

September 7, 2012

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

**Re: Smart Meter Final Disposition, Interrogatory Responses**  
**Board File No.: EB-2012-0289**

Dear Ms. Walli,

Please find enclosed the responses of Entegrus to Board Staff and VECC interrogatories relating to the above mentioned file.

If you have any further questions, please do not hesitate to contact me at (519) 352-6300, extension 243 or via email at [regulatory@entegrus.com](mailto:regulatory@entegrus.com).

Regards,

*[Original Signed By]*

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Application for Final Disposition of  
Smart Meter Funding and Cost Recovery

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Interrogatory Responses  
Board File No.: EB-2012-0289  
Date Filed: September 7, 2012

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## **Board Staff Question 1**

Reference: Audited Balances

On page 14 of the Application, Entegrus states that 100% of the costs submitted for disposition are included in the audited financial statements to December 31, 2011, with the exception of ongoing costs.

- a) Please confirm that, when Entegrus refers to audited statements, that Entegrus means the Audited Financial Statements of Chatham-Kent Hydro Inc., Middlesex Power Distribution Corp. Dutton, Middlesex Power Distribution Corp. Middlesex, and Middlesex Power Distribution Corp. Newbury. If not, please explain what has, and what has not been audited for 2011.
  - b) Please confirm that “ongoing costs” refers to costs for 2012. In the alternative, please explain.
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### **Response:**

- a) The term “audited financial statements” refers to the audited financial statements of Entegrus Powerlines’ predecessor distributors, namely Chatham-Kent Hydro Inc. (“CKH”) and Middlesex Power Distribution Corporation (“MPDC”), for the periods up to and including December 31, 2011.

Please refer to pages 6-7 of the Application, which describes the composition and evolution of the Entegrus service territory and its various rate zones.

Since the time of the acquisition of MPDC-Dutton and MPDC-Newbury rate zones on April 30, 2009, the financial activities of those previously stand-alone corporations have been included in the audited financial statements of MPDC. At the time of acquisition on April 30, 2009, no Smart Meter activities had occurred in MPDC-Dutton or MPDC-Newbury.

Entegrus confirms that it completed Smart Meter deployment in 2011, and confirms that 100% of the associated costs incurred in all four rate zones are reflected in the audited financial statements of CKH and MPDC to December 31, 2011, with the exception of the ongoing costs referred to in the Entegrus Response to Board Staff Question 1(b) below.

- b) Entegrus confirms that “ongoing costs” refer to 2012 costs.

## Board Staff Question 2

Reference: Cost Accounting

Entegrus describes two different methods for the assignment of costs to each of its rate zones, depending on whether they are for Capital or OM&A.<sup>1</sup> For capital, Entegrus states that it tracked capital costs separately for each rate zone. For OM&A, Entegrus states that it pooled its OM&A and allocated the costs equally to the zones. Board staff is interested in the fact that two different allocation methods are used, one for Capital and one for OM&A.

As of January, 2012, Entegrus is an amalgamated utility. As pointed out by Entegrus, for OM&A, there are cost savings synergies from which all customers will benefit equally.<sup>2</sup>

- a) Some capital costs, such as for AMCC, or CIS/TOU billing system costs, may be common for Entegrus or for the separate but affiliated entities of Chatham-Kent Hydro (CKH), Middlesex Power, Middlesex Power – Dutton and Middlesex Power – Newbury, pre-merger. How has Entegrus allocated any common capital costs?
- b) Entegrus states that:  
*“When these three former MPDC zones are considered in isolation – that is, without taking into account the efficiencies developed over time by CKH through its early and lengthy involvement in the deployment process – it may appear that OM&A costs for these three zones should be lower than those of CKH. However, Entegrus submits that would be unfair to customers in the CKH rate zone, who would be forced to bear comparatively higher costs due to the timing of their Smart Meter deployment but could share none of the benefits of improved approaches to implementation. Entegrus submits that the most appropriate approach in this case is to have all of its customers across its entire service area share equally in the OM&A costs and the savings realized over time through more efficient deployment and installation processes. Accordingly, for the purposes of this Application and equitable cost sharing, OM&A and TOU costs have been pooled amongst the four rate zones and allocated based on meter points. Please see Attachment O for further details on the allocation calculations.”*<sup>3</sup>
- c) What does Entegrus mean by a meter point?
- d) In earlier applications, CKH was approved smart meters installed to certain points in time, and in CKH’s 2010 Cost of Service application<sup>4</sup>, the capital costs for smart meters installed to December 31, 2008 were incorporated into rate base and the operating costs related to these would have been factored into the 2010 test year revenue requirement. Accordingly, OM&A expenses related to the operation of these installed meters were recovered in the 2010 approved

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<sup>1</sup> Application, pages 25 & 26

<sup>2</sup> Application, pages 26 & 27

<sup>3</sup> Application, page 26

<sup>4</sup> Chatham-Kent Hydro Application EB-2009-0261

distribution rates, and such recovery would continue under the 3rd Generation IRM adjustment. Board staff admits that this would not include all costs, as changes to CIS/billing systems to implement TOU pricing, web presentment, etc., may not have been completed at that time. How has Entegrus accounted for the OM&A costs that were factored into the 2010 revenue requirement and are recovered in the rates for CKH customers in doing its OM&A allocation in this Application?.

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**Response:**

- a) Please refer to Attachment A to these interrogatories for a map of the Entegrus service territory. As shown by the map, the Entegrus service territory is made up of 16 non-contiguous communities interspersed between large expanses of rural territory serviced by Hydro One. The distance between Entegrus' most southern community (Wheatley) and its most northern community (Parkill) is approximately 160km. Within the Chatham-Kent ("CK") rate territory alone, the distances between the 10 CK communities can range from approximately 20km to approximately 100km apart. Given this geography, very limited common capital costs were incurred in the course of the Smart Meter Initiative.

The only allocated common capital costs in the current Application relate to 2011 software customization costs of \$13,445, whereby \$10,342 was allocated to CK and \$3,103 was allocated to the Strathroy, Mount Brydges & Parkhill ("SMP") rate territory. These costs are included in the Models on line 1.3.2.

- b) Please see the Entegrus response to Board Staff Question 2(c) below.
- c) The term "meter point" refers to each installed Smart Meter on an individual basis, as reflected in Attachment A of the Application.
- d) Entegrus has received previous approval for Smart Meter costs, including OM&A, in the following proceedings:
- EB-2007-0063: Joint CKH and MPDC application covering the CK and SMP rate zones to April 30, 2007;
  - EB-2008-0155: Joint CKH and MPDC application covering the CK and SMP rate zones to December 31, 2007;
  - EB-2009-0261: CKH application covering the CK rate zone to December 31, 2008.

Entegrus notes that the OM&A costs approved in the earlier above-noted proceedings were primarily related to Smart Meter project management, installation trouble-shooting and preliminary MDM/R costs<sup>5</sup>. In contrast, the OM&A costs in the current Application relate primarily to network communication trouble-shooting and associated AMI expenses.

All costs previously approved by the Board in the above-noted proceedings, including OM&A and costs factored into the CKH 2010 revenue requirement, have been excluded from the costs sought in the current Application.

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<sup>5</sup> Chatham-Kent Hydro Application EB-2009-0261, Exhibit 9, Tab 2, Schedule 1, page 6



## Board Staff Question 3

Reference: Smart Meter Capital Costs

Please prepare a variation of the table shown on page 25 that disaggregates costs separately for the Residential and GS<50kW customer classes for each service area.

### Response:

Please see the table below updated to show Residential and GS<50kW rate classes separately. This table has also been updated to reflect changes resulting from these interrogatories.

**Entegrus Powerlines Inc.**  
**Summary of Capital Costs**

Rate Class	Previously Approved			Current Application			Total		
	Installed Meters	Capital \$	Average	Installed Meters	Capital \$	Average	Installed Meters	Capital \$	Average
<b>Chatham-Kent</b>									
Residential	26,995	\$4,637,639	\$172	1,696	\$213,437	\$126	28,691	\$4,851,076	\$169
General Service <50	963	\$328,465	\$341	2,146	\$1,327,792	\$619	3,109	\$1,656,257	\$533
Residential & GS<50	27,958	\$4,966,104	\$178	3,842	\$1,541,229	\$401	31,800	\$6,507,333	\$205
General Service >50	112	\$78,087	\$697	276	\$354,712	\$1,285	388	\$432,799	\$1,115
<b>Strathroy, Mount Brydges &amp; Parkhill</b>									
Residential	5,887	\$979,085	\$166	846	\$109,636	\$130	6,733	\$1,088,721	\$162
General Service <50	-	\$0	\$0	675	\$276,509	\$410	675	\$276,509	\$410
Residential & GS<50	5,887	\$979,085	\$166	1,521	\$386,145	\$254	7,408	\$1,365,229	\$184
General Service >50	-	\$0	\$0	81	\$72,264	\$892	81	\$72,264	\$892
<b>Dutton</b>									
Residential	-	\$0	\$0	516	\$88,421	\$171	516	\$88,421	\$171
General Service <50	-	\$0	\$0	88	\$26,851	\$305	88	\$26,851	\$305
Residential & GS<50	-	\$0	\$0	604	\$115,272	\$191	604	\$115,272	\$191
<b>Newbury</b>									
Residential	-	\$0	\$0	170	\$28,455	\$167	170	\$28,455	\$167
General Service <50	-	\$0	\$0	31	\$6,838	\$221	31	\$6,838	\$221
Residential & GS<50	-	\$0	\$0	201	\$35,293	\$176	201	\$35,293	\$176
General Service >50	-	\$0	\$0	4	\$2,768	\$692	4	\$2,768	\$692
<b>Total</b>									
Residential	32,882	\$5,616,724	\$171	3,228	\$439,949	\$136	36,110	\$6,056,673	\$168
General Service <50	963	\$328,465	\$341	2,940	\$1,637,990	\$557	3,903	\$1,966,455	\$504
Residential & GS<50	33,845	\$5,945,189	\$176	6,168	\$2,077,939	\$337	40,013	\$8,023,128	\$201
General Service >50	112	\$78,087	\$697	361	\$429,744	\$1,190	473	\$507,831	\$1,074

## Board Staff Question 4

Reference: Unit Cost

Entegrus was approved to undertake its smart meter initiative in the Combined Proceeding based on its proposal, including costs at that time.<sup>6</sup> In the table on page 25, there are large differences in unit costs for the earlier and previously approved unit costs and those that are being requested now.

a) Please explain the increases.

Based on the tables found on pages 25 and 27, Board staff has developed the following table:

**Table 1**

		Capital			ol.	OM&A			Total		
		Col. 1	Col. 2	Col. 3		Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9
		Count	Capital	Average		Count	OM&A	Average	Count	Cost	Average
Chatham-Kent											
1	Res & GS	31,800	6,507,333	204.63		31,800	1,135,796	35.72	31,800	7,643,129	240.35
2	GS>50	388	432,799	1,115.46		388	4,680	12.06	388	437,479	1,127.52
Strathroy, Mount Brydges, & Parkhill											
3	Res & GS	7,408	1,365,229	184.29		7,408	181,088	24.44	7,408	1,546,317	208.74
4	GS>50	81	72,264	892.15		81	1,579	19.49	81	73,843	911.64
Dutton											
5	Res & GS	604	115,272	190.85		604	5,199	8.61	604	120,471	199.46
6	GS>50								0		
Newbury											
	Res & GS	201	35,293	175.59		201	1,730	8.61	201	37,023	184.19
8	GS>50	4	2,768	692.00		4	34	8.50	4	2,802	700.50
Total											
9	Res & GS	40,013	8,023,127	200.51		40,013	1,323,813	33.08	40,013	9,346,940	233.60
10	GS>50	473	507,831	1,073.64		473	6,293	13.30	473	514,124	1,086.94

b) Please confirm that Entegrus agrees with this table. If it does not, please correct the table and explain the correction.

c) Entegrus states that on page 26 of the Application that “the larger geographic territory of CKH drives relatively higher installation costs.” However, with serving larger communities such as Chatham, Entegrus may be able to service more customers with a given number of repeaters and collectors for meter data collection than for a smaller community such as Newbury. On a per meter basis, Entegrus may have a lower cost per meter as it can serve more meters with the

<sup>6</sup> Decision with Reasons; TheCombined Hearing EB-2007-0063, August 8, 2007.

same amount of invested AMRC and AMCC infrastructure. This logic is contrary to Entegrus' statement that CKH's larger geographic area drives relatively higher installation costs. Please provide further explanation of how CKH's geographic area results in higher installation costs.

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**Response:**

- a) The previously approved unit costs relate primarily to Residential installations completed by CKH up to and including December 31, 2008, and by MPDC up to and including December 31, 2007. Entegrus experienced an increase in average unit cost since the time of these prior approvals primarily as a result of the timing of commercial deployment.

Specifically, as seen in Attachment A of the Application, the initial focus of Entegrus' Smart Meter deployment was on Residential meters in order to meet the Ministry's initial goal of 800,000 Residential Smart Meters by December 31, 2007.

Residential Smart Meters are relatively less expensive and less complex to install in comparison to commercial Smart Meters. The higher costs associated with commercial Smart Meters are described in the Application. Specifically, the costs associated with GS<50kW polyphase meter deployment are described on page 26, and the costs associated with GS>50kW meter deployment are described on page 30.

The latter stages of Entegrus' deployment focused on the relatively more expensive commercial Smart Meters, which has driven higher unit costs in this Application. While some CKH commercial Smart Meter deployment had occurred by December 31, 2008, those initial commercial meters were relatively more straightforward cases, and excluded polyphase meters.

The previously approved unit costs for CKH are for the period up to and including December 31, 2008. As shown in Attachment A of the Application, at that time, the CKH deployment mix was: Residential – 96.2%, General Service < 50kW – 3.4% and General Service > 50kW – 0.4%. In contrast, the final deployment mix was: Residential – 89.1%, General Service < 50kW – 9.7% and General Service > 50kW – 1.2%.

The previously approved unit costs for MPDC are for the period up to and including December 31, 2007. As shown in Attachment A of the Application, at such time, the MPDC deployment mix was 100% Residential. In contrast, the final MPDC deployment mix was: Residential – 89.9%, General Service < 50kW – 9.0% and General Service > 50kW – 1.1%.

- b) Entegrus confirms the table above prepared by Board Staff is correct based on the original Application as submitted. The table does not reflect the changes resulting from these interrogatories.
- c) Within more the urbanized sections of its service territory such as Chatham, Entegrus was able to conduct a higher degree of AMRC sharing due to the inherent density of meter points and the proximity to other AMRCs.

However, a substantial portion of the Entegrus service territory is made up of smaller rural communities that are non-contiguous to Chatham. Please refer to the Entegrus response to Board Staff Question 2(a) for a description of its non-contiguous nature and Attachment A to these interrogatories for a map of the Entegrus service territory.

As a result of the nature of the Entegrus service territory, as well as the relatively small customer bases of many of the communities served, Entegrus was forced to deploy AMRCs in such a way as to serve relatively fewer meters than theoretical limits due to the geographic distance from other AMRCs. This was compounded by the necessity to deploy redundant hardware across Entegrus' large service territory in order to maintain reliability, since the likelihood of a nearby AMRC being available to back up neighbouring Smart Meters within Entegrus' smaller rural communities was low.

## **Board Staff Question 5**

Reference: Smart Meter Model – Cost of Service Parameters

Entegrus has provided the basic cost of service parameters for historical years and forecast 2012 in Tab 3 Cost of Service Parameters in each of the Models. In Appendix I of the Application, the Cost of Service Parameters General Service > 50 kW for Strathroy, Mount Brydges & Parkhill (“SMP”) do not align with the same parameters for SMP’s Residential and General Service < 50 kW classes. Please explain or correct this difference.

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### **Response:**

Entegrus has determined that it had inadvertently utilized partial CKH parameters from the CKH 2010 Cost of Service in the SMP GS>50kW Model. Entegrus has updated Tab “3. Cost of Service Parameters” in the SMP GS>50kW Model to align with those values approved in the last MPDC Cost of Service Application<sup>7</sup>.

The SMP GS>50kW Smart Meter Model has been updated as described in Board Staff Question 8.

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<sup>7</sup> Middlesex Power Distribution Corporation Application EB-2005-0351

## Board Staff Question 6

Reference: Costs Beyond Minimum Functionality, General Service > 50 kW Smart Meters

Entegrus states in its Application that Smart Meters would be deployed to GS>50kW customers for meter reading efficiency purposes.<sup>8</sup> Entegrus then goes on and lists six benefits.

- a) Did Entegrus develop a cost benefit analysis to assist in deciding on installing smart meters to the GS>50kW class? If it did develop a study, please submit a copy.
- b) If no study was made, can Entegrus quantify any capital or operating expense reductions related to the six benefits listed realized since it began smart meter deployment to GS>50kW customers?

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### Response:

- a) Please refer to pages 29-30 of the Application for the rationale for installing Smart Meters to the GS>50kW class. A formal cost benefit analysis was not conducted due to the challenges in quantifying the qualitative customer service benefits inherent to Smart Meter deployment.
- b) The six specific benefits listed on pages 29-30 are shown in the table below, along with Entegrus' estimate of any applicable capital or operating expense reductions:

GS>50kW Benefits <sup>9</sup>	Quantification / Explanation
<ul style="list-style-type: none"><li>A Smart Meter does not require the dedicated phone line service required for an interval meter;</li></ul>	<ul style="list-style-type: none"><li>\$9.0k of cost savings annually (CK-\$7.0k, \$SMP-\$1.5k, Newbury-\$0.5k)</li></ul>
<ul style="list-style-type: none"><li>A Smart Meter provides valuable hourly data, which assists the customer in making knowledgeable decisions regarding electricity use;</li></ul>	<ul style="list-style-type: none"><li>A customer service and conservation benefit that does not result in capital or operating expense reductions for Entegrus</li></ul>
<ul style="list-style-type: none"><li>Customer interval data is available if the customer requests to move to interval billing;</li></ul>	<ul style="list-style-type: none"><li>A customer service and billing capability benefit that does not result in capital or operating expense reductions for Entegrus</li></ul>

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<sup>8</sup> Application, page 29

<sup>9</sup> Application, page 29

<b>GS&gt;50kW Benefits</b>	<b>Quantification / Explanation</b>
<ul style="list-style-type: none"><li>• A voltage reading can be obtained from the meter using the Tantalus TUNet software if required;</li></ul>	<ul style="list-style-type: none"><li>• A customer service and power quality benefit that does not result in capital or operating expense reductions for Entegrus</li></ul>
<ul style="list-style-type: none"><li>• A notification can be received when an outage occurs, which improves troubleshooting and system reliability design; and</li></ul>	<ul style="list-style-type: none"><li>• A customer service and system reliability benefit that does not result in capital or operating expense reductions for Entegrus</li></ul>
<ul style="list-style-type: none"><li>• The frequent customer reclassifications between the GS&lt;50kW class and GS&gt;50kW class are facilitated by customers in the GS&gt;50kW category having a Smart Meter prior to reclassification.</li></ul>	<ul style="list-style-type: none"><li>• A customer service and billing capability benefit that does not result in capital or operating expense reductions for Entegrus.</li></ul>

## **Board Staff Question 7**

Reference: Smart Meter Model – SMFA SMDR SMIRR

In the Smart Meter Models filed by Entegrus, the utility has relied upon sheet 8B to calculate the interest on OM&A and depreciation/amortization expenses. This is shown by Entegrus selecting cell C37 on Sheet 9. Sheet 8B calculates the interest based on the average annual balance of deferred OM&A and depreciation/amortization expenses based on the annual amounts input elsewhere in the model.

The more accurate and preferred method for calculating the interest on OM&A and depreciation/amortization expense is to input the monthly amounts from the sub-account details of Account 1556, using sheet 8A of the model. This approach is analogous to the calculation of interest on SMFA revenues on sheet 8 of the model.

Entegrus has provided monthly interest, but has selected option 8B. In its Application, Entegrus states that it chose option 8B for simplicity, because of the large number of models.<sup>10</sup> The use of Sheet 8A or 8B is a selection from a drop-down box on cells C35 and C37 on sheet 9 of each model. Please provide further explanation as to why Entegrus elected to use the sheet 8B approach.

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### **Response:**

Please refer to pages 6-7 of the Application, in which Entegrus describes the composition and evolution of the Entegrus service territory and its various rate territories. As noted, Entegrus continues to maintain four separate rate territories. The separation of costs for each rate territory, along with the 3 separate rate classes per rate territory involved in this Application, results in eleven individually tracked Smart Meter Models (Dutton does not have a GS>50kW rate class). The allocation process for OM&A costs utilized by Entegrus is further discussed on pages 26-27 of the Application.

These unique circumstances led Entegrus to select the Sheet 8B methodology from the two alternative approaches provided in the Board Models. Specifically, the Sheet 8B methodology is less complex and a more appropriate means by which to calculate interest given Entegrus' circumstances as described above.

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<sup>10</sup> Application, page 28



## Board Staff Question 8

Reference: Smart Meter Model – General

- a) If Entegrus has made revisions to its Smart Meter Model, Version 2.17 as a result of its responses to interrogatories from Board staff and the Vulnerable Energy Consumers Coalition, please update its proposed class-specific SMDRs.
  - b) Similarly, please update the calculation of class-specific SMIRRs.
- 

Response:

- a) Entegrus has made the revisions referenced in the interrogatory responses herein as follows:

Rate Zone	Rate Class	Attachment
CK	Residential	Attachment B
	GS>50kW	Attachment C
	GS<50kW	Attachment D
SMP	Residential	Attachment E
	GS>50kW	Attachment F
	GS<50kW	Attachment G
Dutton	Residential	Attachment H
	GS>50kW	Attachment I
Newbury	Residential	Attachment J
	GS>50kW	Attachment K
	GS<50kW	Attachment L

b) Entegrus has accordingly updated the class-specific SMDRs and SMIRRs, please see chart below:

**Entegrus Powerlines Inc.**  
**Summary of Requested SMDR & SMIRR**

Rate Class	No. of Customers	SMDR			SMIRR	
		Amount	Duration	Rate Rider	Amount	Rate Rider
Chatham-Kent						
Residential	28,649	\$175,149	1 Year	\$0.51	\$95,953	\$0.28
General Service <50	3,083	\$387,375	3.5 Years	\$2.99	\$204,713	\$5.53
General Service >50	400	\$93,397	1 Year	\$19.46	\$47,216	\$9.84
Strathroy, Mount Brydges & Parkhill						
Residential	6,422	-\$64,181	1 Year	-\$0.83	\$23,983	\$0.31
General Service <50	662	\$92,649	3.5 Years	\$3.33	\$41,996	\$5.29
General Service >50	89	\$14,808	1 Year	\$13.87	\$11,713	\$10.97
Dutton						
Residential	521	\$25,467	3.5 Years	\$1.16	\$14,136	\$2.26
General Service <50	89	\$8,146	3.5 Years	\$2.18	\$3,998	\$3.74
Newbury						
Residential	168	\$5,091	3.5 Years	\$0.72	\$4,693	\$2.33
General Service <50	31	\$1,597	3.5 Years	\$1.23	\$1,144	\$3.07
General Service >50	5	\$820	1 Year	\$13.66	\$400	\$6.66

## **Board Staff Question 9**

Reference: Stranded Meters

Entegrus has stated that it will be removing the stranded meters from rate base in its next cost of service application, which is scheduled for 2016.<sup>11</sup>

- a) Please confirm that Entegrus continues to record depreciation expense on the conventional meters stranded through replacement by smart meters. In the alternative, please explain.
  - b) Please provide the estimated net book value of the stranded meters as of December 31, 2015.
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### **Response:**

- a) Entegrus confirms that it continues to record depreciation expense on the conventional meters stranded through replacement by Smart Meters.
- b) Entegrus estimates that the net book value of the stranded meters will be \$324,490 as of December 31, 2015.

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<sup>11</sup> Application, page 33

## **VECC Question 1**

Reference: Application, Page 25, Capital Costs

The table on page 25 provides a summary of capital costs by rate zone and customer class.

- a) Please confirm the specific line items (e.g. 1.1.1 Smart Meters) from Sheet 2 of the smart meter model that make up the capital costs in the table.
- b) The costs for the residential and GS<50kW rate classes are combined. Please provide the same table showing the capital costs for the residential and GS<50kW customer classes separately for each rate zone.
- c) Please explain why the average installed meter costs for each rate class is significantly greater in the current application compared to the average costs in previously approved applications.
- d) Entegrus notes the relatively higher CKH average costs. VECC notes that there are also cost variances in the average costs by customer class when comparing the other rate zones (Strathroy, Mount Bridges & Parkhill, Dutton and Newbury) to one another. Please explain the variance in costs for each customer class for Strathroy, Mount Bridges & Parkhill, Dutton and Newbury.

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### **Response:**

- a) Entegrus confirms that the following capital line items from each of the 11 Smart Meter Models are included in the summary table:
  - 1.1 Advanced metering Communication Device (including all sub-line items thereof);
  - 1.2 Advanced Metering Regional Collector (including all sub-line items thereof);
  - 1.3 Advanced Metering Control Computer (including all sub-line items thereof);
  - 1.4 Wide Area Network (including all sub-line items thereof); and,
  - 1.5 Other AMI Capital Costs Related to Minimum Functionality (including all sub-line items thereof).
- b) Please see the Entegrus response to Board Staff Question 3.
- c) Please see the Entegrus response to Board Staff Question 4
- d) Please refer to the Entegrus response to Board Staff Question 3, for a disaggregated capital cost summary. Entegrus further offers the following comments in explanation of the variances noted:

i. Residential

Entegrus notes the following average Residential capital costs per unit: SMP (\$162), Dutton (\$171) and Newbury (\$167).

Entegrus believes these differences to be negligible and notes that these variations relate primarily to case-specific installation issues encountered at each Residential meter point. The major causes of these issues are described in the Application under the heading “Hard-to-Reach (“HTR”) Meters” on pages 22-23. Given the relatively low number of meter points involved (SMP – 6,733, Dutton – 516, Newbury – 170), case specific installation issues can result in variations in averages.

ii. General Service < 50kW

Entegrus notes the following average GS<50kW capital costs per unit: SMP (\$410), Dutton (\$305) and Newbury (\$221).

The capital costs per unit are consistent with the mix of polyphase meter points within each of the three rate areas. Specifically, the highest mix of polyphase meters is in SMP (48%), followed by Dutton (20%). Newbury has no polyphase meters. The additional costs associated with GS<50kW polyphase meter deployment, versus single phase deployment, are described in the Application on page 26. Further, average costs will also vary due to case specific installation issues among the relatively low number of meter points involved (SMP – 675, Dutton – 88, Newbury – 31)

iii. General Service > 50kW

Entegrus notes the following average GS>50kW capital costs per unit: SMP (\$892) and Newbury (\$692).

The capital costs per unit vary due to the case specific installation issues among the relatively low number of meter points involved (SMP – 81, Newbury – 4). The additional costs associated with GS>50kW and the unique customer circumstances that can be involved with this rate class are further described in the Application on page 30.

## **VECC Question 2**

Reference: Application, Page 27, OM&A Costs to December 31, 2011

The table on page 27 provides a summary of OM&A costs by rate zone and customer class.

- a) Please confirm the specific line items (e.g. 2.1.1 Maintenance) from Sheet 2 of the smart meter model that make up the OM&A costs in the table.
- b) The costs for the residential and GS<50kW rate classes are combined. Please provide the same table showing the OM&A costs for the residential and GS<50kW customer classes separately for each rate zone.
- c) Please explain why the average installed meter costs for each rate class is significantly greater in the current application compared to the average costs in previously approved applications.
- d) Please explain the variance in costs between each customer class in Chatham-Kent, Strathroy, Mount Bridges & Parkhill, Dutton and Newbury.

---

### **Response:**

- a) Entegrus confirms that the following “Minimum Functionality” OM&A line items from each of the 11 Smart Meter Models are included in the summary table:
  - 2.1 Advanced Metering Communications Device (including all sub-line items thereof);
  - 2.2 Advanced Metering Regional Collector (including all sub-line items thereof);
  - 2.3 Advanced Metering Control Computer (including all sub-line items thereof);
  - 2.4 Wide Area Network (including all sub-line items thereof); and,
  - 2.5. Other AMI OM&A Costs Related to Minimum Functionality (including all sub-line items thereof).

- b) Please see the table below, which has been update to show Residential and GS<50kW separately. This table has also been updated to reflect changes from these interrogatories herein.

**Entegrus Powerlines Inc.**  
**Summary of OM&A Costs**

Rate Class	Previously Approved			Current Application			Total		
	Installed Meters	OM&A \$	Average	Installed Meters	OM&A \$	Average	Installed Meters	OM&A \$	Average
<b>Chatham-Kent</b>									
Residential	26,995	\$838,443	\$31	1,696	\$246,955	\$146	28,691	\$1,085,398	\$38
General Service <50	963	\$23,638	\$25	2,146	\$21,760	\$10	3,109	\$45,398	\$15
Residential & GS<50	27,958	\$862,081	\$31	3,842	\$268,715	\$70	31,800	\$1,130,796	\$36
General Service >50	112	\$1,340	\$12	276	-\$3,660	-\$13	388	-\$2,320	-\$6
<b>Strathroy, Mount Brydges &amp; Parkhill</b>									
Residential	5,887	\$36,717	\$6	846	\$115,016	\$136	6,733	\$151,733	\$23
General Service <50	-	\$0	\$0	675	\$12,155	\$18	675	\$12,155	\$18
Residential & GS<50	5,887	\$36,717	\$6	1,521	\$127,171	\$84	7,408	\$163,888	\$22
General Service >50	-	\$0	\$0	81	\$79	\$1	81	\$79	\$1
<b>Dutton</b>									
Residential	-	\$0	\$0	516	\$3,241	\$6	516	\$3,241	\$6
General Service <50	-	\$0	\$0	88	\$557	\$6	88	\$557	\$6
Residential & GS<50	-	\$0	\$0	604	\$3,799	\$6	604	\$3,799	\$6
<b>Newbury</b>									
Residential	-	\$0	\$0	170	\$1,013	\$6	170	\$1,013	\$6
General Service <50	-	\$0	\$0	31	\$267	\$9	31	\$267	\$9
Residential & GS<50	-	\$0	\$0	201	\$1,280	\$6	201	\$1,280	\$6
General Service >50	-	\$0	\$0	4	\$34	\$9	4	\$34	\$9
<b>Total</b>									
Residential	32,882	\$875,160	\$27	3,228	\$366,226	\$113	36,110	\$1,241,386	\$34
General Service <50	963	\$23,638	\$25	2,940	\$34,739	\$12	3,903	\$58,377	\$15
Residential & GS<50	33,845	\$898,798	\$27	6,168	\$400,965	\$65	40,013	\$1,299,763	\$32
General Service >50	112	\$1,340	\$12	361	-\$3,547	-\$10	473	-\$2,207	-\$5

- c) Please refer to the Entegrus response to VECC Question 2(b) above for a disaggregated OM&A cost summary. Entegrus further offers the following comments in explanation of the variances:

Entegrus notes the following average installed OM&A meter costs to be higher in the current application in comparison to the average costs in previously approved applications: CKH Residential (\$146 current vs. \$31 previous) and MPDC Residential (\$136 current vs. \$6 previous).

As an early adopter of Smart Meter technology in the province, Entegrus encountered deployment challenges (including network communications) that resulted in additional trouble-shooting costs on the entire system, including previously installed Smart Meters. The majority of these challenges did not became apparent until 2009, when Entegrus began reading meters for billing purposes using the Smart Meter solution, as opposed to the previous method of

reading meters manually<sup>12</sup>. The deployment challenges encountered are described in further detail on pages 21-23 of the Application.

- d) Please refer to the Entegrus response to VECC Question 2(b) above for a disaggregated OM&A cost summary. Entegrus further offers the following comments in explanation of the variances:

i. Residential

Entegrus notes the following total average Residential OM&A costs per unit: CK (\$38), SMP (\$23), Dutton (\$6) and Newbury (\$6).

These variations relate primarily to installation timing. Specifically, as shown in Attachment A of the Application, the majority of CK and SMP Residential installations were done in the early stages of deployment in 2006 and 2007, and were among the first Smart Meter installations in Ontario's Smart Meter Initiative. In comparison, the majority of Residential Smart Meter deployment in Dutton and Newbury occurred in latter part of 2009. The network communication challenges described in the Entegrus response to VECC Question 2(c) were in the process of being resolved at that time. Accordingly, the trouble-shooting costs were substantially lower for Dutton and Newbury.

ii. General Service < 50kW

Entegrus notes the following total average GS<50kW OM&A costs per unit: CK (\$15), SMP (\$18), Dutton (\$6) and Newbury (\$9). The total GS<50kW OM&A costs amount to \$58,377.

These seemingly significant OM&A costs per unit vary primarily due to installation timing. Specifically, as shown in Attachment A to the Application, the installation of GS<50kW Smart Meters for CK and SMP commenced in 2008. In comparison, GS<50kW Smart Meter deployment in Dutton and Newbury commenced in the latter part of 2009. The network communication challenges described in the Entegrus response to VECC Question 2(c) were in the process of being resolved at that time. Accordingly, the trouble-shooting costs were substantially lower for Dutton and Newbury.

iii. General Service > 50kW

Entegrus notes the following total average GS>50kW OM&A costs per unit: CK (-6\$), SMP (\$1) and Newbury (\$9). The total average GS>50kW OM&A costs amount to -\$2,207, as a result of the impact of the netting of operational efficiencies and cost savings.

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<sup>12</sup> EB-2009-0261, Exhibit 4, Tab 2, Schedule 2, page 6, line 9



The seemingly significant OM&A costs per unit vary due to the case specific installation issues among the relatively low number of meter points involved (CK – 388, SMP – 81, Newbury – 4). The additional costs associated with GS>50kW and the unique customer circumstances involved with this rate class are further described in the Application on page 30.

### VECC Question 3

Reference: Application, Page 27, OM&A Costs 2012 and Later

- a) Please provide a summary table that provides a description and breakdown of the individual costs under Line 2.3.1 Hardware Maintenance and Line 2.3.2 Software Maintenance.
  - b) Please explain the increase in Line 2.3.2 Software Maintenance in 2012.
- 

**Response:**

- a) Please see the table below for details of the total “2012 and Later” costs captured in lines 2.3.1 and 2.3.2:

**Entegrus Powerlines Inc.**  
**2012 Ongoing OM&A Cost Details**

---

Line Item	Description	Details	Amount
2.3.1	Contracts	Antenna Site Rental, ADSL Charge and Model Rental	\$3,855
2.3.2	Software Support	Annual Maintenance	\$72,412
	Software Support	Annual Technical Support	\$12,145
	Licences	Annual Licences	\$2,963
			\$87,520

- b) The increase in 2.3.2 Software Maintenance primarily relates to annual software upgrades commencing in 2012 that are needed in the TUNet system in order to maintain an ongoing and vendor supported data transfer system with the MDM/R. In the absence of these updates, the system would become unsupportable.

## VECC Question 4

Reference: Application, Attachment A: Smart Meter Deployment Schedule

Entegrus installed 6,529 smart meters as part of this application.

- a) Please provide a summary of incremental labour costs incurred by the Applicant to deploy smart meters in terms of positions, contract type (permanent vs. temporary, part-time vs. full-time), length of employment and work activities.

---

### Response:

- a) As described on page 20 of the Application, Entegrus primarily utilized internal personnel to deploy Smart Meters. This deployment strategy is consistent with the Board decision in the Combined Proceeding<sup>13</sup>.

Please refer to the table below for a summary of incremental labour costs applicable to the deployment of Smart Meters:

Name	Contract Type	Employment Period	Work Activities	2009 Applicable Smart Meter Costs	2010 Applicable Smart Meter Costs	2011 Applicable Smart Meter Costs
Employee A	Permanent (Full-Time)	May 2009 to current	see Note 1	\$41,597	\$47,176	\$77,926

Note 1: Employee A was hired primarily to:

- i. Backfill line work and other duties of employees engaged in Smart Meter deployment, and,
- ii. Provide the capacity to provide the appropriate level of service to customers in the Dutton and Newbury service territories, both of which were acquired on April 30, 2009.

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<sup>13</sup> Ontario Energy Board Decision EB-2007-0063, pages 13-14

## VECC Question 5

Reference: Board Guideline G-2011-0001, Smart Meter Funding and Cost Recovery – Final Disposition, dated December 15, 2011, Page 19

The Guidelines state, “The Board also expects that a distributor will provide evidence on any operational efficiencies and cost savings that result from smart meter implementation.”

- a) Please confirm the operational efficiencies and cost savings that Entegrus has experienced or anticipates will result from smart meter implementation.
- b) Please indicate how any cost savings have been reflected in the current application.

### Response:

- a) Entegrus has experienced operational efficiencies and cost savings, and anticipates certain additional operational efficiencies and cost savings. Estimated values for these are as follows:

Rate Class	Savings Commencement	CK	SMP	Dutton	Newbury	Total
Residential	2010	\$23,000	\$5,400	\$400	\$150	<b>\$28,950</b>
GS<50kW	2011	\$2,500	\$500	\$100	-	<b>\$3,100</b>
GS>50kW	2012	\$7,000	\$1,500	-	-	<b>\$8,500</b>
<b>Totals</b>	-	<b>\$32,500</b>	<b>\$7,400</b>	<b>\$500</b>	<b>\$150</b>	<b>\$40,550</b>
Savings Reflected in Previous Apps	2010	\$(23,000)	-	-	-	\$(23,000)
<b>Net Additional Savings</b>	-	<b>\$9,500</b>	<b>\$7,400</b>	<b>\$500</b>	<b>\$150</b>	<b>\$17,550</b>

- b) The CK Residential Smart Meter operational efficiencies and cost savings of \$23,000 annually noted in the above table were reflected in CKH’s 2010 Cost of Service application<sup>14</sup> and have therefore not been reflected in the current Application.

The other Smart Meter operational efficiencies and cost savings noted in the above table were inadvertently not reflected in the current Application. Accordingly, the Smart Meter Models have been updated for the above cost savings; specifically the savings have been included in tab “2. Smart Meter Costs” line 2.5.6. The updated Smart Meter Models have been included as described in Board Staff Question 8.

<sup>14</sup> Chatham-Kent Hydro Application EB-2009-0261, Exhibit 4, Tab 2, Schedule 3

## VECC Question 6

Reference: Smart Meter Model, Chatham-Kent Hydro Inc. Residential

- a) Sheet 2 – Please explain the negative entries under lines 1.3.1 and 1.3.2.
  - b) Sheet 8 – Please explain the SMFA revenue and interest calculation for May 2012.
- 

### Response:

- a) In the preparing the Application, Entegrus noted that CKH had inadvertently claimed 2007 invoice amounts (rather than the appropriate 2008 invoice amounts) for disposition in 2010 Cost of Service application<sup>15</sup>. As a result, CKH over-collected costs amounting to \$2,508.

To correct for this oversight, Entegrus input the over-collection as a refund on lines 1.3.1 and 1.3.2 of the model in the current Application, in order that the current disposition amount sought may be reduced by the corresponding amount of \$2,508. Please see the chart below:

Item No.	Invoice Amounts Inadvertantly Claimed (EB-2009-0261)	Actual Appropriate 2008 Invoice Amounts	Variance Claimed in Current Application
1.3.1	\$5,117	\$3,261	-\$1,856
1.3.2	\$1,630	\$978	-\$652
Total	<b>\$6,746</b>	<b>\$4,239</b>	<b>-\$2,508</b>

- b) The CKH SMFA revenue and interest calculation for May 2012 shows as a negative amount due to the timing of the reversal of Entegrus' applicable unbilled accrual. Specifically, while SMFA collection activity ceased when this rate adder expired at the end of April 2012, the negative amount of \$4,174 was required to true-up the unbilled accrual to actual in May 2012.

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<sup>15</sup> Chatham-Kent Hydro Application EB-2009-0261

## VECC Question 7

Reference: Attachment O

- a) Please provide a breakdown of the total costs under line 2.1.1 Maintenance and explain the increase in 2011.
  - b) Please provide a breakdown of the total costs under 2.5.6 Other AMI expenses.
  - c) Please provide a breakdown of the costs under 2.6.3 under OM&A costs related to beyond minimum functionality.
  - d) Please explain how the specific costs under 2.6.3 are incremental.
- 

Response:

- a) Please see the chart below for a breakdown of cost under line 2.1.1 Maintenance:

**Entegrus Powerlines Inc.**

**OM&A Cost Allocation: Line 2.1.1 Detail**

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Description	2008	2009	2010	2011	Total
Material		\$24,492			\$24,492
Labour	\$10,649	\$21,239	\$40,802	\$60,542	\$133,232
Truck Time		\$9,278	\$3,393	\$7,413	\$20,083
<b>Total</b>	<b>\$10,649</b>	<b>\$55,009</b>	<b>\$44,194</b>	<b>\$67,954</b>	<b>\$177,806</b>

The increase in 2011 maintenance related to higher network communication trouble-shooting costs in 2011. These costs related primarily to the final stage deployment of polyphase meters, as described on page 32 of the Application.

