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May 31, 2012

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

RE: Application for Final Disposition of Smart Meter Costs EB-2012-0263

Dear Ms. Walli,

Bluewater Power Distribution Corporation ("Bluewater Power") respectfully submits an application to the Ontario Energy Board ("the Board") in regard to Final Disposition of Smart Meter Costs with rate riders proposed for implementation on November 1, 2012.

An electronic copy will be submitted through the Board's e-Filing Services.

Sincerely,

L. Dugas

Leslie Dugas
Manager of Regulatory Affairs
Bluewater Power Distribution Corporation
Phone: 519-337-8201, Ext 2255
Email: ldugas@bluewaterpower.com

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Appendices

ONTARIO ENERGY BOARD

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

AND IN THE MATTER OF an application by Bluewater Power Distribution Corporation for an Order or Orders pursuant to section 78 of the *Ontario Energy Board Act, 1998* approving or fixing just and reasonable rates with respect to Smart Meters.

1.0 APPLICATION

Bluewater Power Distribution Corporation ("Bluewater Power") is a licensed distributor serving approximately 36,000 customers in Sarnia, Petrolia, Point Edward, Oil Springs, Alvinston and Watford. Bluewater Power is regulated by the Ontario Energy Board ("OEB" or "the Board") under License ED-2002-0517.

Bluewater Power hereby seeks approval for the following:

- The Board's determination that Smart Meter capital of $8,583,987 and operating expenditures of $655,870 to December 31, 2012 are prudently incurred;
- A Smart Meter Disposition Rate Rider ("SMDR") to recover the difference between the deferred revenue requirement related to smart meters to December 31, 2012 and the Smart Meter Funding Adder revenue collected to April 30, 2012, inclusive of carrying costs to December 31, 2012.
- A Smart Meter Incremental Revenue Requirement ("SMIRR") rate rider is not required to collect smart meter related incremental revenue requirement incurred beyond December 31, 2012.The incremental revenue requirement for the period beyond December 31, 2012 will be incorporated into Bluewater Power's overall revenue requirement when Bluewater Power files its Cost of Service application for rates effective May 1, 2013.
- Bluewater Power is not requesting the recovery of Stranded Meter costs in this application. Stranded meters continue to be included in rate base for rate-making purposes in accordance with the prevailing Board guidelines; Bluewater Power intends to seek recovery of the Stranded Meter costs in its cost of service application for 2013.

This application has been prepared in accordance with the Board's guidelines and requirements as follows:

- The August 8, 2007 Decision with Reasons (EB-2007-0063), which was the Board's combined proceeding in relation to Smart Meter costs for twelve distributors that were at that time authorized to conduct Smart Meter Activities.
- The Board's Smart Meter Funding and Cost Recovery – Final Disposition Guideline G-2011-0001 dated December 15, 2011 ("Smart Meter Filing Guideline").
- Previous Board Decisions, such as the decision in the Powerstream application (EB-2011-0128).
- Bluewater Power has used the OEB Smart Meter Model version 2.21 to calculate the SMDR. The cost of capital parameters used in the Model to determine the revenue requirement are those approved by the Board in Bluewater Power's last cost of service rate application EB-2008-0221.

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.

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

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

Bluewater Power Distribution Corporation
855 Confederation Street
Sarnia, ON N7T 7L6

Attention:
Ms. Leslie Dugas
Manager of Regulatory Affairs
ldugas@bluewaterpower.com
Telephone: (519)-337-8201 Ext 2255
Fax: (519) 332-3878

DATED at Sarnia, Ontario this 31st day of May, 2012.

Bluewater Power Distribution Corporation

_____
Alex Palimaka, VP Corporate Service and General Counsel

2.0 Executive Summary

Bluewater Power seeks approval for recovery of foregone revenue requirement from 2006 to present related to the deployment of its Smart Meter program. The revenue requirement is based on capital expenditures of $8,583,987 and operating costs of $655,870 covering the period ending December 31, 2012. This stand-alone application represents the final disposition of Smart Meter costs and the true-up of interim funding adders to-date. The application seeks rates effective November 1, 2012 and has been designed to create a smoothed recovery of Smart Meter Costs by proposing a rate rider over 6 months in the case of residential customers and 24 months in the case of GS<50 customers.

The costs submitted with this application for approval represent both 'Minimum Functionality' and 'Beyond Minimum Functionality', as those terms are defined by the OEB in the Smart Meter Filing Guideline.

Table 2.1 – Overview of Costs per Meter

Description	Total Cost	Cost per Meter
Smart Meter and AMI Capital Costs related to Minimum Functionality	$6,053,314	$ 170.99
Smart Meter and AMI OM&A Costs related to Minimum Functionality	$634,751	$ 17.93
Total Capital and OM&A related to Minimum Functionality	**$6,688,064**	**$ 188.92**
Capital Costs Above Minimum Functionality	$2,530,673	$ 71.49
OM&A Costs above Minimum Functionality	$21,120	$ 0.60
Total Capital and OM&A above Minimum Functionality	**$2,551,793**	**$ 72.09**
Number of Smart Meters Installed		35,401
Total Capital and OM&A Costs	**$9,239,857**	**$ 261.01**
Grand Total Capital Costs	$8,583,987	$ 242.48
Grand Total OM&A Costs	$655,870	$ 18.53
		$ 261.01

The Minimum Functionality Capital and OM&A costs represent the cost of the meter, network infrastructure, and the installation of both. The capital and OM&A costs included for recovery for Minimum Functionality are $6.7M or $188.92 per customer (see Section 5.0 of this Application). There is no published average for Minimum Functionality costs only, and there are only 14 applications[1] that have been filed for final disposition in the last six months for comparison purposes. Based on that relatively small sample, the average claim for Minimum Functionality is $194.93 per customer. Accordingly, the amount claimed by Bluewater Power for Minimum Functionality in this application is marginally below the average of claims filed to-date for Minimum Functionality.

The Beyond Minimum Functionality costs claimed in this application represent CIS changes, MDM/R Integration and testing, TOU preparation within business systems, web presentment and customer education. There are no costs with respect to technical capabilities in the meters beyond those set out in O.Reg 425/06, nor has Bluewater Power deployed smart meters to classes other than residential and small commercial. The total capital and OM&A costs included for recovery for Beyond Minimum Functionality costs is $2.55M or $72.09 per customer (see Section 6.0 of this Application). There is no published average for Beyond Minimum Functionality costs only, and there are only 14 applications that have been filed for final disposition in the last six months. Based on that relatively small sample, the average claim is approximately $11.84 per customer. While Bluewater Power's costs appear to be higher than the average, Bluewater Power respectfully submits that the costs claimed by different LDC's within the category of Beyond Minimum Functionality are not necessarily comparable. As discussed in Section 6.0 of this Application, many LDCs have claimed $0 in Beyond Minimum Functionality, so it appears to Bluewater Power that those LDCs may have chosen to include Beyond Minimum Functionality costs as part of their costs to maintain the functionality of their CIS, without separately tracking and seeking recovery of those costs as part of their Smart Meter Program. Bluewater Power has submitted all of its Beyond Minimum Functionality costs for recovery that are required for Smart Meters and incremental to normal CIS capital and maintenance.

This application seeks approval for recovery of all costs incurred by Bluewater Power to date and forecast to December 31, 2012. There are no costs claimed for any portion of 2013. Bluewater Power intends to include the net book value of Smart Meter costs in the 2013 test year of its 2013 Rebasing Application, which is expected to be filed in August of 2012 for rates effective May 1, 2013.

The proposed recovery of smart meter costs in this application is by way of a single disposition for the period covering 2006 to 2012, net of funding adder collections to-date. This application seeks recovery

[1]Collus EB-2012-0017, Horizon EB-2011-0417, Innisfil EB-2011-0435, Lakeland EB-2011-0413, Midland EB-2011-0434, Niagara-on-the-Lake EB-2012-0036, Orangeville EB-2012-0039, Peterborough EB-2012-0008, Thunder Bay EB-2012-0015, Welland EB-2011-0415, London EB-2012-0187, Cambridge and North Dumfries EB-2012-0086, Oakville EB-2012-0193, Sioux Lookout EB-2012-0245

of costs by way of a SMDR only (no SMIRR). The Filing Guideline suggests that a SMDR is required for costs incurred up to the time of disposition. With this application Bluewater Power has proposed a disposition date of November 1, 2012, suggesting the need for a SMDR for costs up to October 31, 2012 and a SMIRR for the months of November and December of 2012. Bluewater Power has proposed an alternative approach, including November and December costs in the SMDR application despite the proposed November 1, 2012 implementation date of the proposed SMDR. Having only one rate rider simplifies the application and makes it easier to understand when rolled out to customers. It also avoids the need to modify the OEB Model 2.21 which does not currently incorporate the calculation of monthly revenue requirements (ie. November and December 2012). The proposed approach results in a small amount of forecast costs being included in the SMDR, but those costs from the months of November and December are Cost of Capital only.

Bluewater Power, like all LDCs in Ontario, received approval from the OEB for interim funding for the Smart Meter program through the collection of a Smart Meter Funding Adder ("SMFA"). Bluewater Power had applied to continue the current SMFA of $2.00 per metered customer to April 30, 2013 in order to smooth customer rates, but that request was denied (EB-2011-0153). In light of the Decision to deny the continuation of the SMFA, Bluewater Power has determined the need to file this stand-alone application for final disposition with an SMDR implemented on November 1, 2012.

The application seeks to recover the revenue requirement related to Smart Meter costs from 2006 to the end of 2012 through a SMDR. Bluewater Power is proposing an implementation date of November 1, 2012 in order to coincide with the Board's semi-annual Regulated Price Plan adjustments. This final disposition and recovery are shown in Table 2.2 below. The result of the proposed disposition are monthly bill impacts on a total bill basis of 3.7% for Residential and 3.2% for the GS< 50 category.

If comparing these rate impacts with rate impact for other LDCs in Ontario, it is important to note that the removal of the $2.00 SMFA for six months has partially driven the Bluewater Power impact. Had the SMFA remained in place to October 31, 2012, then the total bill impacts represented by this application would have been 0.7% for Residential and 2.4% for the GS<50 category.

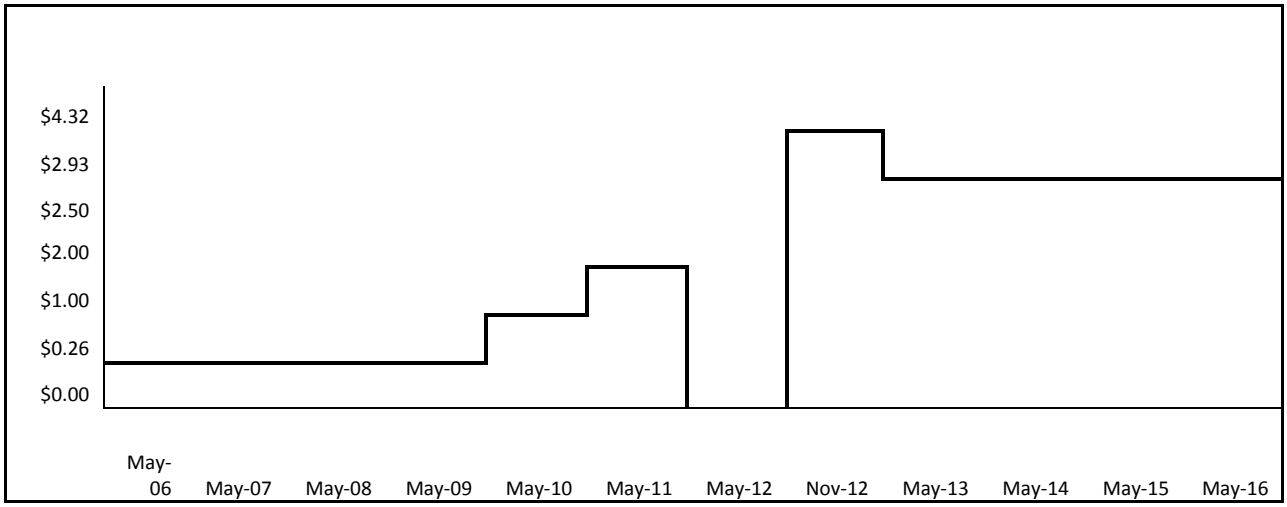
Table 2.2 – Bill Impacts

Customer Class	Average Monthly kWh	Proposed Rate Rider (SMDR only)	# months recovery	Total Monthly Bill Charges (includes tax)		Variance	
				Current	Proposed	$	%
Residential	800	$4.32	6	$118.91	$123.31	$4.40	3.7%
GS<50	2000	$9.02	24	$284.50	$293.67	$9.17	3.2%

Bluewater Power will be filing its 2013 Cost of Service application this August for rates effective May 1, 2013. That application will include Cost of Capital and amortization on the net book value of the asset, as well as OM&A costs related to Smart Meters during the test year. That application will be informed by the review being conducted by the OEB in this application for final disposition. For the purposes of completing the "big picture", Bluewater Power anticipates that the 2013 Rebasing Application will include Smart Meter impacts on rates in approximately the following amounts: Residential at $2.93 per month and GS<50 at $10.17 per month (as 12 month values).

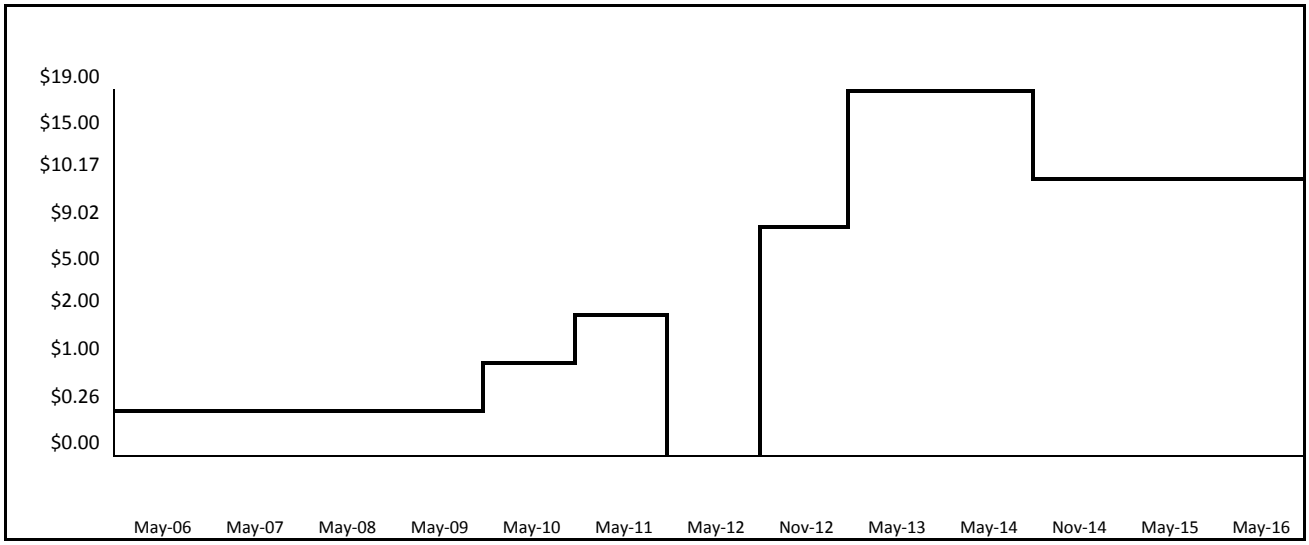
For the residential rate category, Bluewater Power has proposed a 6 month disposition period to avoid overlap between the disposition of the SMDR and the introduction of 2013 Rates. If both rates are ultimately approved by the OEB, then residential customers will be required to pay $4.32 per month (SMDR) for 6 months beginning November 1, 2012 and that amount will be replaced by a charge of approximately $2.93 per month embedded in rates after May 1, 2013 related to the on-going smart meter revenue requirement. This approach creates smoothed rates as shown in Table 2.2 below (other than the expiry of the SMFA between May 1, 2012 and November 1, 2012). The total bill impact proposed in November is approximately 3.7% and on May 1, 2013 that impact is replaced by a 2.5% total bill impact related to Smart Meters built into proposed rebased rates.

Table 2.3 – Residential Rate Rider projection related to Smart Meters (not to scale)



For the GS<50 customers, the cost allocation methodology creates a more significant "catch-up" in the recovery of smart meter costs to be collected. According to methodology for allocating Smart Meter costs approved previously by the OEB, the cost to serve the GS<50 category is greater than the cost to serve the residential category; however, the Smart Meter Funding Adders previously approved by the OEB did not differentiate between the two rate categories. The consequence of this catch-up is that it becomes impractical to dispose of the SMDR for the GS<50 category over 6 months like the residential category. Accordingly, we have proposed a 24 month disposition for the GS<50 to allow a smoothing of rates. As shown in Table 2.4, the proposed timeline creates a 3.2% total bill impact on November 1, 2012, which is similar to the impact for the Residential category.

Table 2.4 – GS<50 Rate Rider projection related to Smart Meters (not to scale)



In summary, Bluewater Power submits that all of the costs outlined in this application were prudently incurred. Bluewater Power further submits that the Beyond Minimum Functionality costs are required for smart meters and incremental to normal CIS maintenance. The end result is just and reasonable rates, with appropriate rate mitigation strategies applied.

3.0 Smart Meter Program Status

Bluewater Power has installed 100% of smart meters for the residential and General Service < 50 kW ("GS<50") rate classes. Provided in Table 3.1 below is a detailed breakdown of Smart Meter Installations by year for each rate class.

Table 3.1 – Cumulative Smart Meter Installation by Rate Class by Year

Rate Class	2010	2011	2012
Residential	28,293	31,897	31,897
GS<50	1,488	3,500	3,504
Total	29,781	35,397	35,401
% Complete	84.12%	99.99%	100.0%

Bluewater Power's original Mandatory TOU Date was October, 2011, but Bluewater Power was required to seek an extension (EB-2011-0224). The extension was necessitated because of the IESO's decision to change the format of data exchanged through the MDM/R. Bluewater Power made the decision to move directly to R7.2 and the XML Bill Quantity Request interface as soon as it became available at the provincial MDM/R. We did not build our system to be compliant with R7.0 because we did not believe it was prudent to build a system that would only be in operation for a few months, however that decision meant that we could not comply with our original Mandatory TOU date. The OEB approved of our request for an extension on October 6, 2011. The approval provided an exemption for the Mandatory TOU date until January 31, 2012 and required Bluewater Power to keep the OEB informed in the case of further delays beyond the control of the utility.

The schedule with the IESO was revised on seven separate occasions and Bluewater Power continued to update the OEB on our progress with the transition to TOU pricing. The most recent update was by letter dated January 31, 2012 wherein Bluewater Power advised that if the amended IESO schedule proceeded as planned, then Bluewater Power would be in a position to bill customers on TOU pricing for a consumption period starting March 15, 2012. We have been successful in meeting that final objective.

Achieving that objective was made possible through good planning. In order to obtain historic meter read data, it was necessary to perform a partial cutover to the R7.0 MDM/R environment for data transfer only. Without this historic data, Bluewater Power would not have been in a position to bill on TOU when the R7.2 environment became available to us; that is, we would have migrated to R7.2 and, then, been required to collect two months of data for VEE purposes before we could begin billing. The

R7.2 environment became available in mid-April 2012 and we were able to negotiate with the IESO to be one of the first LDCs to migrate to R7.2 because we had already been flowing data within R7.0.

