359,346.47	\$ 1,291,032.38		\$ 2,117,732.10	\$ 361,929.43	\$ -	\$ -	\$ -
										Revenue Requirement before PILs	85.40%	14.60%	0.00%	0.00%	100%
Grossed-up Taxes/PILs	\$ 629.95	\$ 1,087.74	\$ 1,090.22	\$ 13,501.36	\$ 34,312.02	\$ 6,127.85	\$ 17,438.27	\$ 28,715.30	\$ 102,902.71		\$ 87,883.11	\$ 15,019.60	\$ -	\$ -	
Total Revenue Requirement plus interest on OM&A and depreciation expense									\$ 2,582,564.24	Percentage of costs allocated to each class	\$ 2,205,615.22	\$ 376,949.02	\$ -	\$ -	
								\$ 1,351.75		Percentage of costs for classes with SMDR/SMIRR	85.40%	14.60%	0.00%	0.00%	
											85.40%	14.60%	0.00%	0.00%	
											85.40%	14.60%	0.00%	0.00%	
											%	%	%	%	
										SMFA Revenues directly attributable to class	89.83%	8.47%			98%
											89.83%	8.47%	0.00%	0.00%	98.29%
										Residual SMFA Revenues (from other metered classes) attributed evenly	0.85%	0.85%	0.00%	0.00%	
										Total	90.68%	9.32%	0.00%	0.00%	
SMFA Revenues plus interest expense								\$ 2,463,519.03			\$ 2,233,941.18	\$ 229,577.85	\$ -	\$ -	
Net Deferred Revenue Requirement to be recovered via SMDR								\$ 119,045.21			\$ 28,325.96	\$ 147,371.17	\$ -	\$ -	
Average number of metered customers by class (2014), for customer classes with smart meters deployed									Average number of customers (2014)		46823	4240	0	0	
Number of Years for SMDR recovery								1.25 years			1.25	1.25	1.25	1.25	
Smart Meter Disposition Rider (\$/month per metered customer in the customer class)											\$ 0.04	\$ 2.32			
Estimated SMDR Revenues								\$ 119,458.20			\$ 28,093.80	\$ 147,552.00	\$ -	\$ -	
									-\$ 412.99						



Smart Meter Model for Electricity Distributors (2014 Filers)

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

Class-specific SMDRs

Revenue Requirement for
2013

	2014	Explanation / Allocator	Residential	GS < 50 kW	GS 50 to 4999 kW
		Check Row if SMDR/SMIRR apply to class	X	X	
			%	%	%
Return on Capital	\$ 81,219.25	Weighted Meter Cost - Capital Allocated per class	78.57% \$ 63,813.57	21.43% \$ 17,405.68	0.00% \$ -
Depreciation/Amortization expense	\$ 136,550.62	Weighted Meter Cost - Capital Allocated per class	78.57% \$ 107,287.16	21.43% \$ 29,263.46	0.00% \$ -
Operating Expenses	\$ 350,004.80	Number of Smart Meters installed by Class	# 46,823	# 4,240	# -