- b) Please see chart below for a breakdown of costs under 2.5.6 Other AMI Expenses:

**Entegrus Powerlines Inc.**  
**OM&A Cost Allocations: Line 2.5.6 Details**

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Description	2008	2009	2010	2011	Total
Communication		\$2,528	\$2,014	\$895	\$5,437
Supplies & Freight	\$97	\$1,714	\$26	\$1,311	\$3,148
Radio Licences	\$826	\$4,272	\$680	\$3,702	\$9,480
Consulting & Other	\$1,463	\$146			\$1,609
<b>Total</b>	<b>\$2,386</b>	<b>\$8,660</b>	<b>\$2,720</b>	<b>\$5,908</b>	<b>\$19,674</b>

- c) Please refer to Attachment Q in the Application.

As shown in Attachment Q to the Application, the costs under 2.6.3 were specifically incurred for the purposes of TOU rate implementation. The costs involved have been broken down into the following categories: project management, external IT support, contract labour, project specific overtime and customer communication and training. These items represent additional costs incurred by Entegrus to implement TOU rates.

## **VECC Question 8**

Reference: Application, Page 25 Capital Costs, Page 27 OM&A costs

VECC notes that the total average capital and OM&A costs for the residential and GS<50 kW rates classes is \$234 (\$201 + 33).

The Board's report, "Sector Smart Meter Audit Review Report", dated March 31, 2010, indicates a sector average capital cost of \$186.76 per meter (based on 3,053,931 meters (64% complete) with a capital cost of \$570,339,200 as at September 30, 2009). The review period was January 1, 2006 to September 30, 2009. The average total cost per meter (capital and OM&A) is \$207.37 (based on 3,053,931 meters (64% complete) with a total cost of \$633,294,140 as at September 30, 2009).

The Board followed up on this review on October 26, 2010 and issued a letter to all distributors requiring them to provide information on their smart meter investments on a quarterly basis. The first distributors' quarterly update represented life-to-date investments in smart meter implementation as of September 30, 2010 and as of this date, the average total cost per meter is \$226.92 (based on 4,382,194 meters (94% complete) with the total provincial investment in smart meter installation of \$994,426,187).<sup>16</sup>

- a) Please explain why Entegrus' total average total costs per meter are higher than the recent distributor average of \$226.92.

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### **Response:**

- a) Entegrus notes that as a result of the changes from these interrogatories (see the Entegrus response to Board Staff Question 8), its Smart Meter unit costs to December 31, 2011 have been updated to \$233 per unit from the previous \$234 per unit cited above.

Entegrus acknowledges that its fully complete Smart Meter unit costs to December 31, 2011 are \$233, while the partially complete industry average unit cost cited above to September 30, 2010 is approximately \$227. As previously stated on page 12 of the Application, Entegrus believes that its costs are reasonable and prudent.

With respect to this comparison, Entegrus cannot fully explain the Smart Meter costs of other distributors. Each of Ontario's distributors are unique, with variations in service territories, geography, system design and other circumstances. Please refer to Entegrus' responses to Board Staff Question 2(a) for more information about the unique characteristics of the Entegrus service area and its non-contiguous nature. As noted by CKH in EB-2008-0155<sup>17</sup>, the outlying

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<sup>16</sup> Monitoring Report Smart Meter Investment – September 2010, March 3, 2011

<sup>17</sup> Chatham-Kent Hydro Application EB-2008-0155, Appendix E, page 7



Entegrus communities have older homes and neighbourhoods. The majority of the new construction over the past 25 years has been within the City of Chatham. In its Combined Decision, the Board accepted that it is more expensive to install Smart Meters in a rural area than an urban area. The Board also accepted that it is more expensive to install meters in areas characterized by older construction as opposed to new subdivisions.<sup>18</sup>

With respect to the industry average unit costs, Entegrus notes that each distributor was at a different stage of deployment at September 30, 2010, as is apparent from the Board's Smart Meter Deployment and TOU reporting<sup>19</sup>. Based on its own experience as an early adopter, Entegrus would expect that most utilities would complete Residential Smart Meter installation first, and then address the more complex GS<50kW rate class installations in the latter stages of deployment. This expectation is consistent with a number of the latter stage TOU exemptions granted to other distributors, which were based on polyphase meter trouble-shooting challenges experienced by those distributors<sup>20</sup>. These latter stage challenges are consistent with the rising average Smart Meter costs between the original "Sector Smart Meter Audit Review Report" (September 30, 2009), and the most recent report (September 30, 2010) cited above. Utilizing the data points cited above in the question, in combination with earlier data points previously cited by VECC<sup>21</sup>, the most recent average cost data (reflecting the move from 64% industry completion to 94% industry completion) has increased from approximately \$187 per meter to \$272 per meter. Using extrapolation, this suggests a final industry average cost of approximately \$230 per meter, very similar to Entegrus' \$233.

However, Entegrus ultimately expects that the final industry average will be higher than \$230 per meter due to a higher anticipated industry GS<50kW and polyphase meter mix within the last phase of industry deployment. This suggests that the comparison of Entegrus' fully complete unit costs, against an average of partially complete industry unit costs from a period one year prior, is of limited use.

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<sup>18</sup> Ontario Energy Board Decision EB-2007-0063, page 12, paragraph 4

<sup>19</sup> See Ontario Energy Board website: Initiatives / Smart Meter Deployment and the Application of Time-of-Use Pricing / OEB Monthly Monitoring Reports

<sup>20</sup> See EB-2011-0019; EB-2011-0107; EB-2011-0239; EB-2011-0240; EB-2011-0245; EB-2011-0320; EB-2011-0365

<sup>21</sup> See VECC EB-2012-0094 submission, page 4

**Entegrus Powerlines Inc.**

SM Final Disposition – Interrogatory Responses

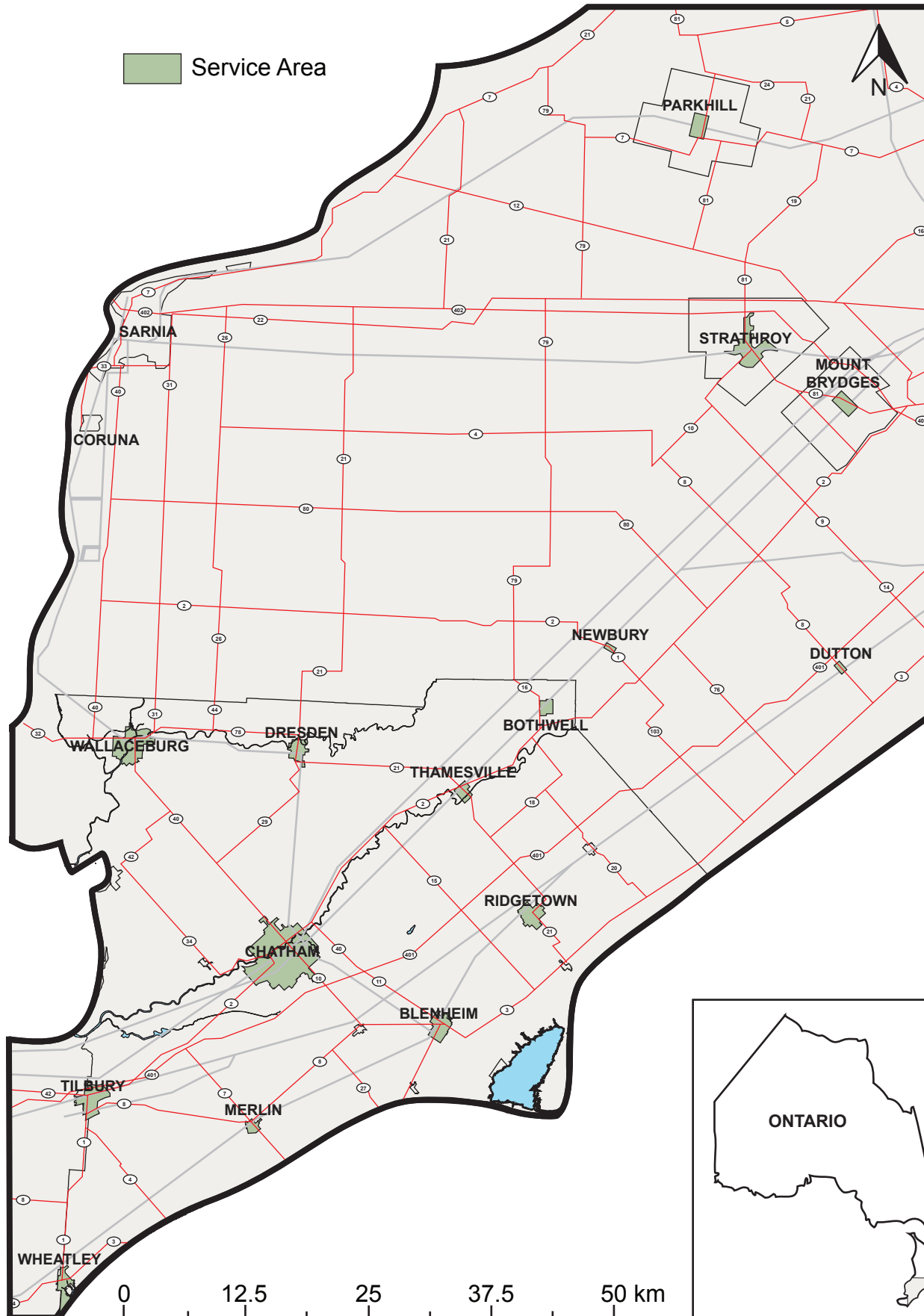
Board File No.: EB-2012-0289

Date Filed: September 7, 2012

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**Attachment A**  
**Entegrus Service Area Map**

# ENTEGRUS POWERLINES INC. SERVICE AREA



**Entegrus Powerlines Inc.**

SM Final Disposition – Interrogatory Responses

Board File No.: EB-2012-0289

Date Filed: September 7, 2012

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**Attachment B**  
**Smart Meter Model**  
**CK Residential**



Ontario Energy Board

## Smart Meter Model

## Choose Your Utility:

Fort Albany Power Corporation  
Fort Frances Power Corporation

## Application Contact Information

Name: Andrya Eagen

Title: Senior Regulatory Specialist

Phone Number: 519-352-6300 Ext 243

Email Address: andryaeagen@ckenergy.com

We are applying for rates effective: November 1, 2012

Last COS Re-based Year 2010

## Legend

DROP-DOWN MENU

INPUT FIELD

CALCULATION FIELD

## Copyright

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

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



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

For 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.

	2006	2007	2008	2009	2010	2011	2012 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
<b>Smart Meter Capital Cost and Operational Expense Data</b>								
<b>Smart Meter Installation Plan</b>								
<b>Actual/Planned number of Smart Meters installed during the Calendar Year</b>								
Residential				673	1,023			1696
General Service < 50 kW								0
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	0	673	1,023	0	0	1696
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	39.68%	100.00%	0.00%	100.00%	100.00%
Actual/Planned number of GS > 50 kW meters installed								0
Other (please identify)								0
Total Number of Smart Meters installed or planned to be installed	0	0	0	673	1,023	0	0	1696
<b>1 Capital Costs</b>								
<b>1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
<b>Asset Type</b>								
1.1.1 Smart Meters (may include new meters and modules, etc.)	Smart Meter			62,647	95,227	0		\$ 157,875
1.1.2 Installation Costs (may include socket kits, labour, vehicle, benefits, etc.)	Smart Meter			18,655	28,357	0		\$ 47,011
1.1.3a Workforce Automation Hardware (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
1.1.3b Workforce Automation Software (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
<b>Total Advanced Metering Communications Devices (AMCD)</b>				\$ 81,302	\$ 123,584	\$ -	\$ -	\$ 204,886
<b>1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)</b>								
<b>Asset Type</b>								
1.2.1 Collectors								\$ -
1.2.2 Repeaters (may include radio licence, etc.)	Smart Meter			3,268	4,968	0		\$ 8,236
1.2.3 Installation (may include meter seals and rings, collector computer hardware, etc.)								\$ -
<b>Total Advanced Metering Regional Collector (AMRC) (includes LAN)</b>				\$ 3,268	\$ 4,968	\$ -	\$ -	\$ 8,236
<b>1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)</b>								
<b>Asset Type</b>								
1.3.1 Computer Hardware	Computer Hardware			-1,856	0	0		\$ -1,856
1.3.2 Computer Software	Computer Software			-652	0	0		\$ -652
1.3.3 Computer Software Licences & Installation (includes hardware and software) (may include AS/400 disk space, backup and recovery computer, UPS, etc.)								\$ -
<b>Total Advanced Metering Control Computer (AMCC)</b>				\$ -2,508	\$ -	\$ -	\$ -	\$ -2,508
<b>1.4 WIDE AREA NETWORK (WAN)</b>								
<b>Asset Type</b>								
1.4.1 Activation Fees	Applications Software			1,120	1,703	0		\$ 2,823
<b>Total Wide Area Network (WAN)</b>				\$ 1,120	\$ 1,703	\$ -	\$ -	\$ 2,823
<b>1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY</b>								
<b>Asset Type</b>								
1.5.1 Customer Equipment (including repair of damaged equipment)								\$ -
1.5.2 AMI Interface to CIS								\$ -
1.5.3 Professional Fees								\$ -
1.5.4 Integration								\$ -
1.5.5 Program Management								\$ -
1.5.6 Other AMI Capital								\$ -
<b>Total Other AMI Capital Costs Related to Minimum Functionality</b>				\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Capital Costs Related to Minimum Functionality</b>				\$ 83,183	\$ 130,254	\$ -	\$ -	\$ 213,437
<b>1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY</b>								
<b>Asset Type</b>								
1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06	Computer Software							\$ -
1.6.2 Costs for deployment of smart meters to customers other than residential and small general service	Applications Software							\$ -
1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDMR, etc.								\$ -
<b>Total Capital Costs Beyond Minimum Functionality</b>				\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Smart Meter Capital Costs</b>				\$ 83,183	\$ 130,254	\$ -	\$ -	\$ 213,437
<b>2 OM&amp;A Expenses</b>								
<b>2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
<b>Asset Type</b>								
2.1.1 Maintenance (may include meter reverification costs, etc.)				38,983	31,319	48,157	0	\$ 118,459
2.1.2 Other (please specify)								\$ -
<b>Total Incremental AMCD OM&amp;A Costs</b>				\$ 38,983	\$ 31,319	\$ 48,157	\$ -	\$ 118,459



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

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

###### 2.2.1 Maintenance

###### 2.2.2 Other (please specify)

##### Total Incremental AMRC OM&A Costs

##### 2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)

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

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

###### 2.3.2 Other (please specify)

##### Total Incremental AMCC OM&A Costs

##### 2.4 WIDE AREA NETWORK (WAN)

###### 2.4.1 WAN Maintenance

###### 2.4.2 Other (please specify)

##### Total Incremental AMRC OM&A Costs

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

###### 2.5.1 Business Process Redesign

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

###### 2.5.3 Program Management

###### 2.5.4 Change Management (may include training, etc.)

###### 2.5.5 Administration Costs

###### 2.5.6 Other AMI Expenses

###### (please specify)

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

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

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

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

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

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

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

##### Total OM&A Costs Beyond Minimum Functionality

##### Total Smart Meter OM&A Costs

	2006	2007	2008	2009	2010	2011	2012 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
2.2.1 Maintenance								\$ -
2.2.2 Other (please specify)								\$ -
<b>Total Incremental AMRC OM&amp;A Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
2.3.1 Hardware Maintenance (may include server support, etc.)				4,441	4,660	3,122	2,732	\$ 14,955
2.3.2 Software Maintenance (may include maintenance support, etc.)				17,293	12,967	8,423	62,023	\$ 100,705
2.3.2 Other (please specify)								\$ -
<b>Total Incremental AMCC OM&amp;A Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 21,734</b>	<b>\$ 17,626</b>	<b>\$ 11,545</b>	<b>\$ 64,754</b>	<b>\$ 115,669</b>
2.4.1 WAN Maintenance								\$ -
2.4.2 Other (please specify)								\$ -
<b>Total Incremental AMRC OM&amp;A Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
2.5.1 Business Process Redesign								\$ -
2.5.2 Customer Communication (may include project communication, etc.)								\$ -
2.5.3 Program Management								\$ -
2.5.4 Change Management (may include training, etc.)								\$ -
2.5.5 Administration Costs				585	0	0	0	\$ 585
2.5.6 Other AMI Expenses				6,137	1,928	4,187	0	\$ 12,252
(please specify)								
<b>Total Other AMI OM&amp;A Costs Related to Minimum Functionality</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,722</b>	<b>\$ 1,928</b>	<b>\$ 4,187</b>	<b>\$ -</b>	<b>\$ 12,837</b>
<b>TOTAL OM&amp;A COSTS RELATED TO MINIMUM FUNCTIONALITY</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 67,439</b>	<b>\$ 50,873</b>	<b>\$ 63,888</b>	<b>\$ 64,754</b>	<b>\$ 246,955</b>
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 MDMR, etc.				5,788	239,549	187,278	0	\$ 432,614
<b>Total OM&amp;A Costs Beyond Minimum Functionality</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 5,788</b>	<b>\$ 239,549</b>	<b>\$ 187,278</b>	<b>\$ -</b>	<b>\$ 432,614</b>
<b>Total Smart Meter OM&amp;A Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 73,227</b>	<b>\$ 290,422</b>	<b>\$ 251,166</b>	<b>\$ 64,754</b>	<b>\$ 679,569</b>

### 3 Aggregate Smart Meter Costs by Category

#### 3.1

##### Capital

###### 3.1.1 Smart Meter

###### 3.1.2 Computer Hardware

###### 3.1.3 Computer Software

###### 3.1.4 Tools & Equipment

###### 3.1.5 Other Equipment

###### 3.1.6 Applications Software

###### 3.1.7 Total Capital Costs

#### 3.2 OM&A Costs

###### 3.2.1 Total OM&A Costs

\$ -	\$ -	\$ -	\$ 84,570	\$ 128,552	\$ -	\$ -	\$ 213,122
\$ -	\$ -	\$ -	\$ 1,856	\$ -	\$ -	\$ -	\$ 1,856
\$ -	\$ -	\$ -	\$ 652	\$ -	\$ -	\$ -	\$ 652
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ 1,120	\$ 1,703	\$ -	\$ -	\$ 2,823
<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 83,183</b>	<b>\$ 130,254</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 213,437</b>
<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 73,227</b>	<b>\$ 290,422</b>	<b>\$ 251,166</b>	<b>\$ 64,754</b>	<b>\$ 679,569</b>



Ontario Energy Board

## Smart Meter Model

### Chatham-Kent Hydro Inc.

	2006	2007	2008	2009	2010	2011	2012 and later
<b>Cost of Capital</b>							
<b>Capital Structure<sup>1</sup></b>							
Deemed Short-term Debt Capitalization					4.0%	4.0%	4.0%
Deemed Long-term Debt Capitalization	50.0%	50.0%	53.3%	56.7%	56.0%	56.0%	56.0%
Deemed Equity Capitalization	50.0%	50.0%	46.7%	43.3%	40.0%	40.0%	40.0%
Preferred Shares	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<b>Cost of Capital Parameters</b>							
Deemed Short-term Debt Rate					2.07%	2.07%	2.07%
Long-term Debt Rate (actual/embedded/deemed) <sup>2</sup>	7.04%	7.04%	7.04%	7.04%	5.87%	5.87%	5.87%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	9.00%	9.85%	9.85%	9.85%
Return on Preferred Shares							
<b>WACC</b>	8.02%	8.02%	7.96%	7.89%	7.31%	7.31%	7.31%
<b>Working Capital Allowance</b>							
Working Capital Allowance Rate (% of the sum of Cost of Power + controllable expenses)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
<b>Taxes/PILs</b>							
Aggregate Corporate Income Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%
<b>Depreciation Rates</b> (expressed as expected useful life in years)							
Smart Meters - years	15	15	15	15	15	15	15
- rate (%)	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%
Computer Hardware - years	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Computer Software - years	3	3	3	3	3	3	3
- rate (%)	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%
Tools & Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Other Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
<b>CCA Rates</b>							
Smart Meters - CCA Class	47	47	47	47	47	47	47
Smart Meters - CCA Rate	8%	8%	8%	8%	8%	8%	8%
Computer Equipment - CCA Class	45	50	50	50	50	50	50
Computer Equipment - CCA Rate	45%	55%	55%	55%	55%	55%	55%
General Equipment - CCA Class	8	8	8	8	8	8	8
General Equipment - CCA Rate	20%	20%	20%	20%	20%	20%	20%
Applications Software - CCA Class	12	12	12	12	12	12	12
Applications Software - CCA Rate	100%	100%	100%	100%	100%	100%	100%

#### Assumptions

<sup>1</sup> Planned smart meter installations occur evenly throughout the year.

<sup>2</sup> Fiscal calendar year (January 1 to December 31) used.

<sup>3</sup> Amortization is done on a straight line basis and has the "half-year" rule applied.





	2006	2007	2008	2009	2010	2011	2012 and later
<b>Net Fixed Assets - Smart Meters</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 84,570	\$ 213,122	\$ 213,122
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 84,570	\$ 128,552	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 84,570	\$ 213,122	\$ 213,122	\$ 213,122
<b>Accumulated Depreciation</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 2,819	\$ 12,742	\$ 26,950
Amortization expense during year	\$ -	\$ -	\$ -	\$ 2,819	\$ 9,923	\$ 14,208	\$ 14,208
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 2,819	\$ 12,742	\$ 26,950	\$ 41,158
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 81,751	\$ 200,380	\$ 186,172
Closing Balance	\$ -	\$ -	\$ -	\$ 81,751	\$ 200,380	\$ 186,172	\$ 171,963
Average Net Book Value	\$ -	\$ -	\$ -	\$ 40,876	\$ 141,065	\$ 193,276	\$ 179,068
<b>Net Fixed Assets - Computer Hardware</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 1,856	\$ 1,856	\$ 1,856
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 1,856	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 1,856	\$ 1,856	\$ 1,856	\$ 1,856
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 186	\$ 1,856	\$ 2,227
Amortization expense during year	\$ -	\$ -	\$ -	\$ 186	\$ 1,670	\$ 371	\$ 371
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 186	\$ 1,856	\$ 2,227	\$ 2,598
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 1,670	\$ -	\$ 371
Closing Balance	\$ -	\$ -	\$ -	\$ 1,670	\$ -	\$ 371	\$ 742
Average Net Book Value	\$ -	\$ -	\$ -	\$ 835	\$ 835	\$ 186	\$ 557
<b>Net Fixed Assets - Computer Software (Including Applications Software)</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 468	\$ 2,171	\$ 2,171
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 468	\$ 1,703	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 468	\$ 2,171	\$ 2,171	\$ 2,171
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 78	\$ 518	\$ 1,241
Amortization expense during year	\$ -	\$ -	\$ -	\$ 78	\$ 440	\$ 724	\$ 724
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 78	\$ 518	\$ 1,241	\$ 1,965
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 390	\$ 1,653	\$ 929
Closing Balance	\$ -	\$ -	\$ -	\$ 390	\$ 1,653	\$ 929	\$ 206
Average Net Book Value	\$ -	\$ -	\$ -	\$ 195	\$ 1,022	\$ 1,291	\$ 568
<b>Net Fixed Assets - Tools and Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Fixed Assets - Other Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



# Ontario Energy Board

## Smart Meter Model

### Chatham-Kent Hydro Inc.

#### Average Net Fixed Asset Values (from Sheet 4)

	2006	2007	2008	2009	2010	2011	2012 and Later
Smart Meters	\$ -	\$ -	\$ -	\$ 40,876	\$ 141,065	\$ 193,276	\$ 179,068
Computer Hardware	\$ -	\$ -	\$ -	\$ 835	\$ 835	\$ 186	\$ 557
Computer Software	\$ -	\$ -	\$ -	\$ 195	\$ 1,022	\$ 1,291	\$ 568
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Net Fixed Assets</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 40,236</b>	<b>\$ 141,252</b>	<b>\$ 194,752</b>	<b>\$ 180,192</b>

#### Working Capital

Operating Expenses (from Sheet 2)	\$ -	\$ -	\$ -	\$ 73,227	\$ 290,422	\$ 251,166	\$ 64,754
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	\$ -	\$ -	\$ -	\$ 10,984	\$ 43,563	\$ 37,675	\$ 9,713

#### Incremental Smart Meter Rate Base

	\$ -	\$ -	\$ -	\$ 51,220	\$ 184,815	\$ 232,427	\$ 189,905
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#### Return on Rate Base

##### Capital Structure

Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ 7,393	\$ 9,297	\$ 7,596
Deemed Long Term Debt	\$ -	\$ -	\$ -	\$ 29,041	\$ 103,497	\$ 130,159	\$ 106,347
Equity	\$ -	\$ -	\$ -	\$ 22,178	\$ 73,926	\$ 92,971	\$ 75,962
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Capitalization</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 51,220</b>	<b>\$ 184,815</b>	<b>\$ 232,427</b>	<b>\$ 189,905</b>

##### Return on

Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ 153	\$ 192	\$ 157
Deemed Long Term Debt	\$ -	\$ -	\$ -	\$ 2,045	\$ 6,075	\$ 7,640	\$ 6,243
Equity	\$ -	\$ -	\$ -	\$ 1,996	\$ 7,282	\$ 9,158	\$ 7,482
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Return on Capital</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 4,041</b>	<b>\$ 13,510</b>	<b>\$ 16,990</b>	<b>\$ 13,882</b>

#### Operating Expenses

	\$ -	\$ -	\$ -	\$ 73,227	\$ 290,422	\$ 251,166	\$ 64,754
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#### Amortization Expenses (from Sheet 4)

Smart Meters	\$ -	\$ -	\$ -	\$ 2,819	\$ 9,923	\$ 14,208	\$ 14,208
Computer Hardware	\$ -	\$ -	\$ -	\$ 186	\$ 1,670	\$ 371	\$ 371
Computer Software	\$ -	\$ -	\$ -	\$ 78	\$ 440	\$ 724	\$ 724
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Amortization Expense in Year</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,711</b>	<b>\$ 8,693</b>	<b>\$ 14,561</b>	<b>\$ 14,561</b>

#### Incremental Revenue Requirement before Taxes/PILs

	\$ -	\$ -	\$ -	\$ 79,979	\$ 312,625	\$ 282,717	\$ 93,197
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#### Calculation of Taxable Income

Incremental Operating Expenses	\$ -	\$ -	\$ -	\$ 73,227	\$ 290,422	\$ 251,166	\$ 64,754
Amortization Expense	\$ -	\$ -	\$ -	\$ 2,711	\$ 8,693	\$ 14,561	\$ 14,561
Interest Expense	\$ -	\$ -	\$ -	\$ 2,045	\$ 6,228	\$ 7,833	\$ 6,400
<b>Net Income for Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,996</b>	<b>\$ 7,282</b>	<b>\$ 9,158</b>	<b>\$ 7,482</b>

#### Grossed-up Taxes/PILs (from Sheet 7)

	\$ -	\$ -	\$ -	\$ 513.14	\$ 2,047.68	\$ 3,007.84	\$ 2,755.55
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#### Revenue Requirement, including Grossed-up Taxes/PILs

	\$ -	\$ -	\$ -	\$ 80,492	\$ 314,673	\$ 285,725	\$ 95,953
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Ontario Energy Board

Smart Meter Model

Chatham-Kent Hydro Inc.

## 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 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 81,187.32	\$ 198,101.89	\$ 182,253.74
Capital Additions	\$ -	\$ -	\$ -	\$ 84,570.13	\$ 128,551.62	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 84,570.13	\$ 209,738.94	\$ 198,101.89	\$ 182,253.74
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ 42,285.06	\$ 64,275.81	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ 42,285.06	\$ 145,463.13	\$ 198,101.89	\$ 182,253.74
CCA Rate Class	47	47	47	47	47	47	47
CCA Rate	8%	8%	8%	8%	8%	8%	8%
CCA	\$ -	\$ -	\$ -	\$ 3,382.81	\$ 11,637.05	\$ 15,848.15	\$ 14,580.30
Closing UCC	\$ -	\$ -	\$ -	\$ 81,187.32	\$ 198,101.89	\$ 182,253.74	\$ 167,673.44

### UCC - Computer Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 2,507.58	\$ 1,128.41	\$ 507.78
Capital Additions Computer Hardware	\$ -	\$ -	\$ -	\$ 1,855.70	\$ -	\$ -	\$ -
Capital Additions Computer Software	\$ -	\$ -	\$ -	\$ 651.88	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 2,507.58	\$ 2,507.58	\$ 1,128.41	\$ 507.78
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ -	\$ 2,507.58	\$ 1,128.41	\$ 507.78
CCA Rate Class	45	50	50	50	50	50	50
CCA Rate	45%	55%	55%	55%	55%	55%	55%
CCA	\$ -	\$ -	\$ -	\$ -	\$ 1,379.17	\$ 620.63	\$ 279.28
Closing UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

### UCC - General Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA Rate Class	8	8	8	8	8	8	8
CCA Rate	20%	20%	20%	20%	20%	20%	20%
CCA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



## PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
<b>INCOME TAX</b>							
Net Income	\$ -	\$ -	\$ -	\$ 1,996.03	\$ 7,281.72	\$ 9,157.63	\$ 7,482.25
Amortization	\$ -	\$ -	\$ -	\$ 2,711.46	\$ 8,692.74	\$ 14,560.55	\$ 14,560.55
CCA - Smart Meters	\$ -	\$ -	\$ -	\$ 3,382.81	\$ 11,637.05	\$ 15,848.15	\$ 14,580.30
CCA - Computers	\$ -	\$ -	\$ -	\$ -	\$ 1,379.17	\$ 620.63	\$ 279.28
CCA - Applications Software	\$ -	\$ -	\$ -	\$ 560.02	\$ 1,411.29	\$ 851.27	\$ -
CCA - Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Change in taxable income	\$ -	\$ -	\$ -	\$ 764.66	\$ 4,305.29	\$ 7,639.38	\$ 7,741.78
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Income Taxes Payable	\$ -	\$ -	\$ -	\$ 252.34	\$ 1,334.64	\$ 2,158.13	\$ 2,032.22
<b>ONTARIO CAPITAL TAX</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 81,751.12	\$ 200,379.68	\$ 186,171.56	\$ 171,963.45
Computer Hardware	\$ -	\$ -	\$ -	\$ 1,670.13	\$ -	\$ 371.14	\$ 742.28
Computer Software (Including Application Software)	\$ -	\$ -	\$ -	\$ 390.14	\$ 1,652.87	\$ 929.30	\$ 205.73
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Base	\$ -	\$ -	\$ -	\$ 80,471.13	\$ 202,032.55	\$ 187,472.00	\$ 172,911.45
Less: Exemption	\$ -	\$ -	\$ -	\$ 19,795.90	\$ 50,811.19	\$ -	\$ -
Deemed Taxable Capital	\$ -	\$ -	\$ -	\$ 60,675.23	\$ 151,221.36	\$ 187,472.00	\$ 172,911.45
Ontario Capital Tax Rate (from Sheet 3)	0.300%	0.225%	0.225%	0.225%	0.075%	0.000%	0.000%
Net Amount (Taxable Capital x Rate)	\$ -	\$ -	\$ -	\$ 136.52	\$ 113.42	\$ -	\$ -
Change in Income Taxes Payable	\$ -	\$ -	\$ -	\$ 252.34	\$ 1,334.64	\$ 2,158.13	\$ 2,032.22
Change in OCT	\$ -	\$ -	\$ -	\$ 136.52	\$ 113.42	\$ -	\$ -
PILs	\$ -	\$ -	\$ -	\$ 388.86	\$ 1,448.06	\$ 2,158.13	\$ 2,032.22
<b>Gross Up PILs</b>							
Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Change in Income Taxes Payable	\$ -	\$ -	\$ -	\$ 376.62	\$ 1,934.26	\$ 3,007.84	\$ 2,755.55
Change in OCT	\$ -	\$ -	\$ -	\$ 136.52	\$ 113.42	\$ -	\$ -
PILs	\$ -	\$ -	\$ -	\$ 513.14	\$ 2,047.68	\$ 3,007.84	\$ 2,755.55



Ontario Energy Board

Smart Meter Model

Chatham-Kent Hydro Inc.

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	\$ -		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%	4.29%	Dec-07	2007	Q4	\$ -		5.14%	\$ -	\$ -	\$ -	
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	\$ -		5.14%	\$ -	\$ -		
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	\$ -		5.14%	\$ -	\$ -		
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	\$ -		5.14%	\$ -	\$ -		
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	\$ -		4.08%	\$ -	\$ -		
			May-08	2008	Q2	\$ -		4.08%	\$ -	\$ -		
			Jun-08	2008	Q2	\$ -		4.08%	\$ -	\$ -		
			Jul-08	2008	Q3	\$ -		3.35%	\$ -	\$ -		
			Aug-08	2008	Q3	\$ -		3.35%	\$ -	\$ -		
			Sep-08	2008	Q3	\$ -		3.35%	\$ -	\$ -		
			Oct-08	2008	Q4	\$ -		3.35%	\$ -	\$ -		
			Nov-08	2008	Q4	\$ -		3.35%	\$ -	\$ -		
			Dec-08	2008	Q4	\$ -		3.35%	\$ -	\$ -	\$ -	
			Jan-09	2009	Q1	\$ -		2.45%	\$ -	\$ -		
			Feb-09	2009	Q1	\$ -		2.45%	\$ -	\$ -		
			Mar-09	2009	Q1	\$ -		2.45%	\$ -	\$ -		
			Apr-09	2009	Q2	\$ -		1.00%	\$ -	\$ -		
			May-09	2009	Q2	\$ -		1.00%	\$ -	\$ -		
			Jun-09	2009	Q2	\$ -		1.00%	\$ -	\$ -		
			Jul-09	2009	Q3	\$ -		0.55%	\$ -	\$ -		
			Aug-09	2009	Q3	\$ -		0.55%	\$ -	\$ -		
			Sep-09	2009	Q3	\$ -		0.55%	\$ -	\$ -		
			Oct-09	2009	Q4	\$ -		0.55%	\$ -	\$ -		
			Nov-09	2009	Q4	\$ -		0.55%	\$ -	\$ -		
			Dec-09	2009	Q4	\$ -		0.55%	\$ -	\$ -	\$ -	
			Jan-10	2010	Q1	\$ -		0.55%	\$ -	\$ -		
			Feb-10	2010	Q1	\$ -		0.55%	\$ -	\$ -		
			Mar-10	2010	Q1	\$ -		0.55%	\$ -	\$ -		
			Apr-10	2010	Q2	\$ -		0.55%	\$ -	\$ -		
			May-10	2010	Q2	\$ -		0.55%	\$ -	\$ -		
			Jun-10	2010	Q2	\$ -	\$ 2,335.50	0.55%	\$ -	\$ 2,335.50		\$ 0.51
			Jul-10	2010	Q3	\$ 2,335.50	\$ 20,345.10	0.89%	\$ 1.73	\$ 22,682.33		\$ 0.51
			Aug-10	2010	Q3	\$ 22,680.60	\$ 13,863.99	0.89%	\$ 16.82	\$ 36,561.41		\$ 0.51
			Sep-10	2010	Q3	\$ 36,544.59	\$ 11,888.87	0.89%	\$ 27.10	\$ 48,460.57		\$ 0.51
			Oct-10	2010	Q4	\$ 48,433.47	\$ 11,770.09	1.20%	\$ 48.43	\$ 60,251.99		\$ 0.51
			Nov-10	2010	Q4	\$ 60,203.56	\$ 11,268.90	1.20%	\$ 60.20	\$ 71,532.66		\$ 0.51
			Dec-10	2010	Q4	\$ 71,472.46	\$ 26,647.33	1.20%	\$ 71.47	\$ 98,191.26	\$ 98,345.54	\$ 0.51
			Jan-11	2011	Q1	\$ 98,119.79	\$ 10,262.51	1.47%	\$ 120.20	\$ 108,502.50		\$ 0.51
			Feb-11	2011	Q1	\$ 108,382.30	\$ 11,124.35	1.47%	\$ 132.77	\$ 119,639.42		\$ 0.51
			Mar-11	2011	Q1	\$ 119,506.65	\$ 14,433.54	1.47%	\$ 146.40	\$ 134,086.60		\$ 0.51
			Apr-11	2011	Q2	\$ 133,940.20	\$ 10,700.67	1.47%	\$ 164.08	\$ 144,804.95		\$ 0.51
			May-11	2011	Q2	\$ 144,640.87	\$ 15,595.55	1.47%	\$ 177.19	\$ 160,413.61		\$ 0.96
			Jun-11	2011	Q2	\$ 160,236.42	\$ 23,277.85	1.47%	\$ 196.29	\$ 183,710.56		\$ 0.96
			Jul-11	2011	Q3	\$ 183,514.27	\$ 22,055.13	1.47%	\$ 224.80	\$ 205,794.20		\$ 0.96
			Aug-11	2011	Q3	\$ 205,569.40	\$ 27,025.64	1.47%	\$ 251.82	\$ 232,846.86		\$ 0.96
			Sep-11	2011	Q3	\$ 232,595.04	\$ 24,907.36	1.47%	\$ 284.93	\$ 257,787.34		\$ 0.96
			Oct-11	2011	Q4	\$ 257,502.41	\$ 22,059.36	1.47%	\$ 315.44	\$ 279,877.21		\$ 0.96
			Nov-11	2011	Q4	\$ 279,561.77	\$ 27,655.98	1.47%	\$ 342.46	\$ 307,560.21		\$ 0.96
			Dec-11	2011	Q4	\$ 307,217.75	\$ 40,706.42	1.47%	\$ 376.34	\$ 348,300.51	\$ 252,537.10	\$ 0.96



This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP				Opening Balance (Principal)	Funding Adder Revenues	Interest		Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder (from Tariff)
			Date	Year	Quarter			Rate	Interest			
			Jan-12	2012	Q1	\$ 347,924.17	\$ 40,706.83	1.47%	\$ 426.21	\$ 389,057.21		\$ 0.96
			Feb-12	2012	Q1	\$ 388,631.00	\$ 40,891.18	1.47%	\$ 476.07	\$ 429,998.25		\$ 0.96
			Mar-12	2012	Q1	\$ 429,522.18	\$ 40,763.13	1.47%	\$ 526.16	\$ 470,811.47		\$ 0.96
			Apr-12	2012	Q2	\$ 470,285.31	\$ 39,403.87	1.47%	\$ 576.10	\$ 510,265.28		\$ 0.96
			May-12	2012	Q2	\$ 509,689.18	\$ 4,174.32	1.47%	\$ 624.37	\$ 506,139.23		
			Jun-12	2012	Q2	\$ 505,514.86	\$ -	1.47%	\$ 619.26	\$ 506,134.12		
			Jul-12	2012	Q3	\$ 505,514.86	\$ -	1.47%	\$ 619.26	\$ 506,134.12		
			Aug-12	2012	Q3	\$ 505,514.86	\$ -	1.47%	\$ 619.26	\$ 506,134.12		
			Sep-12	2012	Q3	\$ 505,514.86	\$ -	1.47%	\$ 619.26	\$ 506,134.12		
			Oct-12	2012	Q4	\$ 505,514.86	\$ -	1.47%	\$ 619.26	\$ 506,134.12		
			Nov-12	2012	Q4	\$ 505,514.86	\$ -	1.47%	\$ 619.26	\$ 506,134.12		
			Dec-12	2012	Q4	\$ 505,514.86	\$ -	1.47%	\$ 619.26	\$ 506,134.12	\$ 164,554.42	
Total Funding Adder Revenues Collected						\$ 505,514.86			\$ 9,922.20	\$ 515,437.06	\$ 515,437.06	



Chatham-Kent Hydro Inc.