Bluewater Power was approached by the IESO to complete testing of the R7.2 environment since we were one of only five LDC's that were ready to function in the new R7.2+ environment. Testing was successful and Bluewater Power was the first LDC moved into the R7.2+ environment in the MDM/R. Our first XML Bill Quantity Request (BQR) was sent to the provincial MDM/R on April 19, 2012 and our first TOU bill was sent out the first week of May on consumption commencing March 15, 2012.

Appendix 1 includes a timeline of Bluewater Power's complete progression from AMI Procurement through to TOU cutover.

4.0 Smart Meter Background

On June 24, 2004, the Ministry of Energy issued a Directive under Section 27.1 of the *Ontario Energy Board Act, 1998* which required the Board to develop and, upon approval by the Minister of Energy, implement a plan to achieve the government's objectives for the deployment of smart electricity meters.

The provincial Smart Meter Initiative stemmed from this Directive and all Local Distribution Companies (LDCs) in Ontario became heavily involved in creating a conservation culture in Ontario and making the province a North American leader in energy efficiency. The provincial initiative mandated the installation of a smart electricity meter in every Ontario home by December 31, 2010, with the interim goal of 800,000 meters being deployed by December 31, 2007. The underlying premise behind the mandate to install these meters was to educate customers on their consumption habits and to implement new rate structures that encouraged load shifting, thereby reducing the requirement for increased power generation capabilities in the province.

This was an enormous undertaking for all LDCs; a project that took years of planning and required carefully managed execution. LDCs had the challenge of choosing technologies and installation service providers that could accommodate the stated requirements within their diverse LDC service territories. However, this project was more than just a metering project; it required selection of an AMI, installation vendor selection, changes to CIS, customer education, business process redesign, and selection of an Operational Data Store ("ODS").

5.0 Bluewater Power Minimum Functionality

The discussion in this section provides a commentary with respect to Bluewater Power's progression through the procurement and installation of the smart meters, infrastructure and associated items related to Minimum Functionality. It is intended to provide a narrative of the process followed and demonstrate Management's approach to this major Capital Project. The Capital and OM&A costs are discussed in Section 7.0 of this Application.

The Smart Meter Initiative required preparation for the selection and deployment of a technology that met the requirements of the regulators as well as the unique requirements of each LDC. Bluewater Power did not strive to be the "first out of the gate" with Smart Meters; rather our philosophy was to proceed cautiously and learn from other LDCs as we developed a solution that best suited the needs of our customers for the long-term.

Bluewater Power joined the Ontario Utility Smart Metering ("OUSM") working group, which had as its mandate to collaborate on research and recommendations surrounding the smart meter initiative. Membership allowed access to extensive research and testing information on many aspects of the smart meter initiative including AMI vendors, meters, security, communications, disposal of existing assets, and MDM/R workflow requirements. As a result, we were able to make an informed decision on an Advanced Metering Infrastructure ("AMI") vendor and installation procedures applying workarounds to many roadblocks identified along the way by other LDCs.

Bluewater Power also set up an internal working committee that included representatives from all the departments that would be affected by this initiative. The core of the committee numbered four people with other staff included in meetings on an as required basis. Those departments with representatives on the internal committee were as follows (core members noted):

- Billing Department (core)
- Customer Service
- Information Technology (core)
- Metering (core)
- Operations (core)
- Purchasing
- Regulatory

Meetings were held monthly in the initial period of the program. As the various phases of the project reached critical periods, meetings became weekly (during testing and integration, meetings were held daily). A representative from each of the four core departments was in attendance at all meetings and others were called-in as needed. This allowed a broader perspective for each member of the committee that would help each individual better perform their own job, but also provided for more eyes and ears at the table when important decisions were required.

A collaborative approach was utilized at every opportunity to ensure the broadest perspective was brought to bear in decision-making. This investment of time was intended to minimize spending and achieve the best solution in the long-term.

5.1 Education and Preparation for the Initiative

Bluewater Power's collaborative approach included our effort to educate ourselves about meter technologies and processes well before any decisions needed to be made. The Bluewater Power team members attended Smart Metering Conferences and IESO workshops. Bluewater Power spent a significant amount of time researching technologies, pilot programs and approaches taken by other utilities in the province. We visited neighbouring distributors to gain a perspective into road blocks they encountered. We also discussed various technologies in order to ensure that we identified the risks associated with the initiative and were able to mitigate them appropriately to ensure that we chose the best system for Bluewater Power and its customers.

The Smart Meter initiative did not mandate a specific meter technology, so early on in the process Bluewater Power completed a pilot study to test two meter technologies. The pilot took place in the town of Watford in 2006 with funds sourced from the 3rd MARR as a Conservation and Demand Management program. There are no costs from that pilot study sought to be recovered through this application.

The Pilot in Watford was intended as a test of the technology. Bluewater Power tested two leading meter suppliers at the time, namely Elster and Itron. The pilot allowed us to gain experience with the meter technology, data collection systems and the data itself. It was a valuable experience for the utility that ultimately assisted in our decision making, even though neither of the meters tested were ultimately the successful meter vendor for our utility. The pilot also provided us with valuable experience dealing with customers, and the challenges that we would face with educating customers about Smart Meters.

As a member of the OUSM Working Group, Bluewater Power's involvement allowed us access to the experiences and resources from 50 other utility members. Information was shared on successful pilots across the province and testing of the AMI components and technologies available at that time. This group was formed in 2005. The OUSM focussed on the whole of the AMI portion of the smart metering initiative and had as its mandate to collaborate on research and attempt to influence the provincial processes.

Bluewater Power realized early on that we could not be experts at everything. That was neither feasible nor the most cost effective way to conduct the program. Accordingly, in October of 2009 we issued an invitation for proposals for smart meter consulting companies active in the industry. Two proposals were received and after thoroughly evaluating both offers, a contract was awarded to Util-Assist based on their experience and the fact that they were the lowest priced bidder.

Util-Assist has advised many LDCs and made it possible to achieve economies of scale through group training, purchasing and implementation. Specifically, Util-Assist prepared group RFPs for the purchase of Advanced Metering Infrastructure ("AMI") and ODS systems, smart meter installation services, and most recently a security audit of our AMI solution.

Furthermore, Util-Assist has provided education/training seminars on integration to the MDM/R and associated business processes while continuing to monitor progress in projects across the province. Util-Assist began working with the Bluewater Power smart meter team in November, 2009 and continued to work with Bluewater Power right through Time of Use (TOU) cutover and billing in 2012.

5.2 AMI Selection, Negotiation and Installation

Bluewater Power's collaborative approach is seen most clearly with the AMI selection process. Bluewater Power participated in the London Hydro AMI RFQ and that allowed us to not only realize volume discounts, but also to reduce workload on staff to produce and evaluate a fully independent RFQ.

The process first began in 2007, when Bluewater Power researched multiple AMI vendors, including Sensus, Trilliant, Elster, and Tantalus. We hosted vendor presentations for each of these suppliers. The sessions were driven by the vendors who were advised to distinguish their product from the others in the field. The sessions were an open and free exchange of information. This opportunity helped us gain a better perspective on the extent of differences between seemingly similar technologies and provided a clear demonstration of the complexity of the systems.

A preliminary vendor matrix was developed internally to compare the technical aspects of each vendor based on a needs analysis completed by all affected departments within Bluewater Power. Although the analysis revealed that there were clearly only two vendors that met the criteria the team identified in the departmental needs analysis, we felt it was important to continue to evaluate all vendors.

The process of AMI selection formally began in August of 2007 when Bluewater Power participated in the London Hydro AMI RFQ. Proposals under that process were first received on May 26, 2008; the process saw 19 proposals received from 16 separate bidders. The group of LDCs comprising the London Hydro AMI RFQ represented 32 LDCs and over 900,000 smart meters.

A total score out of one hundred was given by each LDC to each proposal received. Those scores were based 50% on technical criteria, 30% on cost and 20% on other factors such as quality management systems, longevity of the company and experience/competency of the firm. The technical criteria had varying weighting factors that were used to reflect the operating and philosophical differences amongst the members of the consortium. The cost used in the comparisons was LDC specific based on meter population, nature of service territory, available tower locations, work methods, WAN backhaul and level of redundancy required.

After each LDC completed individual rankings, 3 proponents emerged on the short-list of all 32 of the LDCs represented. The results of the evaluation performed by Bluewater Power resulted in KTI/Sensus Metering being selected as our number one vendor.

For its effort as part of the London Hydro AMI RFQ, Bluewater Power received an Attestation Letter from the Fairness Commissioner confirming the ranking was performed in accordance with the selection decision protocols. The letter attests to the fact that the ranking was reached "in a fair (objective and competent) manner and consistent with the evaluation and selection processes set out in the Request for Proposal" (attached as Appendix 2). The Ministry of Energy recognized the London Hydro RFP use of the "*best value*" methodology and did so by including a direct reference to the London Hydro RFP in the draft amendment to Regulation 427/06, *Smart Meters: Discretionary Metering Activity and Procurement Principle.*

Executive sign-off on the selection of KTI/Sensus took place at Bluewater Power on July 21st, 2008 and a Letter of Intent was issued to KTI/Sensus on August 11, 2008. Contract negotiations for the meter supply and 15-year servicing contract covered the period beginning September 25, 2008 and ended in December of 2009. Those negotiations were done in concert with 16 other LDC's as we all moved forward in contract negotiations with KTI Sensus. The process of contract negotiations covered 18 months, but working with other LDCs ensured we received the best possible terms with KTI Sensus and allowed some efficiency in legal fees. After over 13 contract revisions, the finalized AMI vendor contract was signed by both Sensus and Bluewater Power on December 7, 2009.

As part of the contract negotiation, Bluewater Power performed a thorough analysis of Sensus' two options for its service offering. Option A was for Bluewater Power to own and operate the system network and thereby assume responsibility for complying with the Functional Specification for an Advanced Metering Infrastructure, dated July 5, 2007. Option B was for Bluewater Power to own the system and for Sensus to operate the system and thereby assume responsibility for compliance. Bluewater Power determined that the most efficient selection was Option B. That decision was based on projected pricing for operation of the system (Bluewater Power operating the system would have required additional staff at the utility) and other resource availability at the utility. It was determined there was an advantage to KTI/Sensus being able to develop experience operating the systems of multiple utilities and thereby gain some efficiency compared to the utility operating the system on its own.

Bluewater Power and KTI/Sensus installed the AMI network in the Spring of 2009. In order to further minimize costs, the installation utilized existing infrastructure whenever possible for tower installations in order to reduce OM&A costs for the project. For example, relying on existing towers and associated infrastructure reduced monthly fees to KTI/Sensus by approximately $800 per month and those savings required minimal upfront investment.

That system is now fully operational. Bluewater Power was notified by Sensus in March 2012 that additional infrastructure would be required to achieve compliance with the requirement to communicate 98% of meter reads to the MDM/R, as set out in the Functional Specifications. Sensus requested that Bluewater Power install another "Metro" reading device in our territory that would result in an additional $30,000 annual OM&A expenditure. Bluewater Power looked at a number of options in cooperation with Sensus and ultimately was able to install three "Repeaters" at a nominal one-time capital cost that allowed us to avoid an increase in ongoing monthly fees. As of the date of this submission, we are currently achieving full compliance with the Functional Specifications.

5.3 Meter Installation Vendor Selection

In 2007, the Bluewater Power Smart Meter team assessed its internal resources and determined that it was necessary to seek the services of a third party for the installation of smart meters within our service territory. This decision was made having taken into account the demands on our existing staff, additional resources for storage and disposal of old meters, the tight timeline required to achieve the objective, as well as the anticipated costs associated with third party installation.

In order to benefit from further sharing opportunities, Bluewater Power continued to work with London Hydro on the development of a Statement of Work for a possible Third Party Installation service provider RFQ. Bluewater Power was not satisfied with the pace of progress, so we turned to the OUSM Working Group to find alternative ways to work with other utilities. Bluewater Power utilized the Installation Service Provider RFQ template developed by the OUSM group. The end goal of the selection process was to find the best fit for our territory and to learn from the experience of others to better mitigate known project risks.

An internal evaluation committee was comprised of representatives from IT, purchasing, billing, regulatory and operations departments. The committee of five members evaluated proposals following the Fairness Commissioner guidelines. The Operational considerations accounted for 40% of the weighting with the remaining 60% attributed to price. The weighting structure was chosen with a weighting biased toward price because it was felt this was a less technical exercise compared to choosing the AMI technology.

The Smart Meter Installation Services RFP 433-08 was issued November 5, 2008 to five vendors. However, after a thorough evaluation of the proponent's responses to the RFP, Bluewater Power made the decision to terminate the process. The initial RFP had a limited response, which resulted in a lack of comparative data. In addition, concerns with health & safety could not be resolved by the proponents. Accordingly, the proponents were notified on January 29, 2009 that we would not be awarding the contract under that RFP.

A second RFP, RFP 433-09, was sent out on June 23, 2009 to six vendors. Proposals were received from three of the proponents. All three submissions were distributed to the evaluation committee and the vendors were short listed to two following the initial review. The remaining two proponents were invited to Bluewater Power to make a presentation and to demonstrate their capabilities to perform according to the terms of the RFP.

The vendors presented their solutions to the Bluewater Power evaluation committee on October 22, 2009. Each member of the team evaluated and scored each vendor individually on a rating scale from 1 through 5 and scores were weighed according to the pre-established weighting factors that emphasized experience, completeness of offering, health & safety and pricing.

The Bluewater Power Smart Meter team selected Honeywell as the installation vendor of choice. It was the least cost proposal. A letter was sent to Honeywell asking that they confirm a local warehouse storage solution and to convey the importance of hiring locally. Contract negotiations ensued with Honeywell and a contract was executed on May 4, 2010.

5.4 Customer Education Strategy

The Ministry of Energy's mandate with the Smart Meter initiative was to provide customers with information on their consumption patterns in order to facilitate a change in behaviour, with the ultimate goal to have customers shift consumption to non-peak periods. To fulfill this vision, Bluewater Power believed that a multi-phased communication strategy to our customers was required.

The first phase focused strictly on information related to the overall provincial smart meter initiative and an introduction to Time of Use rates. The first phase forms part of our Minimum Functionality costs and is discussed below. Phase 2 of our customer communication strategy focused on notifying our customers of the implementation of Time of Use rates, educating them on how to shift or reduce electricity consumption and preparing customers for the new "look" of their invoices. The second phase is discussed in Beyond Minimum Functionality and is discussed in Subsection 6.4 entitled "Web Presentment and Customer Education".

The first phase of Bluewater Power's customer education strategy began with updates to the Bluewater Power website. A Smart Meter section was added to our website and became an education centre for our customers on the Smart Meter initiative. The site provides answers to frequently asked questions as well as links to Ministry and OEB websites with tools such as '10 Smart Meter Lane'.

Information packages were developed for customers on an "as requested" basis. The packages were also shared with shareholders, our Board of Directors and all of our staff because each would become an ambassador for Smart Meters. It was critical that anyone representing Bluewater Power understand the initiative and be able to provide some level of feedback to customers on how to manage consumption to better take advantage of TOU pricing.

At the meter deployment stage of the initiative, Bluewater Power notified our customers of the fact that our installation vendor (Honeywell) was at work in our service territory. Press releases were issued to local media in an effort to inform our customers of the presence of installers. A direct marketing strategy was also employed with a communication package left at each customer's home at the time of installation. That package included standard Ministry of Energy documents such as:

- "Your Smart Meter Has Been Installed" booklet
- "Getting Smart About Smart Meters" answer book
- Time Of Use Rates magnet

If customers were not present at the time of installation, the Ministry of Energy's standard "Sorry We Missed You" card was left onsite with Bluewater Power's contact information contained within.

The costs incurred in the first phase of Customer Education relate to the deployment of Smart Meters and are therefore considered Minimum Functionality.

5.5 AMI Deployment

Following the completion of a detailed propagation study, Sensus installed two Tower Gateway Base Stations and two Flexnet Network Protocol Repeaters within our territory in February 2010. A drive test was completed by Sensus on March 23, 2010 to confirm that our network would be sufficient to communicate with all meters within our service territory, keeping in mind the requirement to transmit 98% of daily reads from our AMI to the Provincial MDM/R.

Bluewater Power took a "pilot" study approach to the first phase of our Smart Meter installation and used internal resources to install the smart meters within a small portion of our territory, namely the Village of Oil Springs. This pilot allowed us to gain a better understanding of the installation procedures, including health and safety risks, before handing the installation services over to our third party contractor. This same batch of meters was also used for testing the interfaces that were built between Sensus, our CIS and the MDM/R. The testing proved successful and demonstrated that the MDM/R was prepared for Bluewater Power to begin sending daily meter read data.

The contractor began the mass installation on June 9, 2010. The installation included all residential and single phase general service <50kW locations throughout our remaining service territory.

Honeywell utilized eight installation technicians and projected completion in November of 2010. The protocol for Honeywell provided detailed directions for interaction with our customers. Honeywell was, at all times, acting as a Bluewater Power approved contractor under strict guidelines approved by this utility.

Due to a delay in the availability of meter stock from Sensus, the completion of the mass installation was delayed into 2011. This delay of approximately 6 months posed the potential to increase costs of the installation, which could have materially compromised the budget. However, successful negotiations with Honeywell resulted in the amount over budget being limited to approximately $25,000.

5.6 Meter Base Replacement Program

In January 2010, with the assistance of Util-Assist, Bluewater Power issued RFQ 438-10 to all approved and unionized Electrical contractors in our area. This RFQ was to cover the supply of parts and labour to repair or replace faulty meter base jaws/meter bases and/or repairs as necessary throughout our mass installation.

Although the meter base is customer owned equipment, Bluewater Power determined it was appropriate to repair broken meter bases as they were found. This decision was based on several considerations. First, the meter base could not be left "as is" once it was discovered by the contractor based on employee and customer safety. Second, it was critical for a project of this magnitude to avoid potential delays that would be associated with negotiating the repair of the meter base with affected customers; this would affect our ability to achieve deadlines and, ultimately, potentially increase the cost of the project.

In accordance with the Filing Guidelines at page 7, the labour associated with the repair of this customer owned equipment was capitalized to account 1555 and the parts and material were expensed to account 1556.

Three submissions were received under RFQ438-10 and evaluated based on safety and pricing. After evaluating all results and meeting with all vendors, Tee-Jay Instrumentation was awarded this contract based on price and their demonstrated ability to perform the work. They were the lowest priced vendor.

Tee-Jay began taking call-outs for broken meter bases for Bluewater Power in June 2010 and the project was completed by September 2011. The project was completed approximately $10,000 under its budget of $70,000.

5.7 Installation of Polyphase GS<50kW meters

On Bluewater Power's behalf, Util-Assist issued RFP BBP-440-10 to cover the installation of all polyphase GS<50 kW Smart Meters in our territory (approximately 1,800 meters). Factors such as customer communication, safety, pricing and installation service offerings were taken into account during the RFP. Three submissions were received from all three vendors invited to bid.

After a thorough review, a decision was made to reject all of the proposals submitted and to install the polyphase meters with internal resources. The narrow scope of this project made it possible to complete

the work with internal resources and the savings associated with carrying out the project internally were significant. The majority of cost was capitalized labour expended by Bluewater Power Distribution Corporation employees, although some assistance was required from Bluewater Power affiliates in order to meet timelines. The total of capitalized labour and affiliate costs was less than half the cost compared to the bids received from the three proponents in response to the RFP (approximately $170,000 versus the lowest bid of approximately $400,000). Installation began in November of 2010 and the project was completed in November 2011.

5.8 Operational Data Store (ODS) Vendor Selection

With the implementation of Bluewater Power's AMI system, a need was recognized for an application that supported full integration with the MDM/R. Such integration would enable Bluewater Power to audit, validate, and interact with the meter data being collected. 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. Although fully capable of collecting meter read data and forwarding raw data to the MDM/R, the AMCC-AMI does not provide all of the functionality necessary to interpret or leverage the information in a meaningful fashion. For example, validation and estimation of data and resubmission of meter read data to include actual meter data information for meter changes, installs and removals.

Bluewater Power followed the lead of many other utilities and determined that it was necessary to install an ODS. In keeping with the desire to minimize the duplication of utility infrastructure, Bluewater Power chose to procure a system that was an Application Service Provider (ASP) model.

The primary requirements and features of the ODS include the following:

a) **Dashboard of Field Issues Possibly Requiring Intervention** - Dashboard visibility to the real-time performance of the smart meter system to provide field staff with visibility to troubleshooting priorities such as non-communicating meters, non-communicating tower gateways/collectors, etc.

b) **AMI SLA Audit –** Audit, reporting, and real-time notification capabilities to monitor AMI performance to ensure that data collection and submission consistently meet the service-level agreements (SLAs).

c) **Read Re-submission** - The ODS will provide a data repository to facilitate backfilling reads after a meter installation, front-filling reads after a meter removal, and replacing reads labeled as NVE (Needs Verification or Edit) by the IESO MDM/R system. The ODS will provide a mechanism for meter data Editing and VEE (Validation, Estimation and Editing) processes (in keeping with the MDM/R

specifications), such data can then be re-submitted to the MDM/R. Features such as "register read validation failure resolution" will be invaluable.

d) **IESO MDM/R Report Integration / Issue Resolution Automation** - The MDM/R produces a large volume of reports on a daily or regular basis each potentially containing large amounts of information. The ODS downloads the MDM/R reports, and filters the information that is provided in order to develop meaningful action items that can be prioritized, investigated and resolved.

Bluewater Power issued an RFP for an operational data store (ODS) in February 2010. Based on its experience with other utilities, Util-Assist provided the design and management of Bluewater Power's ODS RFP (RFP #439-10). The internal evaluation committee was composed of 3 core members of Bluewater Power's Smart Meter team.

The criterion for the selection of the successful vendor was based on 60% technical merit and 40% price. The successful vendor was Northstar Utilities Solutions, a MeterSense product. They were the lowest cost provider. The implementation was completed by the end of January 2012 and the ODS was operational by March, 2012.

5.9 AMI Annual Security Audit

While AMI vendors are required to complete security audits at a corporate level in order to ensure that their products are keeping up to date with security trends, best practice dictates utilities complete security audits of equipment at the utility. Security of the AMI is critical to prevent utilities from becoming susceptible to new levels of potential security breaches and to ensure customer privacy. Cyber security reports on potential for smart-grid hacking are becoming commonplace in the media. Therefore, ensuring system security is paramount to ensuring customer "buy-in" for Smart Meters.

The Specifications for the Advanced Metering Infrastructure (AMI) released in July 2006 identified the need for security within the AMI network. Section 2.11 Security and Authentication states "The AMI shall have security features to prevent unauthorized access to the AMI and meter data to ensure authentication to all AMI elements." In November 2009, the Information and Privacy Commissioner identified areas of concern to be addressed in the area of smart meter and smart grid devices.

Bluewater Power collaborated with a consortium of utilities and we also participated in the AMI Network Security Audit process with Util-Assist. In early 2011, an RFP was developed and executed by Util-Assist on behalf of Bluewater Power and several other LDCs in Ontario. Bell/Wurldtech was selected as the vendor of choice based on criteria weighted with 60% technical merit and 40% price.

The ranking process resulted in a virtual tie between two proponents, so the successful proponent was selected based on their higher technical score. The selection of the successful proponent was a decision affecting all of the utilities involved in the process and Bluewater Power's share of the total cost was approximately $13,750.

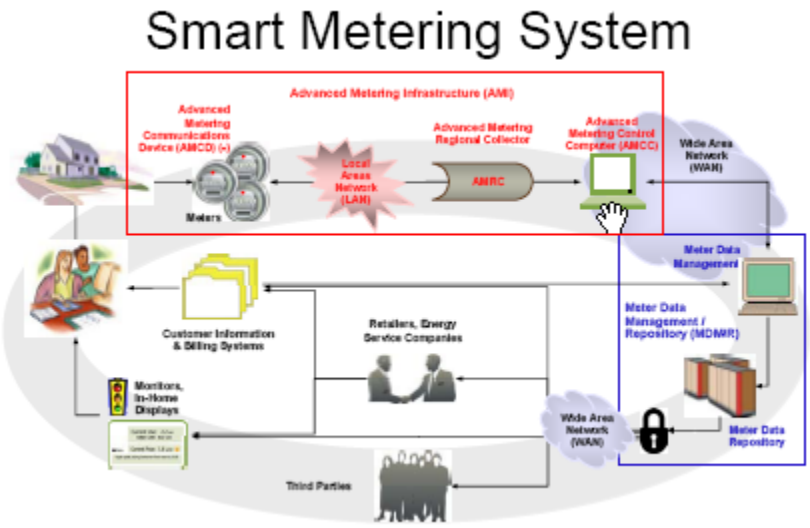
In January 2012, the consortium of utilities met to review the audit report. This report identified critical energy infrastructure information with regards to gaps and risks to Bluewater Power operations, the current risks and vulnerabilities with the Sensus AMI systems, as well as a recommended action plan prioritizing and evaluating risks and solutions. Contract negotiations ensued with individual LDCs and PowerStream was chosen as the lead utility since they were the only utility with a test AMI environment. As a result of the AMI security audit, Sensus has been provided with a list of security issues to rectify and each utility will perform their own internal security audit based on the recommendations of the lead utility. There are no costs included in this Application relating to the security measures recommended, but the recommendations themselves reveal the value of the audit performed.

6.0 Expenditures beyond Minimum Functionality

The Board's Guideline G-2011-0001, page 6, defines Minimum Functionality as:

> *"In the Combined Proceeding, the Board defined minimum functionality as shown in the "Advanced Metering Infrastructure (AMI)" area in the diagram below. It includes an advanced metering communication device, a local area network, an advanced regional collector, and an advanced metering central computer."*

The Board provided the following chart in the Smart Meter Filing Guideline as a visual indication of those functions (outlined in red) that Board Staff consider to be included in 'minimum functionality'.



Bluewater Power respectfully suggests that, intuitively, all costs related to the technological components required in order to issue the first TOU bill should be included as part of minimum functionality. However, the Guideline reflects a different approach, limiting minimum functionality to the AMI. In order to provide greater clarity, the Guidelines specifically establish three categories of costs that are deemed to be 'beyond minimum functionality'. They are as follows:

- Costs for technical capabilities in the smart meters or related communication infrastructure that exceed those specified in O.Reg 425/06;
- Costs for deployment of smart meters to customers other than residential and small general service; and

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

In any event, the Board has indicated that distributors may claim Beyond Minimum Functionality Costs for recovery as part of a Smart Meter disposition application. In that regard, the Smart Meter Filing Guidelines provides the following guidance at page 17:

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

Bluewater Power provides the information contained in this Section 6.0 of the application as justification for the recovery of costs that are 'beyond minimum functionality' through this Smart Meter Final Disposition. The costs are summarized in Table 6.1 below and are justified in the coming sections as costs that were required for the Smart Meter initiative and incremental to our normal program to maintain the functionality of our CIS.

Table 6.1 – Expenditures beyond Minimum Functionality

Description	2010	2011	2012	Grand Total
CIS System upgrades and Business Process Redesign		$36,785	$53,641	$90,426
MDM/R Integration	$29,742	$1,793,897	$42,134	$1,865,773
TOU Preparation		$6,775	$456,798	$463,573
Web Presentment and Customer Education		$105,689	$5,212	$110,900
1.6.3 Capital Beyond Minimum Functionality	**$29,742**	**$1,943,146**	**$557,785**	**$2,530,673**

The total amount claimed in this application for recovery as Beyond Minimum Functionality is $2.53M or $71.49 per customer. There is no published average for Beyond Minimum Functionality, and there are only 14 [2] applications for Smart Meter cost recovery that have been filed to-date in 2012. The average

[2] Collus EB-2012-0017, Horizon EB-2011-0417, Innisfil EB-2011-0435, Lakeland EB-2011-0413, Midland EB-2011-0434, Niagara-on-the-Lake EB-2012-0036, Orangeville EB-2012-0039, Peterborough EB-2012-0008, Thunder Bay EB-2012-0015, Welland EB-2011-0415, London EB-2012-0187, Cambridge and North Dumfries EB-2012-0086, Oakville EB-2012-0193, Sioux Lookout EB-2012-0245

claim for Beyond Minimum Functionality in that limited number of applications filed is approximately $11.84 per customer. Accordingly, Bluewater Power's Beyond Minimum Functionality costs are higher than average, but comparisons must be made with care for two reasons.

First, with only 14 applications having been filed in 2012, the sample of LDCs is small. Given the limited sample size, there is strong potential that the sample is not representative of the claims that will ultimately be filed with the Board for approval.

Secondly, we note that, of the 14 LDCs who have filed, 4 utilities filed Beyond Minimum Functionality costs of $0 in Capital and OM&A. Bluewater Power respectfully submits that those utilities incurred costs related to Beyond Minimum Functionality similar in nature to those costs set out in this application, but that those utilities did not separately track those costs for recovery in relation to the Smart Meter Initiative, instead including their costs within the general costs relating to the maintenance of their respective CISs.

Therefore, Bluewater Power respectfully submits, comparisons of Beyond Minimum Functionality costs across LDCs must be interpreted very carefully. Any comparison, Bluewater Power asserts, does not necessarily represent a direct comparison of the amount spent on Beyond Minimum Functionality, but simply represents a comparison of the amount separately tracked and claimed for recovery as Beyond Minimum Functionality costs.

The majority of costs set out in Table 6.1 fall under the category of MDM/R Integration and relate to the integration of the MDM/R with Bluewater Power's SAP-based CIS. Bluewater Power implemented SAP Industry Solution Utilities in the year 2002 as the industry prepared for the deregulated electricity market. The system represents a substantial investment in an Enterprise Resource Planning ("ERP") solution. SAP serves to function as Bluewater Power's primary business software. The solution includes Finance, Supply Chain, Plant Maintenance, Engineering, Metering, Customer Information, Billing, web presentment, retail and wholesale settlement functions in a completely integrated solution.

In 2008, Bluewater Power engaged SJH consulting to perform an upgrade assessment. This assessment looked at the need to upgrade SAP in order to move to an updated software solution utilizing new functionality and having the ability to accommodate the pending Smart Meter Initiative. The facts considered at the time pointed to the need to upgrade from ERP Version 4.7 Enterprise to Version 6.0 EhP 4 of SAP. The version of SAP that Bluewater Power was operating on at the time was entering into a period of 'Extended Support Coverage' and was less than 2 years away from no longer being supported by SAP. In addition, the upgrade addressed a number of limitations in the existing system that improved functionality and, in some cases, better prepared the CIS for the introduction of smart meters. Finally, given the timeline in place to implement the smart metering initiative at Bluewater Power, it was necessary for the SAP upgrade to occur prior to that required effort.

The upgrade to ERP Version 6.0 EhP 4 is an example of the kind of "normal budget for maintenance" of Bluewater Power's CIS. The costs related to this upgrade are ***not*** included for recovery in this Smart Meter Final Disposition. Likewise, Bluewater Power engaged in an upgrade of SAP to accommodate the move to International Financial Reporting Standards (IFRS) in the year 2009. Those costs are also **not** included for recovery in this application, just like other routine upgrades and modifications to SAP continue to form part of Bluewater Power's normal maintenance of its CIS.

After determining the need to upgrade to ERP Version 6.0 EhP 4, Bluewater Power partnered with Deloitte Consulting to perform a Technical Upgrade Assessment. This was done to identify the specifics required to perform the upgrade from the existing version. Based on that report, a third party SAP consultant (SJH Consulting) was engaged to develop a Request for Proposal (RFP) to have the system upgraded. The RFP was responded to by a number of SAP Systems Integrators and through a series of reviews and assessments was awarded in parts to two separate firms, Deloitte and HCL Axon.

Each consulting firm would be responsible for different parts of the upgrade to best utilize their expertise as presented in their response to the RFP. The work undertaken by Deloitte was generally described as assisting Bluewater Power with a technical upgrade and the implementation of an IFRS solution. The work undertaken by HCL Axon was generally described as a functional upgrade to business processes above and beyond the technical upgrade to the underlying SAP system.

Bluewater Power has made significant investments in SAP since 2002 – both financially and in staff development. It is generally accepted that SAP is one of the premier utility and ERP software solutions and the software provider has been making significant inroads in the Ontario LDC sector in recent years. As such, Bluewater Power continued with SAP for its enterprise solution and for the development of the Smart Meter Initiative requirements.

Immediately following the completion of the upgrade, plans were undertaken for the upgrade to the SAP billing system to permit integration with the MDM/R and TOU billing. That project was defined as "**SAP for Utilities Enhancement Project – Phase 2 Smart Meter**" and is represented in the Statement of Work document dated January 7, 2011 and the Blueprint documents negotiated between Bluewater Power and HCL Axon dated May, 2011, as updated from time to time.

The Phase 2 Smart Meter project was designed to accommodate changes to the CIS and business processes as required to fulfill the Smart Meter mandate. These are the costs that are submitted for recovery with this application. Much of that detailed discussion is captured in Section 6.1 below ("CIS Upgrades and Business Process Redesign"), Section 6.2 ("MDM/R Integration") and Section 6.3 ("Time of Use Preparation"). Those initiatives were carried out with the dedication of internal staff from IT and the operational groups (Billing, Metering and Operations), and our outside SAP consultants.

These costs are considered "required" for Smart Meters because the SAP billing system that Bluewater Power operates was not inherently capable of billing TOU pricing. SAP's utility offering is an Enterprise Resource Planning solution. It is not an "off the shelf" product, but its design is end-user driven. Prior to the commencement of Phase 2 Smart Meter Project, the system was not configured for integration with the MDM/R or for producing a TOU bill. It is clear that "but for" the requirements of the Smart Metering Initiative, none of the costs for which we are seeking recovery in this application would have been incurred.

The costs set out in relation to the upgrade of the CIS also meet the second test required by the Smart Meter Filing Guidelines in that they are "incremental" costs. As already discussed, Bluewater Power completed an upgrade to its SAP system in the year 2010, as well as an upgrade to accommodate IFRS in 2009. Those upgrades were broadly based upgrades and none of the costs for those upgrades are included in the application for Smart Meter Final Disposition. The costs submitted for recovery in this application are incremental to our normal maintenance and capital upgrades of the SAP based CIS.

It is important to note that Bluewater Power is able to confidently state that the costs submitted with this application were required for the Smart Meter Initiative, and incremental to the normal maintenance of our CIS, because we carried out a final internal review of the costs allocated to Accounts 1555 and 1556. In preparing for this final disposition application, the costs included in the Smart Meter deferral accounts were thoroughly reviewed by the Smart Meter Team. Those costs that were considered to be of broader benefit than Smart Meters, or part of normal CIS maintenance, were reallocated to regular OM&A or recorded to capital accounts that are not Smart Meter related. The total amount of capital reallocated through this internal review process was $571,049; no OM&A was identified as being either normal OM&A or not required for Smart Meters. The details of those capital items reallocated for recovery under this application are discussed in Subsection 7.3 below.

6.1 CIS Upgrades and Business Process Redesign

Bluewater Power recognized that a number of business processes would require scrutiny and procedural modifications to ensure MDM/R integration was optimized. Those business processes that were affected by Smart Meters were as follows:

- billing process
- final billing
- meter changes
- meter installations
- meter reading

- meter removals
- move-in and move-out
- new account setup
- retailer billing and interaction
- wholesale settlement

Throughout 2010, the Util-Assist training team delivered a series of education sessions covering the MDM/R design specifications, meter read data, VEE and other billing processes that would be affected by this initiative. Training on regulations, technology and specifications were critical to Bluewater Power staff in understanding the required changes as they moved through the process of developing, testing and implementing CIS and Business Process change.

The business review process was more efficient and effective because of the assistance from Util-Assist. The consultants at Util-Assist were involved in implementation of Smart Meters with other LDCs and they led the business process redesign sessions at Bluewater Power. Their involvement helped to reduce effort by developing templates based on "best-case" business processes to allow for full realization of the requirements of the Smart Meter Initiative.

Smart Meters created additional steps in the business process compared to prior work processes and, therefore, one of the goals during the review of processes was to increase productivity through automation where possible in order to balance the introduction of additional steps associated with Smart Meters. The end result was increased automation that has allowed Bluewater Power to accommodate Smart Meters with no incremental permanent staff.

The CIS portion of Bluewater Power's ERP is developed and managed by Bluewater Power. Some utilities in Ontario utilize "off the shelf" CIS products and therefore rely upon their service provider to develop and test the CIS modifications, with the utilities' role limited to implementation and testing of data flows. Bluewater Power plays a more active role in the development and maintenance of the CIS portion of its own ERP. It is our role to review business processes, although we work with outside consultants to provide expertise where required.

On a project of the magnitude of Smart Meters, the reliance on outside expertise is significant but the role of internal staff continues to be critical. To successfully achieve system changes, Bluewater Power worked with HCL Axon, with some assistance from Util-Assist, to create more than 20 blueprint documents to guide the development process:

1. Billing and Invoicing
    a. SM2-P-BI-001-TOU Tariff
    b. SM2-P-BI-002-Billing and Invoicing for TOU

   c. SM2-F-BI-003-Bill Print TOU
   d. SM2-F-BI-004-Billing Service Standard Interface-Reply
   e. P2-ITR-DM001D Billing Service Standard Interface - Request
2. MDM/R Interface
   a. SM2-P-DM-001a-Universal SPDID Request & Response
   b. SM2-P-DM-001b-Periodic Synchronization
   c. SM2-P-DM-001c-Incremental Synchronization
   d. SM2-P-DM-001d-Billing Service Standard Interface Request-Reply
   e. SM2-P-DM-001-MDMR Interfaces
3. ODS Interfaces
   a. SM2-P-DM-002-ODS Interfaces
   b. SM2-P-DM-002b-Periodic Synchronization
   c. SM2-P-DM-002c-Incremental Synchronization
   d. SM2-P-DM-002d-SAP Service Orders for ODS
   e. P2-ITR-DM002A ODS Interface
4. Web Presentment
   a. FM-Consumption & Meter Reads
   b. FM-Meter Classification
   c. FM-Rate Classification
   d. FM-Rate Information
   e. FM-Temperature Profile
   f. SM2-P-UCES-001
   g. FM-IS-U Details

Each of the documents listed above provide the detailed business process changes and the specific SAP configuration and developments that would have to be coded or configured to successfully implement the required changes. Those changes were then tested against rigorous test scripts and change iterations by Bluewater Power staff.