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%	4.29%	Dec-07	2007	Q4	-			-	5.14%	-	-
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	-			-	5.14%	-	-
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	-			-	5.14%	-	-
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	-			-	5.14%	-	-
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	-			-	4.08%	-	-
			May-08	2008	Q2	-			-	4.08%	-	-
			Jun-08	2008	Q2	-			-	4.08%	-	-
			Jul-08	2008	Q3	-			-	3.35%	-	-
			Aug-08	2008	Q3	-			-	3.35%	-	-
			Sep-08	2008	Q3	-			-	3.35%	-	-
			Oct-08	2008	Q4	-			-	3.35%	-	-
			Nov-08	2008	Q4	-			-	3.35%	-	-
			Dec-08	2008	Q4	-			-	3.35%	-	-
			Jan-09	2009	Q1	-			-	2.45%	-	-
			Feb-09	2009	Q1	-			-	2.45%	-	-
			Mar-09	2009	Q1	-			-	2.45%	-	-
			Apr-09	2009	Q2	-			-	1.00%	-	-
			May-09	2009	Q2	-			-	1.00%	-	-
			Jun-09	2009	Q2	-			-	1.00%	-	-
			Jul-09	2009	Q3	-			-	0.55%	-	-
			Aug-09	2009	Q3	-			-	0.55%	-	-
			Sep-09	2009	Q3	-			-	0.55%	-	-
			Oct-09	2009	Q4	-			-	0.55%	-	-
			Nov-09	2009	Q4	-			-	0.55%	-	-
			Dec-09	2009	Q4	-			-	0.55%	-	-
			Jan-10	2010	Q1	-			-	0.55%	-	-
			Feb-10	2010	Q1	-			-	0.55%	-	-
			Mar-10	2010	Q1	-			-	0.55%	-	-
			Apr-10	2010	Q2	-			-	0.55%	-	-
			May-10	2010	Q2	-			-	0.55%	-	-
			Jun-10	2010	Q2	-			-	0.55%	-	-
			Jul-10	2010	Q3	-			-	0.89%	-	-
			Aug-10	2010	Q3	-			-	0.89%	-	-
			Sep-10	2010	Q3	-			-	0.89%	-	-
			Oct-10	2010	Q4	-			-	1.20%	-	-
			Nov-10	2010	Q4	-			-	1.20%	-	-
			Dec-10	2010	Q4	-			-	1.20%	-	-
			Jan-11	2011	Q1	-			-	1.47%	-	-
			Feb-11	2011	Q1	-			-	1.47%	-	-
			Mar-11	2011	Q1	-			-	1.47%	-	-
			Apr-11	2011	Q2	-			-	1.47%	-	-
			May-11	2011	Q2	-			-	1.47%	-	-
			Jun-11	2011	Q2	-			-	1.47%	-	-
			Jul-11	2011	Q3	-			-	1.47%	-	-
			Aug-11	2011	Q3	-			-	1.47%	-	-
			Sep-11	2011	Q3	-			-	1.47%	-	-
			Oct-11	2011	Q4	-			-	1.47%	-	-
			Nov-11	2011	Q4	-			-	1.47%	-	-
			Dec-11	2011	Q4	-			-	1.47%	-	-
			Jan-12	2012	Q1	-			-	1.47%	-	-
			Feb-12	2012	Q1	-			-	1.47%	-	-
			Mar-12	2012	Q1	-			-	1.47%	-	-
			Apr-12	2012	Q2	-			-	1.47%	-	-
			May-12	2012	Q2	-			-	1.47%	-	-
			Jun-12	2012	Q2	-			-	1.47%	-	-
			Jul-12	2012	Q3	-			-	1.47%	-	-
			Aug-12	2012	Q3	-			-	1.47%	-	-
			Sep-12	2012	Q3	-			-	1.47%	-	-
			Oct-12	2012	Q4	-			-	1.47%	-	-
			Nov-12	2012	Q4	-			-	1.47%	-	-
			Dec-12	2012	Q4	-			-	1.47%	-	-
						\$	-	\$	-	\$	-	-



Ontario Energy Board

Smart Meter Model

Chatham-Kent Hydro Inc.

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

Year	OM&A (from Sheet 5)	Amortization Expense (from Sheet 5)	Cumulative OM&A and Amortization Expense	Average Cumulative OM&A and Amortization Expense	Average Annual Prescribed Interest Rate for Deferral and Variance Accounts (from Sheets 8A and 8B)	Simple Interest on OM&A and Amortization Expenses
2006	\$ -	\$ -	\$ -	\$ -	4.37%	\$ -
2007	\$ -	\$ -	\$ -	\$ -	4.73%	\$ -
2008	\$ -	\$ -	\$ -	\$ -	3.98%	\$ -
2009	\$ 73,226.54	\$ 2,711.46	\$ 75,938.01	\$ 37,969.00	1.14%	\$ 431.90
2010	\$ 290,422.39	\$ 8,692.74	\$ 375,053.14	\$ 225,495.57	0.80%	\$ 1,798.33
2011	\$ 251,165.92	\$ 14,560.55	\$ 640,779.60	\$ 507,916.37	1.47%	\$ 7,466.37
2012	\$ 64,754.42	\$ 14,560.55	\$ 720,094.57	\$ 680,437.08	1.47%	\$ 10,002.43
Cumulative Interest to 2011						\$ 9,696.60
Cumulative Interest to 2012						\$ 19,699.02





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

Check if applicable

- ☐ Smart Meter Funding Adder (SMFA)
- ☒ Smart Meter Disposition Rider (SMDR)
- ☒ Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)

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

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

	2006	2007	2008	2009	2010	2011	2012 and later	Total
Deferred and forecasted Smart Meter Incremental Revenue Requirement (from Sheet 5)	\$ -	\$ -	\$ -	\$ 80,491.70	\$ 314,672.80	\$ 285,724.73	\$ 95,952.57	\$ 776,841.79
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B) (Check one of the boxes below)	\$ -	\$ -	\$ -	\$ 431.90	\$ 1,798.33	\$ 7,466.37		\$ 9,696.60
<input type="checkbox"/> Sheet 8A (Interest calculated on monthly balances)								\$ -
<input checked="" type="checkbox"/> Sheet 8B (Interest calculated on average annual balances)	\$ -	\$ -	\$ -	\$ 431.90	\$ 1,798.33	\$ 7,466.37		\$ 9,696.60
SMFA Revenues (from Sheet 8)	\$ -	\$ -	\$ -	\$ -	\$ 98,119.79	\$ 249,804.38	\$ 157,590.69	\$ 505,514.86
SMFA Interest (from Sheet 8)	\$ -	\$ -	\$ -	\$ -	\$ 225.75	\$ 2,732.72	\$ 6,963.73	\$ 9,922.20
Net Deferred Revenue Requirement	\$ -	\$ -	\$ -	\$ 80,923.59	\$ 218,125.59	\$ 40,654.00	\$ 68,601.85	\$ 271,101.32
Number of Metered Customers (average for 2012 test year)							28649	

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, 2011 plus Interest on OM&A and Amortization	\$ 690,585.82
SMFA Revenues collected from 2006 to 2012 test year (inclusive) Plus Simple Interest on SMFA Revenues	\$ 515,437.06
Net Deferred Revenue Requirement	\$ 175,148.76
SMDR November 1, 2012 to October 31, 2013	\$ 0.51
Check: Forecasted SMDR Revenues	\$ 175,331.88

Match

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

Incremental Revenue Requirement for 2012	\$ 95,952.57
SMIRR	\$ 0.28
Check: Forecasted SMIRR Revenues	\$ 96,260.64

Match

**Entegrus Powerlines Inc.**

SM Final Disposition – Interrogatory Responses

Board File No.: EB-2012-0289

Date Filed: September 7, 2012

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**Attachment C**  
**Smart Meter Model**  
**CK GS<50kW**



Ontario Energy Board

## Smart Meter Model

## Choose Your Utility:

Fort Albany Power Corporation  
 Fort Frances Power Corporation

## Application Contact Information

Name: Andrya Eagen

Title: Senior Regulatory Specialist

Phone Number: 519-352-6300 Ext 243

Email Address: andryaeagen@ckenergy.com

We are applying for rates effective: November 1, 2012

Last COS Re-based Year 2010

## Legend

DROP-DOWN MENU

INPUT FIELD

CALCULATION FIELD

## Copyright

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

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




Chatham-Kent Hydro Inc.


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 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
<b>Smart Meter Installation Plan</b>								
<b>Actual/Planned number of Smart Meters installed during the Calendar Year</b>								
Residential								0
General Service < 50 kW				862	1,157	127		2146
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	0	862	1,157	127	0	2146
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	40.17%	94.08%	100.00%	0.00%	100.00%
Actual/Planned number of GS > 50 kW meters installed								0
Other (please identify)								0
Total Number of Smart Meters installed or planned to be installed	0	0	0	862	1,157	127	0	2146
<b>1 Capital Costs</b>								
<b>1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
<b>Asset Type</b>								
1.1.1 Smart Meters (may include new meters and modules, etc.)	Smart Meter			296,656	398,179	43,707		\$ 738,542
1.1.2 Installation Costs (may include socket kits, labour, vehicle, benefits, etc.)	Smart Meter			192,722	258,677	28,394		\$ 479,793
1.1.3a Workforce Automation Hardware (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
1.1.3b Workforce Automation Software (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
<b>Total Advanced Metering Communications Devices (AMCD)</b>				\$ 489,378	\$ 656,856	\$ 72,101	\$ -	\$ 1,218,335
<b>1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)</b>								
<b>Asset Type</b>								
1.2.1 Collectors								\$ -
1.2.2 Repeaters (may include radio licence, etc.)	Computer Hardware			12,012	16,123	1,770		\$ 29,905
1.2.3 Installation (may include meter seals and rings, collector computer hardware, etc.)								\$ -
<b>Total Advanced Metering Regional Collector (AMRC) (includes LAN)</b>				\$ 12,012	\$ 16,123	\$ 1,770	\$ -	\$ 29,905
<b>1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)</b>								
<b>Asset Type</b>								
1.3.1 Computer Hardware	Computer Hardware			18,288	24,546	2,694		\$ 45,528
1.3.2 Computer Software	Computer Software			4,425	5,939	652		\$ 11,016
1.3.3 Computer Software Licences & Installation (includes hardware and software) (may include AS/400 disk space, backup and recovery computer, UPS, etc.)								\$ -
<b>Total Advanced Metering Control Computer (AMCC)</b>				\$ 22,713	\$ 30,486	\$ 3,346	\$ -	\$ 56,544
<b>1.4 WIDE AREA NETWORK (WAN)</b>								
<b>Asset Type</b>								
1.4.1 Activation Fees	Applications Software			3,255	4,369	480		\$ 8,104
<b>Total Wide Area Network (WAN)</b>				\$ 3,255	\$ 4,369	\$ 480	\$ -	\$ 8,104
<b>1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY</b>								
<b>Asset Type</b>								
1.5.1 Customer Equipment (including repair of damaged equipment)	Smart Meter			5,986	8,035	882		\$ 14,904
1.5.2 AMI Interface to CIS								\$ -
1.5.3 Professional Fees								\$ -
1.5.4 Integration								\$ -
1.5.5 Program Management								\$ -
1.5.6 Other AMI Capital								\$ -
<b>Total Other AMI Capital Costs Related to Minimum Functionality</b>				\$ 5,986	\$ 8,035	\$ 882	\$ -	\$ 14,904
<b>Total Capital Costs Related to Minimum Functionality</b>				\$ 533,344	\$ 715,869	\$ 78,579	\$ -	\$ 1,327,792
<b>1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY</b>								
<b>Asset Type</b>								
1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06	Computer Software							\$ -
1.6.2 Costs for deployment of smart meters to customers other than residential and small general service	Applications Software							\$ -
1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDNR, etc.								\$ -
<b>Total Capital Costs Beyond Minimum Functionality</b>				\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Smart Meter Capital Costs</b>				\$ 533,344	\$ 715,869	\$ 78,579	\$ -	\$ 1,327,792
<b>2 OM&amp;A Expenses</b>								
<b>2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
<b>Asset Type</b>								
2.1.1 Maintenance (may include meter reverification costs, etc.)				4,224	3,394	5,218	0	\$ 12,836
2.1.2 Other (please specify)								\$ -
<b>Total Incremental AMCD OM&amp;A Costs</b>				\$ 4,224	\$ 3,394	\$ 5,218	\$ -	\$ 12,836



Ontario Energy Board  
Smart Meter Model



Chatham-Kent Hydro Inc.

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

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

2.2.1 Maintenance

2.2.2 Other (please specify)

Total Incremental AMRC OM&A Costs

2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)

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

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

2.3.2 Other (please specify)

Total Incremental AMCC OM&A Costs

2.4 WIDE AREA NETWORK (WAN)

2.4.1 WAN Maintenance

2.4.2 Other (please specify)

Total Incremental AMRC OM&A Costs

2.5 OTHER AMI OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY

2.5.1 Business Process Redesign

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

2.5.3 Program Management

2.5.4 Change Management (may include training, etc.)

2.5.5 Administration Costs

2.5.6 Other AMI Expenses

(please specify)

Total Other AMI OM&A Costs Related to Minimum Functionality

TOTAL OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY

2.6 OM&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALITY

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

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

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

2.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDMR, etc.

Total OM&A Costs Beyond Minimum Functionality

Total Smart Meter OM&A Costs

	2006	2007	2008	2009	2010	2011	2012 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
								\$ -
								\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
				481	505	338	296	\$ 1,621
				1,874	1,405	913	6,721	\$ 10,913
								\$ -
	\$ -	\$ -	\$ -	2,355	1,910	1,251	7,017	\$ 12,533
								\$ -
								\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
								\$ -
								\$ -
								\$ -
				63	0	0	0	\$ 63
				665	209	-2,046	-2,500	\$ 3,672
	\$ -	\$ -	\$ -	728	209	2,046	2,500	\$ 3,609
	\$ -	\$ -	\$ -	7,308	5,513	4,423	4,517	\$ 21,760
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual		
								\$ -
								\$ -
				627	25,958	20,294	0	\$ 46,879
	\$ -	\$ -	\$ -	627	25,958	20,294	-	\$ 46,879
	\$ -	\$ -	\$ -	7,935	31,471	24,717	4,517	\$ 68,639

3 Aggregate Smart Meter Costs by Category

3.1

Capital

3.1.1 Smart Meter

3.1.2 Computer Hardware

3.1.3 Computer Software

3.1.4 Tools & Equipment

3.1.5 Other Equipment

3.1.6 Applications Software

3.1.7 Total Capital Costs

3.2 OM&A Costs

3.2.1 Total OM&A Costs

\$ -	\$ -	\$ -	\$ 495,364	\$ 664,892	\$ 72,983	\$ -	\$ 1,233,239
\$ -	\$ -	\$ -	\$ 30,300	\$ 40,669	\$ 4,464	\$ -	\$ 75,433
\$ -	\$ -	\$ -	\$ 4,425	\$ 5,939	\$ 652	\$ -	\$ 11,016
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ 3,255	\$ 4,369	\$ 480	\$ -	\$ 8,104
\$ -	\$ -	\$ -	\$ 533,344	\$ 715,869	\$ 78,579	\$ -	\$ 1,327,792
					Error		
\$ -	\$ -	\$ -	\$ 7,935	\$ 31,471	\$ 24,717	\$ 4,517	\$ 68,639



Ontario Energy Board

## Smart Meter Model

### Chatham-Kent Hydro Inc.

	2006	2007	2008	2009	2010	2011	2012 and later
<b>Cost of Capital</b>							
<b>Capital Structure<sup>1</sup></b>							
Deemed Short-term Debt Capitalization					4.0%	4.0%	4.0%
Deemed Long-term Debt Capitalization	50.0%	50.0%	53.3%	56.7%	56.0%	56.0%	56.0%
Deemed Equity Capitalization	50.0%	50.0%	46.7%	43.3%	40.0%	40.0%	40.0%
Preferred Shares	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<b>Cost of Capital Parameters</b>							
Deemed Short-term Debt Rate					2.07%	2.07%	2.07%
Long-term Debt Rate (actual/embedded/deemed) <sup>2</sup>	7.04%	7.04%	7.04%	7.04%	5.87%	5.87%	5.87%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	9.00%	9.85%	9.85%	9.85%
Return on Preferred Shares							
<b>WACC</b>	8.02%	8.02%	7.96%	7.89%	7.31%	7.31%	7.31%
<b>Working Capital Allowance</b>							
Working Capital Allowance Rate (% of the sum of Cost of Power + controllable expenses)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
<b>Taxes/PILs</b>							
Aggregate Corporate Income Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%
<b>Depreciation Rates</b> (expressed as expected useful life in years)							
Smart Meters - years	15	15	15	15	15	15	15
- rate (%)	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%
Computer Hardware - years	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Computer Software - years	3	3	3	3	3	3	3
- rate (%)	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%
Tools & Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Other Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
<b>CCA Rates</b>							
Smart Meters - CCA Class	47	47	47	47	47	47	47
Smart Meters - CCA Rate	8%	8%	8%	8%	8%	8%	8%
Computer Equipment - CCA Class	45	50	50	50	50	50	50
Computer Equipment - CCA Rate	45%	55%	55%	55%	55%	55%	55%
General Equipment - CCA Class	8	8	8	8	8	8	8
General Equipment - CCA Rate	20%	20%	20%	20%	20%	20%	20%
Applications Software - CCA Class	12	12	12	12	12	12	12
Applications Software - CCA Rate	100%	100%	100%	100%	100%	100%	100%

#### Assumptions

<sup>1</sup> Planned smart meter installations occur evenly throughout the year.

<sup>2</sup> Fiscal calendar year (January 1 to December 31) used.

<sup>3</sup> Amortization is done on a straight line basis and has the "half-year" rule applied.



	2006	2007	2008	2009	2010	2011	2012 and later
<b>Net Fixed Assets - Smart Meters</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 495,364	\$ 1,160,256	\$ 1,233,239
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 495,364	\$ 664,892	\$ 72,983	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 495,364	\$ 1,160,256	\$ 1,233,239	\$ 1,233,239
<b>Accumulated Depreciation</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 16,512	\$ 71,699	\$ 151,483
Amortization expense during year	\$ -	\$ -	\$ -	\$ 16,512	\$ 55,187	\$ 79,783	\$ 82,216
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 16,512	\$ 71,699	\$ 151,483	\$ 233,699
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 478,852	\$ 1,088,556	\$ 1,081,756
Closing Balance	\$ -	\$ -	\$ -	\$ 478,852	\$ 1,088,556	\$ 1,081,756	\$ 999,540
Average Net Book Value	\$ -	\$ -	\$ -	\$ 239,426	\$ 783,704	\$ 1,085,156	\$ 1,040,648
<b>Net Fixed Assets - Computer Hardware</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 30,300	\$ 70,969	\$ 75,433
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 30,300	\$ 40,669	\$ 4,464	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 30,300	\$ 70,969	\$ 75,433	\$ 75,433
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 3,030	\$ 13,157	\$ 27,797
Amortization expense during year	\$ -	\$ -	\$ -	\$ 3,030	\$ 10,127	\$ 14,840	\$ 15,087
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 3,030	\$ 13,157	\$ 27,797	\$ 42,884
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 27,270	\$ 57,812	\$ 47,636
Closing Balance	\$ -	\$ -	\$ -	\$ 27,270	\$ 57,812	\$ 47,636	\$ 32,549
Average Net Book Value	\$ -	\$ -	\$ -	\$ 13,635	\$ 42,541	\$ 52,724	\$ 40,093
<b>Net Fixed Assets - Computer Software (Including Applications Software)</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 7,680	\$ 17,989	\$ 19,120
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 7,680	\$ 10,309	\$ 1,132	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 7,680	\$ 17,989	\$ 19,120	\$ 19,120
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 1,280	\$ 5,558	\$ 11,743
Amortization expense during year	\$ -	\$ -	\$ -	\$ 1,280	\$ 4,278	\$ 6,185	\$ 6,373
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 1,280	\$ 5,558	\$ 11,743	\$ 18,117
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 6,400	\$ 12,431	\$ 7,377
Closing Balance	\$ -	\$ -	\$ -	\$ 6,400	\$ 12,431	\$ 7,377	\$ 1,004
Average Net Book Value	\$ -	\$ -	\$ -	\$ 3,200	\$ 9,415	\$ 9,904	\$ 4,191
<b>Net Fixed Assets - Tools and Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Fixed Assets - Other Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



Ontario Energy Board  
Smart Meter Model

Chatham-Kent Hydro Inc.

	2006	2007	2008	2009	2010	2011	2012 and Later
<b>Average Net Fixed Asset Values (from Sheet 4)</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 239,426	\$ 783,704	\$ 1,085,156	\$ 1,040,648
Computer Hardware	\$ -	\$ -	\$ -	\$ 13,635	\$ 42,541	\$ 52,724	\$ 40,093
Computer Software	\$ -	\$ -	\$ -	\$ 3,200	\$ 9,415	\$ 9,904	\$ 4,191
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Net Fixed Assets</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 256,261</b>	<b>\$ 835,660</b>	<b>\$ 1,147,784</b>	<b>\$ 1,084,931</b>
<b>Working Capital</b>							
Operating Expenses (from Sheet 2)	\$ -	\$ -	\$ -	\$ 7,935	\$ 31,471	\$ 24,717	\$ 4,517
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	\$ -	\$ -	\$ -	\$ 1,190	\$ 4,721	\$ 3,708	\$ 678
<b>Incremental Smart Meter Rate Base</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 257,451</b>	<b>\$ 840,381</b>	<b>\$ 1,151,492</b>	<b>\$ 1,085,609</b>
<b>Return on Rate Base</b>							
<b>Capital Structure</b>							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ 33,615	\$ 46,060	\$ 43,424
Deemed Long Term Debt	\$ -	\$ -	\$ -	\$ 145,975	\$ 470,613	\$ 644,835	\$ 607,941
Equity	\$ -	\$ -	\$ -	\$ 111,476	\$ 336,152	\$ 460,597	\$ 434,244
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Capitalization</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 257,451</b>	<b>\$ 840,381</b>	<b>\$ 1,151,492</b>	<b>\$ 1,085,609</b>
<b>Return on</b>							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ 696	\$ 953	\$ 899
Deemed Long Term Debt	\$ -	\$ -	\$ -	\$ 10,277	\$ 27,625	\$ 37,852	\$ 35,686
Equity	\$ -	\$ -	\$ -	\$ 10,033	\$ 33,111	\$ 45,369	\$ 42,773
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Return on Capital</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 20,310</b>	<b>\$ 61,432</b>	<b>\$ 84,174</b>	<b>\$ 79,358</b>
<b>Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 7,935</b>	<b>\$ 31,471</b>	<b>\$ 24,717</b>	<b>\$ 4,517</b>
<b>Amortization Expenses (from Sheet 4)</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 16,512	\$ 55,187	\$ 79,783	\$ 82,216
Computer Hardware	\$ -	\$ -	\$ -	\$ 3,030	\$ 10,127	\$ 14,640	\$ 15,087
Computer Software	\$ -	\$ -	\$ -	\$ 1,280	\$ 4,278	\$ 6,185	\$ 6,373
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Amortization Expense in Year</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 20,822</b>	<b>\$ 69,592</b>	<b>\$ 100,608</b>	<b>\$ 103,676</b>
<b>Incremental Revenue Requirement before Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 49,067</b>	<b>\$ 162,495</b>	<b>\$ 209,499</b>	<b>\$ 187,551</b>
<b>Calculation of Taxable Income</b>							
Incremental Operating Expenses	\$ -	\$ -	\$ -	\$ 7,935	\$ 31,471	\$ 24,717	\$ 4,517
Amortization Expense	\$ -	\$ -	\$ -	\$ 20,822	\$ 69,592	\$ 100,608	\$ 103,676
Interest Expense	\$ -	\$ -	\$ -	\$ 10,277	\$ 28,321	\$ 38,805	\$ 36,585
<b>Net Income for Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 10,033</b>	<b>\$ 33,111</b>	<b>\$ 45,369</b>	<b>\$ 42,773</b>
<b>Grossed-up Taxes/PILs (from Sheet 7)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 802.29</b>	<b>\$ 4,059.49</b>	<b>\$ 11,160.68</b>	<b>\$ 17,162.28</b>
<b>Revenue Requirement, including Grossed-up Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 49,869</b>	<b>\$ 166,554</b>	<b>\$ 220,660</b>	<b>\$ 204,713</b>





## 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 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 475,549.71	\$ 1,075,801.58	\$ 1,059,801.05
Capital Additions	\$ -	\$ -	\$ -	\$ 495,364.29	\$ 664,891.51	\$ 72,982.91	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 495,364.29	\$ 1,140,441.22	\$ 1,148,784.49	\$ 1,059,801.05
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ 247,682.14	\$ 332,445.75	\$ 36,491.45	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ 247,682.14	\$ 807,995.47	\$ 1,112,293.04	\$ 1,059,801.05
CCA Rate Class	47	47	47	47	47	47	47
CCA Rate	8%	8%	8%	8%	8%	8%	8%
CCA	\$ -	\$ -	\$ -	\$ 19,814.57	\$ 64,639.64	\$ 88,983.44	\$ 84,784.08
Closing UCC	\$ -	\$ -	\$ -	\$ 475,549.71	\$ 1,075,801.58	\$ 1,059,801.05	\$ 975,016.96

### UCC - Computer Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 25,175.38	\$ 45,120.01	\$ 24,013.14
Capital Additions Computer Hardware	\$ -	\$ -	\$ -	\$ 30,299.67	\$ 40,669.05	\$ 4,464.10	\$ -
Capital Additions Computer Software	\$ -	\$ -	\$ -	\$ 4,424.99	\$ 5,939.35	\$ 651.94	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 34,724.66	\$ 71,783.78	\$ 50,236.06	\$ 24,013.14
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ 17,362.33	\$ 23,304.20	\$ 2,558.02	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ 17,362.33	\$ 48,479.58	\$ 47,678.03	\$ 24,013.14
CCA Rate Class	45	50	50	50	50	50	50
CCA Rate	45%	55%	55%	55%	55%	55%	55%
CCA	\$ -	\$ -	\$ -	\$ 9,549.28	\$ 26,663.77	\$ 26,222.92	\$ 13,207.23
Closing UCC	\$ -	\$ -	\$ -	\$ 25,175.38	\$ 45,120.01	\$ 24,013.14	\$ 10,805.91

### UCC - General Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA Rate Class	8	8	8	8	8	8	8
CCA Rate	20%	20%	20%	20%	20%	20%	20%
CCA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



## PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
<b>INCOME TAX</b>							
Net Income	\$ -	\$ -	\$ -	\$ 10,032.88	\$ 33,111.01	\$ 45,368.77	\$ 42,772.99
Amortization	\$ -	\$ -	\$ -	\$ 20,822.15	\$ 69,592.36	\$ 100,608.18	\$ 103,675.95
CCA - Smart Meters	\$ -	\$ -	\$ -	\$ 19,814.57	\$ 64,639.64	\$ 88,983.44	\$ 84,784.08
CCA - Computers	\$ -	\$ -	\$ -	\$ 9,549.28	\$ 26,663.77	\$ 26,222.92	\$ 13,207.23
CCA - Applications Software	\$ -	\$ -	\$ -	\$ 1,627.62	\$ 3,812.26	\$ 2,424.44	\$ 239.80
CCA - Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Change in taxable income	\$ -	\$ -	\$ -	\$ 136.45	\$ 7,587.70	\$ 28,346.15	\$ 48,217.82
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Income Taxes Payable	\$ -	\$ -	\$ -	\$ 45.03	\$ 2,352.19	\$ 8,007.79	\$ 12,657.18
<b>ONTARIO CAPITAL TAX</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 478,852.14	\$ 1,088,556.31	\$ 1,081,756.07	\$ 999,540.16
Computer Hardware	\$ -	\$ -	\$ -	\$ 27,269.71	\$ 57,811.92	\$ 47,635.87	\$ 32,549.30
Computer Software (Including Application Software)	\$ -	\$ -	\$ -	\$ 6,400.20	\$ 12,430.64	\$ 7,377.30	\$ 1,003.84
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Base	\$ -	\$ -	\$ -	\$ 512,522.04	\$ 1,158,798.87	\$ 1,136,769.24	\$ 1,033,093.29
Less: Exemption	\$ -	\$ -	\$ -	\$ 126,080.42	\$ 291,437.91	\$ -	\$ -
Deemed Taxable Capital	\$ -	\$ -	\$ -	\$ 386,441.62	\$ 867,360.95	\$ 1,136,769.24	\$ 1,033,093.29
Ontario Capital Tax Rate (from Sheet 3)	0.300%	0.225%	0.225%	0.225%	0.075%	0.000%	0.000%
Net Amount (Taxable Capital x Rate)	\$ -	\$ -	\$ -	\$ 869.49	\$ 650.52	\$ -	\$ -
Change in Income Taxes Payable	\$ -	\$ -	\$ -	\$ 45.03	\$ 2,352.19	\$ 8,007.79	\$ 12,657.18
Change in OCT	\$ -	\$ -	\$ -	\$ 869.49	\$ 650.52	\$ -	\$ -
PILs	\$ -	\$ -	\$ -	\$ 824.46	\$ 3,002.71	\$ 8,007.79	\$ 12,657.18
<b>Gross Up PILs</b>							
Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Change in Income Taxes Payable	\$ -	\$ -	\$ -	\$ 67.21	\$ 3,408.97	\$ 11,160.68	\$ 17,162.28
Change in OCT	\$ -	\$ -	\$ -	\$ 869.49	\$ 650.52	\$ -	\$ -
PILs	\$ -	\$ -	\$ -	\$ 802.29	\$ 4,059.49	\$ 11,160.68	\$ 17,162.28



Ontario Energy Board

Smart Meter Model

Chatham-Kent Hydro Inc.

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	\$ -		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%	4.29%	Dec-07	2007	Q4	\$ -		5.14%	\$ -	\$ -	\$ -	
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	\$ -		5.14%	\$ -	\$ -		
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	\$ -		5.14%	\$ -	\$ -		
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	\$ -		5.14%	\$ -	\$ -		
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	\$ -		4.08%	\$ -	\$ -		
			May-08	2008	Q2	\$ -		4.08%	\$ -	\$ -		
			Jun-08	2008	Q2	\$ -		4.08%	\$ -	\$ -		
			Jul-08	2008	Q3	\$ -		3.35%	\$ -	\$ -		
			Aug-08	2008	Q3	\$ -		3.35%	\$ -	\$ -		
			Sep-08	2008	Q3	\$ -		3.35%	\$ -	\$ -		
			Oct-08	2008	Q4	\$ -		3.35%	\$ -	\$ -		
			Nov-08	2008	Q4	\$ -		3.35%	\$ -	\$ -		
			Dec-08	2008	Q4	\$ -		3.35%	\$ -	\$ -	\$ -	
			Jan-09	2009	Q1	\$ -		2.45%	\$ -	\$ -		
			Feb-09	2009	Q1	\$ -		2.45%	\$ -	\$ -		
			Mar-09	2009	Q1	\$ -		2.45%	\$ -	\$ -		
			Apr-09	2009	Q2	\$ -		1.00%	\$ -	\$ -		
			May-09	2009	Q2	\$ -		1.00%	\$ -	\$ -		
			Jun-09	2009	Q2	\$ -		1.00%	\$ -	\$ -		
			Jul-09	2009	Q3	\$ -		0.55%	\$ -	\$ -		
			Aug-09	2009	Q3	\$ -		0.55%	\$ -	\$ -		
			Sep-09	2009	Q3	\$ -		0.55%	\$ -	\$ -		
			Oct-09	2009	Q4	\$ -		0.55%	\$ -	\$ -		
			Nov-09	2009	Q4	\$ -		0.55%	\$ -	\$ -		
			Dec-09	2009	Q4	\$ -		0.55%	\$ -	\$ -	\$ -	
			Jan-10	2010	Q1	\$ -		0.55%	\$ -	\$ -		
			Feb-10	2010	Q1	\$ -		0.55%	\$ -	\$ -		
			Mar-10	2010	Q1	\$ -		0.55%	\$ -	\$ -		
			Apr-10	2010	Q2	\$ -		0.55%	\$ -	\$ -		
			May-10	2010	Q2	\$ -		0.55%	\$ -	\$ -		
			Jun-10	2010	Q2	\$ -	\$ 2.14	0.55%	\$ -	\$ 2.14		\$ 0.51
			Jul-10	2010	Q3	\$ 2.14	\$ 2,118.98	0.89%	\$ -	\$ 2,121.13		\$ 0.51
			Aug-10	2010	Q3	\$ 2,121.13	\$ 1,435.34	0.89%	\$ 1.57	\$ 3,558.04		\$ 0.51
			Sep-10	2010	Q3	\$ 3,556.47	\$ 1,170.41	0.89%	\$ 2.64	\$ 4,729.53		\$ 0.51
			Oct-10	2010	Q4	\$ 4,726.89	\$ 1,167.71	1.20%	\$ 4.73	\$ 5,899.33		\$ 0.51
			Nov-10	2010	Q4	\$ 5,894.60	\$ 1,166.57	1.20%	\$ 5.89	\$ 7,067.07		\$ 0.51
			Dec-10	2010	Q4	\$ 7,061.18	\$ 2,862.78	1.20%	\$ 7.06	\$ 9,931.02	\$ 9,945.85	\$ 0.51
			Jan-11	2011	Q1	\$ 9,923.96	\$ 1,101.98	1.47%	\$ 12.16	\$ 11,038.11		\$ 0.51
			Feb-11	2011	Q1	\$ 11,025.95	\$ 1,149.98	1.47%	\$ 13.51	\$ 12,189.44		\$ 0.51
			Mar-11	2011	Q1	\$ 12,175.93	\$ 1,288.07	1.47%	\$ 14.92	\$ 13,478.93		\$ 0.51
			Apr-11	2011	Q2	\$ 13,464.01	\$ 1,097.85	1.47%	\$ 16.49	\$ 14,578.35		\$ 0.51
			May-11	2011	Q2	\$ 14,561.86	\$ 1,439.86	1.47%	\$ 17.84	\$ 16,019.57		\$ 0.96
			Jun-11	2011	Q2	\$ 16,001.73	\$ 2,374.32	1.47%	\$ 19.60	\$ 18,395.65		\$ 0.96
			Jul-11	2011	Q3	\$ 18,376.05	\$ 2,396.61	1.47%	\$ 22.51	\$ 20,795.18		\$ 0.96
			Aug-11	2011	Q3	\$ 20,772.67	\$ 2,635.89	1.47%	\$ 25.45	\$ 23,434.01		\$ 0.96
			Sep-11	2011	Q3	\$ 23,408.56	\$ 2,566.26	1.47%	\$ 28.68	\$ 26,003.51		\$ 0.96
			Oct-11	2011	Q4	\$ 25,974.83	\$ 2,372.51	1.47%	\$ 31.82	\$ 28,379.16		\$ 0.96
			Nov-11	2011	Q4	\$ 28,347.34	\$ 2,724.85	1.47%	\$ 34.73	\$ 31,106.93		\$ 0.96
			Dec-11	2011	Q4	\$ 31,072.20	\$ 4,317.89	1.47%	\$ 38.06	\$ 35,428.15	\$ 25,741.90	\$ 0.96



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)
			Jan-12	2012	Q1	\$ 35,390.09	\$ 4,377.45	1.47%	\$ 43.35	\$ 39,810.89		\$ 0.96
			Feb-12	2012	Q1	\$ 39,767.54	\$ 4,371.64	1.47%	\$ 48.72	\$ 44,187.90		\$ 0.96
			Mar-12	2012	Q1	\$ 44,139.18	\$ 4,390.31	1.47%	\$ 54.07	\$ 48,583.56		\$ 0.96
			Apr-12	2012	Q2	\$ 48,529.49	\$ 3,940.77	1.47%	\$ 59.45	\$ 52,529.71		\$ 0.96
			May-12	2012	Q2	\$ 52,470.26	\$ 152.79	1.47%	\$ 64.28	\$ 52,381.75		
			Jun-12	2012	Q2	\$ 52,317.47	\$ -	1.47%	\$ 64.09	\$ 52,381.56		
			Jul-12	2012	Q3	\$ 52,317.47	\$ -	1.47%	\$ 64.09	\$ 52,381.56		
			Aug-12	2012	Q3	\$ 52,317.47	\$ -	1.47%	\$ 64.09	\$ 52,381.56		
			Sep-12	2012	Q3	\$ 52,317.47	\$ -	1.47%	\$ 64.09	\$ 52,381.56		
			Oct-12	2012	Q4	\$ 52,317.47	\$ -	1.47%	\$ 64.09	\$ 52,381.56		
			Nov-12	2012	Q4	\$ 52,317.47	\$ -	1.47%	\$ 64.09	\$ 52,381.56		
			Dec-12	2012	Q4	\$ 52,317.47	\$ -	1.47%	\$ 64.09	\$ 52,381.56	\$ 17,645.88	
Total Funding Adder Revenues Collected						\$ 52,317.47			\$ 1,016.16	\$ 53,333.63	\$ 53,333.63	



Chatham-Kent Hydro Inc.

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%	4.29%	Dec-07	2007	Q4	-			-	5.14%	-	-
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	-			-	5.14%	-	-
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	-			-	5.14%	-	-
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	-			-	5.14%	-	-
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	-			-	4.08%	-	-
			May-08	2008	Q2	-			-	4.08%	-	-
			Jun-08	2008	Q2	-			-	4.08%	-	-
			Jul-08	2008	Q3	-			-	3.35%	-	-
			Aug-08	2008	Q3	-			-	3.35%	-	-
			Sep-08	2008	Q3	-			-	3.35%	-	-
			Oct-08	2008	Q4	-			-	3.35%	-	-
			Nov-08	2008	Q4	-			-	3.35%	-	-
			Dec-08	2008	Q4	-			-	3.35%	-	-
			Jan-09	2009	Q1	-			-	2.45%	-	-
			Feb-09	2009	Q1	-			-	2.45%	-	-
			Mar-09	2009	Q1	-			-	2.45%	-	-
			Apr-09	2009	Q2	-			-	1.00%	-	-
			May-09	2009	Q2	-			-	1.00%	-	-
			Jun-09	2009	Q2	-			-	1.00%	-	-
			Jul-09	2009	Q3	-			-	0.55%	-	-
			Aug-09	2009	Q3	-			-	0.55%	-	-
			Sep-09	2009	Q3	-			-	0.55%	-	-
			Oct-09	2009	Q4	-			-	0.55%	-	-
			Nov-09	2009	Q4	-			-	0.55%	-	-
			Dec-09	2009	Q4	-			-	0.55%	-	-
			Jan-10	2010	Q1	-			-	0.55%	-	-
			Feb-10	2010	Q1	-			-	0.55%	-	-
			Mar-10	2010	Q1	-			-	0.55%	-	-
			Apr-10	2010	Q2	-			-	0.55%	-	-
			May-10	2010	Q2	-			-	0.55%	-	-
			Jun-10	2010	Q2	-			-	0.55%	-	-
			Jul-10	2010	Q3	-			-	0.89%	-	-
			Aug-10	2010	Q3	-			-	0.89%	-	-
			Sep-10	2010	Q3	-			-	0.89%	-	-
			Oct-10	2010	Q4	-			-	1.20%	-	-
			Nov-10	2010	Q4	-			-	1.20%	-	-
			Dec-10	2010	Q4	-			-	1.20%	-	-
			Jan-11	2011	Q1	-			-	1.47%	-	-
			Feb-11	2011	Q1	-			-	1.47%	-	-
			Mar-11	2011	Q1	-			-	1.47%	-	-
			Apr-11	2011	Q2	-			-	1.47%	-	-
			May-11	2011	Q2	-			-	1.47%	-	-
			Jun-11	2011	Q2	-			-	1.47%	-	-
			Jul-11	2011	Q3	-			-	1.47%	-	-
			Aug-11	2011	Q3	-			-	1.47%	-	-
			Sep-11	2011	Q3	-			-	1.47%	-	-
			Oct-11	2011	Q4	-			-	1.47%	-	-
			Nov-11	2011	Q4	-			-	1.47%	-	-
			Dec-11	2011	Q4	-			-	1.47%	-	-
			Jan-12	2012	Q1	-			-	1.47%	-	-
			Feb-12	2012	Q1	-			-	1.47%	-	-
			Mar-12	2012	Q1	-			-	1.47%	-	-
			Apr-12	2012	Q2	-			-	1.47%	-	-
			May-12	2012	Q2	-			-	1.47%	-	-
			Jun-12	2012	Q2	-			-	1.47%	-	-
			Jul-12	2012	Q3	-			-	1.47%	-	-
			Aug-12	2012	Q3	-			-	1.47%	-	-
			Sep-12	2012	Q3	-			-	1.47%	-	-
			Oct-12	2012	Q4	-			-	1.47%	-	-
			Nov-12	2012	Q4	-			-	1.47%	-	-
			Dec-12	2012	Q4	-			-	1.47%	-	-
						\$	-	\$	-	\$	-	-



Ontario Energy Board

Smart Meter Model

Chatham-Kent Hydro Inc.