The blueprints were successfully followed and this was a critical part of Bluewater Power's CIS being fully capable for TOU billing. The Reengineering of processes and existing systems has been critical to the success of the smart metering initiative at Bluewater Power and instrumental in avoiding negative impacts to our customers or employee efficiency.

6.2 MDM/R Integration

The Bluewater Power CIS had to be modified for integration with the components of the AMI, namely, Sensus (our AMI vendor), MeterSense (our ODS provider) and the provincial MDM/R. For each stage of the process, Bluewater Power followed the prescribed activities during the preparation, registration and enrolment process that is shown in the IESO's Smart Metering Lifecycle diagram below.

Bluewater Power formally registered and enrolled with the IESO on April 19, 2010. In May of 2010, Bluewater Power's enrolment wave was confirmed. In September 2010, Bluewater Power received the mandatory TOU billing date from the OEB of October 2011 and we adjusted our enrolment wave to a proposed cutover in August 2011 in order to meet this mandate.

In conjunction with HCL Axon and Util-Assist, Bluewater Power utilized the IESO Technical Interface Specifications (TIS) to create a number of blueprint design documents used in the development and implementation of the following MDM/R interfaces:

- Universal SDP ID Assignment Request/Response Interface
- Periodic Audit Synchronization Interface
- Incremental Synchronization Interface
- Meter Read Interfaces
- Billing Quantities Request Interface
- Billing Cycle Schedule Interface
- Billing Quantities Response Interface

The developed interfaces were thoroughly verified through two separate processes, Prescribed Testing and CIS Specific Testing. Each is discussed in detail below, but Prescribed Testing is essentially standard testing that every LDC was required to conduct to test the flow of data, whereas CIS Specific Testing was more detailed and tested the integration of the MDM/R and the CIS itself.

PRESCRIBED TESTING:

Prescribed testing consists of Unit Testing, SIT and QT. Of those testing protocols, Unit Testing is the critical phase for MDM/R Integration. The length of Unit Testing varies by utility from 1-3 months. Util-Assist provided Bluewater Power with a 32 day test plan that encompassed all of the requirements of the IESO.

In April of 2011, Bluewater Power began Unit Testing with the IESO and the Provincial MDM/R. Unit Testing is designed to test the rate structure and interaction with retailers. During Unit Testing, Bluewater Power tested the systems (AMI, CIS, etc.) with the MDM/R. The testing ensured all required interfaces with the MDM/R were developed and functional.

In May of 2011, due to the required Measurement Canada solution changes that affected the Provincial MDM/R, Bluewater Power made the decision to halt our Unit Testing and discontinue redundant effort around testing issues that would be rectified after the anticipated new release from the IESO.

In June of 2011, our wave re-assignment was received for a November 2011 cutover to the production environment. As a result of the wave re-assignment Bluewater Power applied on June 6, 2011 for an extension from the Ontario Energy Board for a TOU mandatory billing date of the later of January 1, 2012 or fourteen weeks following the date the IESO confirms Bluewater Power's wave assignment (EB-2011-0224). The extension was required because Bluewater Power determined it was appropriate to build our integration with the new protocol anticipated with R7.2, instead of building an R7.0 solution that would have only been operational for a few short months.

Unfortunately, there were further delays in R7.2 deployment by the IESO that resulted in aspects of the project lasting longer than expected at the time of filing the request for an extension. The extended timeline resulted in greater resource requirements and put pressure on our ability to manage the costs of MDM/R integration.

After making changes to our interfaces and business processes to accommodate R7.2 changes, Bluewater Power began phase 2 of our Unit Testing in July 2011. Unit testing was successful and Bluewater Power received confirmation to move forward with System Integration Testing (SIT) in October 2011. Bluewater Power conducted and completed SIT between November 3, 2011 and November 10, 2011 using MDM/R version 7.2 SP 8. SIT was conducted in the Sandbox environment with

21 test cases that were reviewed and agreed to by IBM, IESO and Bluewater Power in the SIT Master Work Plan. All SIT test cases were executed, verified and passed.

Qualification testing ("QT") ensured that the LDC's business processes can support typical business scenarios ranging from collecting and sending meter reads through to receiving billing quantity data from the MDM/R. Prior to the start of QT, the IESO provided a standard QT package containing some common LDC business scenarios. These scenarios involve multiple, short billing cycles within an approximate one month time frame. Bluewater Power tested systems (CIS and Meter Read Data related systems) and used data and billing periods from November 10 to December 5, 2011 to perform a number of scenarios during the QT time period.

CIS SPECIFIC TESTING

CIS Specific Testing is similar to Unit Testing; however typical Unit Testing is not complete enough where the CIS itself has not yet been tested for end-to-end business processes. The goal of CIS Specific Testing was to satisfy ourselves that the changes implemented in CIS would not interrupt everyday critical business functions. CIS Specific testing is the requirement to test business processes, validate that the CIS/AMI meet the functional requirements, ensure the operation of the AS2 and FTS, and vet business process and training documents.

It may be that other LDCs were not required to carry out CIS Specific Testing, however, this represents a distinct aspect of Bluewater Power's Smart Meter project. The work involved is extensive and required the attention of both internal staff and consultants. To demonstrate the level of detail required, we have included as Appendix 3 to this application a list of test scripts for this phase of testing.

As with CIS upgrades, delays at the IESO and changes in requirements presented challenges for the management of the budget. For example, the introduction by Measurements Canada regulations as detailed in Measurement Canada Bulletin GEN-31-E, Rev. 1 presented an unanticipated challenge. As a result of these new regulations, the MDM/R released EnergyIP Release 7.2+. Bluewater Power made further changes to our CIS to accommodate this new release and successfully tested and is currently functioning under this environment in the MDM/R production environment. In fact, Bluewater Power was the first LDC transitioned to R7.2+ and, although we did not seek to be leading edge through this Smart Meter deployment, our circumstances dictated that we became leading edge for MDM/R integration to R7.2+.

6.3 Time-of-Use Preparation

As part of the smart meter initiative, and specifically in order to accommodate Time of Use (TOU) billing, a number of complex changes needed to be implemented in Bluewater Power's CIS system. Through a series of meetings with Smart Meter consulting partner Util-Assist and HCL Axon, Bluewater Power created a multifaceted, functional blueprint that detailed the new business billing processes.

At a high level, these changes included creating a new set of rates for residential and general service customers. The new rates structure enabled full compliance with the specification and is able to accommodate off-peak, mid-peak, and on-peak interval data to be processed into billing determinants. In addition, configuration details were developed to handle TOU data buckets for Retailer billed customers. The changes would accommodate VEE codes, price changes, billing exceptions, and wholesale settlement procedures, among other complexities in conjunction with functional and technical specifications of the smart meter initiative.

More specifically, for example, the Blueprint Document **SM2-P-BI-001-TOU Tariff** details the need to enable customers to be billed using three options, including Registered Price Plan, Weighted Average Price, and Time of Use – incorporating On Peak, Mid Peak, and Off Peak pricing. Further, the details are laid out to capture the specifications of TOU Consumption, Register Reads and CPP, RPP Charges, WAP Charges, TOU Charges, Retailer Charges, Distribution Charges, Cost of Power and Global Adjustment. These affected changes in SAP are identified, formulaic equations are developed and specific change related components within SAP are specified for code development and configuration.

These constructs of the blueprint documents were then coded in partnership with HCL Axon and configured within SAP. The changes were subject to a rigorous series of audit processes by Bluewater Power staff, testing each potential billing scenario. Finally, the new code was transported into the production CIS system enabling customers to be moved into a TOU billing state.

6.4 Web Presentation and Customer Education

The Ministry of Energy in a letter dated July 14, 2004 to the Ontario Energy Board indicated that electricity customers should ideally have web access to their hourly consumption data allowing them the opportunity to make informed decisions and ultimately affect the provincial peak load.

Directive #5 in the above noted Letter states:

"The Board's Plan shall identify mandatory technical requirements for smart meters and associated data systems in accordance with the following criteria:

- A smart meter must be able to measure and indicate electrical usage during prespecified time periods.

- A smart meter must be adaptable or suitable, without removal of the meter, for seasonal and time of use commodity rates, critical peak pricing, and other foreseeable electricity rate structures

- A smart meter must be capable of being read remotely and the metering system must be capable of providing customers feedback on energy consumption with data updated no less than daily. "

Accordingly, in February 2011, Bluewater Power began working with Util-Assist and a number of other utilities to determine the best solution for each LDC. For Bluewater Power, it was determined that we should build on our existing Utility Customer e-Services (UCES) customer information portal within SAP, known as ***MyAccount***. This solution allows customers to securely log on to their account via the internet and review their billing and meter read data, as well as request changes to their service offerings. Bluewater Power further developed this solution to include hourly consumption information presented graphically and in a variety of date and time options. In addition, the tool allows customers to layer over temperature data and to create 'what if' scenarios using a load shifting tool to understand the impact of adjusting their consumption patterns in order better manage their electricity usage. This solution has been available to our customers through their ***My Account*** offering since March 15, 2012.

In addition to the mandate for Web Presentment, Bluewater Power also undertook customer education on TOU pricing. In 2011, Bluewater Power initiated its TOU customer communications plan as Phase 2 of our Communication Strategy discussed earlier in this application. In an effort to reduce costs and workload, Bluewater Power joined a collaboration of utilities in an RFQ put together by Util-Assist for TOU marketing materials. In August of 2011, the Time of Use Marketing Sub-Committee of Util-Assist received proposals from six vendors. The Sub-Committee narrowed the list down to the three vendors that were determined to provide the most cost effective proposals. The TOU Marketing Material Sub-Committee Members reached a consensus decision to recommend that the group move forward with Lenby Business Forms as the vendor of choice. The vendor selection was based on the sub-committee members' evaluation of pricing, samples, experience and shipping costs.

The marketing materials provided utilities with a multitude of marketing initiatives. Those included pop-up messaging on our website, newspaper advertisements, radio ads, messaging on invoice envelopes prior to TOU billing and with the first TOU bill.

In addition to marketing materials, multiple Town Hall sessions were held with customers. At least one session was held in each of the municipalities that Bluewater Power serves. These sessions were well attended and provided an opportunity for one-on-one education of our customers.

7.0 Smart Meter Costs

Bluewater Power is seeking recovery of costs related to the 35,401 smart meters and supporting infrastructure. The costs have been audited to December 31, 2011 as the established deferral accounts 1555 and 1556 form part of the annual audit performed.

Table 7.1 – Amount of Audited Costs

Year	Total Annual Smart Meter Costs	Cumulative Total	Audited
2006	$13,611	$13,611	Yes
2007	$27,071	$40,682	Yes
2008	$25,159	$65,841	Yes
2009	$114,767	$180,609	Yes
2010	$5,005,504	$5,186,112	Yes
2011	$3,036,351	$8,222,464	Yes
2012	$1,017,393	$9,239,857	No
	Amount Audited	89%	

Bluewater Power acknowledges the Guideline which indicates that "*The Board expects that the majority (ie. 90% or more) of the total program costs for which the distributor is seeking recovery will be audited*." The above table indicates that 89% of costs have been audited, thereby meeting the guideline for 'the majority' of program costs to be audited. The shortfall to the suggested 90% threshold is approximately $93,000; if requested by the Board, Bluewater could submit an invoice(s) for an amount greater than $93,000 in order to achieve a result that mimics an audit in that the invoices would be audited or reviewed directly by the Board.

7.1 Capital Expenditures

The detailed capital expenditures by OEB Category for each year from 2006 through to 2012 are listed in Table 7.2 below. The costs for 2012 include actual costs to March 31, 2012 and forecast costs to December 31, 2012.

Table 7.2 – Capital Costs

OEB Category	Description	2006	2007	2008	2009	2010	2011	2012	Grand Total	Cost Per Meter
1.1.1	Smart Meters					$3,303,275	$327,354	$595	$3,631,224	
1.1.2	Installation					$436,359	$279,482	$54,136	$769,978	
1.1.3.a	Workforce Automation Hardware					$5,934			$5,934	
1.2.1	Collectors					$260,747			$260,747	
1.2.2	Repeaters					$6,928			$6,928	
1.2.3	Installation of AMRC			$3,035	$10,504	$227,227	$3,436		$244,202	
1.3.1	AMCC Hardware				$0	$6,138			$6,138	
1.3.2	AMCC Software				$29,658	$177,037			$206,695	
1.5.1	Other AMI - Cust Equipment					$39,853	$8,300		$48,153	
1.5.3	Other AMI - Professional Fees			$840	$39,137	$26,812	$6,654		$73,442	
1.5.5	Other AMI - Program Management	$172	$1,316	$448	$2,184	$56,697	$51,968	$67,530	$180,314	
1.5.6	Other AMI				$16,106	$286,111	$172,401	$144,940	$619,557	
	Total For Minimum Functionality	**$172**	**$1,316**	**$4,323**	**$97,590**	**$4,833,117**	**$849,594**	**$267,201**	**$6,053,314**	**$170.99**
1.6.3	Capital Beyond Minimum Functionality					$29,742	$1,943,146	$557,785	$2,530,673	$71.49
	Total Smart Meter Capital Costs	**$172**	**$1,316**	**$4,323**	**$97,590**	**$4,862,859**	**$2,792,740**	**$824,986**	**$8,583,987**	**$242.48**

The Capital costs under the category of Minimum Functionality in the year 2012 include no forecast costs for the balance of 2012. The costs under the category of Beyond Minimum Functionality in the year 2012 include $323,172 of forecast costs for the balance of 2012. Those costs relate to program

management labour and consultant costs. There are no discretionary costs in the forecast and, in fact, all capital will be spent by June, 2012.

7.2 Operations, Maintenance and Administration ("OM&A")

The detailed OM&A classified by OEB Category for each year from 2006 through to 2012 are listed in Table 7.3 below. The costs for 2012 include actual costs to March 31, 2012, as well as forecast costs for the balance of 2012.

Table 7.3 – OM&A Costs

OEB Category	Description	2006	2007	2008	2009	2010	2011	2012	Grand Total	Cost Per Meter
2.1.2	OM&A - AMCD	$1,935	$6,112	$4,497	$4,727	$16,584	$40,456	$22,087	$96,399	
2.2.2	OM&A - AMRC					$29,633	$49,134	$21,563	$100,329	
2.3.2	OM&A - Software Maintenance					$26,157	$9,026	$1,359	$36,543	
2.5.1	OM&A - Business Process Redesign					$2,938	$10,833		$13,772	
2.5.2	OM&A - Customer Communication	$27				$55,819	$14,749		$70,596	
2.5.3	OM&A - Program Management	$2,151	$14,796	$16,322	$6,583	-$1,590			$38,263	
2.5.4	OM&A - Change Management				$5,848	$12,223	$14,586	$19,206	$51,864	
2.5.5	OM&A - Administration costs	$9,326	$4,847	$16	$19	$880	$104,826	$107,072	$226,985	
	Total OM&A Costs related to Minimum Functionality	**$13,439**	**$25,755**	**$20,836**	**$17,177**	**$142,644**	**$243,611**	**$171,288**	**$634,751**	**$17.93**
2.6.3	OM&A Beyond Minimum Functionality							$21,120	$21,120	**$0.60**
	TOTAL OM&A								**$655,870**	**$18.53**

The only forecast cost included for recovery totals approximately $80,000. These costs relate to three temporary staff hired to accommodate the anticipated increased volume of inquiries from customers to the end of September 2012, as well as AMI network operation and Sensus fees based on per meter charges. These OM&A items are under contract with the providers and are, therefore, non-

discretionary. Moreover, although this application includes costs from November and December, 2012 for recovery through the SMDR, there are, in fact, no OM&A costs included for those two months.

The OM&A under the heading of Beyond Minimum Functionality totals $21,120 and relates to advertising and related customer communication information pertaining to customer education on the implementation of TOU pricing.

The OM&A costs included for recovery under the heading of Minimum Functionality are set out above in the appropriate OEB Category. For ease of reference, the total cost of $634,751 can generally be described as follows:

- AMI Network fees under contract with KTI/Sensus in the amount of $100,329
- ODS fees under contract with MeterSense in the amount of $60,523
- Software fees of $36,543
- Incremental labour and contract labour totaling approximately $220,000
- Marketing Costs of $70,596
- Membership Fees, training, conferences and research of approximately $72,000
- Materials for Broken Meter bases of $12,700
- Supplies, office space and furniture rental of approximately $60,000

The majority of the OM&A costs are found in OEB Categories 2.1.2 and 2.2.2, which represent the cost of the AMI network. It is worth noting that those OM&A costs which relate primarily to meter reading are only included in this application up to April 30, 2012; from that point where the AMI replaces foot reading by meter readers, the costs form part of regular OM&A after May 1, 2012 as costs were already incorporated into rates relating to meter reading.

7.3 Comparison to prior filings

The Smart Meter Filing Guidelines contain a requirement at Section 3.5 that the distributor provide a variance analysis comparing actual costs to previously approved costs. Bluewater Power has not had costs previously approved by the OEB.

Although not required by the Filing Guidelines, the following variance analysis is provided for the Board's information. The variance analysis shown in Table 7.4 provides the breakdown of costs claimed for recovery in this Smart Meter Final Disposition compared to the Smart Meter information filed in the 2012 IRM Rate Application (EB-2011-0153).

Table 7.4 - Variance Analysis of Smart Meter Disposition vs 2012 IRM Rate Application

OEB Description	2012 IRM	SM disposition application	Variance from 2012 IRM
1.1.1 Smart Meters	$ 3,680,476	$ 3,631,224	$ (49,252)
1.1.2 Installation	$ 660,030	$ 769,977	$ 109,947
1.1.3 Workforce Automation Hardware & software	$ -	$ 5,934	$ 5,934
			$ -
1.2 AMRC (collectors, repeaters & installation)	$ 656,958	$ 511,877	$ (145,081)
			$ -
1.3 AMCC (computer hardware & software)	$ 947,927	$ 212,833	$ (735,094)
			$ -
1.5 Other AMI related to minimum functionality	$ 935,285	$ 921,468	$ (13,817)
Total Capital	**$ 6,880,676**	**$ 6,053,313**	**$ (827,363)**
			$ -
2. OM&A related to minimum functionality	$ 396,565	$ 634,750	$ 238,185
			$ -
Total related to minimum functionality	**$ 7,277,241**	**$ 6,688,063**	**$ (589,178)**
			$ -
Capital beyond minimum functionality	$ 3,172,419	$ 2,530,673	$ (641,746)
O&M beyond minimum functionality	$ 94,793	$ 21,120	$ (73,673)
			$ -
Grand Total	**$ 10,544,453**	**$ 9,239,856**	**$ (1,304,597)**

Overall, the variance analysis shows that the costs for which Bluewater Power is seeking recovery are $1.3 Million less than the costs contained in the informational filing included with the 2012 IRM Application. The variance is driven by two primary factors: successful cost containment and an internal review of costs to ensure Beyond Minimum Functionality costs claimed were required for Smart Meters and incremental to normal CIS maintenance.