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

Year	OM&A (from Sheet 5)	Amortization Expense (from Sheet 5)	Cumulative OM&A and Amortization Expense	Average Cumulative OM&A and Amortization Expense	Average Annual Prescribed Interest Rate for Deferral and Variance Accounts (from Sheets 8A and 8B)	Simple Interest on OM&A and Amortization Expenses
2006	\$ -	\$ -	\$ -	\$ -	4.37%	\$ -
2007	\$ -	\$ -	\$ -	\$ -	4.73%	\$ -
2008	\$ -	\$ -	\$ -	\$ -	3.98%	\$ -
2009	\$ 7,934.94	\$ 20,822.15	\$ 28,757.09	\$ 14,378.54	1.14%	\$ 163.56
2010	\$ 31,470.61	\$ 69,592.36	\$ 129,820.05	\$ 79,288.57	0.80%	\$ 632.33
2011	\$ 24,716.72	\$ 100,608.18	\$ 255,144.95	\$ 192,482.50	1.47%	\$ 2,829.49
2012	\$ 4,516.89	\$ 103,675.95	\$ 363,337.78	\$ 309,241.37	1.47%	\$ 4,545.85
Cumulative Interest to 2011						\$ 3,625.38
Cumulative Interest to 2012						\$ 8,171.22



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

Check if applicable

- ☐ Smart Meter Funding Adder (SMFA)
- ☒ Smart Meter Disposition Rider (SMDR)
- ☒ Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)

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

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

	2006	2007	2008	2009	2010	2011	2012 and later	Total
Deferred and forecasted Smart Meter Incremental Revenue Requirement (from Sheet 5)	\$ -	\$ -	\$ -	\$ 49,868.88	\$ 166,554.31	\$ 220,659.61	\$ 204,713.11	\$ 641,795.91
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B) (Check one of the boxes below)	\$ -	\$ -	\$ -	\$ 163.56	\$ 632.33	\$ 2,829.49		\$ 3,625.38
<input type="checkbox"/> Sheet 8A (Interest calculated on monthly balances)								\$ -
<input checked="" type="checkbox"/> Sheet 8B (Interest calculated on average annual balances)	\$ -	\$ -	\$ -	\$ 163.56	\$ 632.33	\$ 2,829.49		\$ 3,625.38
SMFA Revenues (from Sheet 8)	\$ -	\$ -	\$ -	\$ -	\$ 9,923.96	\$ 25,466.13	\$ 16,927.38	\$ 52,317.47
SMFA Interest (from Sheet 8)	\$ -	\$ -	\$ -	\$ -	\$ 21.89	\$ 275.77	\$ 718.50	\$ 1,016.16
Net Deferred Revenue Requirement	\$ -	\$ -	\$ -	\$ 50,032.44	\$ 157,240.78	\$ 197,747.21	\$ 187,067.23	\$ 592,087.66
Number of Metered Customers (average for 2012 test year)							3083	

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

Years for collection or refunding	3.5	
Deferred Incremental Revenue Requirement from 2006 to December 31, 2011	\$ 440,708.17	
plus Interest on OM&A and Amortization	\$ 53,333.63	
SMFA Revenues collected from 2006 to 2012 test year (inclusive)		
Plus Simple Interest on SMFA Revenues		
Net Deferred Revenue Requirement	\$ 387,374.54	
SMDR	November 1, 2012 to April 30, 2016	\$ 2.99
Check: Forecasted SMDR Revenues		\$ 387,163.14

Match

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

Incremental Revenue Requirement for 2012	\$ 204,713.11	
SMIRR	\$ 5.53	
Check: Forecasted SMIRR Revenues		\$ 204,587.88

Match

**Entegrus Powerlines Inc.**

SM Final Disposition – Interrogatory Responses

Board File No.: EB-2012-0289

Date Filed: September 7, 2012

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**Attachment D**  
**Smart Meter Model**  
**CK GS>50kW**





Ontario Energy Board

## Smart Meter Model

## Choose Your Utility:

Chapleau Public Utilities Corporation

Chatham-Kent Hydro Inc.

## Application Contact Information

Name: Andrya Eagen

Title: Senior Regulatory Specialist

Phone Number: 519-352-6300 Ext 243

Email Address: andryaeagen@ckenergy.com

We are applying for rates effective: November 1, 2012

Last COS Re-based Year: 2010

## Legend

DROP-DOWN MENU

INPUT FIELD

CALCULATION FIELD

## Copyright

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

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



Chatham-Kent Hydro Inc.

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.

	2006	2007	2008	2009	2010	2011	2012 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
<b>Smart Meter Capital Cost and Operational Expense Data</b>								
<b>Smart Meter Installation Plan</b>								
<b>Actual/Planned number of Smart Meters installed during the Calendar Year</b>								
Residential								0
General Service < 50 kW								0
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	0	0	0	0	0	0
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Actual/Planned number of GS > 50 kW meters installed				144	65	67		276
Other (please identify)								0
Total Number of Smart Meters installed or planned to be installed	0	0	0	144	65	67	0	276
<b>1 Capital Costs</b>								
<b>1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
<b>Asset Type</b>								
1.1.1 Smart Meters (may include new meters and modules, etc.)	Smart Meter			107,132	48,358	49,846		\$ 205,337
1.1.2 Installation Costs (may include socket kits, labour, vehicle, benefits, etc.)	Smart Meter			67,615	30,521	31,460		\$ 129,595
1.1.3a Workforce Automation Hardware (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
1.1.3b Workforce Automation Software (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
<b>Total Advanced Metering Communications Devices (AMCD)</b>				\$ 174,747	\$ 78,879	\$ 81,306		\$ 334,932
<b>1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)</b>								
<b>Asset Type</b>								
1.2.1 Collectors								\$ -
1.2.2 Repeaters (may include radio licence, etc.)								\$ -
1.2.3 Installation (may include meter seals and rings, collector computer hardware, etc.)								\$ -
<b>Total Advanced Metering Regional Collector (AMRC) (includes LAN)</b>				\$ -	\$ -	\$ -	\$ -	\$ -
<b>1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)</b>								
<b>Asset Type</b>								
1.3.1 Computer Hardware	Computer Hardware			3,199	1,444	1,489		\$ 6,132
1.3.2 Computer Software								\$ -
1.3.3 Computer Software Licences & Installation (includes hardware and software) (may include AS400 disk space, backup and recovery computer, UPS, etc.)								\$ -
<b>Total Advanced Metering Control Computer (AMCC)</b>				\$ 3,199	\$ 1,444	\$ 1,489	\$ -	\$ 6,132
<b>1.4 WIDE AREA NETWORK (WAN)</b>								
<b>Asset Type</b>								
1.4.1 Activation Fees	Applications Software			5,723	2,583	2,663		\$ 10,970
<b>Total Wide Area Network (WAN)</b>				\$ 5,723	\$ 2,583	\$ 2,663	\$ -	\$ 10,970
<b>1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY</b>								
<b>Asset Type</b>								
1.5.1 Customer Equipment (including repair of damaged equipment)	Smart Meter			1,397	631	650		\$ 2,678
1.5.2 AMI Interface to CIS								\$ -
1.5.3 Professional Fees								\$ -
1.5.4 Integration								\$ -
1.5.5 Program Management								\$ -
1.5.6 Other AMI Capital								\$ -
<b>Total Other AMI Capital Costs Related to Minimum Functionality</b>				\$ 1,397	\$ 631	\$ 650	\$ -	\$ 2,678
<b>Total Capital Costs Related to Minimum Functionality</b>				\$ 185,067	\$ 83,537	\$ 86,108	\$ -	\$ 354,712
<b>1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY</b>								
<b>Asset Type</b>								
1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06	Computer Software							\$ -
1.6.2 Costs for deployment of smart meters to customers other than residential and small general service	Applications Software							\$ -
1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDNR, etc.								\$ -
<b>Total Capital Costs Beyond Minimum Functionality</b>				\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Smart Meter Capital Costs</b>				\$ 185,067	\$ 83,537	\$ 86,108	\$ -	\$ 354,712
<b>2 OM&amp;A Expenses</b>								
<b>2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
<b>Asset Type</b>								
2.1.1 Maintenance (may include meter reverification costs, etc.)				527	424	651	0	\$ 1,602
2.1.2 Other (please specify)								\$ -
<b>Total Incremental AMCD OM&amp;A Costs</b>				\$ 527	\$ 424	\$ 651	\$ -	\$ 1,602



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

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

###### 2.2.1 Maintenance

###### 2.2.2 Other (please specify)

##### Total Incremental AMRC OM&A Costs

##### 2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)

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

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

###### 2.3.2 Other (please specify)

##### Total Incremental AMCC OM&A Costs

##### 2.4 WIDE AREA NETWORK (WAN)

###### 2.4.1 WAN Maintenance

###### 2.4.2 Other (please specify)

##### Total Incremental AMRC OM&A Costs

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

###### 2.5.1 Business Process Redesign

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

###### 2.5.3 Program Management

###### 2.5.4 Change Management (may include training, etc.)

###### 2.5.5 Administration Costs

###### 2.5.6 Other AMI Expenses

(please specify)

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

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

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

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

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

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

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

##### Total OM&A Costs Beyond Minimum Functionality

##### Total Smart Meter OM&A Costs

	2006	2007	2008	2009	2010	2011	2012 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
2.2.1 Maintenance								\$ -
2.2.2 Other (please specify)								\$ -
<b>Total Incremental AMRC OM&amp;A Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
2.3.1 Hardware Maintenance (may include server support, etc.)				60	63	42	37	\$ 202
2.3.2 Software Maintenance (may include maintenance support, etc.)				234	175	114	839	\$ 1,362
2.3.2 Other (please specify)								\$ -
<b>Total Incremental AMCC OM&amp;A Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 294</b>	<b>\$ 238</b>	<b>\$ 156</b>	<b>\$ 876</b>	<b>\$ 1,564</b>
2.4.1 WAN Maintenance								\$ -
2.4.2 Other (please specify)								\$ -
<b>Total Incremental AMRC OM&amp;A Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
2.5.1 Business Process Redesign								\$ -
2.5.2 Customer Communication (may include project communication, etc.)								\$ -
2.5.3 Program Management								\$ -
2.5.4 Change Management (may include training, etc.)								\$ -
2.5.5 Administration Costs				8	0	0	0	\$ 8
2.5.6 Other AMI Expenses (please specify)				83	26	57	-7,000	\$ 6,834
<b>Total Other AMI OM&amp;A Costs Related to Minimum Functionality</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 91</b>	<b>\$ 26</b>	<b>\$ 57</b>	<b>\$ -7,000</b>	<b>\$ 6,826</b>
<b>TOTAL OM&amp;A COSTS RELATED TO MINIMUM FUNCTIONALITY</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 912</b>	<b>\$ 688</b>	<b>\$ 864</b>	<b>\$ -6,124</b>	<b>\$ -3,660</b>
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 MDMR, etc.				0	0	0	0	\$ -
<b>Total OM&amp;A Costs Beyond Minimum Functionality</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Smart Meter OM&amp;A Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 912</b>	<b>\$ 688</b>	<b>\$ 864</b>	<b>\$ -6,124</b>	<b>\$ -3,660</b>

#### 3 Aggregate Smart Meter Costs by Category

##### 3.1

##### Capital

###### 3.1.1 Smart Meter

###### 3.1.2 Computer Hardware

###### 3.1.3 Computer Software

###### 3.1.4 Tools & Equipment

###### 3.1.5 Other Equipment

###### 3.1.6 Applications Software

###### 3.1.7 Total Capital Costs

##### 3.2 OM&A Costs

###### 3.2.1 Total OM&A Costs

\$ -	\$ -	\$ -	\$ 176,145	\$ 79,510	\$ 81,956	\$ -	\$ 337,610
\$ -	\$ -	\$ -	\$ 3,199	\$ 1,444	\$ 1,489	\$ -	\$ 6,132
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ 5,723	\$ 2,583	\$ 2,663	\$ -	\$ 10,970
<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 185,067</b>	<b>\$ 83,537</b>	<b>\$ 86,108</b>	<b>\$ -</b>	<b>\$ 354,712</b>
<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 912</b>	<b>\$ 688</b>	<b>\$ 864</b>	<b>\$ -6,124</b>	<b>\$ -3,660</b>



Ontario Energy Board

## Smart Meter Model

### Chatham-Kent Hydro Inc.

	2006	2007	2008	2009	2010	2011	2012 and later
<b>Cost of Capital</b>							
<b>Capital Structure<sup>1</sup></b>							
Deemed Short-term Debt Capitalization					4.0%	4.0%	4.0%
Deemed Long-term Debt Capitalization	50.0%	50.0%	53.3%	56.7%	56.0%	56.0%	56.0%
Deemed Equity Capitalization	50.0%	50.0%	46.7%	43.3%	40.0%	40.0%	40.0%
Preferred Shares	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<b>Cost of Capital Parameters</b>							
Deemed Short-term Debt Rate					2.07%	2.07%	2.07%
Long-term Debt Rate (actual/embedded/deemed) <sup>2</sup>	7.04%	7.04%	7.04%	7.04%	5.87%	5.87%	5.87%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	9.00%	9.85%	9.85%	9.85%
Return on Preferred Shares							
<b>WACC</b>	8.02%	8.02%	7.96%	7.89%	7.31%	7.31%	7.31%
<b>Working Capital Allowance</b>							
Working Capital Allowance Rate (% of the sum of Cost of Power + controllable expenses)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
<b>Taxes/PILs</b>							
Aggregate Corporate Income Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%
<b>Depreciation Rates</b> (expressed as expected useful life in years)							
Smart Meters - years	15	15	15	15	15	15	15
- rate (%)	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%
Computer Hardware - years	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Computer Software - years	3	3	3	3	3	3	3
- rate (%)	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%
Tools & Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Other Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
<b>CCA Rates</b>							
Smart Meters - CCA Class	47	47	47	47	47	47	47
Smart Meters - CCA Rate	8%	8%	8%	8%	8%	8%	8%
Computer Equipment - CCA Class	45	50	50	50	50	50	50
Computer Equipment - CCA Rate	45%	55%	55%	55%	55%	55%	55%
General Equipment - CCA Class	8	8	8	8	8	8	8
General Equipment - CCA Rate	20%	20%	20%	20%	20%	20%	20%
Applications Software - CCA Class	12	12	12	12	12	12	12
Applications Software - CCA Rate	100%	100%	100%	100%	100%	100%	100%

#### Assumptions

<sup>1</sup> Planned smart meter installations occur evenly throughout the year.

<sup>2</sup> Fiscal calendar year (January 1 to December 31) used.

<sup>3</sup> Amortization is done on a straight line basis and has the "half-year" rule applied.



	2006	2007	2008	2009	2010	2011	2012 and later
<b>Net Fixed Assets - Smart Meters</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 176,145	\$ 255,654	\$ 337,610
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 176,145	\$ 79,510	\$ 81,956	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 176,145	\$ 255,654	\$ 337,610	\$ 337,610
<b>Accumulated Depreciation</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 5,871	\$ 20,265	\$ 40,040
Amortization expense during year	\$ -	\$ -	\$ -	\$ 5,871	\$ 14,393	\$ 19,775	\$ 22,507
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 5,871	\$ 20,265	\$ 40,040	\$ 62,548
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 170,273	\$ 235,390	\$ 297,570
Closing Balance	\$ -	\$ -	\$ -	\$ 170,273	\$ 235,390	\$ 297,570	\$ 275,063
Average Net Book Value	\$ -	\$ -	\$ -	\$ 85,137	\$ 202,831	\$ 266,480	\$ 286,316
<b>Net Fixed Assets - Computer Hardware</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 3,199	\$ 4,643	\$ 6,132
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 3,199	\$ 1,444	\$ 1,489	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 3,199	\$ 4,643	\$ 6,132	\$ 6,132
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 320	\$ 1,104	\$ 2,182
Amortization expense during year	\$ -	\$ -	\$ -	\$ 320	\$ 784	\$ 1,078	\$ 1,226
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 320	\$ 1,104	\$ 2,182	\$ 3,408
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 2,879	\$ 3,539	\$ 3,950
Closing Balance	\$ -	\$ -	\$ -	\$ 2,879	\$ 3,539	\$ 3,950	\$ 2,724
Average Net Book Value	\$ -	\$ -	\$ -	\$ 1,440	\$ 3,209	\$ 3,745	\$ 3,337
<b>Net Fixed Assets - Computer Software (Including Applications Software)</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 5,723	\$ 8,307	\$ 10,970
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 5,723	\$ 2,583	\$ 2,663	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 5,723	\$ 8,307	\$ 10,970	\$ 10,970
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 954	\$ 3,292	\$ 6,505
Amortization expense during year	\$ -	\$ -	\$ -	\$ 954	\$ 2,338	\$ 3,213	\$ 3,657
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 954	\$ 3,292	\$ 6,505	\$ 10,162
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 4,769	\$ 5,015	\$ 4,465
Closing Balance	\$ -	\$ -	\$ -	\$ 4,769	\$ 5,015	\$ 4,465	\$ 808
Average Net Book Value	\$ -	\$ -	\$ -	\$ 2,385	\$ 4,892	\$ 4,740	\$ 2,636
<b>Net Fixed Assets - Tools and Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Fixed Assets - Other Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



# Ontario Energy Board

## Smart Meter Model

### Chatham-Kent Hydro Inc.

	2006	2007	2008	2009	2010	2011	2012 and Later
<b>Average Net Fixed Asset Values (from Sheet 4)</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 85,137	\$ 202,831	\$ 266,480	\$ 286,316
Computer Hardware	\$ -	\$ -	\$ -	\$ 1,440	\$ 3,209	\$ 3,745	\$ 3,337
Computer Software	\$ -	\$ -	\$ -	\$ 2,385	\$ 4,892	\$ 4,740	\$ 2,636
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Net Fixed Assets</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 88,961</b>	<b>\$ 210,933</b>	<b>\$ 274,964</b>	<b>\$ 292,290</b>
<b>Working Capital</b>							
Operating Expenses (from Sheet 2)	\$ -	\$ -	\$ -	\$ 912	\$ 688	\$ 864	\$ 6,124
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	\$ -	\$ -	\$ -	\$ 137	\$ 103	\$ 130	\$ 919
<b>Incremental Smart Meter Rate Base</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 89,098</b>	<b>\$ 211,036</b>	<b>\$ 275,094</b>	<b>\$ 291,371</b>
<b>Return on Rate Base</b>							
<b>Capital Structure</b>							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ 8,441	\$ 11,004	\$ 11,655
Deemed Long Term Debt	\$ -	\$ -	\$ -	\$ 50,518	\$ 118,180	\$ 154,053	\$ 163,168
Equity	\$ -	\$ -	\$ -	\$ 38,579	\$ 84,414	\$ 110,038	\$ 116,549
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Capitalization</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 89,098</b>	<b>\$ 211,036</b>	<b>\$ 275,094</b>	<b>\$ 291,371</b>
<b>Return on</b>							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ 175	\$ 228	\$ 241
Deemed Long Term Debt	\$ -	\$ -	\$ -	\$ 3,556	\$ 6,937	\$ 9,043	\$ 9,578
Equity	\$ -	\$ -	\$ -	\$ 3,472	\$ 8,315	\$ 10,839	\$ 11,480
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Return on Capital</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 7,029</b>	<b>\$ 15,427</b>	<b>\$ 20,109</b>	<b>\$ 21,299</b>
<b>Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 912</b>	<b>\$ 688</b>	<b>\$ 864</b>	<b>\$ 6,124</b>
<b>Amortization Expenses (from Sheet 4)</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 5,871	\$ 14,393	\$ 19,775	\$ 22,507
Computer Hardware	\$ -	\$ -	\$ -	\$ 320	\$ 784	\$ 1,078	\$ 1,226
Computer Software	\$ -	\$ -	\$ -	\$ 954	\$ 2,338	\$ 3,213	\$ 3,657
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Amortization Expense in Year</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 7,145</b>	<b>\$ 17,516</b>	<b>\$ 24,066</b>	<b>\$ 27,390</b>
<b>Incremental Revenue Requirement before Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 15,086</b>	<b>\$ 33,631</b>	<b>\$ 45,039</b>	<b>\$ 42,565</b>
<b>Calculation of Taxable Income</b>							
Incremental Operating Expenses	\$ -	\$ -	\$ -	\$ 912	\$ 688	\$ 864	\$ 6,124
Amortization Expense	\$ -	\$ -	\$ -	\$ 7,145	\$ 17,516	\$ 24,066	\$ 27,390
Interest Expense	\$ -	\$ -	\$ -	\$ 3,556	\$ 7,112	\$ 9,271	\$ 9,819
<b>Net Income for Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,472</b>	<b>\$ 8,315</b>	<b>\$ 10,839</b>	<b>\$ 11,480</b>
<b>Grossed-up Taxes/PILs (from Sheet 7)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 218.20</b>	<b>\$ 1,617.83</b>	<b>\$ 3,500.93</b>	<b>\$ 4,650.54</b>
<b>Revenue Requirement, including Grossed-up Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 15,304</b>	<b>\$ 35,248</b>	<b>\$ 48,540</b>	<b>\$ 47,216</b>



## 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 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 169,098.80	\$ 231,900.22	\$ 292,026.11
Capital Additions	\$ -	\$ -	\$ -	\$ 176,144.58	\$ 79,509.71	\$ 81,956.16	\$ -
Retirements/Removals (if applicable)							
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 176,144.58	\$ 248,608.51	\$ 313,856.38	\$ 292,026.11
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ 88,072.29	\$ 39,754.85	\$ 40,978.08	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ 88,072.29	\$ 208,853.65	\$ 272,878.30	\$ 292,026.11
CCA Rate Class	47	47	47	47	47	47	47
CCA Rate	8%	8%	8%	8%	8%	8%	8%
CCA	\$ -	\$ -	\$ -	\$ 7,045.78	\$ 16,708.29	\$ 21,830.26	\$ 23,362.09
Closing UCC	\$ -	\$ -	\$ -	\$ 169,098.80	\$ 231,900.22	\$ 292,026.11	\$ 268,664.02

### UCC - Computer Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 2,319.52	\$ 2,090.79	\$ 2,020.08
Capital Additions Computer Hardware	\$ -	\$ -	\$ -	\$ 3,199.34	\$ 1,444.15	\$ 1,488.58	\$ -
Capital Additions Computer Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 3,199.34	\$ 3,763.67	\$ 3,579.37	\$ 2,020.08
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ 1,599.67	\$ 722.07	\$ 744.29	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ 1,599.67	\$ 3,041.60	\$ 2,835.08	\$ 2,020.08
CCA Rate Class	45	50	50	50	50	50	50
CCA Rate	45%	55%	55%	55%	55%	55%	55%
CCA	\$ -	\$ -	\$ -	\$ 879.82	\$ 1,672.88	\$ 1,559.30	\$ 1,111.04
Closing UCC	\$ -	\$ -	\$ -	\$ 2,319.52	\$ 2,090.79	\$ 2,020.08	\$ 909.04

### UCC - General Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA Rate Class	8	8	8	8	8	8	8
CCA Rate	20%	20%	20%	20%	20%	20%	20%
CCA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



## PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
<b>INCOME TAX</b>							
Net Income	\$ -	\$ -	\$ -	\$ 3,472.14	\$ 8,314.81	\$ 10,838.70	\$ 11,480.03
Amortization	\$ -	\$ -	\$ -	\$ 7,145.32	\$ 17,515.95	\$ 24,065.82	\$ 27,390.38
CCA - Smart Meters	\$ -	\$ -	\$ -	\$ 7,045.78	\$ 16,708.29	\$ 21,830.26	\$ 23,362.09
CCA - Computers	\$ -	\$ -	\$ -	\$ 879.82	\$ 1,672.88	\$ 1,559.30	\$ 1,111.04
CCA - Applications Software	\$ -	\$ -	\$ -	\$ 2,861.69	\$ 4,153.42	\$ 2,623.21	\$ 1,331.48
CCA - Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Change in taxable income	\$ -	\$ -	\$ -	\$ 169.83	\$ 3,296.17	\$ 8,891.75	\$ 13,065.80
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Income Taxes Payable	\$ -	\$ -	\$ -	\$ 56.04	\$ 1,021.81	\$ 2,511.92	\$ 3,429.77
<b>ONTARIO CAPITAL TAX</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 170,273.10	\$ 235,389.51	\$ 297,570.18	\$ 275,062.82
Computer Hardware	\$ -	\$ -	\$ -	\$ 2,879.41	\$ 3,539.27	\$ 3,950.30	\$ 2,723.88
Computer Software (Including Application Software)	\$ -	\$ -	\$ -	\$ 4,769.48	\$ 5,014.58	\$ 4,464.76	\$ 808.16
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Base	\$ -	\$ -	\$ -	\$ 177,921.98	\$ 243,943.36	\$ 305,985.24	\$ 278,594.86
Less: Exemption	\$ -	\$ -	\$ -	\$ 43,768.81	\$ 61,351.75	\$ -	\$ -
Deemed Taxable Capital	\$ -	\$ -	\$ -	\$ 134,153.17	\$ 182,591.60	\$ 305,985.24	\$ 278,594.86
Ontario Capital Tax Rate (from Sheet 3)	0.300%	0.225%	0.225%	0.225%	0.075%	0.000%	0.000%
Net Amount (Taxable Capital x Rate)	\$ -	\$ -	\$ -	\$ 301.84	\$ 136.94	\$ -	\$ -
Change in Income Taxes Payable	\$ -	\$ -	\$ -	\$ 56.04	\$ 1,021.81	\$ 2,511.92	\$ 3,429.77
Change in OCT	\$ -	\$ -	\$ -	\$ 301.84	\$ 136.94	\$ -	\$ -
PILs	\$ -	\$ -	\$ -	\$ 245.80	\$ 1,158.76	\$ 2,511.92	\$ 3,429.77
<b>Gross Up PILs</b>							
Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Change in Income Taxes Payable	\$ -	\$ -	\$ -	\$ 83.65	\$ 1,480.89	\$ 3,500.93	\$ 4,650.54
Change in OCT	\$ -	\$ -	\$ -	\$ 301.84	\$ 136.94	\$ -	\$ -
PILs	\$ -	\$ -	\$ -	\$ 218.20	\$ 1,617.83	\$ 3,500.93	\$ 4,650.54





Ontario Energy Board  
Smart Meter Model

Chatham-Kent Hydro Inc.

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	\$ -		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%	4.29%	Dec-07	2007	Q4	\$ -		5.14%	\$ -	\$ -	\$ -	
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	\$ -		5.14%	\$ -	\$ -		
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	\$ -		5.14%	\$ -	\$ -		
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	\$ -		5.14%	\$ -	\$ -		
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	\$ -		4.08%	\$ -	\$ -		
			May-08	2008	Q2	\$ -		4.08%	\$ -	\$ -		
			Jun-08	2008	Q2	\$ -		4.08%	\$ -	\$ -		
			Jul-08	2008	Q3	\$ -		3.35%	\$ -	\$ -		
			Aug-08	2008	Q3	\$ -		3.35%	\$ -	\$ -		
			Sep-08	2008	Q3	\$ -		3.35%	\$ -	\$ -		
			Oct-08	2008	Q4	\$ -		3.35%	\$ -	\$ -		
			Nov-08	2008	Q4	\$ -		3.35%	\$ -	\$ -		
			Dec-08	2008	Q4	\$ -		3.35%	\$ -	\$ -	\$ -	
			Jan-09	2009	Q1	\$ -		2.45%	\$ -	\$ -		
			Feb-09	2009	Q1	\$ -		2.45%	\$ -	\$ -		
			Mar-09	2009	Q1	\$ -		2.45%	\$ -	\$ -		
			Apr-09	2009	Q2	\$ -		1.00%	\$ -	\$ -		
			May-09	2009	Q2	\$ -		1.00%	\$ -	\$ -		
			Jun-09	2009	Q2	\$ -		1.00%	\$ -	\$ -		
			Jul-09	2009	Q3	\$ -		0.55%	\$ -	\$ -		
			Aug-09	2009	Q3	\$ -		0.55%	\$ -	\$ -		
			Sep-09	2009	Q3	\$ -		0.55%	\$ -	\$ -		
			Oct-09	2009	Q4	\$ -		0.55%	\$ -	\$ -		
			Nov-09	2009	Q4	\$ -		0.55%	\$ -	\$ -		
			Dec-09	2009	Q4	\$ -		0.55%	\$ -	\$ -	\$ -	
			Jan-10	2010	Q1	\$ -		0.55%	\$ -	\$ -		
			Feb-10	2010	Q1	\$ -		0.55%	\$ -	\$ -		
			Mar-10	2010	Q1	\$ -		0.55%	\$ -	\$ -		
			Apr-10	2010	Q2	\$ -		0.55%	\$ -	\$ -		
			May-10	2010	Q2	\$ -		0.55%	\$ -	\$ -		\$ 0.51
			Jun-10	2010	Q2	\$ -	\$ 0.51	0.55%	\$ -	\$ 0.51		\$ 0.51
			Jul-10	2010	Q3	\$ 0.51	\$ 262.08	0.89%	\$ -	\$ 262.59		\$ 0.51
			Aug-10	2010	Q3	\$ 262.59	\$ 181.12	0.89%	\$ 0.19	\$ 443.90		\$ 0.51
			Sep-10	2010	Q3	\$ 443.71	\$ 126.79	0.89%	\$ 0.33	\$ 570.82		\$ 0.51
			Oct-10	2010	Q4	\$ 570.49	\$ 115.56	1.20%	\$ 0.57	\$ 686.62		\$ 0.51
			Nov-10	2010	Q4	\$ 686.05	\$ 116.33	1.20%	\$ 0.69	\$ 803.07		\$ 0.51
			Dec-10	2010	Q4	\$ 802.38	\$ 366.21	1.20%	\$ 0.80	\$ 1,169.39	\$ 1,171.17	\$ 0.51
			Jan-11	2011	Q1	\$ 1,168.59	\$ 116.06	1.47%	\$ 1.43	\$ 1,286.07		\$ 0.51
			Feb-11	2011	Q1	\$ 1,284.64	\$ 120.87	1.47%	\$ 1.57	\$ 1,407.08		\$ 0.51
			Mar-11	2011	Q1	\$ 1,405.51	\$ 119.76	1.47%	\$ 1.72	\$ 1,526.99		\$ 0.51
			Apr-11	2011	Q2	\$ 1,525.27	\$ 117.94	1.47%	\$ 1.87	\$ 1,645.08		\$ 0.51
			May-11	2011	Q2	\$ 1,643.21	\$ 108.66	1.47%	\$ 2.01	\$ 1,753.88		\$ 0.96
			Jun-11	2011	Q2	\$ 1,751.87	\$ 263.19	1.47%	\$ 2.15	\$ 2,017.20		\$ 0.96
			Jul-11	2011	Q3	\$ 2,015.05	\$ 292.03	1.47%	\$ 2.47	\$ 2,309.55		\$ 0.96
			Aug-11	2011	Q3	\$ 2,307.08	\$ 296.09	1.47%	\$ 2.83	\$ 2,606.00		\$ 0.96
			Sep-11	2011	Q3	\$ 2,603.17	\$ 302.25	1.47%	\$ 3.19	\$ 2,908.61		\$ 0.96
			Oct-11	2011	Q4	\$ 2,905.42	\$ 298.02	1.47%	\$ 3.56	\$ 3,206.99		\$ 0.96
			Nov-11	2011	Q4	\$ 3,203.43	\$ 300.77	1.47%	\$ 3.92	\$ 3,508.12		\$ 0.96
			Dec-11	2011	Q4	\$ 3,504.20	\$ 572.16	1.47%	\$ 4.29	\$ 4,080.65	\$ 2,938.78	\$ 0.96



This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP				Opening Balance (Principal)	Funding Adder Revenues	Interest		Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder (from Tariff)
			Date	Year	Quarter			Rate	Interest			
			Jan-12	2012	Q1	\$ 4,076.36	\$ 567.52	1.47%	\$ 4.99	\$ 4,648.87		\$ 0.96
			Feb-12	2012	Q1	\$ 4,643.88	\$ 570.63	1.47%	\$ 5.69	\$ 5,220.20		\$ 0.96
			Mar-12	2012	Q1	\$ 5,214.51	\$ 575.95	1.47%	\$ 6.39	\$ 5,796.85		\$ 0.96
			Apr-12	2012	Q2	\$ 5,790.46	\$ 572.59	1.47%	\$ 7.09	\$ 6,370.14		\$ 0.96
			May-12	2012	Q2	\$ 6,363.05	\$ 35.05	1.47%	\$ 7.79	\$ 6,335.79		
			Jun-12	2012	Q2	\$ 6,328.00	\$ -	1.47%	\$ 7.75	\$ 6,335.75		
			Jul-12	2012	Q3	\$ 6,328.00	\$ -	1.47%	\$ 7.75	\$ 6,335.75		
			Aug-12	2012	Q3	\$ 6,328.00	\$ -	1.47%	\$ 7.75	\$ 6,335.75		
			Sep-12	2012	Q3	\$ 6,328.00	\$ -	1.47%	\$ 7.75	\$ 6,335.75		
			Oct-12	2012	Q4	\$ 6,328.00	\$ -	1.47%	\$ 7.75	\$ 6,335.75		
			Nov-12	2012	Q4	\$ 6,328.00	\$ -	1.47%	\$ 7.75	\$ 6,335.75		
			Dec-12	2012	Q4	\$ 6,328.00	\$ -	1.47%	\$ 7.75	\$ 6,335.75	\$ 2,337.84	
Total Funding Adder Revenues Collected						\$ 6,328.00		\$ 119.79	\$ 6,447.79	\$ 6,447.79		



Ontario Energy Board

Smart Meter Model

Chatham-Kent Hydro Inc.

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%	4.29%	Dec-07	2007	Q4	-			-	5.14%	-	-
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	-			-	5.14%	-	-
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	-			-	5.14%	-	-
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	-			-	5.14%	-	-
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	-			-	4.08%	-	-
			May-08	2008	Q2	-			-	4.08%	-	-
			Jun-08	2008	Q2	-			-	4.08%	-	-
			Jul-08	2008	Q3	-			-	3.35%	-	-
			Aug-08	2008	Q3	-			-	3.35%	-	-
			Sep-08	2008	Q3	-			-	3.35%	-	-
			Oct-08	2008	Q4	-			-	3.35%	-	-
			Nov-08	2008	Q4	-			-	3.35%	-	-
			Dec-08	2008	Q4	-			-	3.35%	-	-
			Jan-09	2009	Q1	-			-	2.45%	-	-
			Feb-09	2009	Q1	-			-	2.45%	-	-
			Mar-09	2009	Q1	-			-	2.45%	-	-
			Apr-09	2009	Q2	-			-	1.00%	-	-
			May-09	2009	Q2	-			-	1.00%	-	-
			Jun-09	2009	Q2	-			-	1.00%	-	-
			Jul-09	2009	Q3	-			-	0.55%	-	-
			Aug-09	2009	Q3	-			-	0.55%	-	-
			Sep-09	2009	Q3	-			-	0.55%	-	-
			Oct-09	2009	Q4	-			-	0.55%	-	-
			Nov-09	2009	Q4	-			-	0.55%	-	-
			Dec-09	2009	Q4	-			-	0.55%	-	-
			Jan-10	2010	Q1	-			-	0.55%	-	-
			Feb-10	2010	Q1	-			-	0.55%	-	-
			Mar-10	2010	Q1	-			-	0.55%	-	-
			Apr-10	2010	Q2	-			-	0.55%	-	-
			May-10	2010	Q2	-			-	0.55%	-	-
			Jun-10	2010	Q2	-			-	0.55%	-	-
			Jul-10	2010	Q3	-			-	0.89%	-	-
			Aug-10	2010	Q3	-			-	0.89%	-	-
			Sep-10	2010	Q3	-			-	0.89%	-	-
			Oct-10	2010	Q4	-			-	1.20%	-	-
			Nov-10	2010	Q4	-			-	1.20%	-	-
			Dec-10	2010	Q4	-			-	1.20%	-	-
			Jan-11	2011	Q1	-			-	1.47%	-	-
			Feb-11	2011	Q1	-			-	1.47%	-	-
			Mar-11	2011	Q1	-			-	1.47%	-	-
			Apr-11	2011	Q2	-			-	1.47%	-	-
			May-11	2011	Q2	-			-	1.47%	-	-
			Jun-11	2011	Q2	-			-	1.47%	-	-
			Jul-11	2011	Q3	-			-	1.47%	-	-
			Aug-11	2011	Q3	-			-	1.47%	-	-
			Sep-11	2011	Q3	-			-	1.47%	-	-
			Oct-11	2011	Q4	-			-	1.47%	-	-
			Nov-11	2011	Q4	-			-	1.47%	-	-
			Dec-11	2011	Q4	-			-	1.47%	-	-
			Jan-12	2012	Q1	-			-	1.47%	-	-
			Feb-12	2012	Q1	-			-	1.47%	-	-
			Mar-12	2012	Q1	-			-	1.47%	-	-
			Apr-12	2012	Q2	-			-	1.47%	-	-
			May-12	2012	Q2	-			-	1.47%	-	-
			Jun-12	2012	Q2	-			-	1.47%	-	-
			Jul-12	2012	Q3	-			-	1.47%	-	-
			Aug-12	2012	Q3	-			-	1.47%	-	-
			Sep-12	2012	Q3	-			-	1.47%	-	-
			Oct-12	2012	Q4	-			-	1.47%	-	-
			Nov-12	2012	Q4	-			-	1.47%	-	-
			Dec-12	2012	Q4	-			-	1.47%	-	-
						\$ -	\$ -	\$ -	\$ -			



Ontario Energy Board

Smart Meter Model

Chatham-Kent Hydro Inc.

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

Year	OM&A (from Sheet 5)	Amortization Expense (from Sheet 5)	Cumulative OM&A and Amortization Expense	Average Cumulative OM&A and Amortization Expense	Average Annual Prescribed Interest Rate for Deferral and Variance Accounts (from Sheets 8A and 8B)	Simple Interest on OM&A and Amortization Expenses
2006	\$ -	\$ -	\$ -	\$ -	4.37%	\$ -
2007	\$ -	\$ -	\$ -	\$ -	4.73%	\$ -
2008	\$ -	\$ -	\$ -	\$ -	3.98%	\$ -
2009	\$ 912.00	\$ 7,145.32	\$ 8,057.32	\$ 4,028.66	1.14%	\$ 45.83
2010	\$ 687.98	\$ 17,515.95	\$ 26,261.25	\$ 17,159.28	0.80%	\$ 136.85
2011	\$ 863.99	\$ 24,065.82	\$ 51,191.05	\$ 38,726.15	1.47%	\$ 569.27
2012	-\$ 6,124.30	\$ 27,390.38	\$ 72,457.13	\$ 61,824.09	1.47%	\$ 908.81
Cumulative Interest to 2011						\$ 751.95
Cumulative Interest to 2012						\$ 1,660.76



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

Check if applicable

- ☐ Smart Meter Funding Adder (SMFA)
- ☒ Smart Meter Disposition Rider (SMDR)
- ☒ Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)

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

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

	2006	2007	2008	2009	2010	2011	2012 and later	Total
Deferred and forecasted Smart Meter Incremental Revenue Requirement (from Sheet 5)	\$ -	\$ -	\$ -	\$ 15,304.15	\$ 35,248.48	\$ 48,540.10	\$ 47,215.87	\$ 146,308.61
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B) (Check one of the boxes below)	\$ -	\$ -	\$ -	\$ 45.83	\$ 136.85	\$ 569.27		\$ 751.95
<input type="checkbox"/> Sheet 8A (Interest calculated on monthly balances)								\$ -
<input checked="" type="checkbox"/> Sheet 8B (Interest calculated on average annual balances)	\$ -	\$ -	\$ -	\$ 45.83	\$ 136.85	\$ 569.27		\$ 751.95
SMFA Revenues (from Sheet 8)	\$ -	\$ -	\$ -	\$ -	\$ 1,168.59	\$ 2,907.77	\$ 2,251.64	\$ 6,328.00
SMFA Interest (from Sheet 8)	\$ -	\$ -	\$ -	\$ -	\$ 2.58	\$ 31.01	\$ 86.20	\$ 119.79
Net Deferred Revenue Requirement	\$ -	\$ -	\$ -	\$ 15,349.98	\$ 34,214.16	\$ 46,170.59	\$ 44,878.03	\$ 140,612.76
Number of Metered Customers (average for 2012 test year)							400	

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, 2011 plus Interest on OM&A and Amortization	\$ 99,844.69
SMFA Revenues collected from 2006 to 2012 test year (inclusive) Plus Simple Interest on SMFA Revenues	\$ 6,447.79
Net Deferred Revenue Requirement	\$ 93,396.90
SMDR November 1, 2012 to October 31, 2013	\$ 19.46
Check: Forecasted SMDR Revenues	\$ 93,408.00

Match

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

Incremental Revenue Requirement for 2012	\$ 47,215.87
SMIRR	\$ 9.84
Check: Forecasted SMIRR Revenues	\$ 47,232.00

Match

**Entegrus Powerlines Inc.**

SM Final Disposition – Interrogatory Responses

Board File No.: EB-2012-0289

Date Filed: September 7, 2012

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**Attachment E**  
**Smart Meter Model**  
**SMP Residential**



Ontario Energy Board

## Smart Meter Model

## Choose Your Utility:

Middlesex Power Distribution Corporation

Middlesex Power Distribution Corporation - Dutton

## Application Contact Information

Name: Andrya Eagen

Title: Senior Regulatory Specialist

Phone Number: 519-352-6300 Ext 243

Email Address: andryaeagen@ckenergy.com

We are applying for rates effective: November 1, 2012

Last COS Re-based Year 2006

## Legend

DROP-DOWN MENU

INPUT FIELD

CALCULATION FIELD

## Copyright

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

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



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

For 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 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
<b>Smart Meter Installation Plan</b>								
<b>Actual/Planned number of Smart Meters installed during the Calendar Year</b>								
Residential			754	92				846
General Service < 50 kW								0
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	754	92	0	0	0	846
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	89.13%	100.00%	0.00%	100.00%	0.00%	100.00%
Actual/Planned number of GS > 50 kW meters installed								0
Other (please identify)								0
Total Number of Smart Meters installed or planned to be installed	0	0	754	92	0	0	0	846
<b>1 Capital Costs</b>								
<b>1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.1.1 Smart Meters (may include new meters and modules, etc.)	Smart Meter		38,689	4,721	0	0		\$ 43,410
1.1.2 Installation Costs (may include socket kits, labour, vehicle, benefits, etc.)	Smart Meter		52,539	6,411	0	0		\$ 58,949
1.1.3a Workforce Automation Hardware (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
1.1.3b Workforce Automation Software (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
Total Advanced Metering Communications Devices (AMCD)	\$ -	\$ -	\$ 91,228	\$ 11,131	\$ -	\$ -	\$ -	\$ 102,359
<b>1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.2.1 Collectors								\$ -
1.2.2 Repeaters (may include radio licence, etc.)								\$ -
1.2.3 Installation (may include meter seals and rings, collector computer hardware, etc.)								\$ -
Total Advanced Metering Regional Collector (AMRC) (includes LAN)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.3.1 Computer Hardware								\$ -
1.3.2 Computer Software								\$ -
1.3.3 Computer Software Licences & Installation (includes hardware and software) (may include AS400 disk space, backup and recovery computer, UPS, etc.)								\$ -
Total Advanced Metering Control Computer (AMCC)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>1.4 WIDE AREA NETWORK (WAN)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.4.1 Activation Fees	Applications Software		6,485	791	0	0		\$ 7,276
Total Wide Area Network (WAN)	\$ -	\$ -	\$ 6,485	\$ 791	\$ -	\$ -	\$ -	\$ 7,276
<b>1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.5.1 Customer Equipment (including repair of damaged equipment)								\$ -
1.5.2 AMI Interface to CIS								\$ -
1.5.3 Professional Fees								\$ -
1.5.4 Integration								\$ -
1.5.5 Program Management								\$ -
1.5.6 Other AMI Capital								\$ -
Total Other AMI Capital Costs Related to Minimum Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Capital Costs Related to Minimum Functionality	\$ -	\$ -	\$ 97,713	\$ 11,923	\$ -	\$ -	\$ -	\$ 109,636
<b>1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06	Computer Software							\$ -
1.6.2 Costs for deployment of smart meters to customers other than residential and small general service	Applications Software							\$ -
1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDNR, etc.								\$ -
Total Capital Costs Beyond Minimum Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Smart Meter Capital Costs	\$ -	\$ -	\$ 97,713	\$ 11,923	\$ -	\$ -	\$ -	\$ 109,636
<b>2 OM&amp;A Expenses</b>								
<b>2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
2.1.1 Maintenance (may include meter reverification costs, etc.)			9,574	9,148	7,350	11,301	0	\$ 37,373
2.1.2 Other (please specify)								\$ -
Total Incremental AMCD OM&A Costs	\$ -	\$ -	\$ 9,574	\$ 9,148	\$ 7,350	\$ 11,301	\$ -	\$ 37,373





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.