Bluewater Power was able to contain costs during the final phase of implementation through good management. Of the savings of $1.3M, approximately $730,000 was due to cost containment strategies. The primary examples of such efforts were as follows:

- Approximately $230,000 was saved by performing the installation of Polyphase Smart Meters in the GS<50 category in-house utilizing capitalized labour (see Section 5.7).

- Spending on customer education was intentionally trimmed-back. We relied heavily on public Town Halls sessions rather than media or printed materials and, thereby, saved approximately $60,000 compared to budget.
- Bluewater Power's Fixed Price contract for "Phase 2 Smart Meters" was based on an implementation of R7.0. With the need to work toward integration with R7.2 (and after further changes to R7.2+), the Blueprint documents were modified through negotiation between Bluewater Power and HCL Axon. With the introduction of further changes to protocols and further delays by the IESO, Bluewater Power concluded that costs were best managed through a "Time and Materials" extension to the contract. In a typical "Time and Materials" extension, the service provider requires a minimum level of commitment in order to make consultants available. The budget submitted with the 2012 IRM Informational Filing included assumptions on the level commitment that HCL Axon would require. Through the course of negotiations, Bluewater Power was able to negotiate changes in staffing levels that significantly reduced costs versus the budget. For example:
    - Six HCL Axon consultants were on-site through to December 31, 2011 under the Fixed-Price Contract. With the bulk of work complete and testing/integration remaining, and with the possibility of further delays by the IESO, Bluewater Power was able to negotiate part-time deployment of consultants for a portion for the Time and Materials period.
    - Bluewater Power was also able to rely more heavily of internal expertise and thereby reduce the number of consultants from 6 to 3.
    - During the Time and Materials period, there were periods of lower activity caused by delays with the IESO. Bluewater Power was able to work with individual consultants and HCL Axon to time individual consultant holidays with periods of delay.

The second reason that the final disposition sought being less than the budget set out in the informational filing with our 2012 IRM was that Bluewater Power was able to reduce the claim due to the results of its final internal review of costs. As discussed previously, Bluewater Power conducted an internal review of the costs for which we were seeking recovery through this Smart Meter Final Disposition. The review was conducted to ensure that all costs submitted were "required" for the Smart Meter initiative and "incremental" to normal maintenance of the Bluewater Power CIS. The result of that review was to eliminate $571,000 in costs from this application, thereby accounting for the remaining portion of the $1.3M variance.

8.0 Rate Rider Summary and Bill Impacts

Bluewater Power is seeking approval of the Smart Meter costs in this application and the transfer of the approved amounts from the smart meter deferral accounts to the required fixed asset, revenue and expense accounts. Also being requested is the approval of a Smart Meter Disposition Rate Rider (SMDR) which reconciles the revenue requirement from the beginning of the project through to December 31, 2012, offset by the smart meter funding adder revenues collected to April 30, 2012 with a proposed implementation date of November 1, 2012.

The total revenue requirement by year is reflected in the Table below, and the amounts are derived from the OEB's smart meter model version 2.21.

Table 8.1 – Smart Meter Disposition Amounts

	SMDR Amount	
Smart Meter Revenue Requirement 2006	$	13,675
Smart Meter Revenue Requirement 2007	$	26,372
Smart Meter Revenue Requirement 2008	$	22,067
Smart Meter Revenue Requirement 2009	$	30,454
Smart Meter Revenue Requirement 2010	$	459,683
Smart Meter Revenue Requirement 2011	$	1,190,890
Smart Meter Revenue Requirement 2012	$	1,603,770
Interest on OM&A	$	45,019
Revenue Requirement	**$**	**3,391,930**
Smart Meter Rate Adder Revenues	$	(1,748,635)
Carrying Charge	$	(57,478)
Smart Meter True-up	**$**	**1,585,817**

Bluewater Power is proposing that the smart meter true-up of $1,585,817, be allocated to both the residential and the GS<50 rate classes based on the approach that was approved by the Board's Decision and Order in Powerstream's 2010 Smart Meter Application (EB-2010-0209).

Bluewater Power did not specifically track the project costs by rate class as that was not required by the OEB at the outset. However, we are confident that the cost allocation methodology proposed in this application is representative of the costs incurred by rate class. Populating two individual smart meter

models, each by rate class, would not provide more accurate results than what is provided with the methodology that Bluewater Power utilized in this application.

The revenue requirement has been allocated to each customer class based on the following:

- Return and Amortization allocated between the customer classes based on the capital costs of the meters installed for each class,
- OM&A expenses allocated on the basis of the number of meters installed for each class,
- Carrying Charges and PILs allocated based on the revenue requirement allocated to each class before PILs.

The amount of smart meter funding adder revenues (SMFA) and carrying charges has been allocated to each rate class using the number of meters installed as a proxy (90.1% for residential and 9.9% for GS<50). The SMFA was a uniform rate amongst all metered customers, and the number of meters installed approximates the percentage of the total SMFA that was collected by rate class, therefore is an appropriate allocator. The level of the funding adders that have been previously approved and charged are as follows:

- In 2006, the Board approved a SMFA of $0.26 per metered customer per month (EB-2005-0529).
- In 2010, the Board approved an increase of the SMFA to $1.00 per metered customer per month (EB-2009-0213).
- In 2011, the Board approved an increase of the SMFA to $2.00 per metered customer per month (EB-2010-0065).
- In 2012, the Board disallowed Bluewater Power's request to continue the $2.00 per metered customer per month, and the rate rider ceased on April 30, 2012 (EB-2011-0153)

The table below details the allocation factors utilized in the determination of revenue requirement allocated to each rate class.

Table 8.2 – Allocation Factors

	Residential	GS<50	Total
Average Smart Meter Unit Cost (meter and Installation)	$94.66	$394.34	
Total Smart Meter Cost (meter and installation)	$3,019,441.90	$1,381,760.03	$4,401,201.94
Allocation by Meter costs	68.6%	31.4%	100.0%
Number of Meters Installed	31,897	3,504	35,401
Allocation by Number of Meters Installed	90.1%	9.9%	100.0%
Total before PILs	$2,707,474.06	$1,033,483.34	$3,740,957.40
Allocation of Total before PILs (see Table 8.3)	72.4%	27.6%	100.0%

Table 8.3 – Determination of SMDR

Revenue Requirement (to 2012) SMDR	Total to Allocate	Allocator for Residential	Residential $	Allocator for GS<50	GS<50 $
Return	$1,130,631	68.6%	$775,669	31.4%	$354,962
Amortization	$1,954,457	68.6%	$1,340,854	31.4%	$613,603
OM&A	$655,870	90.1%	$590,951	9.9%	$64,918
Subtotal Before PILs	$3,740,957	72.4%	$2,707,474	27.6%	$1,033,483
PILs	($394,047)	72.4%	($285,187)	27.6%	($108,860)
Interest	$45,019	72.4%	$32,582	27.6%	$12,437
Total Revenue Requirement	$3,391,930	72.4%	$2,454,869	27.6%	$937,060
Smart Meter Funding Adder Collected	($1,748,635)				
Carrying Charges	($57,478)				
Total Smart Meter Funding Adder Collected	($1,806,113)	90.1%	($1,627,343)	9.9%	($178,770)
True-up balance	$1,585,817		$827,526		$758,291
Number of Customers (installed meters)	35,401		31,897		3,504
number of months disposition	6		$4.32		
number of months disposition	24				$9.02

The rates in Table 8.3 are proposed for implementation on November 1, 2012. Bluewater Power is proposing a six month recovery of the SMDR for residential customers, and a twenty-four month recovery for GS<50 customers. The rationale will be discussed below in the bill impact section.

8.1 Bill Impacts

Bluewater Power is proposing a six month recovery for residential customers and a twenty-four month recovery for GS<50 customers. Both rate riders are proposed to commence November 1, 2012 to coincide with the Regulated Price Plan ("RPP") price change. The six month recovery period for residential customers will cease April 30, 2013 which will coincide with the May 1, 2013 rebasing rates. The twenty-four month recovery period for the GS<50 rate class will cease on October 31, 2014 and that will create an eighteen month overlap with rebased rates.

The bill impacts for the final disposition are shown in Table 8.4 below. The result of the proposed disposition are monthly bill impacts on a total bill basis of 3.7% for Residential and 3.2% for the GS< 50 category.

Table 8.4 – Proposed Bill Impacts

Customer Class	Average Monthly kWh	Proposed Rate Rider (SMDR only)	# months recovery	Total Monthly Bill Charges (includes tax)		Variance	
				Current	Proposed	$	%
Residential	800	$4.32	6	$118.91	$123.31	$4.40	3.7%
GS<50	2000	$9.02	24	$284.50	$293.67	$9.17	3.2%

If the Board is to compare these rate impacts with rate impacts for other LDCs in Ontario, it is important to note that the removal of the $2.00 SMFA for six months has partially driven the Bluewater Power impact for two reasons. First, the discontinuance of the SMFA for 6 months created a variance where costs accumulated with no balancing revenues. Second, the discontinuance of the SMFA lowered rates and removed the "step in rates" previously created by the SMFA. Had the SMFA remained in place to October 31, 2012, then the total bill impacts represented by this application would have been 0.7% for Residential and 2.4% for the GS<50 category.

For the residential rate category, Bluewater Power has proposed a 6 month disposition period to avoid overlap between the disposition of the SMDR and the introduction of 2013 Rates. If both rates are ultimately approved by the OEB, then residential customers will be required to pay $4.32 per month for 6 months beginning November 1, 2012 and that amount will be replaced by a charge of approximately $2.93 per month embedded in rates after May 1, 2013 related to the on-going smart meter revenue requirement. This approach creates smoothed rates as shown in Table 2.2 of the Executive Summary (other than the expiry of the SMFA between May 1, 2012 and November 1, 2012). The total bill impact proposed in November is approximately 3.7% and on May 1, 2013 that impact is replaced by a 2.5% total bill impact related to Smart Meters built into proposed rebased rates.

For the GS<50 customers, the cost allocation methodology creates a more significant "catch-up" in the recovery of smart meter costs to be collected. According to methodology for allocating Smart Meter costs approved previously by the OEB, the cost to serve the GS<50 category is greater than the cost to serve the residential category; however, the Smart Meter Funding Adders previously approved by the OEB did not differentiate between the two rate categories. The consequence of this catch-up is that it becomes impractical to dispose of the SMDR for the GS<50 category over 6 months like the residential category. Accordingly, we have proposed a 24 month disposition for the GS<50 to allow a smoothing of rates. As shown in Table 2.4, the proposed timeline creates a 3.2% total bill impact on November 1, 2012, which is similar to the impact for the Residential category. The impact of the SMDR will overlap for 18 months with the revenue requirement related to Smart Meters for GS<50 customers, that will be built into proposed rebased rates on May 1, 2013. Each of the two impacts will be approximately 3% on its own, but Bluewater Power believes the rate mitigation strategies we have applied are the most appropriate.

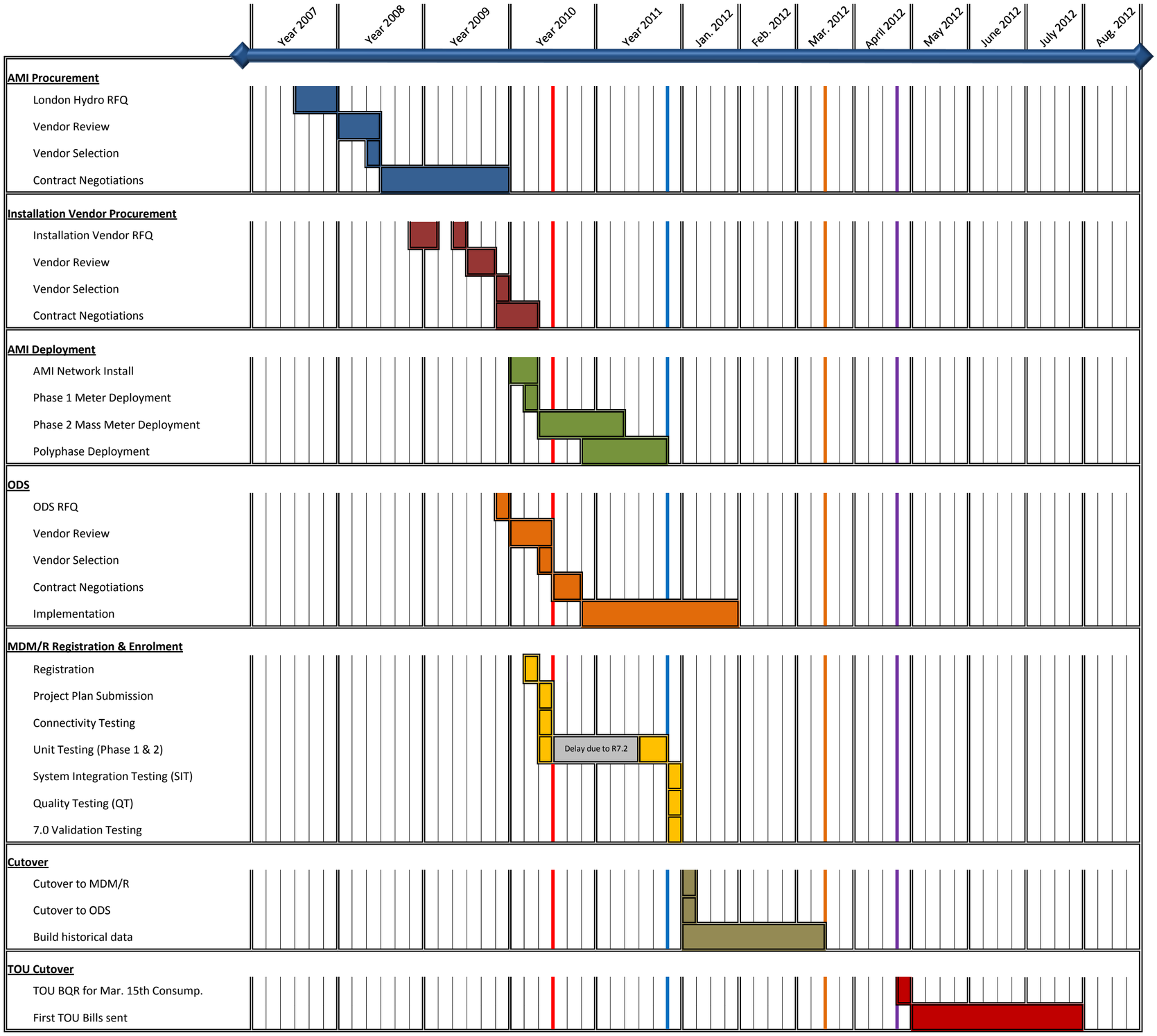
9.0 Conclusion

Bluewater Power respectfully submits that the costs incurred to fulfill its obligations under the provincially mandated Smart Meter initiative have been prudently incurred in accordance with the Board Guidelines; that the proposed rate riders are just and reasonable, and that it is appropriate that the Board approve the proposed rate riders for implementation effective November 1, 2012.

Appendix 1

Appendix 1

Bluewater Power Timeline



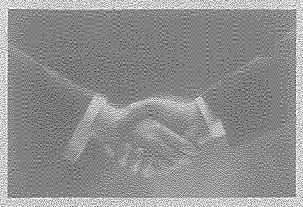
IESO MDM/R R7.2 Change Notification

OEB Mandated TOU Billing Schedule for Bluewater Power (October 1, 2011)

Requested OEB TOU Billing Schedule for Bluewater Power (March 15, 2012)

IESO MDM/R R7.2 Dry Run Testing (First LDC in Production)

Appendix 2



PRP International, Inc.

Fairness Advisory Services

May 30, 2008

Ms. Shana-Rhea Gould
Operations Project Coordinator
Bluewater Power Distribution Corporation/Electek Power Services Inc.
855 Confederation Street,
Sarnia, ON N7T 7L6

Dear Ms. Gould:

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

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

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

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

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

203 - 8 QUEEN STREET, SUMMERSIDE, PEI C1N 0A6
TELEPHONE: 902.436.3930 FAX: 604-677-5409
EMAIL: fairness@telus.net

Appendix 3

APPENDIX 3 – CIS Specific Test Scripts

1A	Meter Change Standard - General Service
1B	Meter Change Standard - Residential
1C	Meter Change - Standard with retailer
1D	Meter Change - Non to Smart *
1E	Meter Change - Smart to Non *
2A	Removal Smart Meter - demolition
2B	Removal Smart Meter -Pole Cut
2C	Removal Smart Meter -Tipped Meter Smart Meter Disconnect
3A	New Service- late sync and data resubmit
3B	New Service
4A	Data Entry Error-Meter Change - Incorrect Meter Number
4B	Data Entry Error-Meter Change - Move Date Back
5	Multiple Isyncs - Meter Change with Corrections
6A	Retail to SSS (double BQR & cancel usage)
6B	SSS Final Bill with 2 BQR's (Periodic MR is cancelled once FB MR is created)
7A	CT/PT Change
7B	CT/PT Change with Different CT/PT's
7C	CT/PT Change with Multiplier
8A	Reconnect Meter After pole Cut
8B	Reconnect Meter After Tip
8C	Reconnect Meter After Remote Disconnect
8D	Disconnect/Reconnect- Landlord/Tennant
8E	Disconnect- Tipped Meter Smart Meter Disconnect
8F	Disconnect- Smart Meter Pole Cut
8G	Disconnect- Remote Disconnect
8H	Disconnect- Tipped Meter after Periodic Read
9	Mass Billing
11	Negative Testing
12	Additional Integration Testing
13	Quarantined Meter
14	Residential - Zero Consumption only
15	Stale Meters
16	Meter Removed on Friday night
17	Meter removed on day paperwork is processed
18	Meter to be removed in future
19	ODS - Message Sum Check Exception
20	ODS - Message Sum Check Exception Power failure
21	ODS - Message Sum Check Exception Time Flag
22	ODS - Additional files for Service Order Testing
23	ODS- Billing error response tests
24	Periodic MR & Final Bill MR
10A	Residential Native
10B	GS Native
10C	GS Retail
10D	Residential Budget
10E	GS Budget

10F	Residential Budget (yearly true up - Both CR's)
10F	Residential Budget (yearly true up - CR & DB Hydro)
10H	Residential Budget (yearly true up - Both DB's)
10I	Budget (6 month review increase)
10J	Budget (6 month review decrease)
10K	Residential Native Budget (yearly true up - Both CR's)
10L	Residential Native Budget (yearly true up - Both DB's)
10M	Residential Native Budget (yearly true up - CR & DB hydro)
10N	Residential
10O	Residential Retail
10P	GS
10Q	Retail with Multiplier
10R	GS with Primary (scenario 6A)
	Native Budget
10S	GEN w/Primary
10T	Sentinel
10U	Sentinel Native
10V	Flat Rate Native
10W	Street Light
10X	Street Light Native
10Y	NDGEN
10Z	Intermediate IMGEN_SHOP - 1087457
10AA	Large Use
10AB	Amoco
10AC	Resop
10AD	MicroFit
10AE	5/8 Metric Petrolia
10AF	5/8 Metric Petrolia Min
10AG	Metric Petrolia Min Multi Unit
10AH	3/4 gallon Petrolia
10AI	3/4 Metric Sarnia
10AJ	1 gallon Sarnia
10AK	Water Only Budget Regular
10AL	Residential Retail
10AM	Residential RPP- 1007774
10AN	GS RPP -1019360
10AO	GS Retail
10AR	Residential Budget (yearly true up - Both CR's) -1010837
10AS	Residential Budget (yearly true up - CR & DB Hydro) - 1013073
10AT	Residential Budget (yearly true up - Both DB's) - 1013698
10AV	Residential Budget (6 month review increase) -
10AW	Residential Budget (6 month review decrease) -
10AX	Residential Native Budget (yearly true up - Both CR's) -1018821
10AY	Residential Native Budget (yearly true up - Both DB's) - 1011280
10AZ	Residential Native Budget (yearly true up - CR & DB hydro) -1021937
10BA	IMGEN_shop
10BB	IMGEN_S2TP
10BC	IMGEN_rtal

10BD IMGSI_rtal
10BE Flat
10BF Residential Budget
10BG GS Budget
10BH Residential Native
10BI GS Native
10BJ GS Native Budget
10BK GEN RPP
10BL Residential Native Budget
10BM NDGEN_rtal

Appendix 4

V 2.21

Ontario Energy Board

Smart Meter Model
(for 2013 Rates Applications)

Choose Your Utility:

Bluewater Power Distribution Corporation
Brant County Power Inc.

Application Contact Information

Name:	Leslie Dugas
Title:	Manager of Regulatory Affairs
Phone Number:	519-337-8201 Ext 2255
Email Address:	ldugas@bluewaterpower.com
We are applying for rates effective:	November 1, 2012
Last COS Re-based Year	2009

Legend

DROP-DOWN MENU

INPUT FIELD

CALCULATION FIELD

Copyright

While this model has been provided in Excel format and is required to be filed with the applications, the onus remains on the applicant to ensure the accuracy of the data and the results. The use of any models and spreadsheets does not automatically imply Board approval. The onus is on the distributor to prepare, document and support its application.

Board-issued Excel models and spreadsheets are offered to assist parties in providing the necessary information so as to facilitate an expeditious review of an application. The onus remains on the applicant to ensure the accuracy of the data and the results.

Ontario Energy Board

Smart Meter Model

Bluewater Power Distribution Corporation

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

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

Smart Meter Capital Cost and Operational Expense Data	2006	2007	2008	2009	2010	2011	2012	2013	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
Smart Meter Installation Plan									
Actual/Planned number of Smart Meters installed during the Calendar Year									
Residential					28,293	3,586	18		31897
General Service < 50 kW					1,488	2,012	4		3504
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	0	0	29781	5598	22	0	35379
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	0.00%	84.18%	100.00%	0.00%	100.06%	100.00%
Actual/Planned number of GS > 50 kW meters installed									0
Other (please identify)									0
Total Number of Smart Meters installed or planned to be installed	0	0	0	0	29781	5598	22	0	35401

1 Capital Costs

1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)

	Asset Type (Asset type must be selected to enable calculations)	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 Forecast	2013 Forecast	Total
1.1.1 Smart Meters *(may include new meters and modules, etc.)*	Smart Meter					3,303,275	327,354	595		$ 3,631,224
1.1.2 Installation Costs *(may include socket kits, labour, vehicle, benefits, etc.)*	Smart Meter					436,359	279,482	54,136		$ 769,977
1.1.3a Workforce Automation Hardware *(may include fieldwork handhelds, barcode hardware, etc.)*	Tools & Equipment					5,934				$ 5,934
1.1.3b Workforce Automation Software *(may include fieldwork handhelds, barcode hardware, etc.)*										$ -
Total Advanced Metering Communications Devices (AMCD)		$ -	$ -	$ -	$ -	$ 3,745,568	$ 606,836	$ 54,731	$ -	$ 4,407,135

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

	Asset Type	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 Forecast	2013 Forecast	Total
1.2.1 Collectors	Smart Meter					260,747				$ 260,747
1.2.2 Repeaters *(may include radio licence, etc.)*	Computer Hardware					6,928				$ 6,928
1.2.3 Installation *(may include meter seals and rings, collector computer hardware, etc.)*	Computer Hardware			3,035	10,504	227,227	3,436			$ 244,202
Total Advanced Metering Regional Collector (AMRC) (Includes LAN)		$ -	$ -	$ 3,035	$ 10,504	$ 494,902	$ 3,436	$ -	$ -	$ 511,877

1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
1.3.1 Computer Hardware	Computer Hardware					6,138				$ 6,138
1.3.2 Computer Software	Computer Software				29,658	177,037				$ 206,695
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)		$ -	$ -	$ -	$ 29,658	$ 183,175	$ -	$ -	$ -	$ 212,833

1.4 WIDE AREA NETWORK (WAN)	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
1.4.1 Activiation Fees										$ -
Total Wide Area Network (WAN)		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
1.5.1 Customer Equipment *(including repair of damaged equipment)*	Other Equipment					39,853	8,300			$ 48,153
1.5.2 AMI Interface to CIS	Computer Software									$ -
1.5.3 Professional Fees	Computer Hardware			840	39,137	26,812	6,654			$ 73,443
1.5.4 Integration	Computer Software									$ -
1.5.5 Program Management	Computer Software	172	1,316	448	2,184	56,697	51,968	67,530		$ 180,315
1.5.6 Other AMI Capital	Computer Software				16,106	286,111	172,401	144,940		$ 619,557
Total Other AMI Capital Costs Related to Minimum Functionality		$ 172	$ 1,316	$ 1,288	$ 57,427	$ 409,473	$ 239,323	$ 212,470	$ -	$ 921,468
Total Capital Costs Related to Minimum Functionality		$ 172	$ 1,316	$ 4,323	$ 97,589	$ 4,833,118	$ 849,595	$ 267,201	$ -	$ 6,053,313

1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY *(Please provide a descriptive title and identify nature of beyond minimum functionality costs)*	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06										$ -
1.6.2 Costs for deployment of smart meters to customers other than residential and small general service										$ -
1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.	Computer Software					29,742	1,943,146	557,785		$ 2,530,673
Total Capital Costs Beyond Minimum Functionality		$ -	$ -	$ -	$ -	$ 29,742	$ 1,943,146	$ 557,785	$ -	$ 2,530,673
Total Smart Meter Capital Costs		$ 172	$ 1,316	$ 4,323	$ 97,589	$ 4,862,860	$ 2,792,741	$ 824,986	$ -	$ 8,583,986

2 OM&A Expenses

2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)		Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
2.1.1 Maintenance *(may include meter reverification costs, etc.)*										$ -
2.1.2 Other *(please specifiy)*	ODS Fees	1,935	6,112	4,497	4,727	16,584	40,456	22,087		$ 96,399
Total Incremental AMCD OM&A Costs		$ 1,935	$ 6,112	$ 4,497	$ 4,727	$ 16,584	$ 40,456	$ 22,087	$ -	$ 96,399
2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)										
2.2.1 Maintenance										$ -
2.2.2 Other *(please specifiy)*	Network Fees					29,633	49,134	21,563		$ 100,329
Total Incremental AMRC OM&A Costs		$ -	$ -	$ -	$ -	$ 29,633	$ 49,134	$ 21,563	$ -	$ 100,329
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.)*						26,157	9,026	1,359		$ 36,542
2.3.2 Other *(please specifiy)*										$ -
Total Incremental AMCC OM&A Costs		$ -	$ -	$ -	$ -	$ 26,157	$ 9,026	$ 1,359	$ -	$ 36,542
2.4 WIDE AREA NETWORK (WAN)										
2.4.1 WAN Maintenance										$ -
2.4.2 Other *(please specifiy)*										$ -
Total Incremental AMRC OM&A Costs		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2.5 OTHER AMI OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY										
2.5.1 Business Process Redesign						2,938	10,833			$ 13,772
2.5.2 Customer Communication (may include project communication, etc.)		27				55,819	14,749			$ 70,596
2.5.3 Program Management		2,151	14,796	16,322	6,583	-1,590				$ 38,263
2.5.4 Change Management (may include training, etc.)					5,848	12,223	14,586	19,206		$ 51,864
2.5.5 Administration Costs		9,326	4,847	16	19	880	104,826	107,072		$ 226,985
2.5.6 Other AMI Expenses *(please specify)*										$ -
Total Other AMI OM&A Costs Related to Minimum Functionality		$ 11,504	$ 19,643	$ 16,338	$ 12,450	$ 70,270	$ 144,995	$ 126,278	$ -	$ 401,479
TOTAL OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY		$ 13,439	$ 25,755	$ 20,836	$ 17,177	$ 142,644	$ 243,611	$ 171,288	$ -	$ 634,750
2.6 OM&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALITY *(Please provide a descriptive title and identify nature of beyond minimum functionality costs)*		Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual			
2.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06										$ -
2.6.2 Costs for deployment of smart meters to customers other than residential and small general service										$ -
2.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.								21,120		$ 21,120
Total OM&A Costs Beyond Minimum Functionality		$ -	$ -	$ -	$ -	$ -	$ -	$ 21,120	$ -	$ 21,120
Total Smart Meter OM&A Costs		$ 13,439	$ 25,755	$ 20,836	$ 17,177	$ 142,644	$ 243,611	$ 192,407	$ -	$ 655,870

3 Aggregate Smart Meter Costs by Category

3.1	**Capital**											
3.1.1	Smart Meter	$ -	$ -	$ -	$ -	$ 4,000,381	$ 606,836	$ 54,731	$ -	$ 4,661,948		
3.1.2	Computer Hardware	$ -	$ -	$ 3,875	$ 49,641	$ 267,105	$ 10,090	$ -	$ -	$ 330,711		
3.1.3	Computer Software	$ 172	$ 1,316	$ 448	$ 47,948	$ 549,587	$ 2,167,515	$ 770,255	$ -	$ 3,537,240		
3.1.4	Tools & Equipment	$ -	$ -	$ -	$ -	$ 5,934	$ -	$ -	$ -	$ 5,934		
3.1.5	Other Equipment	$ -	$ -	$ -	$ -	$ 39,853	$ 8,300	$ -	$ -	$ 48,153		
3.1.6	Applications Software	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		
3.1.7	**Total Capital Costs**	**$ 172**	**$ 1,316**	**$ 4,323**	**$ 97,589**	**$ 4,862,860**	**$ 2,792,741**	**$ 824,986**	**$ -**	**$ 8,583,986**		
3.2	**OM&A Costs**											
3.2.1	**Total OM&A Costs**	**$ 13,439**	**$ 25,755**	**$ 20,836**	**$ 17,177**	**$ 142,644**	**$ 243,611**	**$ 192,407**	**$ -**	**$ 655,870**		

Ontario Energy Board

Smart Meter Model

Bluewater Power Distribution Corporation

	2006	2007	2008	2009	2010	2011	2012	2013
Cost of Capital								
Capital Structure[1]								
Deemed Short-term Debt Capitalization				4.0%	4.0%	4.0%	4.0%	4.0%
Deemed Long-term Debt Capitalization	50.0%	50.0%	53.3%	52.7%	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%
Preferred Shares								
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of Capital Parameters								
Deemed Short-term Debt Rate			0.00%	1.33%	1.33%	1.33%	1.33%	1.33%
Long-term Debt Rate (actual/embedded/deemed)[2]	7.25%	7.25%	7.25%	7.62%	7.62%	7.62%	7.62%	7.62%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	8.01%	8.01%	8.01%	8.01%	8.01%
Return on Preferred Shares								
WACC	8.13%	8.13%	8.07%	7.54%	7.52%	7.52%	7.52%	7.52%
Working Capital Allowance								
Working Capital Allowance Rate	15.0%	15.0%	15.0%	12.0%	12.0%	12.0%	12.0%	12.0%
(% of the sum of Cost of Power + controllable expenses)								
Taxes/PILs								
Aggregate Corporate Income Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%	25.50%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%	0.00%

Depreciation Rates

(expressed as expected useful life in years)

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

CCA Rates

Smart Meters - CCA Class	8	8	8	8	8	8	8	8
Smart Meters - CCA Rate	20%	20%	20%	20%	20%	20%	20%	20%
Computer Equipment - CCA Class	46	46	46	46	46	46	46	46
Computer Equipment - CCA Rate	30%	30%	30%	30%	30%	30%	30%	30%
General Equipment - CCA Class	8	8	8	8	8	8	8	8
General Equipment - CCA Rate	20%	20%	20%	20%	20%	20%	20%	20%
Applications Software - CCA Class								
Applications Software - CCA Rate								

Assumptions

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

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

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

Ontario Energy Board

Smart Meter Model

Bluewater Power Distribution Corporation

	2006	2007	2008	2009	2010	2011	2012	2013
Net Fixed Assets - Smart Meters								
Gross Book Value								
Opening Balance		$ -	$ -	$ -	$ -	$ 4,000,381	$ 4,607,217	$ 4,661,948
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ -	$ -	$ 4,000,381	$ 606,836	$ 54,731	$ -
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	$ -	$ 4,000,381	$ 4,607,217	$ 4,661,948	$ 4,661,948
Accumulated Depreciation								
Opening Balance		$ -	$ -	$ -	$ -	-$ 133,346	-$ 420,266	-$ 729,238
Amortization expense during year	$ -	$ -	$ -	$ -	-$ 133,346	-$ 286,920	-$ 308,972	-$ 310,797
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	$ -	-$ 133,346	-$ 420,266	-$ 729,238	-$ 1,040,035
Net Book Value								
Opening Balance	$ -	$ -	$ -	$ -	$ -	$ 3,867,035	$ 4,186,951	$ 3,932,710
Closing Balance	$ -	$ -	$ -	$ -	$ 3,867,035	$ 4,186,951	$ 3,932,710	$ 3,621,913
Average Net Book Value	$ -	$ -	$ -	$ -	$ 1,933,517	$ 4,026,993	$ 4,059,830	$ 3,777,312
Net Fixed Assets - Computer Hardware								
Gross Book Value								
Opening Balance		$ -	$ -	$ 3,875	$ 53,516	$ 320,621	$ 330,711	$ 330,711
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ 3,875	$ 49,641	$ 267,105	$ 10,090	$ -	$ -
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ 3,875	$ 53,516	$ 320,621	$ 330,711	$ 330,711	$ 330,711
Accumulated Depreciation								
Opening Balance	$ -	$ -	$ -	-$ 388	-$ 6,127	-$ 43,540	-$ 108,674	-$ 174,816
Amortization expense during year	$ -	$ -	-$ 388	-$ 5,739	-$ 37,414	-$ 65,133	-$ 66,142	-$ 66,142
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	-$ 388	-$ 6,127	-$ 43,540	-$ 108,674	-$ 174,816	-$ 240,958
Net Book Value								
Opening Balance	$ -	$ -	$ -	$ 3,488	$ 47,389	$ 277,081	$ 222,038	$ 155,895
Closing Balance	$ -	$ -	$ 3,488	$ 47,389	$ 277,081	$ 222,038	$ 155,895	$ 89,753
Average Net Book Value	$ -	$ -	$ 1,744	$ 25,438	$ 162,235	$ 249,559	$ 188,966	$ 122,824

Net Fixed Assets - Computer Software (including Applications Software)

Gross Book Value								
Opening Balance		$ 172	$ 1,488	$ 1,936	$ 49,884	$ 599,471	$ 2,766,986	$ 3,537,240
Capital Additions during year (from Smart Meter Costs)	$ 172	$ 1,316	$ 448	$ 47,948	$ 549,587	$ 2,167,515	$ 770,255	$ -
Retirements/Removals (if applicable)								
Closing Balance	$ 172	$ 1,488	$ 1,936	$ 49,884	$ 599,471	$ 2,766,986	$ 3,537,240	$ 3,537,240
Accumulated Depreciation								
Opening Balance	$ -	-$ 17	-$ 183	-$ 526	-$ 5,708	-$ 70,643	-$ 407,289	-$ 1,037,711
Amortization expense during year	-$ 17	-$ 166	-$ 342	-$ 5,182	-$ 64,936	-$ 336,646	-$ 630,423	-$ 707,448
Retirements/Removals (if applicable)								
Closing Balance	-$ 17	-$ 183	-$ 526	-$ 5,708	-$ 70,643	-$ 407,289	-$ 1,037,711	-$ 1,745,159
Net Book Value								
Opening Balance	$ -	$ 155	$ 1,305	$ 1,410	$ 44,176	$ 528,828	$ 2,359,697	$ 2,499,529
Closing Balance	$ 155	$ 1,305	$ 1,410	$ 44,176	$ 528,828	$ 2,359,697	$ 2,499,529	$ 1,792,081
Average Net Book Value	$ 77	$ 730	$ 1,358	$ 22,793	$ 286,502	$ 1,444,262	$ 2,429,613	$ 2,145,805

Net Fixed Assets - Tools and Equipment

Gross Book Value								
Opening Balance		$ -	$ -	$ -	$ -	$ 5,934	$ 5,934	$ 5,934
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ -	$ -	$ 5,934	$ -	$ -	$ -
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	$ -	$ 5,934	$ 5,934	$ 5,934	$ 5,934
Accumulated Depreciation								
Opening Balance	$ -	$ -	$ -	$ -	$ -	-$ 297	-$ 890	-$ 1,484
Amortization expense during year	$ -	$ -	$ -	$ -	-$ 297	-$ 593	-$ 593	-$ 593
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	$ -	-$ 297	-$ 890	-$ 1,484	-$ 2,077
Net Book Value								
Opening Balance	$ -	$ -	$ -	$ -	$ -	$ 5,637	$ 5,044	$ 4,451
Closing Balance	$ -	$ -	$ -	$ -	$ 5,637	$ 5,044	$ 4,451	$ 3,857
Average Net Book Value	$ -	$ -	$ -	$ -	$ 2,819	$ 5,341	$ 4,747	$ 4,154

Net Fixed Assets - Other Equipment

Gross Book Value								
Opening Balance		$ -	$ -	$ -	$ -	$ 39,853	$ 48,153	$ 48,153
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ -	$ -	$ 39,853	$ 8,300	$ -	$ -
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	$ -	$ 39,853	$ 48,153	$ 48,153	$ 48,153
Accumulated Depreciation								
Opening Balance	$ -	$ -	$ -	$ -	$ -	-$ 1,993	-$ 6,393	-$ 11,208
Amortization expense during year	$ -	$ -	$ -	$ -	-$ 1,993	-$ 4,400	-$ 4,815	-$ 4,815
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	$ -	-$ 1,993	-$ 6,393	-$ 11,208	-$ 16,024
Net Book Value								
Opening Balance	$ -	$ -	$ -	$ -	$ -	$ 37,860	$ 41,760	$ 36,945
Closing Balance	$ -	$ -	$ -	$ -	$ 37,860	$ 41,760	$ 36,945	$ 32,129
Average Net Book Value	$ -	$ -	$ -	$ -	$ 18,930	$ 39,810	$ 39,352	$ 34,537