	2006	2007	2008	2009	2010	2011	2012 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
<b>Smart Meter Capital Cost and Operational Expense Data</b>								
2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)								
2.2.1 Maintenance								\$ -
2.2.2 Other (please specify)								\$ -
<b>Total Incremental AMRC OM&amp;A Costs</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)								
2.3.1 Hardware Maintenance (may include server support, etc.)			8,012	1,042	1,093	733	641	\$ 11,521
2.3.2 Software Maintenance (may include maintenance support, etc.)			17,574	4,058	3,043	1,977	14,555	\$ 41,207
2.3.2 Other (please specify)								\$ -
<b>Total Incremental AMCC OM&amp;A Costs</b>	\$ -	\$ -	\$ 25,586	\$ 5,100	\$ 4,136	\$ 2,709	\$ 15,196	\$ 82,728
2.4 WIDE AREA NETWORK (WAN)								
2.4.1 WAN Maintenance								\$ -
2.4.2 Other (please specify)								\$ -
<b>Total Incremental AMRC OM&amp;A Costs</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>2.5 OTHER AMI OM&amp;A COSTS RELATED TO MINIMUM FUNCTIONALITY</b>								
2.5.1 Business Process Redesign								\$ -
2.5.2 Customer Communication (may include project communication, etc.)								\$ -
2.5.3 Program Management								\$ -
2.5.4 Change Management (may include training, etc.)								\$ -
2.5.5 Administration Costs			35,958	137	0	0	0	\$ 36,095
2.5.6 Other AMI Expenses (please specify)			2,145	1,440	-4,948	-4,418	-5,400	\$ 11,180
<b>Total Other AMI OM&amp;A Costs Related to Minimum Functionality</b>	\$ -	\$ -	\$ 38,103	\$ 1,577	\$ -4,948	\$ -4,418	\$ -5,400	\$ 24,915
<b>TOTAL OM&amp;A COSTS RELATED TO MINIMUM FUNCTIONALITY</b>	\$ -	\$ -	\$ 73,262	\$ 15,826	\$ 6,539	\$ 9,593	\$ 9,796	\$ 115,016
<b>2.6 OM&amp;A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALITY</b>								
(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 MDMR, etc.			0	1,358	56,216	43,949	0	\$ 101,523
<b>Total OM&amp;A Costs Beyond Minimum Functionality</b>	\$ -	\$ -	\$ -	\$ 1,358	\$ 56,216	\$ 43,949	\$ -	\$ 101,523
<b>Total Smart Meter OM&amp;A Costs</b>	\$ -	\$ -	\$ 73,262	\$ 17,184	\$ 62,754	\$ 53,542	\$ 9,796	\$ 216,539
<b>3 Aggregate Smart Meter Costs by Category</b>								
<b>3.1 Capital</b>								
3.1.1 Smart Meter	\$ -	\$ -	\$ 91,228	\$ 11,131	\$ -	\$ -	\$ -	\$ 102,359
3.1.2 Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3.1.3 Computer Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3.1.4 Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3.1.5 Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3.1.6 Applications Software	\$ -	\$ -	\$ 6,485	\$ 791	\$ -	\$ -	\$ -	\$ 7,276
<b>3.1.7 Total Capital Costs</b>	\$ -	\$ -	\$ 97,713	\$ 11,923	\$ -	\$ -	\$ -	\$ 109,636
<b>3.2 OM&amp;A Costs</b>								
<b>3.2.1 Total OM&amp;A Costs</b>	\$ -	\$ -	\$ 73,262	\$ 17,184	\$ 62,754	\$ 53,542	\$ 9,796	\$ 216,539



Ontario Energy Board

## Smart Meter Model

### Middlesex Power Distribution Corporation

	2006	2007	2008	2009	2010	2011	2012 and later
<b>Cost of Capital</b>							
<b>Capital Structure<sup>1</sup></b>							
Deemed Short-term Debt Capitalization							
Deemed Long-term Debt Capitalization	50.0%	50.0%	53.3%	56.7%	60.0%	60.0%	60.0%
Deemed Equity Capitalization	50.0%	50.0%	46.7%	43.3%	40.0%	40.0%	40.0%
Preferred Shares	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<b>Cost of Capital Parameters</b>							
Deemed Short-term Debt Rate							
Long-term Debt Rate (actual/embedded/deemed) <sup>2</sup>	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
Return on Preferred Shares							
<b>WACC</b>	8.13%	8.13%	8.07%	8.01%	7.95%	7.95%	7.95%
<b>Working Capital Allowance</b>							
Working Capital Allowance Rate (% of the sum of Cost of Power + controllable expenses)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
<b>Taxes/PILs</b>							
Aggregate Corporate Income Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%
<b>Depreciation Rates</b> (expressed as expected useful life in years)							
Smart Meters - years	15	15	15	15	15	15	15
- rate (%)	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%
Computer Hardware - years	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Computer Software - years	3	3	3	3	3	3	3
- rate (%)	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%
Tools & Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Other Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
<b>CCA Rates</b>							
Smart Meters - CCA Class	47	47	47	47	47	47	47
Smart Meters - CCA Rate	8%	8%	8%	8%	8%	8%	8%
Computer Equipment - CCA Class	45	50	50	50	50	50	50
Computer Equipment - CCA Rate	45%	55%	55%	55%	55%	55%	55%
General Equipment - CCA Class	8	8	8	8	8	8	8
General Equipment - CCA Rate	20%	20%	20%	20%	20%	20%	20%
Applications Software - CCA Class	12	12	12	12	12	12	12
Applications Software - CCA Rate	100%	100%	100%	100%	100%	100%	100%

#### Assumptions

<sup>1</sup> Planned smart meter installations occur evenly throughout the year.

<sup>2</sup> Fiscal calendar year (January 1 to December 31) used.

<sup>3</sup> Amortization is done on a straight line basis and has the "half-year" rule applied.



	2006	2007	2008	2009	2010	2011	2012 and later
<b>Net Fixed Assets - Smart Meters</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ 91,228	\$ 102,359	\$ 102,359	\$ 102,359
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ 91,228	\$ 11,131	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ 91,228	\$ 102,359	\$ 102,359	\$ 102,359	\$ 102,359
<b>Accumulated Depreciation</b>							
Opening Balance		\$ -	\$ -	\$ 3,041	\$ 9,494	\$ 16,318	\$ 23,142
Amortization expense during year	\$ -	\$ -	\$ 3,041	\$ 6,453	\$ 6,824	\$ 6,824	\$ 6,824
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ 3,041	\$ 9,494	\$ 16,318	\$ 23,142	\$ 29,966
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ 88,187	\$ 92,865	\$ 86,041	\$ 79,218
Closing Balance	\$ -	\$ -	\$ 88,187	\$ 92,865	\$ 86,041	\$ 79,218	\$ 72,394
Average Net Book Value	\$ -	\$ -	\$ 44,094	\$ 90,526	\$ 89,453	\$ 82,629	\$ 75,806
<b>Net Fixed Assets - Computer Hardware</b>							
<b>Gross Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Fixed Assets - Computer Software (Including Applications Software)</b>							
<b>Gross Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ 6,485	\$ 7,276	\$ 7,276	\$ 7,276
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ 6,485	\$ 791	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ 6,485	\$ 7,276	\$ 7,276	\$ 7,276	\$ 7,276
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ 1,081	\$ 3,374	\$ 5,800	\$ 7,276
Amortization expense during year	\$ -	\$ -	\$ 1,081	\$ 2,294	\$ 2,425	\$ 1,477	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ 1,081	\$ 3,374	\$ 5,800	\$ 7,276	\$ 7,276
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ 5,404	\$ 3,902	\$ 1,477	\$ -
Closing Balance	\$ -	\$ -	\$ 5,404	\$ 3,902	\$ 1,477	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ 2,702	\$ 4,653	\$ 2,689	\$ 738	\$ -
<b>Net Fixed Assets - Tools and Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Fixed Assets - Other Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



## Middlesex Power Distribution Corporation

	2006	2007	2008	2009	2010	2011	2012 and Later
<b>Average Net Fixed Asset Values (from Sheet 4)</b>							
Smart Meters	\$ -	\$ -	\$ 44,094	\$ 90,526	\$ 89,453	\$ 82,629	\$ 75,806
Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Computer Software	\$ -	\$ -	\$ 2,702	\$ 4,653	\$ 2,689	\$ 738	\$ -
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Net Fixed Assets</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 46,796</b>	<b>\$ 95,179</b>	<b>\$ 92,143</b>	<b>\$ 83,368</b>	<b>\$ 75,806</b>
<b>Working Capital</b>							
Operating Expenses (from Sheet 2)	\$ -	\$ -	\$ 73,262	\$ 17,184	\$ 62,754	\$ 53,542	\$ 9,796
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	\$ -	\$ -	\$ 10,989	\$ 2,578	\$ 9,413	\$ 8,031	\$ 1,469
<b>Incremental Smart Meter Rate Base</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 57,785</b>	<b>\$ 97,757</b>	<b>\$ 101,556</b>	<b>\$ 91,399</b>	<b>\$ 77,275</b>
<b>Return on Rate Base</b>							
<b>Capital Structure</b>							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Long Term Debt	\$ -	\$ -	\$ 30,799	\$ 55,428	\$ 60,933	\$ 54,839	\$ 46,365
Equity	\$ -	\$ -	\$ 26,986	\$ 42,329	\$ 40,622	\$ 36,560	\$ 30,910
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Capitalization</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 57,785</b>	<b>\$ 97,757</b>	<b>\$ 101,556</b>	<b>\$ 91,399</b>	<b>\$ 77,275</b>
<b>Return on</b>							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Long Term Debt	\$ -	\$ -	\$ 2,233	\$ 4,019	\$ 4,418	\$ 3,976	\$ 3,361
Equity	\$ -	\$ -	\$ 2,429	\$ 3,810	\$ 3,656	\$ 3,290	\$ 2,782
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Return on Capital</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 4,662</b>	<b>\$ 7,828</b>	<b>\$ 8,074</b>	<b>\$ 7,266</b>	<b>\$ 6,143</b>
<b>Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 73,262</b>	<b>\$ 17,184</b>	<b>\$ 62,754</b>	<b>\$ 53,542</b>	<b>\$ 9,796</b>
<b>Amortization Expenses (from Sheet 4)</b>							
Smart Meters	\$ -	\$ -	\$ 3,041	\$ 6,453	\$ 6,824	\$ 6,824	\$ 6,824
Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Computer Software	\$ -	\$ -	\$ 1,081	\$ 2,294	\$ 2,425	\$ 1,477	\$ -
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Amortization Expense in Year</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 4,122</b>	<b>\$ 8,747</b>	<b>\$ 9,249</b>	<b>\$ 8,300</b>	<b>\$ 6,824</b>
<b>Incremental Revenue Requirement before Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 82,046</b>	<b>\$ 33,759</b>	<b>\$ 80,077</b>	<b>\$ 69,109</b>	<b>\$ 22,763</b>
<b>Calculation of Taxable Income</b>							
Incremental Operating Expenses	\$ -	\$ -	\$ 73,262	\$ 17,184	\$ 62,754	\$ 53,542	\$ 9,796
Amortization Expense	\$ -	\$ -	\$ 4,122	\$ 8,747	\$ 9,249	\$ 8,300	\$ 6,824
Interest Expense	\$ -	\$ -	\$ 2,233	\$ 4,019	\$ 4,418	\$ 3,976	\$ 3,361
<b>Net Income for Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,429</b>	<b>\$ 3,810</b>	<b>\$ 3,656</b>	<b>\$ 3,290</b>	<b>\$ 2,782</b>
<b>Grossed-up Taxes/PILs (from Sheet 7)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 4,25</b>	<b>\$ 939.94</b>	<b>\$ 2,405.96</b>	<b>\$ 1,919.11</b>	<b>\$ 1,219.62</b>
<b>Revenue Requirement, including Grossed-up Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 82,042</b>	<b>\$ 34,699</b>	<b>\$ 82,483</b>	<b>\$ 71,028</b>	<b>\$ 23,983</b>



Ontario Energy Board

Smart Meter Model

Middlesex Power Distribution Corporation

## 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 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ 87,578.85	\$ 91,258.56	\$ 83,957.88	\$ 77,241.25
Capital Additions	\$ -	\$ -	\$ 91,227.97	\$ 11,131.26	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ 91,227.97	\$ 98,710.12	\$ 91,258.56	\$ 83,957.88	\$ 77,241.25
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ 45,613.99	\$ 5,565.63	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ 45,613.99	\$ 93,144.49	\$ 91,258.56	\$ 83,957.88	\$ 77,241.25
CCA Rate Class	47	47	47	47	47	47	47
CCA Rate	8%	8%	8%	8%	8%	8%	8%
CCA	\$ -	\$ -	\$ 3,649.12	\$ 7,451.56	\$ 7,300.68	\$ 6,716.63	\$ 6,179.30
Closing UCC	\$ -	\$ -	\$ 87,578.85	\$ 91,258.56	\$ 83,957.88	\$ 77,241.25	\$ 71,061.95

### UCC - Computer Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Computer Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA Rate Class	45	50	50	50	50	50	50
CCA Rate	45%	55%	55%	55%	55%	55%	55%
CCA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

### UCC - General Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA Rate Class	8	8	8	8	8	8	8
CCA Rate	20%	20%	20%	20%	20%	20%	20%
CCA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



## PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
<b>INCOME TAX</b>							
Net Income	\$ -	\$ -	\$ 2,428.71	\$ 3,809.59	\$ 3,656.01	\$ 3,290.36	\$ 2,781.90
Amortization	\$ -	\$ -	\$ 4,121.79	\$ 8,746.51	\$ 9,249.44	\$ 8,300.46	\$ 6,823.95
CCA - Smart Meters	\$ -	\$ -	\$ 3,649.12	\$ 7,451.56	\$ 7,300.68	\$ 6,716.63	\$ 6,179.30
CCA - Computers	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA - Applications Software	\$ -	\$ -	\$ 3,242.58	\$ 3,638.23	\$ 395.65	\$ -	\$ -
CCA - Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Change in taxable income	\$ -	\$ -	\$ 341.20	\$ 1,466.31	\$ 5,209.11	\$ 4,874.19	\$ 3,426.55
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Income Taxes Payable	\$ -	\$ -	\$ 114.30	\$ 483.88	\$ 1,614.83	\$ 1,376.96	\$ 899.47
<b>ONTARIO CAPITAL TAX</b>							
Smart Meters	\$ -	\$ -	\$ 88,187.04	\$ 92,865.40	\$ 86,041.45	\$ 79,217.50	\$ 72,393.55
Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Computer Software	\$ -	\$ -	\$ 5,404.31	\$ 3,901.99	\$ 1,476.51	\$ -	\$ -
(Including Application Software)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Base	\$ -	\$ -	\$ 93,591.35	\$ 96,767.39	\$ 87,517.96	\$ 79,217.50	\$ 72,393.55
Less: Exemption	\$ -	\$ -	\$ 19,086.90	\$ -	\$ -	\$ -	\$ -
Deemed Taxable Capital	\$ -	\$ -	\$ 74,504.44	\$ 96,767.39	\$ 87,517.96	\$ 79,217.50	\$ 72,393.55
Ontario Capital Tax Rate (from Sheet 3)	0.300%	0.225%	0.225%	0.225%	0.075%	0.000%	0.000%
Net Amount (Taxable Capital x Rate)	\$ -	\$ -	\$ 167.63	\$ 217.73	\$ 65.64	\$ -	\$ -
Change in Income Taxes Payable	\$ -	\$ -	\$ 114.30	\$ 483.88	\$ 1,614.83	\$ 1,376.96	\$ 899.47
Change in OCT	\$ -	\$ -	\$ 167.63	\$ 217.73	\$ 65.64	\$ -	\$ -
PILs	\$ -	\$ -	\$ 53.33	\$ 701.61	\$ 1,680.46	\$ 1,376.96	\$ 899.47
<b>Gross Up PILs</b>							
Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Change in Income Taxes Payable	\$ -	\$ -	\$ 171.88	\$ 722.21	\$ 2,340.33	\$ 1,919.11	\$ 1,219.62
Change in OCT	\$ -	\$ -	\$ 167.63	\$ 217.73	\$ 65.64	\$ -	\$ -
PILs	\$ -	\$ -	\$ 4.25	\$ 939.94	\$ 2,405.96	\$ 1,919.11	\$ 1,219.62



Ontario Energy Board  
Smart Meter Model

Middlesex Power Distribution Corporation

This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Approved Deferral and Variance						Opening Balance		Funding Adder		Interest				Board Approved	
Interest Rates	Accounts	CWIP	Date	Year	Quarter	(Principal)		Revenues	Rate	Interest	Closing Balance	Annual amounts	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	\$	-		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%	4.29%	Dec-07	2007	Q4	\$	-	\$ -	5.14%	\$	-	\$	-		
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	\$	-	\$ -	5.14%	\$	-				
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	\$	-	\$ -	5.14%	\$	-				
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	\$	-	\$ -	5.14%	\$	-				
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	\$	-	\$ -	4.08%	\$	-				
			May-08	2008	Q2	\$	-	\$ -	4.08%	\$	-				
			Jun-08	2008	Q2	\$	-	\$ -	4.08%	\$	-				
			Jul-08	2008	Q3	\$	-	\$ -	3.35%	\$	-				
			Aug-08	2008	Q3	\$	-	\$ -	3.35%	\$	-				
			Sep-08	2008	Q3	\$	-	\$ -	3.35%	\$	-				
			Oct-08	2008	Q4	\$	-	\$ -	3.35%	\$	-				
			Nov-08	2008	Q4	\$	-	\$ 7,959.44	3.35%	\$	7,959.44			\$ 1.26	
			Dec-08	2008	Q4	\$	7,959.44	\$ 7,615.23	3.35%	\$ 22.22	\$ 15,596.89	\$ 15,596.89		\$ 1.26	
			Jan-09	2009	Q1	\$	15,574.67	\$ 7,857.46	2.45%	\$ 31.80	\$ 23,463.93			\$ 1.26	
			Feb-09	2009	Q1	\$	23,432.13	\$ 7,837.44	2.45%	\$ 47.84	\$ 31,317.41			\$ 1.26	
			Mar-09	2009	Q1	\$	31,269.57	\$ 7,860.78	2.45%	\$ 63.84	\$ 39,194.19			\$ 1.26	
			Apr-09	2009	Q2	\$	39,130.35	\$ 7,849.43	1.00%	\$ 32.61	\$ 47,012.39			\$ 1.26	
			May-09	2009	Q2	\$	46,979.78	\$ 7,865.23	1.00%	\$ 39.15	\$ 54,884.16			\$ 1.26	
			Jun-09	2009	Q2	\$	54,845.01	\$ 7,874.63	1.00%	\$ 45.70	\$ 62,765.34			\$ 1.26	
			Jul-09	2009	Q3	\$	62,719.64	\$ 7,853.82	0.55%	\$ 28.75	\$ 70,602.21			\$ 1.26	
			Aug-09	2009	Q3	\$	70,573.46	\$ 7,900.85	0.55%	\$ 32.35	\$ 78,506.66			\$ 1.26	
			Sep-09	2009	Q3	\$	78,474.31	\$ 7,872.89	0.55%	\$ 35.97	\$ 86,383.17			\$ 1.26	
			Oct-09	2009	Q4	\$	86,347.20	\$ 7,906.09	0.55%	\$ 39.58	\$ 94,292.87			\$ 1.26	
			Nov-09	2009	Q4	\$	94,253.29	\$ 7,891.41	0.55%	\$ 43.20	\$ 102,187.90			\$ 1.26	
			Dec-09	2009	Q4	\$	102,144.70	\$ 11,222.14	0.55%	\$ 46.82	\$ 113,413.66	\$ 98,279.78		\$ 1.26	
			Jan-10	2010	Q1	\$	113,366.84	\$ 7,922.95	0.55%	\$ 51.96	\$ 121,341.75			\$ 1.26	
			Feb-10	2010	Q1	\$	121,289.79	\$ 7,931.61	0.55%	\$ 55.59	\$ 129,276.99			\$ 1.26	
			Mar-10	2010	Q1	\$	129,221.40	\$ 7,937.20	0.55%	\$ 59.23	\$ 137,217.83			\$ 1.26	
			Apr-10	2010	Q2	\$	137,158.60	\$ 7,953.53	0.55%	\$ 62.86	\$ 145,174.99			\$ 1.26	
			May-10	2010	Q2	\$	145,112.13	\$ 7,938.90	0.55%	\$ 66.51	\$ 153,117.54			\$ 1.26	
			Jun-10	2010	Q2	\$	153,051.03	\$ 7,939.19	0.55%	\$ 70.15	\$ 161,060.37			\$ 1.26	
			Jul-10	2010	Q3	\$	160,990.22	\$ 7,956.92	0.89%	\$ 119.40	\$ 169,066.54			\$ 1.26	
			Aug-10	2010	Q3	\$	168,947.14	\$ 7,953.47	0.89%	\$ 125.30	\$ 177,025.91			\$ 1.26	
			Sep-10	2010	Q3	\$	176,900.61	\$ 7,983.28	0.89%	\$ 131.20	\$ 185,015.09			\$ 1.26	
			Oct-10	2010	Q4	\$	184,883.89	\$ 7,977.45	1.20%	\$ 184.88	\$ 193,046.22			\$ 1.26	
			Nov-10	2010	Q4	\$	192,861.34	\$ 7,982.20	1.20%	\$ 192.86	\$ 201,036.40			\$ 1.26	
			Dec-10	2010	Q4	\$	200,843.54	\$ 8,782.49	1.20%	\$ 200.84	\$ 209,826.87	\$ 97,579.97		\$ 1.26	
			Jan-11	2011	Q1	\$	209,626.03	\$ 8,010.08	1.47%	\$ 256.79	\$ 217,892.90			\$ 1.26	
			Feb-11	2011	Q1	\$	217,636.11	\$ 8,001.66	1.47%	\$ 266.60	\$ 225,904.37			\$ 1.26	
			Mar-11	2011	Q1	\$	225,637.77	\$ 7,997.60	1.47%	\$ 276.41	\$ 233,911.78			\$ 1.26	
			Apr-11	2011	Q2	\$	233,635.37	\$ 7,991.84	1.47%	\$ 286.20	\$ 241,913.41			\$ 1.26	
			May-11	2011	Q2	\$	241,627.21	\$ 7,994.25	1.47%	\$ 295.99	\$ 249,917.45			\$ 1.18	
			Jun-11	2011	Q2	\$	249,621.46	\$ 7,600.10	1.47%	\$ 305.79	\$ 257,527.35			\$ 1.18	
			Jul-11	2011	Q3	\$	257,221.56	\$ 7,516.99	1.47%	\$ 315.10	\$ 265,053.65			\$ 1.18	
			Aug-11	2011	Q3	\$	264,738.55	\$ 7,512.15	1.47%	\$ 324.30	\$ 272,575.00			\$ 1.18	
			Sep-11	2011	Q3	\$	272,250.70	\$ 7,532.28	1.47%	\$ 333.51	\$ 280,116.49			\$ 1.18	
			Oct-11	2011	Q4	\$	279,782.98	\$ 7,537.12	1.47%	\$ 342.73	\$ 287,662.83			\$ 1.18	
			Nov-11	2011	Q4	\$	287,320.10	\$ 7,518.65	1.47%	\$ 351.97	\$ 295,190.72			\$ 1.18	
			Dec-11	2011	Q4	\$	294,838.75	\$ 6,192.67	1.47%	\$ 361.18	\$ 301,392.60	\$ 95,121.96		\$ 1.18	



This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP				Opening Balance (Principal)	Funding Adder Revenues	Interest		Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder (from Tariff)
			Date	Year	Quarter			Rate	Interest			
			Jan-12	2012	Q1	\$ 301,031.42	\$ 7,541.78	1.47%	\$ 368.76	\$ 308,941.96		\$ 1.18
			Feb-12	2012	Q1	\$ 308,573.20	\$ 7,554.65	1.47%	\$ 378.00	\$ 316,505.85		\$ 1.18
			Mar-12	2012	Q1	\$ 316,127.85	\$ 7,566.04	1.47%	\$ 387.26	\$ 324,081.15		\$ 1.18
			Apr-12	2012	Q2	\$ 323,693.89	\$ 7,541.94	1.47%	\$ 396.53	\$ 331,632.36		\$ 1.18
			May-12	2012	Q2	\$ 331,235.83	\$ 413.50	1.47%	\$ 405.76	\$ 331,228.09		
			Jun-12	2012	Q2	\$ 330,822.33	\$ -	1.47%	\$ 405.26	\$ 331,227.59		
			Jul-12	2012	Q3	\$ 330,822.33	\$ -	1.47%	\$ 405.26	\$ 331,227.59		
			Aug-12	2012	Q3	\$ 330,822.33	\$ -	1.47%	\$ 405.26	\$ 331,227.59		
			Sep-12	2012	Q3	\$ 330,822.33	\$ -	1.47%	\$ 405.26	\$ 331,227.59		
			Oct-12	2012	Q4	\$ 330,822.33	\$ -	1.47%	\$ 405.26	\$ 331,227.59		
			Nov-12	2012	Q4	\$ 330,822.33	\$ -	1.47%	\$ 405.26	\$ 331,227.59		
			Dec-12	2012	Q4	\$ 330,822.33	\$ -	1.47%	\$ 405.26	\$ 331,227.59	\$ 34,564.04	
Total Funding Adder Revenues Collected						\$ 330,822.33		\$ 10,320.31	\$ 341,142.64	\$ 341,142.64		





Middlesex 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%	4.29%	Dec-07	2007	Q4	-			-	5.14%	-	-
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	-			-	5.14%	-	-
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	-			-	5.14%	-	-
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	-			-	5.14%	-	-
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	-			-	4.08%	-	-
			May-08	2008	Q2	-			-	4.08%	-	-
			Jun-08	2008	Q2	-			-	4.08%	-	-
			Jul-08	2008	Q3	-			-	3.35%	-	-
			Aug-08	2008	Q3	-			-	3.35%	-	-
			Sep-08	2008	Q3	-			-	3.35%	-	-
			Oct-08	2008	Q4	-			-	3.35%	-	-
			Nov-08	2008	Q4	-			-	3.35%	-	-
			Dec-08	2008	Q4	-			-	3.35%	-	-
			Jan-09	2009	Q1	-			-	2.45%	-	-
			Feb-09	2009	Q1	-			-	2.45%	-	-
			Mar-09	2009	Q1	-			-	2.45%	-	-
			Apr-09	2009	Q2	-			-	1.00%	-	-
			May-09	2009	Q2	-			-	1.00%	-	-
			Jun-09	2009	Q2	-			-	1.00%	-	-
			Jul-09	2009	Q3	-			-	0.55%	-	-
			Aug-09	2009	Q3	-			-	0.55%	-	-
			Sep-09	2009	Q3	-			-	0.55%	-	-
			Oct-09	2009	Q4	-			-	0.55%	-	-
			Nov-09	2009	Q4	-			-	0.55%	-	-
			Dec-09	2009	Q4	-			-	0.55%	-	-
			Jan-10	2010	Q1	-			-	0.55%	-	-
			Feb-10	2010	Q1	-			-	0.55%	-	-
			Mar-10	2010	Q1	-			-	0.55%	-	-
			Apr-10	2010	Q2	-			-	0.55%	-	-
			May-10	2010	Q2	-			-	0.55%	-	-
			Jun-10	2010	Q2	-			-	0.55%	-	-
			Jul-10	2010	Q3	-			-	0.89%	-	-
			Aug-10	2010	Q3	-			-	0.89%	-	-
			Sep-10	2010	Q3	-			-	0.89%	-	-
			Oct-10	2010	Q4	-			-	1.20%	-	-
			Nov-10	2010	Q4	-			-	1.20%	-	-
			Dec-10	2010	Q4	-			-	1.20%	-	-
			Jan-11	2011	Q1	-			-	1.47%	-	-
			Feb-11	2011	Q1	-			-	1.47%	-	-
			Mar-11	2011	Q1	-			-	1.47%	-	-
			Apr-11	2011	Q2	-			-	1.47%	-	-
			May-11	2011	Q2	-			-	1.47%	-	-
			Jun-11	2011	Q2	-			-	1.47%	-	-
			Jul-11	2011	Q3	-			-	1.47%	-	-
			Aug-11	2011	Q3	-			-	1.47%	-	-
			Sep-11	2011	Q3	-			-	1.47%	-	-
			Oct-11	2011	Q4	-			-	1.47%	-	-
			Nov-11	2011	Q4	-			-	1.47%	-	-
			Dec-11	2011	Q4	-			-	1.47%	-	-
			Jan-12	2012	Q1	-			-	1.47%	-	-
			Feb-12	2012	Q1	-			-	1.47%	-	-
			Mar-12	2012	Q1	-			-	1.47%	-	-
			Apr-12	2012	Q2	-			-	1.47%	-	-
			May-12	2012	Q2	-			-	1.47%	-	-
			Jun-12	2012	Q2	-			-	1.47%	-	-
			Jul-12	2012	Q3	-			-	1.47%	-	-
			Aug-12	2012	Q3	-			-	1.47%	-	-
			Sep-12	2012	Q3	-			-	1.47%	-	-
			Oct-12	2012	Q4	-			-	1.47%	-	-
			Nov-12	2012	Q4	-			-	1.47%	-	-
			Dec-12	2012	Q4	-			-	1.47%	-	-
						\$	-	\$	-	\$	-	-



Ontario Energy Board

Smart Meter Model

Middlesex 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	\$ -	\$ -	\$ -	\$ -	4.37%	\$ -
2007	\$ -	\$ -	\$ -	\$ -	4.73%	\$ -
2008	\$ 73,262.48	\$ 4,121.79	\$ 77,384.27	\$ 38,692.13	3.98%	\$ 1,539.95
2009	\$ 17,184.29	\$ 8,746.51	\$ 103,315.07	\$ 90,349.67	1.14%	\$ 1,027.73
2010	\$ 62,754.26	\$ 9,249.44	\$ 175,318.76	\$ 139,316.91	0.80%	\$ 1,111.05
2011	\$ 53,541.63	\$ 8,300.46	\$ 237,161.05	\$ 206,239.91	1.47%	\$ 3,031.73
2012	\$ 9,796.11	\$ 6,823.95	\$ 253,781.11	\$ 245,471.08	1.47%	\$ 3,608.42
Cumulative Interest to 2011						\$ 6,710.45
Cumulative Interest to 2012						\$ 10,318.88



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

Check if applicable

- ☐ Smart Meter Funding Adder (SMFA)
- ☒ Smart Meter Disposition Rider (SMDR)
- ☒ Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)

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

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

	2006	2007	2008	2009	2010	2011	2012 and later	Total
Deferred and forecasted Smart Meter Incremental Revenue Requirement (from Sheet 5)	\$ -	\$ -	\$ 82,041.68	\$ 34,698.87	\$ 82,483.35	\$ 71,027.62	\$ 23,983.03	\$ 294,234.56
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B)	\$ -	\$ -	\$ 1,539.95	\$ 1,027.73	\$ 1,111.05	\$ 3,031.73		\$ 6,710.45
(Check one of the boxes below)								
<input type="checkbox"/> Sheet 8A (Interest calculated on monthly balances)								\$ -
<input checked="" type="checkbox"/> Sheet 8B (Interest calculated on average annual balances)	\$ -	\$ -	\$ 1,539.95	\$ 1,027.73	\$ 1,111.05	\$ 3,031.73		\$ 6,710.45
SMFA Revenues (from Sheet 8)	\$ -	\$ -	\$ 15,574.67	\$ 97,792.17	\$ 96,259.19	\$ 91,405.39	\$ 29,790.91	\$ 330,822.33
SMFA Interest (from Sheet 8)	\$ -	\$ -	\$ 22.22	\$ 487.61	\$ 1,320.78	\$ 3,716.57	\$ 4,773.13	\$ 10,320.31
Net Deferred Revenue Requirement	\$ -	\$ -	\$ 67,984.74	\$ 62,553.18	\$ 13,985.57	\$ 21,062.62	\$ 10,581.01	\$ 40,197.63
Number of Metered Customers (average for 2012 test year)							6422	

#### 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, 2011	\$ 276,961.98	
plus Interest on OM&A and Amortization		
SMFA Revenues collected from 2006 to 2012 test year (inclusive)	\$ 341,142.64	
Plus Simple Interest on SMFA Revenues		
Net Deferred Revenue Requirement	-\$ 64,180.66	} Match
SMDR November 1, 2012 to October 31, 2013	-\$ 0.83	
Check: Forecasted SMDR Revenues	-\$ 63,963.12	

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

Incremental Revenue Requirement for 2012	\$ 23,983.03	} Match
SMIRR	\$ 0.31	
Check: Forecasted SMIRR Revenues	\$ 23,889.84	

**Entegrus Powerlines Inc.**

SM Final Disposition – Interrogatory Responses

Board File No.: EB-2012-0289

Date Filed: September 7, 2012

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**Attachment F**  
**Smart Meter Model**  
**SMP GS<50kW**



Ontario Energy Board

## Smart Meter Model

## Choose Your Utility:

Middlesex Power Distribution Corporation

Middlesex Power Distribution Corporation - Dutton

## Application Contact Information

Name: Andrya Eagen

Title: Senior Regulatory Specialist

Phone Number: 519-352-6300 Ext 243

Email Address: andryaeagen@ckenergy.com

We are applying for rates effective: November 1, 2012

Last COS Re-based Year 2006

## Legend

DROP-DOWN MENU

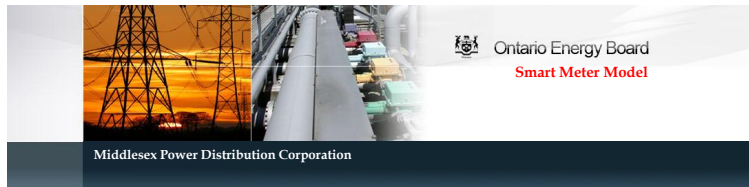
INPUT FIELD

CALCULATION FIELD

## Copyright

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



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

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

Smart Meter Capital Cost and Operational Expense Data	2006	2007	2008	2009	2010	2011	2012 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
<b>Smart Meter Installation Plan</b>								
<b>Actual/Planned number of Smart Meters installed during the Calendar Year</b>								
Residential								0
General Service < 50 kW			267	88	300	20		675
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	267	88	300	20	0	675
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	39.56%	52.59%	97.04%	100.00%	0.00%	100.00%
Actual/Planned number of GS > 50 kW meters installed								0
Other (please identify)								0
Total Number of Smart Meters installed or planned to be installed	0	0	267	88	300	20	0	675
<b>1 Capital Costs</b>								
<b>1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.1.1 Smart Meters (may include new meters and modules, etc.)	Smart Meter		86,331	28,454	97,002	6,467		\$ 218,254
1.1.2 Installation Costs (may include socket kits, labour, vehicle, benefits, etc.)	Smart Meter		17,148	5,652	19,267	1,284		\$ 43,351
1.1.3a Workforce Automation Hardware (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
1.1.3b Workforce Automation Software (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
Total Advanced Metering Communications Devices (AMCD)	\$ -	\$ -	\$ 103,479	\$ 34,106	\$ 116,269	\$ 7,751	\$ -	\$ 261,605
<b>1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.2.1 Collectors								\$ -
1.2.2 Repeaters (may include radio licence, etc.)	Computer Hardware		2,253	743	2,532	169		\$ 5,696
1.2.3 Installation (may include meter seals and rings, collector computer hardware, etc.)								\$ -
Total Advanced Metering Regional Collector (AMRC) (includes LAN)	\$ -	\$ -	\$ 2,253	\$ 743	\$ 2,532	\$ 169	\$ -	\$ 5,696
<b>1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.3.1 Computer Hardware								\$ -
1.3.2 Computer Software	Computer Software		1,688	556	1,897	126		\$ 4,268
1.3.3 Computer Software Licences & Installation (includes hardware and software) (may include AS400 disk space, backup and recovery computer, UPS, etc.)								\$ -
Total Advanced Metering Control Computer (AMCC)	\$ -	\$ -	\$ 1,688	\$ 556	\$ 1,897	\$ 126	\$ -	\$ 4,268
<b>1.4 WIDE AREA NETWORK (WAN)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.4.1 Activation Fees	Applications Software		1,954	644	2,195	146		\$ 4,939
Total Wide Area Network (WAN)	\$ -	\$ -	\$ 1,954	\$ 644	\$ 2,195	\$ 146	\$ -	\$ 4,939
<b>1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.5.1 Customer Equipment (including repair of damaged equipment)								\$ -
1.5.2 AMI Interface to CIS								\$ -
1.5.3 Professional Fees								\$ -
1.5.4 Integration								\$ -
1.5.5 Program Management								\$ -
1.5.6 Other AMI Capital								\$ -
Total Other AMI Capital Costs Related to Minimum Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Capital Costs Related to Minimum Functionality	\$ -	\$ -	\$ 109,375	\$ 36,049	\$ 122,893	\$ 8,193	\$ -	\$ 276,509
<b>1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06	Computer Software							\$ -
1.6.2 Costs for deployment of smart meters to customers other than residential and small general service	Applications Software							\$ -
1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDNR, etc.								\$ -
Total Capital Costs Beyond Minimum Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Smart Meter Capital Costs	\$ -	\$ -	\$ 109,375	\$ 36,049	\$ 122,893	\$ 8,193	\$ -	\$ 276,509
<b>2 OM&amp;A Expenses</b>								
<b>2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
2.1.1 Maintenance (may include meter reverification costs, etc.)			960	917	737	1,133	0	\$ 3,747
2.1.2 Other (please specify)								\$ -
Total Incremental AMCD OM&A Costs	\$ -	\$ -	\$ 960	\$ 917	\$ 737	\$ 1,133	\$ -	\$ 3,747



**Ontario Energy Board**  
**Smart Meter Model**

**Middlesex 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

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

2.2.1 Maintenance

2.2.2 Other (please specify)

Total Incremental AMRC OM&A Costs

2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)

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

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

2.3.2 Other (please specify)

Total Incremental AMCC OM&A Costs

2.4 WIDE AREA NETWORK (WAN)

2.4.1 WAN Maintenance

2.4.2 Other (please specify)

Total Incremental AMRC OM&A Costs

2.5 OTHER AMI OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY

2.5.1 Business Process Redesign

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

2.5.3 Program Management

2.5.4 Change Management (may include training, etc.)

2.5.5 Administration Costs

2.5.6 Other AMI Expenses

(please specify)

Total Other AMI OM&A Costs Related to Minimum Functionality

TOTAL OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY

2.6 OM&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALITY

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

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

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

2.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDMR, etc.

Total OM&A Costs Beyond Minimum Functionality

Total Smart Meter OM&A Costs

	2006	2007	2008	2009	2010	2011	2012 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
								\$ -
								\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
			803	104	110	73	64	\$ 1,155
			1,762	407	305	198	1,459	\$ 4,131
								\$ -
	\$ -	\$ -	\$ 2,565	\$ 511	\$ 415	\$ 272	\$ 1,623	\$ 5,286
								\$ -
								\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
								\$ -
								\$ -
								\$ -
			3,605	14	0	0	0	\$ 3,619
			215	144	45	-402	-500	\$ -497
	\$ -	\$ -	\$ 3,820	\$ 158	\$ 45	\$ -402	\$ -500	\$ 3,122
	\$ -	\$ -	\$ 7,345	\$ 1,587	\$ 1,197	\$ 1,003	\$ 1,023	\$ 12,155
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual		
								\$ -
								\$ -
			0	136	5,636	4,406	0	\$ 10,178
	\$ -	\$ -	\$ -	\$ 136	\$ 5,636	\$ 4,406	\$ -	\$ 10,178
	\$ -	\$ -	\$ 7,345	\$ 1,723	\$ 6,833	\$ 5,409	\$ 1,023	\$ 22,333

3 Aggregate Smart Meter Costs by Category

3.1

Capital

3.1.1 Smart Meter

3.1.2 Computer Hardware

3.1.3 Computer Software

3.1.4 Tools & Equipment

3.1.5 Other Equipment

3.1.6 Applications Software

3.1.7 Total Capital Costs

3.2 OM&A Costs

3.2.1 Total OM&A Costs

\$ -	\$ -	\$ 103,479	\$ 34,105	\$ 116,269	\$ 7,751	\$ -	\$ 261,605
\$ -	\$ -	\$ 2,253	\$ 743	\$ 2,532	\$ 169	\$ -	\$ 5,696
\$ -	\$ -	\$ 1,688	\$ 556	\$ 1,897	\$ 126	\$ -	\$ 4,268
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ 1,954	\$ 644	\$ 2,195	\$ 146	\$ -	\$ 4,939
\$ -	\$ -	\$ 109,379	\$ 36,049	\$ 122,893	\$ 8,193	\$ -	\$ 276,509
\$ -	\$ -	\$ 7,345	\$ 1,723	\$ 6,833	\$ 5,409	\$ 1,023	\$ 22,333



Ontario Energy Board

## Smart Meter Model

### Middlesex Power Distribution Corporation

	2006	2007	2008	2009	2010	2011	2012 and later
<b>Cost of Capital</b>							
<b>Capital Structure<sup>1</sup></b>							
Deemed Short-term Debt Capitalization							
Deemed Long-term Debt Capitalization	50.0%	50.0%	53.3%	56.7%	60.0%	60.0%	60.0%
Deemed Equity Capitalization	50.0%	50.0%	46.7%	43.3%	40.0%	40.0%	40.0%
Preferred Shares	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<b>Cost of Capital Parameters</b>							
Deemed Short-term Debt Rate							
Long-term Debt Rate (actual/embedded/deemed) <sup>2</sup>	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
Return on Preferred Shares							
<b>WACC</b>	8.13%	8.13%	8.07%	8.01%	7.95%	7.95%	7.95%
<b>Working Capital Allowance</b>							
Working Capital Allowance Rate (% of the sum of Cost of Power + controllable expenses)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
<b>Taxes/PILs</b>							
Aggregate Corporate Income Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%
<b>Depreciation Rates</b> (expressed as expected useful life in years)							
Smart Meters - years	15	15	15	15	15	15	15
- rate (%)	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%
Computer Hardware - years	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Computer Software - years	3	3	3	3	3	3	3
- rate (%)	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%
Tools & Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Other Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
<b>CCA Rates</b>							
Smart Meters - CCA Class	47	47	47	47	47	47	47
Smart Meters - CCA Rate	8%	8%	8%	8%	8%	8%	8%
Computer Equipment - CCA Class	45	50	50	50	50	50	50
Computer Equipment - CCA Rate	45%	55%	55%	55%	55%	55%	55%
General Equipment - CCA Class	8	8	8	8	8	8	8
General Equipment - CCA Rate	20%	20%	20%	20%	20%	20%	20%
Applications Software - CCA Class	12	12	12	12	12	12	12
Applications Software - CCA Rate	100%	100%	100%	100%	100%	100%	100%

#### Assumptions

<sup>1</sup> Planned smart meter installations occur evenly throughout the year.

<sup>2</sup> Fiscal calendar year (January 1 to December 31) used.

<sup>3</sup> Amortization is done on a straight line basis and has the "half-year" rule applied.





	2006	2007	2008	2009	2010	2011	2012 and later
<b>Net Fixed Assets - Smart Meters</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ 103,479	\$ 137,585	\$ 253,853	\$ 261,605
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ 103,479	\$ 34,105	\$ 116,269	\$ 7,751	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ 103,479	\$ 137,585	\$ 253,853	\$ 261,605	\$ 261,605
<b>Accumulated Depreciation</b>							
Opening Balance		\$ -	\$ -	\$ 3,449	\$ 11,485	\$ 24,533	\$ 41,715
Amortization expense during year	\$ -	\$ -	\$ 3,449	\$ 8,035	\$ 13,048	\$ 17,182	\$ 17,440
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ 3,449	\$ 11,485	\$ 24,533	\$ 41,715	\$ 59,155
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ 100,030	\$ 126,100	\$ 229,321	\$ 219,890
Closing Balance	\$ -	\$ -	\$ 100,030	\$ 126,100	\$ 229,321	\$ 219,890	\$ 202,450
Average Net Book Value	\$ -	\$ -	\$ 50,015	\$ 113,065	\$ 177,710	\$ 224,605	\$ 211,170
<b>Net Fixed Assets - Computer Hardware</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ 2,253	\$ 2,996	\$ 5,528	\$ 5,696
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ 2,253	\$ 743	\$ 2,532	\$ 169	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ 2,253	\$ 2,996	\$ 5,528	\$ 5,696	\$ 5,696
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ 225	\$ 750	\$ 1,603	\$ 2,725
Amortization expense during year	\$ -	\$ -	\$ 225	\$ 525	\$ 852	\$ 1,122	\$ 1,139
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ 225	\$ 750	\$ 1,603	\$ 2,725	\$ 3,864
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ 2,028	\$ 2,246	\$ 3,925	\$ 2,971
Closing Balance	\$ -	\$ -	\$ 2,028	\$ 2,246	\$ 3,925	\$ 2,971	\$ 1,832
Average Net Book Value	\$ -	\$ -	\$ 1,014	\$ 2,137	\$ 3,065	\$ 3,448	\$ 2,402
<b>Net Fixed Assets - Computer Software (including Applications Software)</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ 3,642	\$ 4,843	\$ 8,935	\$ 9,208
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ 3,642	\$ 1,200	\$ 4,092	\$ 273	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ 3,642	\$ 4,843	\$ 8,935	\$ 9,208	\$ 9,208
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ 607	\$ 2,021	\$ 4,317	\$ 7,341
Amortization expense during year	\$ -	\$ -	\$ 607	\$ 1,414	\$ 2,296	\$ 3,024	\$ 1,867
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ 607	\$ 2,021	\$ 4,317	\$ 7,341	\$ 9,208
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ 3,035	\$ 2,821	\$ 4,618	\$ 1,867
Closing Balance	\$ -	\$ -	\$ 3,035	\$ 2,821	\$ 4,618	\$ 1,867	\$ -
Average Net Book Value	\$ -	\$ -	\$ 1,518	\$ 2,928	\$ 3,720	\$ 3,242	\$ 933
<b>Net Fixed Assets - Tools and Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Fixed Assets - Other Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



Ontario Energy Board

Smart Meter Model

Middlesex Power Distribution Corporation

	2006	2007	2008	2009	2010	2011	2012 and Later
<b>Average Net Fixed Asset Values (from Sheet 4)</b>							
Smart Meters	\$ -	\$ -	\$ 50,015	\$ 113,065	\$ 177,710	\$ 224,605	\$ 211,170
Computer Hardware	\$ -	\$ -	\$ 1,014	\$ 2,137	\$ 3,085	\$ 3,448	\$ 2,402
Computer Software	\$ -	\$ -	\$ 1,518	\$ 2,928	\$ 3,720	\$ 3,242	\$ 933
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Net Fixed Assets</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 52,546</b>	<b>\$ 118,130</b>	<b>\$ 184,515</b>	<b>\$ 231,296</b>	<b>\$ 214,505</b>
<b>Working Capital</b>							
Operating Expenses (from Sheet 2)	\$ -	\$ -	\$ 7,345	\$ 1,723	\$ 6,833	\$ 5,409	\$ 1,023
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	\$ -	\$ -	\$ 1,102	\$ 258	\$ 1,025	\$ 811	\$ 154
<b>Incremental Smart Meter Rate Base</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 53,648</b>	<b>\$ 118,388</b>	<b>\$ 185,540</b>	<b>\$ 232,107</b>	<b>\$ 214,658</b>
<b>Return on Rate Base</b>							
<b>Capital Structure</b>							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Long Term Debt	\$ -	\$ -	\$ 28,594	\$ 67,126	\$ 111,324	\$ 139,264	\$ 128,795
Equity	\$ -	\$ -	\$ 25,054	\$ 51,262	\$ 74,216	\$ 92,843	\$ 85,863
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Capitalization</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 53,648</b>	<b>\$ 118,388</b>	<b>\$ 185,540</b>	<b>\$ 232,107</b>	<b>\$ 214,658</b>
<b>Return on</b>							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Long Term Debt	\$ -	\$ -	\$ 2,073	\$ 4,867	\$ 8,071	\$ 10,097	\$ 9,338
Equity	\$ -	\$ -	\$ 2,255	\$ 4,614	\$ 6,679	\$ 8,356	\$ 7,728
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Return on Capital</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 4,328</b>	<b>\$ 9,480</b>	<b>\$ 14,750</b>	<b>\$ 18,453</b>	<b>\$ 17,065</b>
<b>Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 7,345</b>	<b>\$ 1,723</b>	<b>\$ 6,833</b>	<b>\$ 5,409</b>	<b>\$ 1,023</b>
<b>Amortization Expenses (from Sheet 4)</b>							
Smart Meters	\$ -	\$ -	\$ 3,449	\$ 8,035	\$ 13,048	\$ 17,182	\$ 17,440
Computer Hardware	\$ -	\$ -	\$ 225	\$ 525	\$ 852	\$ 1,122	\$ 1,139
Computer Software	\$ -	\$ -	\$ 607	\$ 1,414	\$ 2,296	\$ 3,024	\$ 1,867
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Amortization Expense in Year</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 4,282</b>	<b>\$ 9,975</b>	<b>\$ 16,197</b>	<b>\$ 21,328</b>	<b>\$ 20,446</b>
<b>Incremental Revenue Requirement before Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 15,954</b>	<b>\$ 21,178</b>	<b>\$ 37,780</b>	<b>\$ 45,190</b>	<b>\$ 38,535</b>
<b>Calculation of Taxable Income</b>							
Incremental Operating Expenses	\$ -	\$ -	\$ 7,345	\$ 1,723	\$ 6,833	\$ 5,409	\$ 1,023
Amortization Expense	\$ -	\$ -	\$ 4,282	\$ 9,975	\$ 16,197	\$ 21,328	\$ 20,446
Interest Expense	\$ -	\$ -	\$ 2,073	\$ 4,867	\$ 8,071	\$ 10,097	\$ 9,338
<b>Net Income for Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,255</b>	<b>\$ 4,614</b>	<b>\$ 6,679</b>	<b>\$ 8,356</b>	<b>\$ 7,728</b>
<b>Grossed-up Taxes/PILs (from Sheet 7)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 357.74</b>	<b>\$ 1,304.25</b>	<b>\$ 2,169.44</b>	<b>\$ 3,047.00</b>	<b>\$ 3,461.23</b>
<b>Revenue Requirement, including Grossed-up Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 16,312</b>	<b>\$ 22,482</b>	<b>\$ 39,949</b>	<b>\$ 48,237</b>	<b>\$ 41,996</b>



Ontario Energy Board

Smart Meter Model

Middlesex Power Distribution Corporation

## 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 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ 99,339.99	\$ 124,134.06	\$ 225,821.30	\$ 215,196.79
Capital Additions	\$ -	\$ -	\$ 103,479.15	\$ 34,105.49	\$ 116,268.71	\$ 7,751.25	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ 103,479.15	\$ 133,445.48	\$ 240,402.77	\$ 233,572.54	\$ 215,196.79
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ 51,739.58	\$ 17,052.74	\$ 58,134.36	\$ 3,875.62	\$ -
Reduced UCC	\$ -	\$ -	\$ 51,739.58	\$ 116,392.73	\$ 182,268.41	\$ 229,696.92	\$ 215,196.79
CCA Rate Class	47	47	47	47	47	47	47
CCA Rate	8%	8%	8%	8%	8%	8%	8%
CCA	\$ -	\$ -	\$ 4,139.17	\$ 9,311.42	\$ 14,581.47	\$ 18,375.75	\$ 17,215.74
Closing UCC	\$ -	\$ -	\$ 99,339.99	\$ 124,134.06	\$ 225,821.30	\$ 215,196.79	\$ 197,981.05

### UCC - Computer Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ 2,857.72	\$ 2,227.84	\$ 4,213.45	\$ 2,110.11
Capital Additions Computer Hardware	\$ -	\$ -	\$ 2,253.27	\$ 742.65	\$ 2,531.76	\$ 168.78	\$ -
Capital Additions Computer Software	\$ -	\$ -	\$ 1,688.42	\$ 556.48	\$ 1,897.10	\$ 126.47	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ 3,941.68	\$ 4,156.85	\$ 6,656.70	\$ 4,508.71	\$ 2,110.11
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ 1,970.84	\$ 649.57	\$ 2,214.43	\$ 147.63	\$ -
Reduced UCC	\$ -	\$ -	\$ 1,970.84	\$ 3,507.29	\$ 4,442.27	\$ 4,361.08	\$ 2,110.11
CCA Rate Class	45	50	50	50	50	50	50
CCA Rate	45%	55%	55%	55%	55%	55%	55%
CCA	\$ -	\$ -	\$ 1,083.96	\$ 1,929.01	\$ 2,443.25	\$ 2,398.59	\$ 1,160.56
Closing UCC	\$ -	\$ -	\$ 2,857.72	\$ 2,227.84	\$ 4,213.45	\$ 2,110.11	\$ 949.55

### UCC - General Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA Rate Class	8	8	8	8	8	8	8
CCA Rate	20%	20%	20%	20%	20%	20%	20%
CCA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



## PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
<b>INCOME TAX</b>							
Net Income	\$ -	\$ -	\$ 2,254.83	\$ 4,613.60	\$ 6,679.44	\$ 8,355.85	\$ 7,727.70
Amortization	\$ -	\$ -	\$ 4,281.67	\$ 9,974.52	\$ 16,196.57	\$ 21,328.16	\$ 20,446.18
CCA - Smart Meters	\$ -	\$ -	\$ 4,139.17	\$ 9,311.42	\$ 14,581.47	\$ 18,375.75	\$ 17,215.74
CCA - Computers	\$ -	\$ -	\$ 1,083.96	\$ 1,929.01	\$ 2,443.25	\$ 2,398.59	\$ 1,160.56
CCA - Applications Software	\$ -	\$ -	\$ 976.90	\$ 1,298.87	\$ 1,419.62	\$ 1,170.82	\$ 73.18
CCA - Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Change in taxable income	\$ -	\$ -	\$ 336.47	\$ 2,048.82	\$ 4,431.67	\$ 7,738.85	\$ 9,724.40
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Income Taxes Payable	\$ -	\$ -	\$ 112.72	\$ 676.11	\$ 1,373.82	\$ 2,186.22	\$ 2,552.65
<b>ONTARIO CAPITAL TAX</b>							
Smart Meters	\$ -	\$ -	\$ 100,029.85	\$ 126,099.88	\$ 229,320.66	\$ 219,889.97	\$ 202,449.66
Computer Hardware	\$ -	\$ -	\$ 2,027.94	\$ 2,245.67	\$ 3,925.07	\$ 2,971.44	\$ 1,832.15
Computer Software (Including Application Software)	\$ -	\$ -	\$ 3,035.18	\$ 2,821.47	\$ 4,617.57	\$ 1,866.58	\$ -
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Base	\$ -	\$ -	\$ 105,092.97	\$ 131,167.02	\$ 237,863.29	\$ 224,727.99	\$ 204,281.81
Less: Exemption	\$ -	\$ -	\$ 21,432.53	\$ -	\$ -	\$ -	\$ -
Deemed Taxable Capital	\$ -	\$ -	\$ 83,660.44	\$ 131,167.02	\$ 237,863.29	\$ 224,727.99	\$ 204,281.81
Ontario Capital Tax Rate (from Sheet 3)	0.300%	0.225%	0.225%	0.225%	0.075%	0.000%	0.000%
Net Amount (Taxable Capital x Rate)	\$ -	\$ -	\$ 188.24	\$ 295.13	\$ 178.40	\$ -	\$ -
Change in Income Taxes Payable	\$ -	\$ -	\$ 112.72	\$ 676.11	\$ 1,373.82	\$ 2,186.22	\$ 2,552.65
Change in OCT	\$ -	\$ -	\$ 188.24	\$ 295.13	\$ 178.40	\$ -	\$ -
PILs	\$ -	\$ -	\$ 300.95	\$ 971.24	\$ 1,552.22	\$ 2,186.22	\$ 2,552.65
<b>Gross Up PILs</b>							
Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Change in Income Taxes Payable	\$ -	\$ -	\$ 169.50	\$ 1,009.12	\$ 1,991.04	\$ 3,047.00	\$ 3,461.23
Change in OCT	\$ -	\$ -	\$ 188.24	\$ 295.13	\$ 178.40	\$ -	\$ -
PILs	\$ -	\$ -	\$ 357.74	\$ 1,304.25	\$ 2,169.44	\$ 3,047.00	\$ 3,461.23



Ontario Energy Board

Smart Meter Model

Middlesex 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	\$ -		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%	4.29%	Dec-07	2007	Q4	\$ -	\$ -	5.14%	\$ -	\$ -	\$ -	
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	\$ -	\$ -	5.14%	\$ -	\$ -		
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	\$ -	\$ -	5.14%	\$ -	\$ -		
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	\$ -	\$ -	5.14%	\$ -	\$ -		
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	\$ -	\$ -	4.08%	\$ -	\$ -		
			May-08	2008	Q2	\$ -	\$ -	4.08%	\$ -	\$ -		
			Jun-08	2008	Q2	\$ -	\$ -	4.08%	\$ -	\$ -		
			Jul-08	2008	Q3	\$ -	\$ -	3.35%	\$ -	\$ -		
			Aug-08	2008	Q3	\$ -	\$ -	3.35%	\$ -	\$ -		
			Sep-08	2008	Q3	\$ -	\$ -	3.35%	\$ -	\$ -		
			Oct-08	2008	Q4	\$ -	\$ -	3.35%	\$ -	\$ -		
			Nov-08	2008	Q4	\$ -	\$ 831.49	3.35%	\$ -	\$ 831.49	\$ 1,641.11	\$ 1.26
			Dec-08	2008	Q4	\$ 831.49	\$ 807.30	3.35%	\$ 2.32	\$ 1,641.11	\$ 1,641.11	\$ 1.26
			Jan-09	2009	Q1	\$ 1,638.79	\$ 843.74	2.45%	\$ 3.35	\$ 2,485.88	\$ 2,485.88	\$ 1.26
			Feb-09	2009	Q1	\$ 2,482.53	\$ 840.33	2.45%	\$ 5.07	\$ 3,327.93	\$ 3,327.93	\$ 1.26
			Mar-09	2009	Q1	\$ 3,322.86	\$ 843.32	2.45%	\$ 6.78	\$ 4,172.96	\$ 4,172.96	\$ 1.26
			Apr-09	2009	Q2	\$ 4,166.18	\$ 840.42	1.00%	\$ 3.47	\$ 5,010.07	\$ 5,010.07	\$ 1.26
			May-09	2009	Q2	\$ 5,006.60	\$ 839.46	1.00%	\$ 4.17	\$ 5,850.23	\$ 5,850.23	\$ 1.26
			Jun-09	2009	Q2	\$ 5,846.06	\$ 843.36	1.00%	\$ 4.87	\$ 6,694.29	\$ 6,694.29	\$ 1.26
			Jul-09	2009	Q3	\$ 6,689.42	\$ 839.26	0.55%	\$ 3.07	\$ 7,531.75	\$ 7,531.75	\$ 1.26
			Aug-09	2009	Q3	\$ 7,528.68	\$ 838.03	0.55%	\$ 3.45	\$ 8,370.16	\$ 8,370.16	\$ 1.26
			Sep-09	2009	Q3	\$ 8,366.71	\$ 832.20	0.55%	\$ 3.83	\$ 9,202.74	\$ 9,202.74	\$ 1.26
			Oct-09	2009	Q4	\$ 9,198.91	\$ 836.63	0.55%	\$ 4.22	\$ 10,039.76	\$ 10,039.76	\$ 1.26
			Nov-09	2009	Q4	\$ 10,035.54	\$ 829.84	0.55%	\$ 4.60	\$ 10,869.98	\$ 10,869.98	\$ 1.26
			Dec-09	2009	Q4	\$ 10,865.38	\$ 1,186.91	0.55%	\$ 4.98	\$ 12,057.27	\$ 12,057.27	\$ 1.26
			Jan-10	2010	Q1	\$ 12,052.29	\$ 835.96	0.55%	\$ 5.52	\$ 12,893.77	\$ 12,893.77	\$ 1.26
			Feb-10	2010	Q1	\$ 12,888.25	\$ 837.34	0.55%	\$ 5.91	\$ 13,731.50	\$ 13,731.50	\$ 1.26
			Mar-10	2010	Q1	\$ 13,725.59	\$ 841.50	0.55%	\$ 6.29	\$ 14,573.38	\$ 14,573.38	\$ 1.26
			Apr-10	2010	Q2	\$ 14,567.09	\$ 841.17	0.55%	\$ 6.68	\$ 15,414.94	\$ 15,414.94	\$ 1.26
			May-10	2010	Q2	\$ 15,408.26	\$ 835.93	0.55%	\$ 7.06	\$ 16,251.25	\$ 16,251.25	\$ 1.26
			Jun-10	2010	Q2	\$ 16,244.19	\$ 836.79	0.55%	\$ 7.45	\$ 17,088.43	\$ 17,088.43	\$ 1.26
			Jul-10	2010	Q3	\$ 17,080.98	\$ 840.18	0.89%	\$ 12.67	\$ 17,933.83	\$ 17,933.83	\$ 1.26
			Aug-10	2010	Q3	\$ 17,921.16	\$ 837.18	0.89%	\$ 13.29	\$ 18,771.63	\$ 18,771.63	\$ 1.26
			Sep-10	2010	Q3	\$ 18,758.34	\$ 837.23	0.89%	\$ 13.91	\$ 19,609.48	\$ 19,609.48	\$ 1.26
			Oct-10	2010	Q4	\$ 19,595.57	\$ 837.14	1.20%	\$ 19.60	\$ 20,452.31	\$ 20,452.31	\$ 1.26
			Nov-10	2010	Q4	\$ 20,432.71	\$ 836.23	1.20%	\$ 20.43	\$ 21,289.37	\$ 21,289.37	\$ 1.26
			Dec-10	2010	Q4	\$ 21,268.94	\$ 907.00	1.20%	\$ 21.27	\$ 22,197.21	\$ 22,197.21	\$ 1.26
			Jan-11	2011	Q1	\$ 22,175.94	\$ 846.14	1.47%	\$ 27.17	\$ 23,049.25	\$ 23,049.25	\$ 1.26
			Feb-11	2011	Q1	\$ 23,022.08	\$ 844.21	1.47%	\$ 28.20	\$ 23,894.49	\$ 23,894.49	\$ 1.26
			Mar-11	2011	Q1	\$ 23,866.29	\$ 844.69	1.47%	\$ 29.24	\$ 24,740.22	\$ 24,740.22	\$ 1.26
			Apr-11	2011	Q2	\$ 24,710.98	\$ 843.95	1.47%	\$ 30.27	\$ 25,585.20	\$ 25,585.20	\$ 1.26
			May-11	2011	Q2	\$ 25,554.93	\$ 835.24	1.47%	\$ 31.30	\$ 26,421.47	\$ 26,421.47	\$ 1.18
			Jun-11	2011	Q2	\$ 26,390.17	\$ 794.93	1.47%	\$ 32.33	\$ 27,217.43	\$ 27,217.43	\$ 1.18
			Jul-11	2011	Q3	\$ 27,185.10	\$ 783.84	1.47%	\$ 33.30	\$ 28,002.24	\$ 28,002.24	\$ 1.18
			Aug-11	2011	Q3	\$ 27,968.94	\$ 790.75	1.47%	\$ 34.26	\$ 28,793.95	\$ 28,793.95	\$ 1.18
			Sep-11	2011	Q3	\$ 28,759.69	\$ 786.29	1.47%	\$ 35.23	\$ 29,581.21	\$ 29,581.21	\$ 1.18
			Oct-11	2011	Q4	\$ 29,545.98	\$ 785.75	1.47%	\$ 36.19	\$ 30,367.92	\$ 30,367.92	\$ 1.18
			Nov-11	2011	Q4	\$ 30,331.73	\$ 780.86	1.47%	\$ 37.16	\$ 31,149.75	\$ 31,149.75	\$ 1.18
			Dec-11	2011	Q4	\$ 31,112.59	\$ 634.80	1.47%	\$ 38.11	\$ 31,785.50	\$ 31,785.50	\$ 9,964.21



This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP				Opening Balance (Principal)	Funding Adder Revenues	Interest		Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder (from Tariff)
			Date	Year	Quarter			Rate	Interest			
			Jan-12	2012	Q1	\$ 31,747.39	\$ 770.19	1.47%	\$ 38.89	\$ 32,556.47		\$ 1.18
			Feb-12	2012	Q1	\$ 32,517.58	\$ 781.98	1.47%	\$ 39.83	\$ 33,339.39		\$ 1.18
			Mar-12	2012	Q1	\$ 33,299.56	\$ 781.31	1.47%	\$ 40.79	\$ 34,121.66		\$ 1.18
			Apr-12	2012	Q2	\$ 34,080.87	\$ 782.89	1.47%	\$ 41.75	\$ 34,905.51		\$ 1.18
			May-12	2012	Q2	\$ 34,863.76	\$ 36.96	1.47%	\$ 42.71	\$ 34,869.51		
			Jun-12	2012	Q2	\$ 34,826.80	\$ -	1.47%	\$ 42.66	\$ 34,869.46		
			Jul-12	2012	Q3	\$ 34,826.80	\$ -	1.47%	\$ 42.66	\$ 34,869.46		
			Aug-12	2012	Q3	\$ 34,826.80	\$ -	1.47%	\$ 42.66	\$ 34,869.46		
			Sep-12	2012	Q3	\$ 34,826.80	\$ -	1.47%	\$ 42.66	\$ 34,869.46		
			Oct-12	2012	Q4	\$ 34,826.80	\$ -	1.47%	\$ 42.66	\$ 34,869.46		
			Nov-12	2012	Q4	\$ 34,826.80	\$ -	1.47%	\$ 42.66	\$ 34,869.46		
			Dec-12	2012	Q4	\$ 34,826.80	\$ -	1.47%	\$ 42.66	\$ 34,869.46	\$ 3,582.00	
Total Funding Adder Revenues Collected						\$ 34,826.80			\$ 1,089.61	\$ 35,916.41	\$ 35,916.41	



Middlesex 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%	4.29%	Dec-07	2007	Q4	-			-	5.14%	-	-
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	-			-	5.14%	-	-
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	-			-	5.14%	-	-
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	-			-	5.14%	-	-
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	-			-	4.08%	-	-
			May-08	2008	Q2	-			-	4.08%	-	-
			Jun-08	2008	Q2	-			-	4.08%	-	-
			Jul-08	2008	Q3	-			-	3.35%	-	-
			Aug-08	2008	Q3	-			-	3.35%	-	-
			Sep-08	2008	Q3	-			-	3.35%	-	-
			Oct-08	2008	Q4	-			-	3.35%	-	-
			Nov-08	2008	Q4	-			-	3.35%	-	-
			Dec-08	2008	Q4	-			-	3.35%	-	-
			Jan-09	2009	Q1	-			-	2.45%	-	-
			Feb-09	2009	Q1	-			-	2.45%	-	-
			Mar-09	2009	Q1	-			-	2.45%	-	-
			Apr-09	2009	Q2	-			-	1.00%	-	-
			May-09	2009	Q2	-			-	1.00%	-	-
			Jun-09	2009	Q2	-			-	1.00%	-	-
			Jul-09	2009	Q3	-			-	0.55%	-	-
			Aug-09	2009	Q3	-			-	0.55%	-	-
			Sep-09	2009	Q3	-			-	0.55%	-	-
			Oct-09	2009	Q4	-			-	0.55%	-	-
			Nov-09	2009	Q4	-			-	0.55%	-	-
			Dec-09	2009	Q4	-			-	0.55%	-	-
			Jan-10	2010	Q1	-			-	0.55%	-	-
			Feb-10	2010	Q1	-			-	0.55%	-	-
			Mar-10	2010	Q1	-			-	0.55%	-	-
			Apr-10	2010	Q2	-			-	0.55%	-	-
			May-10	2010	Q2	-			-	0.55%	-	-
			Jun-10	2010	Q2	-			-	0.55%	-	-
			Jul-10	2010	Q3	-			-	0.89%	-	-
			Aug-10	2010	Q3	-			-	0.89%	-	-
			Sep-10	2010	Q3	-			-	0.89%	-	-
			Oct-10	2010	Q4	-			-	1.20%	-	-
			Nov-10	2010	Q4	-			-	1.20%	-	-
			Dec-10	2010	Q4	-			-	1.20%	-	-
			Jan-11	2011	Q1	-			-	1.47%	-	-
			Feb-11	2011	Q1	-			-	1.47%	-	-
			Mar-11	2011	Q1	-			-	1.47%	-	-
			Apr-11	2011	Q2	-			-	1.47%	-	-
			May-11	2011	Q2	-			-	1.47%	-	-
			Jun-11	2011	Q2	-			-	1.47%	-	-
			Jul-11	2011	Q3	-			-	1.47%	-	-
			Aug-11	2011	Q3	-			-	1.47%	-	-
			Sep-11	2011	Q3	-			-	1.47%	-	-
			Oct-11	2011	Q4	-			-	1.47%	-	-
			Nov-11	2011	Q4	-			-	1.47%	-	-
			Dec-11	2011	Q4	-			-	1.47%	-	-
			Jan-12	2012	Q1	-			-	1.47%	-	-
			Feb-12	2012	Q1	-			-	1.47%	-	-
			Mar-12	2012	Q1	-			-	1.47%	-	-
			Apr-12	2012	Q2	-			-	1.47%	-	-
			May-12	2012	Q2	-			-	1.47%	-	-
			Jun-12	2012	Q2	-			-	1.47%	-	-
			Jul-12	2012	Q3	-			-	1.47%	-	-
			Aug-12	2012	Q3	-			-	1.47%	-	-
			Sep-12	2012	Q3	-			-	1.47%	-	-
			Oct-12	2012	Q4	-			-	1.47%	-	-
			Nov-12	2012	Q4	-			-	1.47%	-	-
			Dec-12	2012	Q4	-			-	1.47%	-	-
						\$	-	\$	-	\$	-	-



Ontario Energy Board

Smart Meter Model

Middlesex 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	\$ -	\$ -	\$ -	\$ -	4.37%	\$ -
2007	\$ -	\$ -	\$ -	\$ -	4.73%	\$ -
2008	\$ 7,344.75	\$ 4,281.67	\$ 11,626.41	\$ 5,813.21	3.98%	\$ 231.37
2009	\$ 1,722.77	\$ 9,974.52	\$ 23,323.70	\$ 17,475.06	1.14%	\$ 198.78
2010	\$ 6,832.63	\$ 16,196.57	\$ 46,352.91	\$ 34,838.31	0.80%	\$ 277.84
2011	\$ 5,409.07	\$ 21,328.16	\$ 73,090.13	\$ 59,721.52	1.47%	\$ 877.91
2012	\$ 1,023.45	\$ 20,446.18	\$ 94,559.76	\$ 83,824.95	1.47%	\$ 1,232.23
Cumulative Interest to 2011						\$ 1,585.89
Cumulative Interest to 2012						\$ 2,818.11





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

Check if applicable

- ☐ Smart Meter Funding Adder (SMFA)
- ☒ Smart Meter Disposition Rider (SMDR)
- ☒ Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)

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

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

	2006	2007	2008	2009	2010	2011	2012 and later	Total
Deferred and forecasted Smart Meter Incremental Revenue Requirement (from Sheet 5)	\$ -	\$ -	\$ 16,312.08	\$ 22,481.78	\$ 39,949.08	\$ 48,236.73	\$ 41,996.20	\$ 168,975.88
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B) (Check one of the boxes below)	\$ -	\$ -	\$ 231.37	\$ 198.78	\$ 277.84	\$ 877.91		\$ 1,585.89
<input type="checkbox"/> Sheet 8A (Interest calculated on monthly balances)								\$ -
<input checked="" type="checkbox"/> Sheet 8B (Interest calculated on average annual balances)	\$ -	\$ -	\$ 231.37	\$ 198.78	\$ 277.84	\$ 877.91		\$ 1,585.89
SMFA Revenues (from Sheet 8)	\$ -	\$ -	\$ 1,638.79	\$ 10,413.50	\$ 10,123.65	\$ 9,571.45	\$ 3,079.41	\$ 34,826.80
SMFA Interest (from Sheet 8)	\$ -	\$ -	\$ 2.32	\$ 51.86	\$ 140.08	\$ 392.76	\$ 502.59	\$ 1,089.61
Net Deferred Revenue Requirement	\$ -	\$ -	\$ 14,902.34	\$ 12,215.20	\$ 29,963.19	\$ 39,150.43	\$ 38,414.20	\$ 134,645.35
Number of Metered Customers (average for 2012 test year)							662	

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

Years for collection or refunding	3.5	
Deferred Incremental Revenue Requirement from 2006 to December 31, 2011 plus Interest on OM&A and Amortization	\$ 128,565.57	
SMFA Revenues collected from 2006 to 2012 test year (inclusive) Plus Simple Interest on SMFA Revenues	\$ 35,916.41	
Net Deferred Revenue Requirement	\$ 92,649.16	
SMDR November 1, 2012 to April 30, 2016	\$ 3.33	Match
Check: Forecasted SMDR Revenues	\$ 92,587.32	

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

Incremental Revenue Requirement for 2012	\$ 41,996.20	
SMIRR	\$ 5.29	Match
Check: Forecasted SMIRR Revenues	\$ 42,023.76	

**Entegrus Powerlines Inc.**

SM Final Disposition – Interrogatory Responses

Board File No.: EB-2012-0289

Date Filed: September 7, 2012

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**Attachment G**  
**Smart Meter Model**  
**SMP GS>50kW**



Ontario Energy Board

## Smart Meter Model

## Choose Your Utility:

Middlesex Power Distribution Corporation

Middlesex Power Distribution Corporation - Dutton

## Application Contact Information

Name: Andrya Eagen

Title: Senior Regulatory Specialist

Phone Number: 519-352-6300 Ext 243

Email Address: andryaeagen@ckenergy.com

We are applying for rates effective: November 1, 2012

Last COS Re-based Year 2006

## Legend

DROP-DOWN MENU

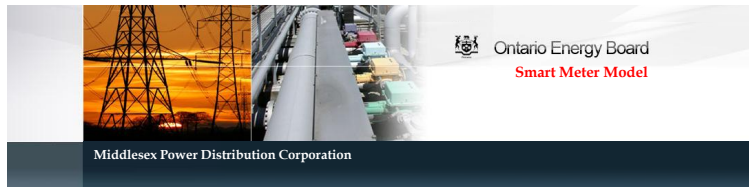
INPUT FIELD

CALCULATION FIELD

## Copyright

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



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

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

Smart Meter Capital Cost and Operational Expense Data	2006	2007	2008	2009	2010	2011	2012 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
<b>Smart Meter Installation Plan</b>								
<b>Actual/Planned number of Smart Meters installed during the Calendar Year</b>								
Residential								0
General Service < 50 kW								0
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	0	0	0	0	0	0
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Actual/Planned number of GS > 50 kW meters installed				21	42	18		81
Other (please identify)								0
Total Number of Smart Meters installed or planned to be installed	0	0	0	21	42	18	0	81
<b>1 Capital Costs</b>								
<b>1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
Asset Type								
Asset type must be selected to enable calculations								
1.1.1 Smart Meters (may include new meters and modules, etc.)	Smart Meter		0	12,354	24,708	10,589		\$ 47,651
1.1.2 Installation Costs (may include socket kits, labour, vehicle, benefits, etc.)	Smart Meter		0	3,958	7,917	3,393		\$ 15,268
1.1.3a Workforce Automation Hardware (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
1.1.3b Workforce Automation Software (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
Total Advanced Metering Communications Devices (AMCD)				\$ 16,312	\$ 32,625	\$ 13,982		\$ 62,919
<b>1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)</b>								
Asset Type								
1.2.1 Collectors								\$ -
1.2.2 Repeaters (may include radio licence, etc.)								\$ -
1.2.3 Installation (may include meter seals and rings, collector computer hardware, etc.)								\$ -
Total Advanced Metering Regional Collector (AMRC) (includes LAN)								\$ -
<b>1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)</b>								
Asset Type								
1.3.1 Computer Hardware								\$ -
1.3.2 Computer Software								\$ -
1.3.3 Computer Software Licences & Installation (includes hardware and software) (may include AS400 disk space, backup and recovery computer, UPS, etc.)								\$ -
Total Advanced Metering Control Computer (AMCC)								\$ -
<b>1.4 WIDE AREA NETWORK (WAN)</b>								
Asset Type								
1.4.1 Activation Fees	Applications Software		0	2,423	4,845	2,077		\$ 9,345
Total Wide Area Network (WAN)				\$ 2,423	\$ 4,845	\$ 2,077		\$ 9,345
<b>1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY</b>								
Asset Type								
1.5.1 Customer Equipment (including repair of damaged equipment)								\$ -
1.5.2 AMI Interface to CIS								\$ -
1.5.3 Professional Fees								\$ -
1.5.4 Integration								\$ -
1.5.5 Program Management								\$ -
1.5.6 Other AMI Capital								\$ -
Total Other AMI Capital Costs Related to Minimum Functionality								\$ -
Total Capital Costs Related to Minimum Functionality				\$ 18,735	\$ 37,470	\$ 16,059		\$ 72,264
<b>1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY</b>								
Asset Type								
1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06	Computer Software							\$ -
1.6.2 Costs for deployment of smart meters to customers other than residential and small general service	Applications Software							\$ -
1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDNR, etc.								\$ -
Total Capital Costs Beyond Minimum Functionality								\$ -
Total Smart Meter Capital Costs				\$ 18,735	\$ 37,470	\$ 16,059		\$ 72,264
<b>2 OM&amp;A Expenses</b>								
<b>2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
2.1.1 Maintenance (may include meter reverification costs, etc.)			115	110	88	136	0	\$ 450
2.1.2 Other (please specify)								\$ -
Total Incremental AMCD OM&A Costs			\$ 115	\$ 110	\$ 88	\$ 136	\$ -	\$ 450





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

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

2.2.1 Maintenance

2.2.2 Other (please specify)

Total Incremental AMRC OM&A Costs

2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)

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

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

2.3.2 Other (please specify)

Total Incremental AMCC OM&A Costs

2.4 WIDE AREA NETWORK (WAN)

2.4.1 WAN Maintenance

2.4.2 Other (please specify)

Total Incremental AMRC OM&A Costs

2.5 OTHER AMI OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY

2.5.1 Business Process Redesign

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

2.5.3 Program Management

2.5.4 Change Management (may include training, etc.)

2.5.5 Administration Costs

2.5.6 Other AMI Expenses

(please specify)

Total Other AMI OM&A Costs Related to Minimum Functionality

TOTAL OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY

2.6 OM&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALITY

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

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

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

2.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDMR, etc.