Ontario Energy Board

Smart Meter Model

Bluewater Power Distribution Corporation

	2006	2007	2008	2009	2010	2011	2012	2013
Average Net Fixed Asset Values (from Sheet 4)								
Smart Meters	$ -	$ -	$ -	$ -	$ 1,933,517	$ 4,026,993	$ 4,059,830	$ 3,777,312
Computer Hardware	$ -	$ -	$ 1,744	$ 25,438	$ 162,235	$ 249,559	$ 188,966	$ 122,824
Computer Software	$ 77	$ 730	$ 1,358	$ 22,793	$ 286,502	$ 1,444,262	$ 2,429,613	$ 2,145,805
Tools & Equipment	$ -	$ -	$ -	$ -	$ 2,819	$ 5,341	$ 4,747	$ 4,154
Other Equipment	$ -	$ -	$ -	$ -	$ 18,930	$ 39,810	$ 39,352	$ 34,537
Total Net Fixed Assets	**$ 77**	**$ 730**	**$ 3,101**	**$ 48,232**	**$ 2,404,004**	**$ 5,765,965**	**$ 6,722,509**	**$ 6,084,632**
Working Capital								
Operating Expenses (from Sheet 2)	$ 13,439	$ 25,755	$ 20,836	$ 17,177	$ 142,644	$ 243,611	$ 192,407	$ -
Working Capital Factor (from Sheet 3)	15%	15%	15%	12%	12%	12%	12%	12%
Working Capital Allowance	$ 2,016	$ 3,863	$ 3,125	$ 2,061	$ 17,117	$ 29,233	$ 23,089	$ -
Incremental Smart Meter Rate Base	**$ 2,093**	**$ 4,593**	**$ 6,227**	**$ 50,293**	**$ 2,421,121**	**$ 5,795,199**	**$ 6,745,598**	**$ 6,084,632**
Return on Rate Base								
Capital Structure								
Deemed Short Term Debt	$ -	$ -	$ -	$ 2,012	$ 96,845	$ 231,808	$ 269,824	$ 243,385
Deemed Long Term Debt	$ 1,047	$ 2,297	$ 3,319	$ 26,504	$ 1,355,828	$ 3,245,311	$ 3,777,535	$ 3,407,394
Equity	$ 1,047	$ 2,297	$ 2,908	$ 21,777	$ 968,448	$ 2,318,079	$ 2,698,239	$ 2,433,853
Preferred Shares	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Capitalization	$ 2,093	$ 4,593	$ 6,227	$ 50,293	$ 2,421,121	$ 5,795,199	$ 6,745,598	$ 6,084,632
Return on								
Deemed Short Term Debt	$ -	$ -	$ -	$ 27	$ 1,288	$ 3,083	$ 3,589	$ 3,237
Deemed Long Term Debt	$ 76	$ 166	$ 241	$ 2,020	$ 103,314	$ 247,293	$ 287,848	$ 259,643
Equity	$ 94	$ 207	$ 262	$ 1,744	$ 77,573	$ 185,678	$ 216,129	$ 194,952
Preferred Shares	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Return on Capital	$ 170	$ 373	$ 502	$ 3,791	$ 182,175	$ 436,054	$ 507,566	$ 457,832
Operating Expenses	$ 13,439	$ 25,755	$ 20,836	$ 17,177	$ 142,644	$ 243,611	$ 192,407	$ -
Amortization Expenses (from Sheet 4)								
Smart Meters	$ -	$ -	$ -	$ -	$ 133,346	$ 286,920	$ 308,972	$ 310,797
Computer Hardware	$ -	$ -	$ 388	$ 5,739	$ 37,414	$ 65,133	$ 66,142	$ 66,142
Computer Software	$ 17	$ 166	$ 342	$ 5,182	$ 64,936	$ 336,646	$ 630,423	$ 707,448
Tools & Equipment	$ -	$ -	$ -	$ -	$ 297	$ 593	$ 593	$ 593
Other Equipment	$ -	$ -	$ -	$ -	$ 1,993	$ 4,400	$ 4,815	$ 4,815
Total Amortization Expense in Year	$ 17	$ 166	$ 730	$ 10,921	$ 237,985	$ 693,693	$ 1,010,946	$ 1,089,795
Incremental Revenue Requirement before Taxes/PILs	$ 13,627	$ 26,294	$ 22,068	$ 31,889	$ 562,803	$ 1,373,357	$ 1,710,919	$ 1,547,627
Calculation of Taxable Income								
Incremental Operating Expenses	$ 13,439	$ 25,755	$ 20,836	$ 17,177	$ 142,644	$ 243,611	$ 192,407	$ -
Amortization Expense	$ 17	$ 166	$ 730	$ 10,921	$ 237,985	$ 693,693	$ 1,010,946	$ 1,089,795
Interest Expense	$ 76	$ 166	$ 241	$ 2,046	$ 104,602	$ 250,376	$ 291,437	$ 262,880
Net Income for Taxes/PILs	$ 94	$ 207	$ 262	$ 1,744	$ 77,573	$ 185,678	$ 216,129	$ 194,952
Grossed-up Taxes/PILs (from Sheet 7)	$ 48.86	$ 77.25	-$ 0.63	-$ 1,434.95	-$ 103,120.48	-$ 182,467.74	-$ 107,149.06	$ -
Revenue Requirement, including Grossed-up Taxes/PILs	$ 13,675	$ 26,372	$ 22,067	$ 30,454	$ 459,683	$ 1,190,890	$ 1,603,770	$ 1,547,627

For PILs Calculation

UCC - Smart Meters

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 Forecast	2013 Forecast
Opening UCC	$ -	$ -	$ -	$ -	$ -	$ 3,600,342.90	$ 3,426,426.72	$ 2,790,399.28
Capital Additions	$ -	$ -	$ -	$ -	$ 4,000,381.00	$ 606,836.00	$ 54,731.00	$ -
Retirements/Removals (if applicable)								
UCC Before Half Year Rule	$ -	$ -	$ -	$ -	$ 4,000,381.00	$ 4,207,178.90	$ 3,481,157.72	$ 2,790,399.28
Half Year Rule (1/2 Additions - Disposals)	$ -	$ -	$ -	$ -	$ 2,000,190.50	$ 303,418.00	$ 27,365.50	$ -
Reduced UCC	$ -	$ -	$ -	$ -	$ 2,000,190.50	$ 3,903,760.90	$ 3,453,792.22	$ 2,790,399.28
CCA Rate Class	8	8	8	8	8	8	8	8
CCA Rate	20%	20%	20%	20%	20%	20%	20%	20%
CCA	$ -	$ -	$ -	$ -	$ 400,038.10	$ 780,752.18	$ 690,758.44	$ 558,079.86
Closing UCC	$ -	$ -	$ -	$ -	$ 3,600,342.90	$ 3,426,426.72	$ 2,790,399.28	$ 2,232,319.42

UCC - Computer Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 Forecast	2013 Forecast
Opening UCC	$ -	$ 146.20	$ 1,220.94	$ 4,529.21	$ 86,121.10	$ 754,473.06	$ 2,379,095.02	$ 2,320,082.86
Capital Additions Computer Hardware	$ -	$ -	$ 3,875.00	$ 49,641.00	$ 267,105.00	$ 10,090.00	$ -	$ -
Capital Additions Computer Software	$ 172.00	$ 1,316.00	$ 448.00	$ 47,948.00	$ 549,587.11	$ 2,167,514.56	$ 770,254.53	$ -
Retirements/Removals (if applicable)								
UCC Before Half Year Rule	$ 172.00	$ 1,462.20	$ 5,543.94	$ 102,118.21	$ 902,813.21	$ 2,932,077.62	$ 3,149,349.55	$ 2,320,082.86
Half Year Rule (1/2 Additions - Disposals)	$ 86.00	$ 658.00	$ 2,161.50	$ 48,794.50	$ 408,346.06	$ 1,088,802.28	$ 385,127.27	$ -
Reduced UCC	$ 86.00	$ 804.20	$ 3,382.44	$ 53,323.71	$ 494,467.15	$ 1,843,275.34	$ 2,764,222.28	$ 2,320,082.86
CCA Rate Class	46	46	46	46	46	46	46	46
CCA Rate	30%	30%	30%	30%	30%	30%	30%	30%
CCA	$ 25.80	$ 241.26	$ 1,014.73	$ 15,997.11	$ 148,340.15	$ 552,982.60	$ 829,266.68	$ 696,024.86
Closing UCC	$ 146.20	$ 1,220.94	$ 4,529.21	$ 86,121.10	$ 754,473.06	$ 2,379,095.02	$ 2,320,082.86	$ 1,624,058.00

UCC - General Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 Forecast	2013 Forecast
Opening UCC	$ -	$ -	$ -	$ -	$ -	$ 41,208.30	$ 40,436.64	$ 32,349.31
Capital Additions Tools & Equipment	$ -	$ -	$ -	$ -	$ 5,934.00	$ -	$ -	$ -
Capital Additions Other Equipment	$ -	$ -	$ -	$ -	$ 39,853.00	$ 8,300.00	$ -	$ -
Retirements/Removals (if applicable)								
UCC Before Half Year Rule	$ -	$ -	$ -	$ -	$ 45,787.00	$ 49,508.30	$ 40,436.64	$ 32,349.31
Half Year Rule (1/2 Additions - Disposals)	$ -	$ -	$ -	$ -	$ 22,893.50	$ 4,150.00	$ -	$ -
Reduced UCC	$ -	$ -	$ -	$ -	$ 22,893.50	$ 45,358.30	$ 40,436.64	$ 32,349.31
CCA Rate Class	8	8	8	8	8	8	8	8
CCA Rate	20%	20%	20%	20%	20%	20%	20%	20%
CCA	$ -	$ -	$ -	$ -	$ 4,578.70	$ 9,071.66	$ 8,087.33	$ 6,469.86
Closing UCC	$ -	$ -	$ -	$ -	$ 41,208.30	$ 40,436.64	$ 32,349.31	$ 25,879.45

UCC - Applications Software

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

PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 Forecast	2013 Forecast
INCOME TAX								
Net Income	$ 94.20	$ 206.69	$ 261.71	$ 1,744.33	$ 77,572.71	$ 185,678.17	$ 216,128.97	$ 194,951.59
Amortization	$ 17.20	$ 166.00	$ 729.90	$ 10,921.10	$ 237,984.59	$ 693,692.51	$ 1,010,945.65	$ 1,089,795.47
CCA - Smart Meters	$ -	$ -	$ -	$ -	-$ 400,038.10	-$ 780,752.18	-$ 690,758.44	-$ 558,079.86
CCA - Computers	-$ 25.80	-$ 241.26	-$ 1,014.73	-$ 15,997.11	-$ 148,340.15	-$ 552,982.60	-$ 829,266.68	-$ 696,024.86
CCA - Applications Software	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CCA - Other Equipment	$ -	$ -	$ -	$ -	-$ 4,578.70	-$ 9,071.66	-$ 8,087.33	-$ 6,469.86
Change in taxable income	$ 85.60	$ 131.43	-$ 23.12	-$ 3,331.68	-$ 237,399.64	-$ 463,435.77	-$ 301,037.84	$ 24,172.49
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%	25.50%
Income Taxes Payable	$ 30.92	$ 47.47	-$ 7.75	-$ 1,099.45	-$ 73,593.89	-$ 130,920.60	-$ 79,022.43	$ 6,163.98
ONTARIO CAPITAL TAX								
Smart Meters	$ -	$ -	$ -	$ -	$ 3,867,034.97	$ 4,186,951.03	$ 3,932,709.87	$ 3,621,913.33
Computer Hardware	$ -	$ -	$ 3,487.50	$ 47,389.40	$ 277,080.70	$ 222,037.50	$ 155,895.30	$ 89,753.10
Computer Software (Including Application Software)	$ 154.80	$ 1,304.80	$ 1,410.40	$ 44,176.40	$ 528,828.00	$ 2,359,696.88	$ 2,499,528.82	$ 1,792,080.78
Tools & Equipment	$ -	$ -	$ -	$ -	$ 5,637.30	$ 5,043.90	$ 4,450.50	$ 3,857.10
Other Equipment	$ -	$ -	$ -	$ -	$ 37,860.35	$ 41,760.05	$ 36,944.75	$ 32,129.45
Rate Base	$ 154.80	$ 1,304.80	$ 4,897.90	$ 91,565.80	$ 4,716,441.32	$ 6,815,489.36	$ 6,629,529.24	$ 5,539,733.77
Less: Exemption								
Deemed Taxable Capital	$ 154.80	$ 1,304.80	$ 4,897.90	$ 91,565.80	$ 4,716,441.32	$ 6,815,489.36	$ 6,629,529.24	$ 5,539,733.77
Ontario Capital Tax Rate (from Sheet 3)	0.300%	0.225%	0.225%	0.225%	0.075%	0.000%	0.000%	0.000%
Net Amount (Taxable Capital x Rate)	$ 0.46	$ 2.94	$ 11.02	$ 206.02	$ 3,537.33	$ -	$ -	$ -
Change in Income Taxes Payable	$ 30.92	$ 47.47	-$ 7.75	-$ 1,099.45	-$ 73,593.89	-$ 130,920.60	-$ 79,022.43	$ 6,163.98
Change in OCT	$ 0.46	$ 2.94	$ 11.02	$ 206.02	$ 3,537.33	$ -	$ -	$ -
PILs	$ 31.38	$ 50.41	$ 3.27	-$ 893.43	-$ 70,056.56	-$ 130,920.60	-$ 79,022.43	$ 6,163.98
Gross Up PILs								
Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%	25.50%
Change in Income Taxes Payable	$ 48.40	$ 74.31	-$ 11.65	-$ 1,640.98	-$ 106,657.81	-$ 182,467.74	-$ 107,149.06	$ 8,273.81
Change in OCT	$ 0.46	$ 2.94	$ 11.02	$ 206.02	$ 3,537.33	$ -	$ -	$ -
PILs	**$ 48.86**	**$ 77.25**	**-$ 0.63**	**-$ 1,434.95**	**-$ 103,120.48**	**-$ 182,467.74**	**-$ 107,149.06**	**$ 8,273.81**

Ontario Energy Board

Smart Meter Model

Bluewater Power Distribution Corporation

This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	*Year*	*Quarter*	Opening Balance (Principal)	Funding Adder Revenues	Interest Rate	Interest	Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder (from Tariff)
2006 Q1			Jan-06	*2006*	*Q1*	$ -		0.00%	$ -	$ -		
2006 Q2	4.14%	4.68%	Feb-06	*2006*	*Q1*	$ -		0.00%	$ -	$ -		
2006 Q3	4.59%	5.05%	Mar-06	*2006*	*Q1*	$ -		0.00%	$ -	$ -		
2006 Q4	4.59%	4.72%	Apr-06	*2006*	*Q2*	$ -		4.14%	$ -	$ -		
2007 Q1	4.59%	4.72%	May-06	*2006*	*Q2*	$ -		4.14%	$ -	$ -		
2007 Q2	4.59%	4.72%	Jun-06	*2006*	*Q2*	$ -		4.14%	$ -	$ -		
2007 Q3	4.59%	5.18%	Jul-06	*2006*	*Q3*	$ -		4.59%	$ -	$ -		
2007 Q4	5.14%	5.18%	Aug-06	*2006*	*Q3*	$ -		4.59%	$ -	$ -		
2008 Q1	5.14%	5.18%	Sep-06	*2006*	*Q3*	$ -		4.59%	$ -	$ -		
2008 Q2	4.08%	5.18%	Oct-06	*2006*	*Q4*	$ -	$ 51,594.92	4.59%	$ -	$ 51,594.92		$ 0.26
2008 Q3	3.35%	5.43%	Nov-06	*2006*	*Q4*	$ 51,594.92	$ 8,681.92	4.59%	$ 197.35	$ 60,474.19		$ 0.26
2008 Q4	3.35%	5.43%	Dec-06	*2006*	*Q4*	$ 60,276.84	$ 8,317.66	4.59%	$ 230.56	$ 68,825.06	$ 69,022.41	$ 0.26
2009 Q1	2.45%	6.61%	Jan-07	*2007*	*Q1*	$ 68,594.50	$ 12,914.46	4.59%	$ 262.37	$ 81,771.33		$ 0.26
2009 Q2	1.00%	6.61%	Feb-07	*2007*	*Q1*	$ 81,508.96	$ 6,943.82	4.59%	$ 311.77	$ 88,764.55		$ 0.26
2009 Q3	0.55%	5.67%	Mar-07	*2007*	*Q1*	$ 88,452.78	$ 12,169.04	4.59%	$ 338.33	$ 100,960.15		$ 0.26
2009 Q4	0.55%	4.66%	Apr-07	*2007*	*Q2*	$ 100,621.82	$ 7,242.56	4.59%	$ 384.88	$ 108,249.26		$ 0.26
2010 Q1	0.55%	4.34%	May-07	*2007*	*Q2*	$ 107,864.38	$ 7,242.56	4.59%	$ 412.58	$ 115,519.52		$ 0.26
2010 Q2	0.55%	4.34%	Jun-07	*2007*	*Q2*	$ 115,106.94	$ 11,934.00	4.59%	$ 440.28	$ 127,481.22		$ 0.26
2010 Q3	0.89%	4.66%	Jul-07	*2007*	*Q3*	$ 127,040.94	$ 11,431.16	4.59%	$ 485.93	$ 138,958.03		$ 0.26
2010 Q4	1.20%	4.01%	Aug-07	*2007*	*Q3*	$ 138,472.10	$ 9,261.20	4.59%	$ 529.66	$ 148,262.96		$ 0.26
2011 Q1	1.47%	4.29%	Sep-07	*2007*	*Q3*	$ 147,733.30	$ 9,257.30	4.59%	$ 565.08	$ 157,555.68		$ 0.26
2011 Q2	1.47%	4.29%	Oct-07	*2007*	*Q4*	$ 156,990.60	$ 10,174.32	5.14%	$ 672.44	$ 167,837.36		$ 0.26
2011 Q3	1.47%	4.29%	Nov-07	*2007*	*Q4*	$ 167,164.92	$ 10,116.60	5.14%	$ 716.02	$ 177,997.54		$ 0.26
2011 Q4	1.47%	3.92%	Dec-07	*2007*	*Q4*	$ 177,281.52	$ 7,990.58	5.14%	$ 759.36	$ 186,031.46	$ 122,556.30	$ 0.26
2012 Q1	1.47%	3.92%	Jan-08	*2008*	*Q1*	$ 185,272.10	$ 12,540.06	5.14%	$ 793.58	$ 198,605.74		$ 0.26
2012 Q2	1.47%	3.51%	Feb-08	*2008*	*Q1*	$ 197,812.16	$ 7,152.08	5.14%	$ 847.30	$ 205,811.54		$ 0.26
2012 Q3	1.47%	3.51%	Mar-08	*2008*	*Q1*	$ 204,964.24	$ 10,315.50	5.14%	$ 877.93	$ 216,157.67		$ 0.26
2012 Q4	1.47%	3.51%	Apr-08	*2008*	*Q2*	$ 215,279.74	$ 10,092.16	4.08%	$ 731.95	$ 226,103.85		$ 0.26
2013 Q1			May-08	*2008*	*Q2*	$ 225,371.90	$ 10,260.12	4.08%	$ 766.26	$ 236,398.28		$ 0.26
2013 Q2			Jun-08	*2008*	*Q2*	$ 235,632.02	$ 8,379.54	4.08%	$ 801.15	$ 244,812.71		$ 0.26
2013 Q3			Jul-08	*2008*	*Q3*	$ 244,011.56	$ 12,026.30	3.35%	$ 681.20	$ 256,719.06		$ 0.26