Total OM&A Costs Beyond Minimum Functionality

Total Smart Meter OM&A Costs

	2006	2007	2008	2009	2010	2011	2012 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
								\$ -
								\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
								\$ 139
			96	13	13	9	8	\$ 496
			211	49	37	24	175	\$ -
								\$ -
	\$ -	\$ -	\$ 308	\$ 61	\$ 50	\$ 33	\$ 183	\$ 634
								\$ -
								\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
								\$ -
								\$ -
								\$ -
								\$ -
			433	2	0	0	0	\$ 434
			26	17	5	12	-1,500	\$ 1,440
	\$ -	\$ -	\$ 458	\$ 19	\$ 5	\$ 12	\$ 1,500	\$ 1,005
	\$ -	\$ -	\$ 881	\$ 190	\$ 144	\$ 180	\$ 1,317	\$ 79
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual		
								\$ -
								\$ -
			0	0	0	0	0	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ 881	\$ 190	\$ 144	\$ 180	\$ 1,317	\$ 79

3 Aggregate Smart Meter Costs by Category

3.1

Capital

3.1.1 Smart Meter

3.1.2 Computer Hardware

3.1.3 Computer Software

3.1.4 Tools & Equipment

3.1.5 Other Equipment

3.1.6 Applications Software

3.1.7 Total Capital Costs

3.2 OM&A Costs

3.2.1 Total OM&A Costs

\$ -	\$ -	\$ -	\$ 16,312	\$ 32,625	\$ 13,982	\$ -	\$ 62,919
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ 2,423	\$ 4,845	\$ 2,077	\$ -	\$ 9,345
\$ -	\$ -	\$ -	\$ 18,735	\$ 37,470	\$ 16,059	\$ -	\$ 72,264
\$ -	\$ -	\$ 881	\$ 190	\$ 144	\$ 180	\$ 1,317	\$ 79



Ontario Energy Board

## Smart Meter Model

### Middlesex Power Distribution Corporation

	2006	2007	2008	2009	2010	2011	2012 and later
<b>Cost of Capital</b>							
<b>Capital Structure<sup>1</sup></b>							
Deemed Short-term Debt Capitalization							
Deemed Long-term Debt Capitalization	50.0%	50.0%	53.3%	56.7%	60.0%	60.0%	60.0%
Deemed Equity Capitalization	50.0%	50.0%	46.7%	43.3%	40.0%	40.0%	40.0%
Preferred Shares	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<b>Cost of Capital Parameters</b>							
Deemed Short-term Debt Rate							
Long-term Debt Rate (actual/embedded/deemed) <sup>2</sup>	7.25%	7.25%	7.25%	7.25%	5.87%	5.87%	5.87%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	9.00%	9.85%	9.85%	9.85%
Return on Preferred Shares							
<b>WACC</b>	8.13%	8.13%	8.07%	8.01%	7.46%	7.46%	7.46%
<b>Working Capital Allowance</b>							
Working Capital Allowance Rate (% of the sum of Cost of Power + controllable expenses)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
<b>Taxes/PILs</b>							
Aggregate Corporate Income Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%
<b>Depreciation Rates</b> (expressed as expected useful life in years)							
Smart Meters - years	15	15	15	15	15	15	15
- rate (%)	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%
Computer Hardware - years	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Computer Software - years	3	3	3	3	3	3	3
- rate (%)	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%
Tools & Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Other Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
<b>CCA Rates</b>							
Smart Meters - CCA Class	47	47	47	47	47	47	47
Smart Meters - CCA Rate	8%	8%	8%	8%	8%	8%	8%
Computer Equipment - CCA Class	45	50	50	50	50	50	50
Computer Equipment - CCA Rate	45%	55%	55%	55%	55%	55%	55%
General Equipment - CCA Class	8	8	8	8	8	8	8
General Equipment - CCA Rate	20%	20%	20%	20%	20%	20%	20%
Applications Software - CCA Class	12	12	12	12	12	12	12
Applications Software - CCA Rate	100%	100%	100%	100%	100%	100%	100%

#### Assumptions

<sup>1</sup> Planned smart meter installations occur evenly throughout the year.

<sup>2</sup> Fiscal calendar year (January 1 to December 31) used.

<sup>3</sup> Amortization is done on a straight line basis and has the "half-year" rule applied.



	2006	2007	2008	2009	2010	2011	2012 and later
<b>Net Fixed Assets - Smart Meters</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 16,312	\$ 48,937	\$ 62,919
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 16,312	\$ 32,625	\$ 13,982	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 16,312	\$ 48,937	\$ 62,919	\$ 62,919
<b>Accumulated Depreciation</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 544	\$ 2,719	\$ 6,447
Amortization expense during year	\$ -	\$ -	\$ -	\$ 544	\$ 2,175	\$ 3,729	\$ 4,195
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 544	\$ 2,719	\$ 6,447	\$ 10,642
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 15,769	\$ 46,218	\$ 56,472
Closing Balance	\$ -	\$ -	\$ -	\$ 15,769	\$ 46,218	\$ 56,472	\$ 52,277
Average Net Book Value	\$ -	\$ -	\$ -	\$ 7,884	\$ 30,994	\$ 51,345	\$ 54,375
<b>Net Fixed Assets - Computer Hardware</b>							
<b>Gross Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Fixed Assets - Computer Software (Including Applications Software)</b>							
<b>Gross Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 2,423	\$ 7,268	\$ 9,345
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 2,423	\$ 4,845	\$ 2,077	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 2,423	\$ 7,268	\$ 9,345	\$ 9,345
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 404	\$ 2,019	\$ 4,788
Amortization expense during year	\$ -	\$ -	\$ -	\$ 404	\$ 1,615	\$ 2,769	\$ 3,115
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 404	\$ 2,019	\$ 4,788	\$ 7,903
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 2,019	\$ 5,249	\$ 4,557
Closing Balance	\$ -	\$ -	\$ -	\$ 2,019	\$ 5,249	\$ 4,557	\$ 1,442
Average Net Book Value	\$ -	\$ -	\$ -	\$ 1,009	\$ 3,634	\$ 4,903	\$ 3,000
<b>Net Fixed Assets - Tools and Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Fixed Assets - Other Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



Ontario Energy Board  
Smart Meter Model

Middlesex Power Distribution Corporation

	2006	2007	2008	2009	2010	2011	2012 and Later
<b>Average Net Fixed Asset Values (from Sheet 4)</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 7,884	\$ 30,994	\$ 51,345	\$ 54,375
Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Computer Software	\$ -	\$ -	\$ -	\$ 1,009	\$ 3,634	\$ 4,903	\$ 3,000
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Net Fixed Assets</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 8,894</b>	<b>\$ 34,628</b>	<b>\$ 56,248</b>	<b>\$ 57,374</b>
<b>Working Capital</b>							
Operating Expenses (from Sheet 2)	\$ -	\$ -	\$ 881	\$ 190	\$ 144	\$ 180	\$ 1,317
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	\$ -	\$ -	\$ 132	\$ 29	\$ 22	\$ 27	\$ 198
<b>Incremental Smart Meter Rate Base</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 132</b>	<b>\$ 8,922</b>	<b>\$ 34,649</b>	<b>\$ 56,275</b>	<b>\$ 57,177</b>
<b>Return on Rate Base</b>							
<b>Capital Structure</b>							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Long Term Debt	\$ -	\$ -	\$ 70	\$ 5,059	\$ 20,789	\$ 33,765	\$ 34,306
Equity	\$ -	\$ -	\$ 62	\$ 3,863	\$ 13,860	\$ 22,510	\$ 22,871
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Capitalization</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 132</b>	<b>\$ 8,922</b>	<b>\$ 34,649</b>	<b>\$ 56,275</b>	<b>\$ 57,177</b>
<b>Return on</b>							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Long Term Debt	\$ -	\$ -	\$ 5	\$ 367	\$ 1,220	\$ 1,982	\$ 2,014
Equity	\$ -	\$ -	\$ 6	\$ 348	\$ 1,365	\$ 2,217	\$ 2,253
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Return on Capital</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 11</b>	<b>\$ 714</b>	<b>\$ 2,586</b>	<b>\$ 4,199</b>	<b>\$ 4,267</b>
<b>Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 881</b>	<b>\$ 190</b>	<b>\$ 144</b>	<b>\$ 180</b>	<b>\$ 1,317</b>
<b>Amortization Expenses (from Sheet 4)</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 544	\$ 2,175	\$ 3,729	\$ 4,195
Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Computer Software	\$ -	\$ -	\$ -	\$ 404	\$ 1,615	\$ 2,769	\$ 3,115
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Amortization Expense in Year</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 948</b>	<b>\$ 3,790</b>	<b>\$ 6,497</b>	<b>\$ 7,309</b>
<b>Incremental Revenue Requirement before Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 892</b>	<b>\$ 1,852</b>	<b>\$ 6,519</b>	<b>\$ 10,877</b>	<b>\$ 10,259</b>
<b>Calculation of Taxable Income</b>							
Incremental Operating Expenses	\$ -	\$ -	\$ 881	\$ 190	\$ 144	\$ 180	\$ 1,317
Amortization Expense	\$ -	\$ -	\$ -	\$ 948	\$ 3,790	\$ 6,497	\$ 7,309
Interest Expense	\$ -	\$ -	\$ 5	\$ 367	\$ 1,220	\$ 1,982	\$ 2,014
<b>Net Income for Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6</b>	<b>\$ 348</b>	<b>\$ 1,365</b>	<b>\$ 2,217</b>	<b>\$ 2,253</b>
<b>Grossed-up Taxes/PILs (from Sheet 7)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2.80</b>	<b>\$ 240.04</b>	<b>\$ 427.09</b>	<b>\$ 407.97</b>	<b>\$ 1,453.85</b>
<b>Revenue Requirement, including Grossed-up Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 895</b>	<b>\$ 1,612</b>	<b>\$ 6,092</b>	<b>\$ 11,285</b>	<b>\$ 11,713</b>





## 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 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 15,659.88	\$ 45,726.86	\$ 55,491.47
Capital Additions	\$ -	\$ -	\$ -	\$ 16,312.38	\$ 32,624.76	\$ 13,982.04	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 16,312.38	\$ 48,284.64	\$ 59,708.90	\$ 55,491.47
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ 8,156.19	\$ 16,312.38	\$ 6,991.02	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ 8,156.19	\$ 31,972.26	\$ 52,717.88	\$ 55,491.47
CCA Rate Class	47	47	47	47	47	47	47
CCA Rate	8%	8%	8%	8%	8%	8%	8%
CCA	\$ -	\$ -	\$ -	\$ 652.50	\$ 2,557.78	\$ 4,217.43	\$ 4,439.32
Closing UCC	\$ -	\$ -	\$ -	\$ 15,659.88	\$ 45,726.86	\$ 55,491.47	\$ 51,052.15

### UCC - Computer Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Computer Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA Rate Class	45	50	50	50	50	50	50
CCA Rate	45%	55%	55%	55%	55%	55%	55%
CCA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

### UCC - General Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA Rate Class	8	8	8	8	8	8	8
CCA Rate	20%	20%	20%	20%	20%	20%	20%
CCA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



## PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
<b>INCOME TAX</b>							
Net Income	\$ -	\$ -	\$ 5.56	\$ 347.70	\$ 1,365.17	\$ 2,217.25	\$ 2,252.76
Amortization	\$ -	\$ -	\$ -	\$ 947.53	\$ 3,790.11	\$ 6,497.33	\$ 7,309.50
CCA - Smart Meters	\$ -	\$ -	\$ -	\$ 652.50	\$ 2,557.78	\$ 4,217.43	\$ 4,439.32
CCA - Computers	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA - Applications Software	\$ -	\$ -	\$ -	\$ 1,211.34	\$ 3,634.03	\$ 3,460.98	\$ 1,038.29
CCA - Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Change in taxable income	\$ -	\$ -	\$ 5.56	\$ 568.61	\$ 1,036.53	\$ 1,036.16	\$ 4,084.64
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Income Taxes Payable	\$ -	\$ -	\$ 1.86	\$ 187.64	\$ 321.32	\$ 292.72	\$ 1,072.22
<b>ONTARIO CAPITAL TAX</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 15,768.63	\$ 46,218.41	\$ 56,471.90	\$ 52,277.29
Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Computer Software (Including Application Software)	\$ -	\$ -	\$ -	\$ 2,018.91	\$ 5,249.16	\$ 4,556.96	\$ 1,442.08
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Base	\$ -	\$ -	\$ -	\$ 17,787.54	\$ 51,467.56	\$ 61,028.86	\$ 53,719.37
Less: Exemption	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Taxable Capital	\$ -	\$ -	\$ -	\$ 17,787.54	\$ 51,467.56	\$ 61,028.86	\$ 53,719.37
Ontario Capital Tax Rate (from Sheet 3)	0.300%	0.225%	0.225%	0.225%	0.075%	0.000%	0.000%
Net Amount (Taxable Capital x Rate)	\$ -	\$ -	\$ -	\$ 40.02	\$ 38.60	\$ -	\$ -
Change in Income Taxes Payable	\$ -	\$ -	\$ 1.86	\$ 187.64	\$ 321.32	\$ 292.72	\$ 1,072.22
Change in OCT	\$ -	\$ -	\$ -	\$ 40.02	\$ 38.60	\$ -	\$ -
PILs	\$ -	\$ -	\$ 1.86	\$ 147.62	\$ 282.72	\$ 292.72	\$ 1,072.22
<b>Gross Up PILs</b>							
Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Change in Income Taxes Payable	\$ -	\$ -	\$ 2.80	\$ 280.06	\$ 465.69	\$ 407.97	\$ 1,453.85
Change in OCT	\$ -	\$ -	\$ -	\$ 40.02	\$ 38.60	\$ -	\$ -
PILs	\$ -	\$ -	\$ 2.80	\$ 240.04	\$ 427.09	\$ 407.97	\$ 1,453.85



Ontario Energy Board

Smart Meter Model

Middlesex 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	\$ -		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%	4.29%	Dec-07	2007	Q4	\$ -	\$ -	5.14%	\$ -	\$ -	\$ -	
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	\$ -	\$ -	5.14%	\$ -	\$ -		
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	\$ -	\$ -	5.14%	\$ -	\$ -		
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	\$ -	\$ -	5.14%	\$ -	\$ -		
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	\$ -	\$ -	4.08%	\$ -	\$ -		
			May-08	2008	Q2	\$ -	\$ -	4.08%	\$ -	\$ -		
			Jun-08	2008	Q2	\$ -	\$ -	4.08%	\$ -	\$ -		
			Jul-08	2008	Q3	\$ -	\$ -	3.35%	\$ -	\$ -		
			Aug-08	2008	Q3	\$ -	\$ -	3.35%	\$ -	\$ -		
			Sep-08	2008	Q3	\$ -	\$ -	3.35%	\$ -	\$ -		
			Oct-08	2008	Q4	\$ -	\$ -	3.35%	\$ -	\$ -	0.00	
			Nov-08	2008	Q4	\$ -	\$ 122.21	3.35%	\$ -	\$ 122.21	\$ 231.92	\$ 1.26
			Dec-08	2008	Q4	\$ 122.21	\$ 109.37	3.35%	\$ 0.34	\$ 231.92	\$ 231.92	\$ 1.26
			Jan-09	2009	Q1	\$ 231.58	\$ 118.02	2.45%	\$ 0.47	\$ 350.07		\$ 1.26
			Feb-09	2009	Q1	\$ 349.60	\$ 117.68	2.45%	\$ 0.71	\$ 467.99		\$ 1.26
			Mar-09	2009	Q1	\$ 467.28	\$ 123.19	2.45%	\$ 0.95	\$ 591.42		\$ 1.26
			Apr-09	2009	Q2	\$ 590.47	\$ 122.22	1.00%	\$ 0.49	\$ 713.18		\$ 1.26
			May-09	2009	Q2	\$ 712.69	\$ 122.22	1.00%	\$ 0.59	\$ 835.50		\$ 1.26
			Jun-09	2009	Q2	\$ 834.91	\$ 122.31	1.00%	\$ 0.70	\$ 957.92		\$ 1.26
			Jul-09	2009	Q3	\$ 957.22	\$ 122.22	0.55%	\$ 0.44	\$ 1,079.88		\$ 1.26
			Aug-09	2009	Q3	\$ 1,079.44	\$ 122.22	0.55%	\$ 0.49	\$ 1,202.15		\$ 1.26
			Sep-09	2009	Q3	\$ 1,201.66	\$ 122.22	0.55%	\$ 0.55	\$ 1,324.43		\$ 1.26
			Oct-09	2009	Q4	\$ 1,323.88	\$ 122.22	0.55%	\$ 0.61	\$ 1,446.71		\$ 1.26
			Nov-09	2009	Q4	\$ 1,446.10	\$ 122.22	0.55%	\$ 0.66	\$ 1,568.98		\$ 1.26
			Dec-09	2009	Q4	\$ 1,568.32	\$ 178.56	0.55%	\$ 0.72	\$ 1,747.60	\$ 1,522.68	\$ 1.26
			Jan-10	2010	Q1	\$ 1,746.88	\$ 119.66	0.55%	\$ 0.80	\$ 1,867.34		\$ 1.26
			Feb-10	2010	Q1	\$ 1,866.54	\$ 124.90	0.55%	\$ 0.86	\$ 1,992.30		\$ 1.26
			Mar-10	2010	Q1	\$ 1,991.44	\$ 122.22	0.55%	\$ 0.91	\$ 2,114.57		\$ 1.26
			Apr-10	2010	Q2	\$ 2,113.66	\$ 120.96	0.55%	\$ 0.97	\$ 2,235.59		\$ 1.26
			May-10	2010	Q2	\$ 2,234.62	\$ 121.00	0.55%	\$ 1.02	\$ 2,356.64		\$ 1.26
			Jun-10	2010	Q2	\$ 2,355.62	\$ 123.44	0.55%	\$ 1.08	\$ 2,480.14		\$ 1.26
			Jul-10	2010	Q3	\$ 2,479.06	\$ 123.48	0.89%	\$ 1.84	\$ 2,604.38		\$ 1.26
			Aug-10	2010	Q3	\$ 2,602.54	\$ 122.22	0.89%	\$ 1.93	\$ 2,726.69		\$ 1.26
			Sep-10	2010	Q3	\$ 2,724.76	\$ 120.62	0.89%	\$ 2.02	\$ 2,847.40		\$ 1.26
			Oct-10	2010	Q4	\$ 2,845.38	\$ 125.46	1.20%	\$ 2.85	\$ 2,973.69		\$ 1.26
			Nov-10	2010	Q4	\$ 2,970.84	\$ 119.53	1.20%	\$ 2.97	\$ 3,093.34		\$ 1.26
			Dec-10	2010	Q4	\$ 3,090.37	\$ 145.09	1.20%	\$ 3.09	\$ 3,238.55	\$ 1,508.92	\$ 1.26
			Jan-11	2011	Q1	\$ 3,235.46	\$ 123.48	1.47%	\$ 3.96	\$ 3,362.90		\$ 1.26
			Feb-11	2011	Q1	\$ 3,358.94	\$ 123.48	1.47%	\$ 4.11	\$ 3,486.53		\$ 1.26
			Mar-11	2011	Q1	\$ 3,482.42	\$ 123.48	1.47%	\$ 4.27	\$ 3,610.17		\$ 1.26
			Apr-11	2011	Q2	\$ 3,605.90	\$ 123.48	1.47%	\$ 4.42	\$ 3,733.80		\$ 1.26
			May-11	2011	Q2	\$ 3,729.38	\$ 121.80	1.47%	\$ 4.57	\$ 3,855.75		\$ 1.18
			Jun-11	2011	Q2	\$ 3,851.18	\$ 113.54	1.47%	\$ 4.72	\$ 3,969.44		\$ 1.18
			Jul-11	2011	Q3	\$ 3,964.72	\$ 118.23	1.47%	\$ 4.86	\$ 4,087.81		\$ 1.18
			Aug-11	2011	Q3	\$ 4,082.95	\$ 115.64	1.47%	\$ 5.00	\$ 4,203.59		\$ 1.18
			Sep-11	2011	Q3	\$ 4,198.59	\$ 115.64	1.47%	\$ 5.14	\$ 4,319.37		\$ 1.18
			Oct-11	2011	Q4	\$ 4,314.23	\$ 115.64	1.47%	\$ 5.28	\$ 4,435.15		\$ 1.18
			Nov-11	2011	Q4	\$ 4,429.87	\$ 115.50	1.47%	\$ 5.43	\$ 4,550.80		\$ 1.18
			Dec-11	2011	Q4	\$ 4,545.37	\$ 94.40	1.47%	\$ 5.57	\$ 4,645.34	\$ 1,461.64	\$ 1.18



This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP				Opening Balance (Principal)	Funding Adder Revenues	Interest		Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder (from Tariff)
			Date	Year	Quarter			Rate	Interest			
			Jan-12	2012	Q1	\$ 4,639.77	\$ 114.66	1.47%	\$ 5.68	\$ 4,760.11		\$ 1.18
			Feb-12	2012	Q1	\$ 4,754.43	\$ 114.46	1.47%	\$ 5.82	\$ 4,874.71		\$ 1.18
			Mar-12	2012	Q1	\$ 4,868.89	\$ 115.64	1.47%	\$ 5.96	\$ 4,990.49		\$ 1.18
			Apr-12	2012	Q2	\$ 4,984.53	\$ 115.64	1.47%	\$ 6.11	\$ 5,106.28		\$ 1.18
			May-12	2012	Q2	\$ 5,100.17	\$ 19.46	1.47%	\$ 6.25	\$ 5,125.88		
			Jun-12	2012	Q2	\$ 5,119.63	\$ -	1.47%	\$ 6.27	\$ 5,125.90		
			Jul-12	2012	Q3	\$ 5,119.63	\$ -	1.47%	\$ 6.27	\$ 5,125.90		
			Aug-12	2012	Q3	\$ 5,119.63	\$ -	1.47%	\$ 6.27	\$ 5,125.90		
			Sep-12	2012	Q3	\$ 5,119.63	\$ -	1.47%	\$ 6.27	\$ 5,125.90		
			Oct-12	2012	Q4	\$ 5,119.63	\$ -	1.47%	\$ 6.27	\$ 5,125.90		
			Nov-12	2012	Q4	\$ 5,119.63	\$ -	1.47%	\$ 6.27	\$ 5,125.90		
			Dec-12	2012	Q4	\$ 5,119.63	\$ -	1.47%	\$ 6.27	\$ 5,125.90	\$ 553.57	
Total Funding Adder Revenues Collected						\$	5,119.63		\$ 159.10	\$ 5,278.73	\$ 5,278.73	



Middlesex 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%	4.29%	Dec-07	2007	Q4	-			-	5.14%	-	-
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	-			-	5.14%	-	-
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	-			-	5.14%	-	-
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	-			-	5.14%	-	-
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	-			-	4.08%	-	-
			May-08	2008	Q2	-			-	4.08%	-	-
			Jun-08	2008	Q2	-			-	4.08%	-	-
			Jul-08	2008	Q3	-			-	3.35%	-	-
			Aug-08	2008	Q3	-			-	3.35%	-	-
			Sep-08	2008	Q3	-			-	3.35%	-	-
			Oct-08	2008	Q4	-			-	3.35%	-	-
			Nov-08	2008	Q4	-			-	3.35%	-	-
			Dec-08	2008	Q4	-			-	3.35%	-	-
			Jan-09	2009	Q1	-			-	2.45%	-	-
			Feb-09	2009	Q1	-			-	2.45%	-	-
			Mar-09	2009	Q1	-			-	2.45%	-	-
			Apr-09	2009	Q2	-			-	1.00%	-	-
			May-09	2009	Q2	-			-	1.00%	-	-
			Jun-09	2009	Q2	-			-	1.00%	-	-
			Jul-09	2009	Q3	-			-	0.55%	-	-
			Aug-09	2009	Q3	-			-	0.55%	-	-
			Sep-09	2009	Q3	-			-	0.55%	-	-
			Oct-09	2009	Q4	-			-	0.55%	-	-
			Nov-09	2009	Q4	-			-	0.55%	-	-
			Dec-09	2009	Q4	-			-	0.55%	-	-
			Jan-10	2010	Q1	-			-	0.55%	-	-
			Feb-10	2010	Q1	-			-	0.55%	-	-
			Mar-10	2010	Q1	-			-	0.55%	-	-
			Apr-10	2010	Q2	-			-	0.55%	-	-
			May-10	2010	Q2	-			-	0.55%	-	-
			Jun-10	2010	Q2	-			-	0.55%	-	-
			Jul-10	2010	Q3	-			-	0.89%	-	-
			Aug-10	2010	Q3	-			-	0.89%	-	-
			Sep-10	2010	Q3	-			-	0.89%	-	-
			Oct-10	2010	Q4	-			-	1.20%	-	-
			Nov-10	2010	Q4	-			-	1.20%	-	-
			Dec-10	2010	Q4	-			-	1.20%	-	-
			Jan-11	2011	Q1	-			-	1.47%	-	-
			Feb-11	2011	Q1	-			-	1.47%	-	-
			Mar-11	2011	Q1	-			-	1.47%	-	-
			Apr-11	2011	Q2	-			-	1.47%	-	-
			May-11	2011	Q2	-			-	1.47%	-	-
			Jun-11	2011	Q2	-			-	1.47%	-	-
			Jul-11	2011	Q3	-			-	1.47%	-	-
			Aug-11	2011	Q3	-			-	1.47%	-	-
			Sep-11	2011	Q3	-			-	1.47%	-	-
			Oct-11	2011	Q4	-			-	1.47%	-	-
			Nov-11	2011	Q4	-			-	1.47%	-	-
			Dec-11	2011	Q4	-			-	1.47%	-	-
			Jan-12	2012	Q1	-			-	1.47%	-	-
			Feb-12	2012	Q1	-			-	1.47%	-	-
			Mar-12	2012	Q1	-			-	1.47%	-	-
			Apr-12	2012	Q2	-			-	1.47%	-	-
			May-12	2012	Q2	-			-	1.47%	-	-
			Jun-12	2012	Q2	-			-	1.47%	-	-
			Jul-12	2012	Q3	-			-	1.47%	-	-
			Aug-12	2012	Q3	-			-	1.47%	-	-
			Sep-12	2012	Q3	-			-	1.47%	-	-
			Oct-12	2012	Q4	-			-	1.47%	-	-
			Nov-12	2012	Q4	-			-	1.47%	-	-
			Dec-12	2012	Q4	-			-	1.47%	-	-
						\$	-	\$	-	\$	-	-



Ontario Energy Board

Smart Meter Model

Middlesex 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	\$ -	\$ -	\$ -	\$ -	4.37%	\$ -
2007	\$ -	\$ -	\$ -	\$ -	4.73%	\$ -
2008	\$ 881.37	\$ -	\$ 881.37	\$ 440.68	3.98%	\$ 17.54
2009	\$ 190.39	\$ 947.53	\$ 2,019.29	\$ 1,450.33	1.14%	\$ 16.50
2010	\$ 143.62	\$ 3,790.11	\$ 5,953.02	\$ 3,986.16	0.80%	\$ 31.79
2011	\$ 180.37	\$ 6,497.33	\$ 12,630.72	\$ 9,291.87	1.47%	\$ 136.59
2012	-\$ 1,317.19	\$ 7,309.50	\$ 18,623.03	\$ 15,626.88	1.47%	\$ 229.72
Cumulative Interest to 2011						\$ 202.42
Cumulative Interest to 2012						\$ 432.13



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

Check if applicable

- ☐ Smart Meter Funding Adder (SMFA)
- ☒ Smart Meter Disposition Rider (SMDR)
- ☒ Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)

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

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

	2006	2007	2008	2009	2010	2011	2012 and later	Total
Deferred and forecasted Smart Meter Incremental Revenue Requirement (from Sheet 5)	\$ -	\$ -	\$ 894.83	\$ 1,612.36	\$ 6,092.16	\$ 11,284.93	\$ 11,712.68	\$ 31,596.96
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B) (Check one of the boxes below)	\$ -	\$ -	\$ 17.54	\$ 16.50	\$ 31.79	\$ 136.59		\$ 202.42
<input type="checkbox"/> Sheet 8A (Interest calculated on monthly balances)								\$ -
<input checked="" type="checkbox"/> Sheet 8B (Interest calculated on average annual balances)	\$ -	\$ -	\$ 17.54	\$ 16.50	\$ 31.79	\$ 136.59		\$ 202.42
SMFA Revenues (from Sheet 8)	\$ -	\$ -	\$ 231.58	\$ 1,515.30	\$ 1,488.58	\$ 1,404.31	\$ 479.86	\$ 5,119.63
SMFA Interest (from Sheet 8)	\$ -	\$ -	\$ 0.34	\$ 7.38	\$ 20.34	\$ 57.33	\$ 73.71	\$ 159.10
Net Deferred Revenue Requirement	\$ -	\$ -	\$ 680.45	\$ 106.18	\$ 4,615.03	\$ 9,959.88	\$ 11,159.11	\$ 26,520.64
Number of Metered Customers (average for 2012 test year)							89	

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, 2011 plus Interest on OM&A and Amortization	\$ 20,086.70
SMFA Revenues collected from 2006 to 2012 test year (inclusive) Plus Simple Interest on SMFA Revenues	\$ 5,278.73
Net Deferred Revenue Requirement	\$ 14,807.97
SMDR November 1, 2012 to October 31, 2013	\$ 13.87
Check: Forecasted SMDR Revenues	\$ 14,813.16

Match

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

Incremental Revenue Requirement for 2012	\$ 11,712.68
SMIRR	\$ 10.97
Check: Forecasted SMIRR Revenues	\$ 11,715.96

Match

**Entegrus Powerlines Inc.**

SM Final Disposition – Interrogatory Responses

Board File No.: EB-2012-0289

Date Filed: September 7, 2012

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**Attachment H**  
**Smart Meter Model**  
**Dutton Residential**





Ontario Energy Board

## Smart Meter Model

## Choose Your Utility:

Middlesex Power Distribution Corporation

Middlesex Power Distribution Corporation - Dutton

## Application Contact Information

Name: Andrya Eagen

Title: Senior Regulatory Specialist

Phone Number: 519-352-6300 Ext 243

Email Address: andryaeagen@ckenergy.com

We are applying for rates effective: November 1, 2012

Last COS Re-based Year 2006

## Legend

DROP-DOWN MENU

INPUT FIELD

CALCULATION FIELD

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



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

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

Smart Meter Capital Cost and Operational Expense Data	2006	2007	2008	2009	2010	2011	2012 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
<b>Smart Meter Installation Plan</b>								
<b>Actual/Planned number of Smart Meters installed during the Calendar Year</b>								
Residential				512	4			516
General Service < 50 kW								0
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	0	512	4	0	0	516
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	99.22%	100.00%	0.00%	100.00%	100.00%
Actual/Planned number of GS > 50 kW meters installed								0
Other (please identify)								0
Total Number of Smart Meters installed or planned to be installed	0	0	0	512	4	0	0	516
<b>1 Capital Costs</b>								
<b>1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.1.1 Smart Meters (may include new meters and modules, etc.)	Smart Meter			60,466	472	0		\$ 60,939
1.1.2 Installation Costs (may include socket kits, labour, vehicle, benefits, etc.)	Smart Meter			17,783	139	0		\$ 17,922
1.1.3a Workforce Automation Hardware (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
1.1.3b Workforce Automation Software (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
Total Advanced Metering Communications Devices (AMCD)	\$ -	\$ -	\$ -	\$ 78,249	\$ 611	\$ -	\$ -	\$ 78,860
<b>1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.2.1 Collectors								\$ -
1.2.2 Repeaters (may include radio licence, etc.)	Computer Hardware			8,571	67	0		\$ 8,638
1.2.3 Installation (may include meter seals and rings, collector computer hardware, etc.)								\$ -
Total Advanced Metering Regional Collector (AMRC) (includes LAN)	\$ -	\$ -	\$ -	\$ 8,571	\$ 67	\$ -	\$ -	\$ 8,638
<b>1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.3.1 Computer Hardware								\$ -
1.3.2 Computer Software				0	0	0		\$ -
1.3.3 Computer Software Licences & Installation (includes hardware and software) (may include AS/400 disk space, backup and recovery computer, UPS, etc.)								\$ -
Total Advanced Metering Control Computer (AMCC)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>1.4 WIDE AREA NETWORK (WAN)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.4.1 Activation Fees	Applications Software			916	7	0		\$ 923
Total Wide Area Network (WAN)	\$ -	\$ -	\$ -	\$ 916	\$ 7	\$ -	\$ -	\$ 923
<b>1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.5.1 Customer Equipment (including repair of damaged equipment)								\$ -
1.5.2 AMI Interface to CIS								\$ -
1.5.3 Professional Fees								\$ -
1.5.4 Integration								\$ -
1.5.5 Program Management								\$ -
1.5.6 Other AMI Capital								\$ -
Total Other AMI Capital Costs Related to Minimum Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Capital Costs Related to Minimum Functionality	\$ -	\$ -	\$ -	\$ 87,736	\$ 685	\$ -	\$ -	\$ 88,421
<b>1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY</b> (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	
1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06	Computer Software							\$ -
1.6.2 Costs for deployment of smart meters to customers other than residential and small general service	Applications Software							\$ -
1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDNR, etc.								\$ -
Total Capital Costs Beyond Minimum Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Smart Meter Capital Costs	\$ -	\$ -	\$ -	\$ 87,736	\$ 685	\$ -	\$ -	\$ 88,421
<b>2 OM&amp;A Expenses</b>								
<b>2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
2.1.1 Maintenance (may include meter re-verification costs, etc.)				701	563	866	0	\$ 2,130
2.1.2 Other (please specify)								\$ -
Total Incremental AMCD OM&A Costs	\$ -	\$ -	\$ -	\$ 701	\$ 563	\$ 866	\$ -	\$ 2,130



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

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

###### 2.2.1 Maintenance

###### 2.2.2 Other (please specify)

##### Total Incremental AMRC OM&A Costs

##### 2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)

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

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

###### 2.3.2 Other (please specify)

##### Total Incremental AMCC OM&A Costs

##### 2.4 WIDE AREA NETWORK (WAN)

###### 2.4.1 WAN Maintenance

###### 2.4.2 Other (please specify)

##### Total Incremental AMRC OM&A Costs

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

###### 2.5.1 Business Process Redesign

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

###### 2.5.3 Program Management

###### 2.5.4 Change Management (may include training, etc.)

###### 2.5.5 Administration Costs

###### 2.5.6 Other AM Expenses

###### (please specify)

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

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

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

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

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

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

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

##### Total OM&A Costs Beyond Minimum Functionality

##### Total Smart Meter OM&A Costs

	2006	2007	2008	2009	2010	2011	2012 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
								\$ -
								\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
				80	84	56	49	\$ 269
				311	233	151	1,115	\$ 1,811
								\$ -
	\$ -	\$ -	\$ -	\$ 391	\$ 317	\$ 208	\$ 1,165	\$ 2,080
								\$ -
								\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
								\$ -
								\$ -
								\$ -
				11	0	0	0	\$ 11
				110	-365	-325	-400	\$ -980
	\$ -	\$ -	\$ -	\$ 121	\$ -365	\$ -325	\$ -400	\$ -969
	\$ -	\$ -	\$ -	\$ 1,213	\$ 515	\$ 748	\$ 765	\$ 3,241
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual		
								\$ -
								\$ -
				104	4,308	3,368	0	\$ 7,780
	\$ -	\$ -	\$ -	\$ 104	\$ 4,308	\$ 3,368	\$ -	\$ 7,780
	\$ -	\$ -	\$ -	\$ 1,317	\$ 4,823	\$ 4,117	\$ 765	\$ 11,022

#### 3 Aggregate Smart Meter Costs by Category

##### 3.1

##### Capital

###### 3.1.1 Smart Meter

###### 3.1.2 Computer Hardware

###### 3.1.3 Computer Software

###### 3.1.4 Tools & Equipment

###### 3.1.5 Other Equipment

###### 3.1.6 Applications Software

###### 3.1.7 Total Capital Costs

##### 3.2 OM&A Costs

###### 3.2.1 Total OM&A Costs

\$ -	\$ -	\$ -	\$ 78,249	\$ 611	\$ -	\$ -	\$ -	\$ 78,860
\$ -	\$ -	\$ -	\$ 8,571	\$ 67	\$ -	\$ -	\$ -	\$ 8,638
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ 916	\$ 7	\$ -	\$ -	\$ -	\$ 923
\$ -	\$ -	\$ -	\$ 87,736	\$ 685	\$ -	\$ -	\$ -	\$ 88,421
\$ -	\$ -	\$ -	\$ 1,317	\$ 4,823	\$ 4,117	\$ 765	\$ -	\$ 11,022



Ontario Energy Board

## Smart Meter Model

### Middlesex Power Distribution Corporation - Dutton

	2006	2007	2008	2009	2010	2011	2012 and later
<b>Cost of Capital</b>							
<b>Capital Structure<sup>1</sup></b>							
Deemed Short-term Debt Capitalization							
Deemed Long-term Debt Capitalization	57.0%	57.0%	60.0%	60.0%	60.0%	60.0%	60.0%
Deemed Equity Capitalization	43.0%	43.0%	40.0%	40.0%	40.0%	40.0%	40.0%
Preferred Shares	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<b>Cost of Capital Parameters</b>							
Deemed Short-term Debt Rate							
Long-term Debt Rate (actual/embedded/deemed) <sup>2</sup>	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
Return on Preferred Shares							
<b>WACC</b>	7.43%	7.43%	7.35%	7.35%	7.35%	7.35%	7.35%
<b>Working Capital Allowance</b>							
Working Capital Allowance Rate (% of the sum of Cost of Power + controllable expenses)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
<b>Taxes/PILs</b>							
Aggregate Corporate Income Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%
<b>Depreciation Rates</b> (expressed as expected useful life in years)							
Smart Meters - years	15	15	15	15	15	15	15
- rate (%)	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%
Computer Hardware - years	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Computer Software - years	3	3	3	3	3	3	3
- rate (%)	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%
Tools & Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Other Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
<b>CCA Rates</b>							
Smart Meters - CCA Class	47	47	47	47	47	47	47
Smart Meters - CCA Rate	8%	8%	8%	8%	8%	8%	8%
Computer Equipment - CCA Class	45	50	50	50	50	50	50
Computer Equipment - CCA Rate	45%	55%	55%	55%	55%	55%	55%
General Equipment - CCA Class	8	8	8	8	8	8	8
General Equipment - CCA Rate	20%	20%	20%	20%	20%	20%	20%
Applications Software - CCA Class	12	12	12	12	12	12	12
Applications Software - CCA Rate	100%	100%	100%	100%	100%	100%	100%

#### Assumptions

<sup>1</sup> Planned smart meter installations occur evenly throughout the year.

<sup>2</sup> Fiscal calendar year (January 1 to December 31) used.

<sup>3</sup> Amortization is done on a straight line basis and has the "half-year" rule applied.