This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance (Principal)	Funding Adder Revenues	Interest Rate	Interest	Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder (from Tariff)
2013 Q4			Aug-08	2008	Q3	$ 256,037.86	$ 7,346.04	3.35%	$ 714.77	$ 264,098.67		$ 0.26
			Sep-08	2008	Q3	$ 263,383.90	$ 7,861.88	3.35%	$ 735.28	$ 271,981.06		$ 0.26
			Oct-08	2008	Q4	$ 271,245.78	$ 10,001.68	3.35%	$ 757.23	$ 282,004.69		$ 0.26
			Nov-08	2008	Q4	$ 281,247.46	$ 9,384.18	3.35%	$ 785.15	$ 291,416.79		$ 0.26
			Dec-08	2008	Q4	$ 290,631.64	$ 11,311.56	3.35%	$ 811.35	$ 302,754.55	$ 125,974.25	$ 0.26
			Jan-09	2009	Q1	$ 301,943.20	$ 13,109.72	2.45%	$ 616.47	$ 315,669.39		$ 0.26
			Feb-09	2009	Q1	$ 315,052.92	$ 6,988.80	2.45%	$ 643.23	$ 322,684.95		$ 0.26
			Mar-09	2009	Q1	$ 322,041.72	$ 11,554.92	2.45%	$ 657.50	$ 334,254.14		$ 0.26
			Apr-09	2009	Q2	$ 333,596.64	$ 9,229.22	1.00%	$ 278.00	$ 343,103.86		$ 0.26
			May-09	2009	Q2	$ 342,825.86	$ 10,430.94	1.00%	$ 285.69	$ 353,542.49		$ 0.26
			Jun-09	2009	Q2	$ 353,256.80	$ 8,395.40	1.00%	$ 294.38	$ 361,946.58		$ 0.26
			Jul-09	2009	Q3	$ 361,652.20	$ 12,393.94	0.55%	$ 165.76	$ 374,211.90		$ 0.26
			Aug-09	2009	Q3	$ 374,046.14	$ 6,910.89	0.55%	$ 171.44	$ 381,128.47		$ 0.26
			Sep-09	2009	Q3	$ 380,957.03	$ 10,621.43	0.55%	$ 174.61	$ 391,753.07		$ 0.26
			Oct-09	2009	Q4	$ 391,578.46	$ 7,778.65	0.55%	$ 179.47	$ 399,536.58		$ 0.26
			Nov-09	2009	Q4	$ 399,357.11	$ 9,981.80	0.55%	$ 183.04	$ 409,521.95		$ 0.26
			Dec-09	2009	Q4	$ 409,338.91	$ 7,982.22	0.55%	$ 187.61	$ 417,508.74	$ 119,215.13	$ 0.26
			Jan-10	2010	Q1	$ 417,321.13	$ 11,061.19	0.55%	$ 191.27	$ 428,573.59		$ 0.26
			Feb-10	2010	Q1	$ 428,382.32	$ 7,140.27	0.55%	$ 196.34	$ 435,718.93		$ 0.26
			Mar-10	2010	Q1	$ 435,522.59	$ 12,231.77	0.55%	$ 199.61	$ 447,953.97		$ 0.26
			Apr-10	2010	Q2	$ 447,754.36	$ 6,669.89	0.55%	$ 205.22	$ 454,629.47		$ 0.26
			May-10	2010	Q2	$ 454,424.25	$ 11,458.62	0.55%	$ 208.28	$ 466,091.15		$ 1.00
			Jun-10	2010	Q2	$ 465,882.87	$ 18,076.28	0.55%	$ 213.53	$ 484,172.68		$ 1.00
			Jul-10	2010	Q3	$ 483,959.15	$ 25,999.30	0.89%	$ 358.94	$ 510,317.39		$ 1.00
			Aug-10	2010	Q3	$ 509,958.45	$ 44,100.24	0.89%	$ 378.22	$ 554,436.91		$ 1.00
			Sep-10	2010	Q3	$ 554,058.69	$ 36,759.82	0.89%	$ 410.93	$ 591,229.44		$ 1.00
			Oct-10	2010	Q4	$ 590,818.51	$ 33,008.31	1.20%	$ 590.82	$ 624,417.64		$ 1.00
			Nov-10	2010	Q4	$ 623,826.82	$ 38,735.50	1.20%	$ 623.83	$ 663,186.15		$ 1.00
			Dec-10	2010	Q4	$ 662,562.32	$ 30,685.47	1.20%	$ 662.56	$ 693,910.35	$ 280,166.21	$ 1.00
			Jan-11	2011	Q1	$ 693,247.79	$ 39,610.03	1.47%	$ 849.23	$ 733,707.05		$ 1.00
			Feb-11	2011	Q1	$ 732,857.82	$ 32,834.14	1.47%	$ 897.75	$ 766,589.71		$ 1.00
			Mar-11	2011	Q1	$ 765,691.96	$ 43,074.85	1.47%	$ 937.97	$ 809,704.78		$ 1.00

Ontario Energy Board

Smart Meter Model

Bluewater Power Distribution Corporation

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)
			Apr-11	2011	Q2	$ 808,766.81	$ 28,584.13	1.47%	$ 990.74	$ 838,341.68		$ 1.00
			May-11	2011	Q2	$ 837,350.94	$ 42,877.53	1.47%	$ 1,025.75	$ 881,254.22		$ 2.00
			Jun-11	2011	Q2	$ 880,228.47	$ 44,908.03	1.47%	$ 1,078.28	$ 926,214.78		$ 2.00
			Jul-11	2011	Q3	$ 925,136.50	$ 79,077.03	1.47%	$ 1,133.29	$ 1,005,346.82		$ 2.00
			Aug-11	2011	Q3	$ 1,004,213.53	$ 66,740.57	1.47%	$ 1,230.16	$ 1,072,184.26		$ 2.00
			Sep-11	2011	Q3	$ 1,070,954.10	$ 82,553.45	1.47%	$ 1,311.92	$ 1,154,819.47		$ 2.00
			Oct-11	2011	Q4	$ 1,153,507.55	$ 55,003.17	1.47%	$ 1,413.05	$ 1,209,923.77		$ 2.00
			Nov-11	2011	Q4	$ 1,208,510.72	$ 89,463.28	1.47%	$ 1,480.43	$ 1,299,454.43		$ 2.00
			Dec-11	2011	Q4	$ 1,297,974.00	$ 49,472.42	1.47%	$ 1,590.02	$ 1,349,036.44	$ 668,137.22	$ 2.00
			Jan-12	2012	Q1	$ 1,347,446.42	$ 92,973.55	1.47%	$ 1,650.62	$ 1,442,070.59		$ 2.00
			Feb-12	2012	Q1	$ 1,440,419.97	$ 54,224.39	1.47%	$ 1,764.51	$ 1,496,408.87		$ 2.00
			Mar-12	2012	Q1	$ 1,494,644.36	$ 85,342.31	1.47%	$ 1,830.94	$ 1,581,817.61		$ 2.00
			Apr-12	2012	Q2	$ 1,579,986.67	$ 57,676.00	1.47%	$ 1,935.48	$ 1,639,598.15		$ 2.00
			May-12	2012	Q2	$ 1,637,662.67	$ 73,981.50	1.47%	$ 2,006.14	$ 1,713,650.31		
			Jun-12	2012	Q2	$ 1,711,644.17	$ 36,990.75	1.47%	$ 2,096.76	$ 1,750,731.68		
			Jul-12	2012	Q3	$ 1,748,634.92		1.47%	$ 2,142.08	$ 1,750,777.00		
			Aug-12	2012	Q3	$ 1,748,634.92		1.47%	$ 2,142.08	$ 1,750,777.00		
			Sep-12	2012	Q3	$ 1,748,634.92		1.47%	$ 2,142.08	$ 1,750,777.00		
			Oct-12	2012	Q4	$ 1,748,634.92		1.47%	$ 2,142.08	$ 1,750,777.00		
			Nov-12	2012	Q4	$ 1,748,634.92		0.00%	$ -	$ 1,748,634.92		
			Dec-12	2012	Q4	$ 1,748,634.92		0.00%	$ -	$ 1,748,634.92	$ 421,041.27	
			Jan-13	2013	Q1	$ 1,748,634.92		0.00%	$ -	$ 1,748,634.92		
			Feb-13	2013	Q1	$ 1,748,634.92		0.00%	$ -	$ 1,748,634.92		
			Mar-13	2013	Q1	$ 1,748,634.92		0.00%	$ -	$ 1,748,634.92		
			Apr-13	2013	Q2	$ 1,748,634.92		0.00%	$ -	$ 1,748,634.92		
			May-13	2013	Q2	$ 1,748,634.92		0.00%	$ -	$ 1,748,634.92		
			Jun-13	2013	Q2	$ 1,748,634.92		0.00%	$ -	$ 1,748,634.92		
			Jul-13	2013	Q3	$ 1,748,634.92		0.00%	$ -	$ 1,748,634.92		
			Aug-13	2013	Q3	$ 1,748,634.92		0.00%	$ -	$ 1,748,634.92		
			Sep-13	2013	Q3	$ 1,748,634.92		0.00%	$ -	$ 1,748,634.92		
			Oct-13	2013	Q4	$ 1,748,634.92		0.00%	$ -	$ 1,748,634.92		
			Nov-13	2013	Q4	$ 1,748,634.92		0.00%	$ -	$ 1,748,634.92		

Ontario Energy Board

Smart Meter Model

Bluewater Power Distribution Corporation

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)
			Dec-13	*2013*	*Q4*	$ 1,748,634.92		FALSE	$ -	$ 1,748,634.92	$ -	
			Total Funding Adder Revenues Collected				**$ 1,748,634.92**		**$ 57,477.87**	**$ 1,806,112.79**	**$ 1,806,112.79**	

Ontario Energy Board

Smart Meter Model

Bluewater Power Distribution Corporation

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

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

Prescribed Interest Rates	Approved Deferral and Variance Accounts	CWIP		Date	Year	Quarter	Opening Balance (Principal)	OM&A Expenses	Amortization / Depreciation Expense	Closing Balance (Principal)	(Annual) Interest Rate	Interest (on opening balance)	Cumulative Interest
2006 Q1	0.00%	0.00%		Jan-06	2006	Q1	$ -			-	0.00%	-	-
2006 Q2	4.14%	4.68%		Feb-06	2006	Q1	-			-	0.00%	-	-
2006 Q3	4.59%	5.05%		Mar-06	2006	Q1	-			-	0.00%	-	-
2006 Q4	4.59%	4.72%		Apr-06	2006	Q2	-			-	4.14%	-	-
2007 Q1	4.59%	4.72%		May-06	2006	Q2	-			-	4.14%	-	-
2007 Q2	4.59%	4.72%		Jun-06	2006	Q2	-			-	4.14%	-	-
2007 Q3	4.59%	5.18%		Jul-06	2006	Q3	-			-	4.59%	-	-
2007 Q4	5.14%	5.18%		Aug-06	2006	Q3	-			-	4.59%	-	-
2008 Q1	5.14%	5.18%		Sep-06	2006	Q3	-			-	4.59%	-	-
2008 Q2	4.08%	5.18%		Oct-06	2006	Q4	-			-	4.59%	-	-
2008 Q3	3.35%	5.43%		Nov-06	2006	Q4	-			-	4.59%	-	-
2008 Q4	3.35%	5.43%		Dec-06	2006	Q4	-			-	4.59%	-	-
2009 Q1	2.45%	6.61%		Jan-07	2007	Q1	-			-	4.59%	-	-
2009 Q2	1.00%	6.61%		Feb-07	2007	Q1	-			-	4.59%	-	-
2009 Q3	0.55%	5.67%		Mar-07	2007	Q1	-			-	4.59%	-	-
2009 Q4	0.55%	4.66%		Apr-07	2007	Q2	-			-	4.59%	-	-
2010 Q1	0.55%	4.34%		May-07	2007	Q2	-			-	4.59%	-	-
2010 Q2	0.55%	4.34%		Jun-07	2007	Q2	-			-	4.59%	-	-
2010 Q3	0.89%	4.66%		Jul-07	2007	Q3	-			-	4.59%	-	-
2010 Q4	1.20%	4.01%		Aug-07	2007	Q3	-			-	4.59%	-	-
2011 Q1	1.47%	4.29%		Sep-07	2007	Q3	-			-	4.59%	-	-
2011 Q2	1.47%	4.29%		Oct-07	2007	Q4	-			-	5.14%	-	-
2011 Q3	1.47%	4.29%		Nov-07	2007	Q4	-			-	5.14%	-	-
2011 Q4	1.47%	3.92%		Dec-07	2007	Q4	-			-	5.14%	-	-
2012 Q1	1.47%	3.92%		Jan-08	2008	Q1	-			-	5.14%	-	-
2012 Q2	1.47%	3.51%		Feb-08	2008	Q1	-			-	5.14%	-	-
2012 Q3	1.47%	3.51%		Mar-08	2008	Q1	-			-	5.14%	-	-
2012 Q4	1.47%	3.51%		Apr-08	2008	Q2	-			-	4.08%	-	-
2013 Q1	0.00%	0.00%		May-08	2008	Q2	-			-	4.08%	-	-
2013 Q2	0.00%	0.00%		Jun-08	2008	Q2	-			-	4.08%	-	-
2013 Q3	0.00%	0.00%		Jul-08	2008	Q3	-			-	3.35%	-	-
2013 Q4	0.00%	0.00%		Aug-08	2008	Q3	-			-	3.35%	-	-
				Sep-08	2008	Q3	-			-	3.35%	-	-
				Oct-08	2008	Q4	-			-	3.35%	-	-

Ontario Energy Board

Smart Meter Model

Bluewater Power Distribution Corporation

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	$ 13,439.32	$ 17.20	$ 13,456.52	$ 6,728.26	4.37%	$ 293.69
2007	$ 25,755.20	$ 166.00	$ 39,377.72	$ 26,417.12	4.73%	$ 1,248.87
2008	$ 20,835.54	$ 729.90	$ 60,943.16	$ 50,160.44	3.98%	$ 1,996.39
2009	$ 17,177.26	$ 10,921.10	$ 89,041.52	$ 74,992.34	1.14%	$ 853.04
2010	$ 142,643.87	$ 237,984.59	$ 469,669.98	$ 279,355.75	0.80%	$ 2,227.86
2011	$ 243,610.99	$ 693,692.51	$ 1,406,973.49	$ 938,321.74	1.47%	$ 13,793.33
2012	$ 192,407.41	$ 1,010,945.65	$ 2,610,326.55	$ 2,008,650.02	1.23%	$ 24,605.96
2013	$ -	$ 1,089,795.47	$ 3,700,122.02	$ 3,155,224.29	0.00%	$ -

Cumulative Interest to 2011	$ 20,413.17
Cumulative Interest to 2012	$ 45,019.14
Cumulative Interest to 2013	$ 45,019.14

Ontario Energy Board

Smart Meter Model

Bluewater Power Distribution Corporation

This worksheet calculates the Smart Meter Disposition Rider and the Smart Meter Incremental Revenue Requirement Rate Rider, if applicable. This worksheet also calculates any new Smart Meter Funding Adder that a distributor may wish to request. However, please note that in many 2011 IRM decisions, the Board noted that current funding adders will cease on April 30, 2011 and that the Board's expectation is that distributors will file for a final review of prudence at the earliest opportunity. The Board also noted that the SMFA is a tool designed to provide advance funding and to mitigate the anticipated rate impact of smart meter costs when recovery of those costs is approved by the Board. The Board observed that the SMFA was not intended to be compensatory (return on and of capital) on a cumulative basis over the term the SMFA was in effect. The SMFA was initially designed to fund future investment, and not fully fund prior capital investment. Distributors that seek a new SMFA should provide evidence to support its proposal. This would include documentation of where the distributor is with respect to its smart meter deployment program, and reasons as to why the distributor's circumstances are such that continuation of the SMFA is warranted. Press the "UPDATE WORKSHEET" button after choosing the applicable adders/riders.

Check if applicable		
	Smart Meter Funding Adder (SMFA)	
X	Smart Meter Disposition Rider (SMDR)	**The SMDR is calculated based on costs to December 31, 2011**
X	Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)	**The SMIRR is calculated based on the incremental revenue requirement associated with the recovery of capital related costs to December 31, 2012 and associated OM&A.**

	2006	2007	2008	2009	2010	2011	2012	2013	Total
Deferred and forecasted Smart Meter Incremental Revenue Requirement (from Sheet 5)	$ 13,675.47	$ 26,371.64	$ 22,067.13	$ 30,454.13	$ 459,682.80	$ 1,190,889.69	$ 1,603,769.79	$ 1,547,627.49	$ 3,346,910.65
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B)	$ 293.69	$ 1,248.87	$ 1,996.39	$ 853.04	$ 2,227.86	$ 13,793.33	$ 24,605.96		$ 45,019.14
(Check **one** of the boxes below)									
Sheet 8A (Interest calculated on monthly balances)									
X Sheet 8B (Interest calculated on average annual balances)	$ 293.69	$ 1,248.87	$ 1,996.39	$ 853.04	$ 2,227.86	$ 13,793.33	$ 24,605.96	$ -	$ 45,019.14
SMFA Revenues (from Sheet 8)	$ 68,594.50	$ 116,677.60	$ 116,671.10	$ 115,377.93	$ 275,926.66	$ 654,198.63	$ 401,188.50	$ -	$ 1,748,634.92
SMFA Interest (from Sheet 8)	$ 427.91	$ 5,878.70	$ 9,303.15	$ 3,837.20	$ 4,239.55	$ 13,938.59	$ 19,852.77	$ -	$ 57,477.87
Net Deferred Revenue Requirement	-$ 55,053.26	-$ 94,935.79	-$ 101,910.73	-$ 87,907.96	$ 181,744.45	$ 536,545.80	$ 1,207,334.49	$ 1,547,627.49	$ 1,585,817.00
Number of Metered Customers (average for 2013 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)								35401	

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

Years for collection or refunding			1
Deferred Incremental Revenue Requirement from 2006 to December 31, 2012 plus Interest on OM&A and Amortization		$	3,391,929.79
SMFA Revenues collected from 2006 to 2013 test year (inclusive) Plus Simple Interest on SMFA Revenues		$	1,806,112.79
Net Deferred Revenue Requirement		$	1,585,817.00
SMDR	November 1, 2012 to	$	3.73
Check: Forecasted SMDR Revenues		$	1,584,548.76

Match

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

Incremental Revenue Requirement for 2013	$	1,547,627.49
SMIRR	$	3.64
Check: Forecasted SMIRR Revenues	$	1,546,315.68

Match