	2006	2007	2008	2009	2010	2011	2012 and later
<b>Net Fixed Assets - Smart Meters</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 78,249	\$ 78,860	\$ 78,860
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 78,249	\$ 611	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 78,249	\$ 78,860	\$ 78,860	\$ 78,860
<b>Accumulated Depreciation</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 2,608	\$ 7,845	\$ 13,103
Amortization expense during year	\$ -	\$ -	\$ -	\$ 2,608	\$ 5,237	\$ 5,257	\$ 5,257
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 2,608	\$ 7,845	\$ 13,103	\$ 18,360
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 75,641	\$ 71,015	\$ 65,758
Closing Balance	\$ -	\$ -	\$ -	\$ 75,641	\$ 71,015	\$ 65,758	\$ 60,500
Average Net Book Value	\$ -	\$ -	\$ -	\$ 37,820	\$ 73,328	\$ 68,387	\$ 63,129
<b>Net Fixed Assets - Computer Hardware</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 8,571	\$ 8,638	\$ 8,638
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 8,571	\$ 67	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 8,571	\$ 8,638	\$ 8,638	\$ 8,638
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 857	\$ 2,578	\$ 4,305
Amortization expense during year	\$ -	\$ -	\$ -	\$ 857	\$ 1,721	\$ 1,728	\$ 1,728
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 857	\$ 2,578	\$ 4,305	\$ 6,033
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 7,714	\$ 6,060	\$ 4,332
Closing Balance	\$ -	\$ -	\$ -	\$ 7,714	\$ 6,060	\$ 4,332	\$ 2,605
Average Net Book Value	\$ -	\$ -	\$ -	\$ 3,857	\$ 6,867	\$ 5,196	\$ 3,468
<b>Net Fixed Assets - Computer Software (Including Applications Software)</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 916	\$ 923	\$ 923
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 916	\$ 7	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 916	\$ 923	\$ 923	\$ 923
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 153	\$ 459	\$ 767
Amortization expense during year	\$ -	\$ -	\$ -	\$ 153	\$ 306	\$ 308	\$ 156
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 153	\$ 459	\$ 767	\$ 923
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 763	\$ 464	\$ 156
Closing Balance	\$ -	\$ -	\$ -	\$ 763	\$ 464	\$ 156	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ 382	\$ 614	\$ 310	\$ 78
<b>Net Fixed Assets - Tools and Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Fixed Assets - Other Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



Ontario Energy Board  
Smart Meter Model

Middlesex Power Distribution Corporation - Dutton

Average Net Fixed Asset Values (from Sheet 4)

	2006	2007	2008	2009	2010	2011	2012 and Later
Smart Meters	\$ -	\$ -	\$ -	\$ 37,820	\$ 73,328	\$ 68,387	\$ 63,129
Computer Hardware	\$ -	\$ -	\$ -	\$ 3,857	\$ 6,887	\$ 5,196	\$ 3,468
Computer Software	\$ -	\$ -	\$ -	\$ 382	\$ 614	\$ 310	\$ 78
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Net Fixed Assets</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 42,059</b>	<b>\$ 80,828</b>	<b>\$ 73,893</b>	<b>\$ 66,676</b>

Working Capital

Operating Expenses (from Sheet 2)	\$ -	\$ -	\$ -	\$ 1,317	\$ 4,823	\$ 4,117	\$ 765
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	\$ -	\$ -	\$ -	\$ 198	\$ 723	\$ 618	\$ 115

Incremental Smart Meter Rate Base

	\$ -	\$ -	\$ -	\$ 42,256	\$ 81,552	\$ 74,510	\$ 66,790
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Return on Rate Base

Capital Structure

Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Long Term Debt	\$ -	\$ -	\$ -	\$ 25,354	\$ 48,931	\$ 44,706	\$ 40,074
Equity	\$ -	\$ -	\$ -	\$ 16,903	\$ 32,621	\$ 29,804	\$ 26,716
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Capitalization</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 42,256</b>	<b>\$ 81,552</b>	<b>\$ 74,510</b>	<b>\$ 66,790</b>

Return on

Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Long Term Debt	\$ -	\$ -	\$ -	\$ 1,585	\$ 3,058	\$ 2,794	\$ 2,505
Equity	\$ -	\$ -	\$ -	\$ 1,521	\$ 2,936	\$ 2,682	\$ 2,404
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Return on Capital</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,106</b>	<b>\$ 5,994</b>	<b>\$ 5,476</b>	<b>\$ 4,909</b>

Operating Expenses

	\$ -	\$ -	\$ -	\$ 1,317	\$ 4,823	\$ 4,117	\$ 765
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Amortization Expenses (from Sheet 4)

Smart Meters	\$ -	\$ -	\$ -	\$ 2,608	\$ 5,237	\$ 5,257	\$ 5,257
Computer Hardware	\$ -	\$ -	\$ -	\$ 857	\$ 1,721	\$ 1,728	\$ 1,728
Computer Software	\$ -	\$ -	\$ -	\$ 153	\$ 306	\$ 308	\$ 156
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Amortization Expense in Year</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,618</b>	<b>\$ 7,264</b>	<b>\$ 7,293</b>	<b>\$ 7,141</b>

Incremental Revenue Requirement before Taxes/PILs

	\$ -	\$ -	\$ -	\$ 8,041	\$ 18,082	\$ 16,886	\$ 12,815
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Calculation of Taxable Income

Incremental Operating Expenses	\$ -	\$ -	\$ -	\$ 1,317	\$ 4,823	\$ 4,117	\$ 765
Amortization Expense	\$ -	\$ -	\$ -	\$ 3,618	\$ 7,264	\$ 7,293	\$ 7,141
Interest Expense	\$ -	\$ -	\$ -	\$ 1,585	\$ 3,058	\$ 2,794	\$ 2,505
<b>Net Income for Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,521</b>	<b>\$ 2,936</b>	<b>\$ 2,682</b>	<b>\$ 2,404</b>

Grossed-up Taxes/PILs (from Sheet 7)

	\$ -	\$ -	\$ -	\$ 207.53	\$ 178.86	\$ 1,114.66	\$ 1,321.17
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Revenue Requirement, including Grossed-up Taxes/PILs

	\$ -	\$ -	\$ -	\$ 7,833	\$ 18,260	\$ 18,001	\$ 14,136
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Ontario Energy Board

Smart Meter Model

Middlesex Power Distribution Corporation - Dutton

## 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 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 75,119.20	\$ 69,696.53	\$ 64,120.81
Capital Additions	\$ -	\$ -	\$ -	\$ 78,249.17	\$ 611.32	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 78,249.17	\$ 75,730.52	\$ 69,696.53	\$ 64,120.81
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ 39,124.58	\$ 305.66	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ 39,124.58	\$ 75,424.86	\$ 69,696.53	\$ 64,120.81
CCA Rate Class	47	47	47	47	47	47	47
CCA Rate	8%	8%	8%	8%	8%	8%	8%
CCA	\$ -	\$ -	\$ -	\$ 3,129.97	\$ 6,033.99	\$ 5,575.72	\$ 5,129.66
Closing UCC	\$ -	\$ -	\$ -	\$ 75,119.20	\$ 69,696.53	\$ 64,120.81	\$ 58,991.15

### UCC - Computer Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 6,213.78	\$ 2,844.75	\$ 1,280.14
Capital Additions Computer Hardware	\$ -	\$ -	\$ -	\$ 8,570.74	\$ 66.96	\$ -	\$ -
Capital Additions Computer Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 8,570.74	\$ 6,280.74	\$ 2,844.75	\$ 1,280.14
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ 4,285.37	\$ 33.48	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ 4,285.37	\$ 6,247.26	\$ 2,844.75	\$ 1,280.14
CCA Rate Class	45	50	50	50	50	50	50
CCA Rate	45%	55%	55%	55%	55%	55%	55%
CCA	\$ -	\$ -	\$ -	\$ 2,356.95	\$ 3,435.99	\$ 1,564.61	\$ 704.08
Closing UCC	\$ -	\$ -	\$ -	\$ 6,213.78	\$ 2,844.75	\$ 1,280.14	\$ 576.06

### UCC - General Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA Rate Class	8	8	8	8	8	8	8
CCA Rate	20%	20%	20%	20%	20%	20%	20%
CCA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



## PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
<b>INCOME TAX</b>							
Net Income	\$ -	\$ -	\$ -	\$ 1,521.23	\$ 2,935.86	\$ 2,682.37	\$ 2,404.46
Amortization	\$ -	\$ -	\$ -	\$ 3,618.03	\$ 7,264.32	\$ 7,292.59	\$ 7,141.13
CCA - Smart Meters	\$ -	\$ -	\$ -	\$ 3,129.97	\$ 6,033.99	\$ 5,575.72	\$ 5,129.66
CCA - Computers	\$ -	\$ -	\$ -	\$ 2,356.95	\$ 3,435.99	\$ 1,564.61	\$ 704.08
CCA - Applications Software	\$ -	\$ -	\$ -	\$ 457.95	\$ 461.52	\$ 3.58	\$ -
CCA - Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Change in taxable income	\$ -	\$ -	\$ -	\$ 805.61	\$ 268.68	\$ 2,831.04	\$ 3,711.85
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Income Taxes Payable	\$ -	\$ -	\$ -	\$ 265.85	\$ 83.29	\$ 799.77	\$ 974.36
<b>ONTARIO CAPITAL TAX</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 75,640.86	\$ 71,015.20	\$ 65,757.83	\$ 60,500.46
Computer Hardware	\$ -	\$ -	\$ -	\$ 7,713.66	\$ 6,059.78	\$ 4,332.24	\$ 2,604.70
Computer Software (Including Application Software)	\$ -	\$ -	\$ -	\$ 763.24	\$ 463.91	\$ 156.23	\$ -
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Base	\$ -	\$ -	\$ -	\$ 84,117.77	\$ 77,538.88	\$ 70,246.30	\$ 63,105.16
Less: Exemption	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Taxable Capital	\$ -	\$ -	\$ -	\$ 84,117.77	\$ 77,538.88	\$ 70,246.30	\$ 63,105.16
Ontario Capital Tax Rate (from Sheet 3)	0.300%	0.225%	0.225%	0.225%	0.075%	0.000%	0.000%
Net Amount (Taxable Capital x Rate)	\$ -	\$ -	\$ -	\$ 189.26	\$ 58.15	\$ -	\$ -
Change in Income Taxes Payable	\$ -	\$ -	\$ -	\$ 265.85	\$ 83.29	\$ 799.77	\$ 974.36
Change in OCT	\$ -	\$ -	\$ -	\$ 189.26	\$ 58.15	\$ -	\$ -
PILs	\$ -	\$ -	\$ -	\$ 76.59	\$ 141.44	\$ 799.77	\$ 974.36
<b>Gross Up PILs</b>							
Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Change in Income Taxes Payable	\$ -	\$ -	\$ -	\$ 396.79	\$ 120.71	\$ 1,114.66	\$ 1,321.17
Change in OCT	\$ -	\$ -	\$ -	\$ 189.26	\$ 58.15	\$ -	\$ -
PILs	\$ -	\$ -	\$ -	\$ 207.53	\$ 178.86	\$ 1,114.66	\$ 1,321.17





Ontario Energy Board

Smart Meter Model

Middlesex Power Distribution Corporation - Dutton

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	\$ -		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%	4.29%	Dec-07	2007	Q4	\$ -		5.14%	\$ -	\$ -	\$ -	
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	\$ -		5.14%	\$ -	\$ -		
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	\$ -		5.14%	\$ -	\$ -		
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	\$ -		5.14%	\$ -	\$ -		
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	\$ -		4.08%	\$ -	\$ -		
			May-08	2008	Q2	\$ -		4.08%	\$ -	\$ -		
			Jun-08	2008	Q2	\$ -		4.08%	\$ -	\$ -		
			Jul-08	2008	Q3	\$ -		3.35%	\$ -	\$ -		
			Aug-08	2008	Q3	\$ -		3.35%	\$ -	\$ -		
			Sep-08	2008	Q3	\$ -		3.35%	\$ -	\$ -		
			Oct-08	2008	Q4	\$ -		3.35%	\$ -	\$ -		
			Nov-08	2008	Q4	\$ -		3.35%	\$ -	\$ -		
			Dec-08	2008	Q4	\$ -		3.35%	\$ -	\$ -	\$ -	
			Jan-09	2009	Q1	\$ -		2.45%	\$ -	\$ -		
			Feb-09	2009	Q1	\$ -		2.45%	\$ -	\$ -		
			Mar-09	2009	Q1	\$ -		2.45%	\$ -	\$ -		
			Apr-09	2009	Q2	\$ -		1.00%	\$ -	\$ -		
			May-09	2009	Q2	\$ -		1.00%	\$ -	\$ -		
			Jun-09	2009	Q2	\$ -		1.00%	\$ -	\$ -		
			Jul-09	2009	Q3	\$ -		0.55%	\$ -	\$ -		
			Aug-09	2009	Q3	\$ -		0.55%	\$ -	\$ -		
			Sep-09	2009	Q3	\$ -		0.55%	\$ -	\$ -		
			Oct-09	2009	Q4	\$ -		0.55%	\$ -	\$ -		
			Nov-09	2009	Q4	\$ -		0.55%	\$ -	\$ -		
			Dec-09	2009	Q4	\$ -		0.55%	\$ -	\$ -	\$ -	
			Jan-10	2010	Q1	\$ -		0.55%	\$ -	\$ -		
			Feb-10	2010	Q1	\$ -		0.55%	\$ -	\$ -		
			Mar-10	2010	Q1	\$ -		0.55%	\$ -	\$ -		
			Apr-10	2010	Q2	\$ -		0.55%	\$ -	\$ -		
			May-10	2010	Q2	\$ -		0.55%	\$ -	\$ -		
			Jun-10	2010	Q2	\$ -		0.55%	\$ -	\$ -		
			Jul-10	2010	Q3	\$ -		0.89%	\$ -	\$ -		
			Aug-10	2010	Q3	\$ -		0.89%	\$ -	\$ -		
			Sep-10	2010	Q3	\$ -		0.89%	\$ -	\$ -		
			Oct-10	2010	Q4	\$ -		1.20%	\$ -	\$ -		
			Nov-10	2010	Q4	\$ -	\$ 0.23	1.20%	\$ -	\$ 0.23		\$ 1.00
			Dec-10	2010	Q4	\$ 0.23	\$ 1,294.05	1.20%	\$ -	\$ 1,294.28	\$ 1,294.28	\$ 1.00
			Jan-11	2011	Q1	\$ 1,294.28	\$ 516.20	1.47%	\$ 1.59	\$ 1,812.07		\$ 1.00
			Feb-11	2011	Q1	\$ 1,810.48	\$ 515.59	1.47%	\$ 2.22	\$ 2,328.29		\$ 1.00
			Mar-11	2011	Q1	\$ 2,326.07	\$ 519.12	1.47%	\$ 2.85	\$ 2,848.04		\$ 1.00
			Apr-11	2011	Q2	\$ 2,845.19	\$ 516.88	1.47%	\$ 3.49	\$ 3,365.56		\$ 1.00
			May-11	2011	Q2	\$ 3,362.07	\$ 517.90	1.47%	\$ 4.12	\$ 3,884.09		\$ 2.50
			Jun-11	2011	Q2	\$ 3,879.97	\$ 965.30	1.47%	\$ 4.75	\$ 4,850.02		\$ 2.50
			Jul-11	2011	Q3	\$ 4,845.27	\$ 1,293.49	1.47%	\$ 5.94	\$ 6,144.70		\$ 2.50
			Aug-11	2011	Q3	\$ 6,138.76	\$ 1,293.51	1.47%	\$ 7.52	\$ 7,439.79		\$ 2.50
			Sep-11	2011	Q3	\$ 7,432.27	\$ 1,297.16	1.47%	\$ 9.10	\$ 8,738.53		\$ 2.50
			Oct-11	2011	Q4	\$ 8,729.43	\$ 1,305.51	1.47%	\$ 10.69	\$ 10,045.63		\$ 2.50
			Nov-11	2011	Q4	\$ 10,034.94	\$ 1,301.81	1.47%	\$ 12.29	\$ 11,349.04		\$ 2.50
			Dec-11	2011	Q4	\$ 11,336.75	\$ 2,269.55	1.47%	\$ 13.89	\$ 13,620.19	\$ 12,390.47	\$ 2.50



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)
			Jan-12	2012	Q1	\$ 13,606.30	\$ 1,309.02	1.47%	\$ 16.67	\$ 14,931.99		\$ 2.50
			Feb-12	2012	Q1	\$ 14,915.32	\$ 1,310.08	1.47%	\$ 18.27	\$ 16,243.67		\$ 2.50
			Mar-12	2012	Q1	\$ 16,225.40	\$ 1,308.26	1.47%	\$ 19.88	\$ 17,553.54		\$ 2.50
			Apr-12	2012	Q2	\$ 17,533.66	\$ 1,313.00	1.47%	\$ 21.48	\$ 18,868.14		
			May-12	2012	Q2	\$ 18,846.66	-\$ 108.01	1.47%	\$ 23.09	\$ 18,761.74		
			Jun-12	2012	Q2	\$ 18,738.65		1.47%	\$ 22.95	\$ 18,761.60		
			Jul-12	2012	Q3	\$ 18,738.65		1.47%	\$ 22.95	\$ 18,761.60		
			Aug-12	2012	Q3	\$ 18,738.65		1.47%	\$ 22.95	\$ 18,761.60		
			Sep-12	2012	Q3	\$ 18,738.65		1.47%	\$ 22.95	\$ 18,761.60		
			Oct-12	2012	Q4	\$ 18,738.65		1.47%	\$ 22.95	\$ 18,761.60		
			Nov-12	2012	Q4	\$ 18,738.65		1.47%	\$ 22.95	\$ 18,761.60		
			Dec-12	2012	Q4	\$ 18,738.65		1.47%	\$ 22.95	\$ 18,761.60	\$ 5,392.39	
Total Funding Adder Revenues Collected						\$ 18,738.65			\$ 338.49	\$ 19,077.14	\$ 19,077.14	



Middlesex Power Distribution Corporation - Dutton

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%	4.29%	Dec-07	2007	Q4	-			-	5.14%	-	-
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	-			-	5.14%	-	-
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	-			-	5.14%	-	-
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	-			-	5.14%	-	-
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	-			-	4.08%	-	-
			May-08	2008	Q2	-			-	4.08%	-	-
			Jun-08	2008	Q2	-			-	4.08%	-	-
			Jul-08	2008	Q3	-			-	3.35%	-	-
			Aug-08	2008	Q3	-			-	3.35%	-	-
			Sep-08	2008	Q3	-			-	3.35%	-	-
			Oct-08	2008	Q4	-			-	3.35%	-	-
			Nov-08	2008	Q4	-			-	3.35%	-	-
			Dec-08	2008	Q4	-			-	3.35%	-	-
			Jan-09	2009	Q1	-			-	2.45%	-	-
			Feb-09	2009	Q1	-			-	2.45%	-	-
			Mar-09	2009	Q1	-			-	2.45%	-	-
			Apr-09	2009	Q2	-			-	1.00%	-	-
			May-09	2009	Q2	-			-	1.00%	-	-
			Jun-09	2009	Q2	-			-	1.00%	-	-
			Jul-09	2009	Q3	-			-	0.55%	-	-
			Aug-09	2009	Q3	-			-	0.55%	-	-
			Sep-09	2009	Q3	-			-	0.55%	-	-
			Oct-09	2009	Q4	-			-	0.55%	-	-
			Nov-09	2009	Q4	-			-	0.55%	-	-
			Dec-09	2009	Q4	-			-	0.55%	-	-
			Jan-10	2010	Q1	-			-	0.55%	-	-
			Feb-10	2010	Q1	-			-	0.55%	-	-
			Mar-10	2010	Q1	-			-	0.55%	-	-
			Apr-10	2010	Q2	-			-	0.55%	-	-
			May-10	2010	Q2	-			-	0.55%	-	-
			Jun-10	2010	Q2	-			-	0.55%	-	-
			Jul-10	2010	Q3	-			-	0.89%	-	-
			Aug-10	2010	Q3	-			-	0.89%	-	-
			Sep-10	2010	Q3	-			-	0.89%	-	-
			Oct-10	2010	Q4	-			-	1.20%	-	-
			Nov-10	2010	Q4	-			-	1.20%	-	-
			Dec-10	2010	Q4	-			-	1.20%	-	-
			Jan-11	2011	Q1	-			-	1.47%	-	-
			Feb-11	2011	Q1	-			-	1.47%	-	-
			Mar-11	2011	Q1	-			-	1.47%	-	-
			Apr-11	2011	Q2	-			-	1.47%	-	-
			May-11	2011	Q2	-			-	1.47%	-	-
			Jun-11	2011	Q2	-			-	1.47%	-	-
			Jul-11	2011	Q3	-			-	1.47%	-	-
			Aug-11	2011	Q3	-			-	1.47%	-	-
			Sep-11	2011	Q3	-			-	1.47%	-	-
			Oct-11	2011	Q4	-			-	1.47%	-	-
			Nov-11	2011	Q4	-			-	1.47%	-	-
			Dec-11	2011	Q4	-			-	1.47%	-	-
			Jan-12	2012	Q1	-			-	1.47%	-	-
			Feb-12	2012	Q1	-			-	1.47%	-	-
			Mar-12	2012	Q1	-			-	1.47%	-	-
			Apr-12	2012	Q2	-			-	1.47%	-	-
			May-12	2012	Q2	-			-	1.47%	-	-
			Jun-12	2012	Q2	-			-	1.47%	-	-
			Jul-12	2012	Q3	-			-	1.47%	-	-
			Aug-12	2012	Q3	-			-	1.47%	-	-
			Sep-12	2012	Q3	-			-	1.47%	-	-
			Oct-12	2012	Q4	-			-	1.47%	-	-
			Nov-12	2012	Q4	-			-	1.47%	-	-
			Dec-12	2012	Q4	-			-	1.47%	-	-
						\$	-	\$	-	\$	-	-



Ontario Energy Board

Smart Meter Model

Middlesex Power Distribution Corporation - Dutton

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

Year	OM&A (from Sheet 5)	Amortization Expense (from Sheet 5)	Cumulative OM&A and Amortization Expense	Average Cumulative OM&A and Amortization Expense	Average Annual Prescribed Interest Rate for Deferral and Variance Accounts (from Sheets 8A and 8B)	Simple Interest on OM&A and Amortization Expenses
2006	\$ -	\$ -	\$ -	\$ -	4.37%	\$ -
2007	\$ -	\$ -	\$ -	\$ -	4.73%	\$ -
2008	\$ -	\$ -	\$ -	\$ -	3.98%	\$ -
2009	\$ 1,316.96	\$ 3,618.03	\$ 4,934.99	\$ 2,467.49	1.14%	\$ 28.07
2010	\$ 4,823.17	\$ 7,264.32	\$ 17,022.48	\$ 10,978.73	0.80%	\$ 87.56
2011	\$ 4,117.15	\$ 7,292.59	\$ 28,432.22	\$ 22,727.35	1.47%	\$ 334.09
2012	\$ 764.59	\$ 7,141.13	\$ 36,337.94	\$ 32,385.08	1.47%	\$ 476.06
Cumulative Interest to 2011						\$ 449.72
Cumulative Interest to 2012						\$ 925.78



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

Check if applicable

- ☐ Smart Meter Funding Adder (SMFA)
- ☒ Smart Meter Disposition Rider (SMDR)
- ☒ Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)

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

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

	2006	2007	2008	2009	2010	2011	2012 and later	Total
Deferred and forecasted Smart Meter Incremental Revenue Requirement (from Sheet 5)	\$ -	\$ -	\$ -	\$ 7,833.31	\$ 18,260.41	\$ 18,000.90	\$ 14,135.98	\$ 58,230.61
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B) (Check one of the boxes below)	\$ -	\$ -	\$ -	\$ 28.07	\$ 87.56	\$ 334.09		\$ 449.72
<input type="checkbox"/> Sheet 8A (Interest calculated on monthly balances)								\$ -
<input checked="" type="checkbox"/> Sheet 8B (Interest calculated on average annual balances)	\$ -	\$ -	\$ -	\$ 28.07	\$ 87.56	\$ 334.09		\$ 449.72
SMFA Revenues (from Sheet 8)	\$ -	\$ -	\$ -	\$ -	\$ 1,294.28	\$ 12,312.02	\$ 5,132.35	\$ 18,738.65
SMFA Interest (from Sheet 8)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 78.45	\$ 260.04	\$ 338.49
Net Deferred Revenue Requirement	\$ -	\$ -	\$ -	\$ 7,861.38	\$ 17,053.69	\$ 5,944.52	\$ 8,743.59	\$ 39,603.18
Number of Metered Customers (average for 2012 test year)							521	

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

Years for collection or refunding	3.5	
Deferred Incremental Revenue Requirement from 2006 to December 31, 2011 plus Interest on OM&A and Amortization	\$ 44,544.34	
SMFA Revenues collected from 2006 to 2012 test year (inclusive) Plus Simple Interest on SMFA Revenues	\$ 19,077.14	
Net Deferred Revenue Requirement	\$ 25,467.20	
SMDR November 1, 2012 to April 30, 2013	\$ 1.16	Match
Check: Forecasted SMDR Revenues	\$ 25,383.12	

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

Incremental Revenue Requirement for 2012	\$ 14,135.98	
SMIRR	\$ 2.26	Match
Check: Forecasted SMIRR Revenues	\$ 14,129.52	

**Entegrus Powerlines Inc.**

SM Final Disposition – Interrogatory Responses

Board File No.: EB-2012-0289

Date Filed: September 7, 2012

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**Attachment I**  
**Smart Meter Model**  
**Dutton GS<50kW**



Ontario Energy Board

## Smart Meter Model

## Choose Your Utility:

Middlesex Power Distribution Corporation

Middlesex Power Distribution Corporation - Dutton

## Application Contact Information

Name: Andrya Eagen

Title: Senior Regulatory Specialist

Phone Number: 519-352-6300 Ext 243

Email Address: andryaeagen@ckenergy.com

We are applying for rates effective: November 1, 2012

Last COS Re-based Year 2006

## Legend

DROP-DOWN MENU

INPUT FIELD

CALCULATION FIELD

## Copyright

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

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



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

For 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.

	2006	2007	2008	2009	2010	2011	2012 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
<b>Smart Meter Capital Cost and Operational Expense Data</b>								
<b>Smart Meter Installation Plan</b>								
<b>Actual/Planned number of Smart Meters installed during the Calendar Year</b>								
Residential								0
General Service < 50 kW				77	12			89
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	0	77	12	0	0	89
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	86.52%	100.00%	0.00%	100.00%	100.00%
Actual/Planned number of GS > 50 kW meters installed								0
Other (please identify)								0
Total Number of Smart Meters installed or planned to be installed	0	0	0	77	12	0	0	89
<b>1 Capital Costs</b>								
<b>1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
1.1.1 Smart Meters (may include new meters and modules, etc.)	Smart Meter			16,103	2,510	0		\$ 18,613
1.1.2 Installation Costs (may include socket kits, labour, vehicle, benefits, etc.)	Smart Meter			5,736	894	0		\$ 6,630
1.1.3a Workforce Automation Hardware (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
1.1.3b Workforce Automation Software (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
<b>Total Advanced Metering Communications Devices (AMCD)</b>				\$ 21,839	\$ 3,404	\$ -	\$ -	\$ 25,243
<b>1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)</b>								
1.2.1 Collectors								\$ -
1.2.2 Repeaters (may include radio licence, etc.)	Computer Hardware			1,261	197	0		\$ 1,458
1.2.3 Installation (may include meter seals and rings, collector computer hardware, etc.)								\$ -
<b>Total Advanced Metering Regional Collector (AMRC) (includes LAN)</b>				\$ 1,261	\$ 197	\$ -	\$ -	\$ 1,458
<b>1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)</b>								
1.3.1 Computer Hardware								\$ -
1.3.2 Computer Software								\$ -
1.3.3 Computer Software Licences & Installation (includes hardware and software) (may include AS400 disk space, backup and recovery computer, UPS, etc.)								\$ -
<b>Total Advanced Metering Control Computer (AMCC)</b>				\$ -	\$ -	\$ -	\$ -	\$ -
<b>1.4 WIDE AREA NETWORK (WAN)</b>								
1.4.1 Activation Fees	Applications Software			130	20	0		\$ 151
<b>Total Wide Area Network (WAN)</b>				\$ 130	\$ 20	\$ -	\$ -	\$ 151
<b>1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY</b>								
1.5.1 Customer Equipment (including repair of damaged equipment)								\$ -
1.5.2 AMI Interface to CIS								\$ -
1.5.3 Professional Fees								\$ -
1.5.4 Integration								\$ -
1.5.5 Program Management								\$ -
1.5.6 Other AMI Capital								\$ -
<b>Total Other AMI Capital Costs Related to Minimum Functionality</b>				\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Capital Costs Related to Minimum Functionality</b>				\$ 23,231	\$ 3,620	\$ -	\$ -	\$ 26,851
<b>1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY</b> (Please provide a descriptive title and identify nature of beyond minimum functionality costs)								
1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06	Computer Software							\$ -
1.6.2 Costs for deployment of smart meters to customers other than residential and small general service	Applications Software							\$ -
1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDNR, etc.								\$ -
<b>Total Capital Costs Beyond Minimum Functionality</b>				\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Smart Meter Capital Costs</b>				\$ 23,231	\$ 3,620	\$ -	\$ -	\$ 26,851
<b>2 OM&amp;A Expenses</b>								
<b>2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
2.1.1 Maintenance (may include meter reverification costs, etc.)				120	96	148	0	\$ 363
2.1.2 Other (please specify)								\$ -
<b>Total Incremental AMCD OM&amp;A Costs</b>				\$ 120	\$ 96	\$ 148	\$ -	\$ 363





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

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

###### 2.2.1 Maintenance

###### 2.2.2 Other (please specify)

##### Total Incremental AMRC OM&A Costs

##### 2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)

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

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

###### 2.3.2 Other (please specify)

##### Total Incremental AMCC OM&A Costs

##### 2.4 WIDE AREA NETWORK (WAN)

###### 2.4.1 WAN Maintenance

###### 2.4.2 Other (please specify)

##### Total Incremental AMRC OM&A Costs

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

###### 2.5.1 Business Process Redesign

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

###### 2.5.3 Program Management

###### 2.5.4 Change Management (may include training, etc.)

###### 2.5.5 Administration Costs

###### 2.5.6 Other AM Expenses

###### (please specify)

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

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

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

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

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

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

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

##### Total OM&A Costs Beyond Minimum Functionality

##### Total Smart Meter OM&A Costs

	2006	2007	2008	2009	2010	2011	2012 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
2.2.1 Maintenance								\$ -
2.2.2 Other (please specify)								\$ -
<b>Total Incremental AMRC OM&amp;A Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
2.3.1 Hardware Maintenance (may include server support, etc.)				14	14	10	8	\$ 46
2.3.2 Software Maintenance (may include maintenance support, etc.)				53	40	26	190	\$ 309
2.3.2 Other (please specify)								\$ -
<b>Total Incremental AMCC OM&amp;A Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 67</b>	<b>\$ 54</b>	<b>\$ 36</b>	<b>\$ 199</b>	<b>\$ 365</b>
2.4.1 WAN Maintenance								\$ -
2.4.2 Other (please specify)								\$ -
<b>Total Incremental AMRC OM&amp;A Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
2.5.1 Business Process Redesign								\$ -
2.5.2 Customer Communication (may include project communication, etc.)								\$ -
2.5.3 Program Management								\$ -
2.5.4 Change Management (may include training, etc.)								\$ -
2.5.5 Administration Costs				2	0	0	0	\$ 2
2.5.6 Other AM Expenses				19	6	-87	-100	\$ -162
(please specify)								
<b>Total Other AMI OM&amp;A Costs Related to Minimum Functionality</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 21</b>	<b>\$ 6</b>	<b>\$ -87</b>	<b>\$ -100</b>	<b>\$ -161</b>
<b>TOTAL OM&amp;A COSTS RELATED TO MINIMUM FUNCTIONALITY</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 207</b>	<b>\$ 156</b>	<b>\$ 96</b>	<b>\$ 99</b>	<b>\$ 557</b>
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 MDMR, etc.				18	735	574	0	\$ 1,327
<b>Total OM&amp;A Costs Beyond Minimum Functionality</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 18</b>	<b>\$ 735</b>	<b>\$ 574</b>	<b>\$ -</b>	<b>\$ 1,327</b>
<b>Total Smart Meter OM&amp;A Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 225</b>	<b>\$ 891</b>	<b>\$ 670</b>	<b>\$ 99</b>	<b>\$ 1,884</b>

#### 3 Aggregate Smart Meter Costs by Category

##### 3.1

##### Capital

###### 3.1.1 Smart Meter

###### 3.1.2 Computer Hardware

###### 3.1.3 Computer Software

###### 3.1.4 Tools & Equipment

###### 3.1.5 Other Equipment

###### 3.1.6 Applications Software

###### 3.1.7 Total Capital Costs

##### 3.2 OM&A Costs

###### 3.2.1 Total OM&A Costs

\$ -	\$ -	\$ -	\$ 21,839	\$ 3,404	\$ -	\$ -	\$ 25,243
\$ -	\$ -	\$ -	\$ 1,261	\$ 197	\$ -	\$ -	\$ 1,458
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ 130	\$ 20	\$ -	\$ -	\$ 151
<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 23,231</b>	<b>\$ 3,620</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 26,851</b>
<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 225</b>	<b>\$ 891</b>	<b>\$ 670</b>	<b>\$ 99</b>	<b>\$ 1,884</b>



Ontario Energy Board

## Smart Meter Model

### Middlesex Power Distribution Corporation - Dutton

	2006	2007	2008	2009	2010	2011	2012 and later
<b>Cost of Capital</b>							
<b>Capital Structure<sup>1</sup></b>							
Deemed Short-term Debt Capitalization							
Deemed Long-term Debt Capitalization	57.0%	57.0%	60.0%	60.0%	60.0%	60.0%	60.0%
Deemed Equity Capitalization	43.0%	43.0%	40.0%	40.0%	40.0%	40.0%	40.0%
Preferred Shares	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<b>Cost of Capital Parameters</b>							
Deemed Short-term Debt Rate							
Long-term Debt Rate (actual/embedded/deemed) <sup>2</sup>	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
Return on Preferred Shares							
<b>WACC</b>	7.43%	7.43%	7.35%	7.35%	7.35%	7.35%	7.35%
<b>Working Capital Allowance</b>							
Working Capital Allowance Rate (% of the sum of Cost of Power + controllable expenses)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
<b>Taxes/PILs</b>							
Aggregate Corporate Income Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%
<b>Depreciation Rates</b> (expressed as expected useful life in years)							
Smart Meters - years	15	15	15	15	15	15	15
- rate (%)	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%
Computer Hardware - years	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Computer Software - years	3	3	3	3	3	3	3
- rate (%)	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%
Tools & Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Other Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
<b>CCA Rates</b>							
Smart Meters - CCA Class	47	47	47	47	47	47	47
Smart Meters - CCA Rate	8%	8%	8%	8%	8%	8%	8%
Computer Equipment - CCA Class	45	50	50	50	50	50	50
Computer Equipment - CCA Rate	45%	55%	55%	55%	55%	55%	55%
General Equipment - CCA Class	8	8	8	8	8	8	8
General Equipment - CCA Rate	20%	20%	20%	20%	20%	20%	20%
Applications Software - CCA Class	12	12	12	12	12	12	12
Applications Software - CCA Rate	100%	100%	100%	100%	100%	100%	100%

#### Assumptions

<sup>1</sup> Planned smart meter installations occur evenly throughout the year.

<sup>2</sup> Fiscal calendar year (January 1 to December 31) used.

<sup>3</sup> Amortization is done on a straight line basis and has the "half-year" rule applied.



	2006	2007	2008	2009	2010	2011	2012 and later
<b>Net Fixed Assets - Smart Meters</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 21,839	\$ 25,243	\$ 25,243
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 21,839	\$ 3,404	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 21,839	\$ 25,243	\$ 25,243	\$ 25,243
<b>Accumulated Depreciation</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 728	\$ 2,297	\$ 3,980
Amortization expense during year	\$ -	\$ -	\$ -	\$ 728	\$ 1,569	\$ 1,683	\$ 1,683
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 728	\$ 2,297	\$ 3,980	\$ 5,663
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 21,111	\$ 22,945	\$ 21,262
Closing Balance	\$ -	\$ -	\$ -	\$ 21,111	\$ 22,945	\$ 21,262	\$ 19,580
Average Net Book Value	\$ -	\$ -	\$ -	\$ 10,556	\$ 22,028	\$ 22,104	\$ 20,421
<b>Net Fixed Assets - Computer Hardware</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 1,261	\$ 1,458	\$ 1,458
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 1,261	\$ 197	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 1,261	\$ 1,458	\$ 1,458	\$ 1,458
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 126	\$ 398	\$ 690
Amortization expense during year	\$ -	\$ -	\$ -	\$ 126	\$ 272	\$ 292	\$ 292
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 126	\$ 398	\$ 690	\$ 981
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 1,135	\$ 1,060	\$ 768
Closing Balance	\$ -	\$ -	\$ -	\$ 1,135	\$ 1,060	\$ 768	\$ 477
Average Net Book Value	\$ -	\$ -	\$ -	\$ 568	\$ 1,097	\$ 914	\$ 622
<b>Net Fixed Assets - Computer Software (Including Applications Software)</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 130	\$ 151	\$ 151
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 130	\$ 20	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 130	\$ 151	\$ 151	\$ 151
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 22	\$ 69	\$ 119
Amortization expense during year	\$ -	\$ -	\$ -	\$ 22	\$ 47	\$ 50	\$ 32
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 22	\$ 69	\$ 119	\$ 151
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 109	\$ 82	\$ 32
Closing Balance	\$ -	\$ -	\$ -	\$ 109	\$ 82	\$ 32	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ 54	\$ 95	\$ 57	\$ 16
<b>Net Fixed Assets - Tools and Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Fixed Assets - Other Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



Ontario Energy Board  
Smart Meter Model

Middlesex Power Distribution Corporation - Dutton

	2006	2007	2008	2009	2010	2011	2012 and Later
<b>Average Net Fixed Asset Values (from Sheet 4)</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 10,556	\$ 22,028	\$ 22,104	\$ 20,421
Computer Hardware	\$ -	\$ -	\$ -	\$ 568	\$ 1,097	\$ 914	\$ 622
Computer Software	\$ -	\$ -	\$ -	\$ 54	\$ 95	\$ 57	\$ 16
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Net Fixed Assets</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 11,177</b>	<b>\$ 23,221</b>	<b>\$ 23,075</b>	<b>\$ 21,059</b>
<b>Working Capital</b>							
Operating Expenses (from Sheet 2)	\$ -	\$ -	\$ -	\$ 225	\$ 891	\$ 670	\$ 99
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	\$ -	\$ -	\$ -	\$ 34	\$ 134	\$ 101	\$ 15
<b>Incremental Smart Meter Rate Base</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 11,211</b>	<b>\$ 23,355</b>	<b>\$ 23,175</b>	<b>\$ 21,074</b>
<b>Return on Rate Base</b>							
<b>Capital Structure</b>							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Long Term Debt	\$ -	\$ -	\$ -	\$ 6,727	\$ 14,013	\$ 13,905	\$ 12,645
Equity	\$ -	\$ -	\$ -	\$ 4,484	\$ 9,342	\$ 9,270	\$ 8,430
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Capitalization</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 11,211</b>	<b>\$ 23,355</b>	<b>\$ 23,175</b>	<b>\$ 21,074</b>
<b>Return on</b>							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Long Term Debt	\$ -	\$ -	\$ -	\$ 420	\$ 876	\$ 869	\$ 790
Equity	\$ -	\$ -	\$ -	\$ 404	\$ 841	\$ 834	\$ 759
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Return on Capital</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 824</b>	<b>\$ 1,717</b>	<b>\$ 1,703</b>	<b>\$ 1,549</b>
<b>Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 225</b>	<b>\$ 891</b>	<b>\$ 670</b>	<b>\$ 99</b>
<b>Amortization Expenses (from Sheet 4)</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 728	\$ 1,569	\$ 1,683	\$ 1,683
Computer Hardware	\$ -	\$ -	\$ -	\$ 126	\$ 272	\$ 292	\$ 292
Computer Software	\$ -	\$ -	\$ -	\$ 22	\$ 47	\$ 50	\$ 32
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Amortization Expense in Year</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 876</b>	<b>\$ 1,888</b>	<b>\$ 2,025</b>	<b>\$ 2,006</b>
<b>Incremental Revenue Requirement before Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,924</b>	<b>\$ 4,495</b>	<b>\$ 4,398</b>	<b>\$ 3,654</b>
<b>Calculation of Taxable Income</b>							
Incremental Operating Expenses	\$ -	\$ -	\$ -	\$ 225	\$ 891	\$ 670	\$ 99
Amortization Expense	\$ -	\$ -	\$ -	\$ 876	\$ 1,888	\$ 2,025	\$ 2,006
Interest Expense	\$ -	\$ -	\$ -	\$ 420	\$ 876	\$ 869	\$ 790
<b>Net Income for Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 404</b>	<b>\$ 841</b>	<b>\$ 834</b>	<b>\$ 759</b>
<b>Grossed-up Taxes/PILs (from Sheet 7)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 47.28</b>	<b>\$ 145.31</b>	<b>\$ 291.21</b>	<b>\$ 344.44</b>
<b>Revenue Requirement, including Grossed-up Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,972</b>	<b>\$ 4,641</b>	<b>\$ 4,690</b>	<b>\$ 3,998</b>



Ontario Energy Board

Smart Meter Model

Middlesex Power Distribution Corporation - Dutton

## For PILs Calculation

### UCC - Smart Meters

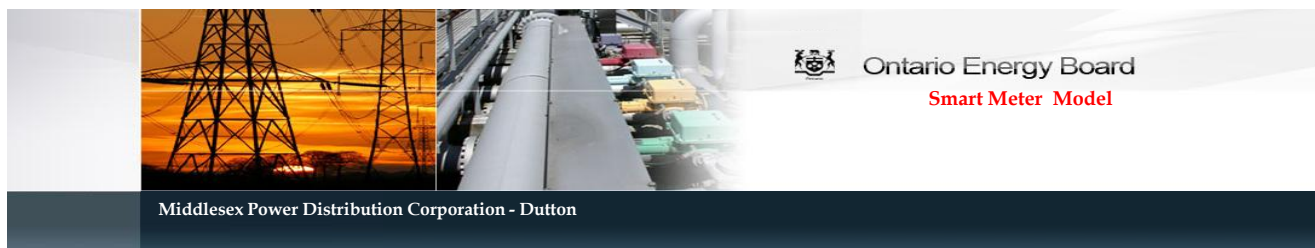
	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 20,965.60	\$ 22,555.72	\$ 20,751.26
Capital Additions	\$ -	\$ -	\$ -	\$ 21,839.17	\$ 3,403.51	\$ -	\$ -
Retirements/Removals (if applicable)							
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 21,839.17	\$ 24,369.11	\$ 22,555.72	\$ 20,751.26
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ 10,919.58	\$ 1,701.75	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ 10,919.58	\$ 22,667.36	\$ 22,555.72	\$ 20,751.26
CCA Rate Class	47	47	47	47	47	47	47
CCA Rate	8%	8%	8%	8%	8%	8%	8%
CCA	\$ -	\$ -	\$ -	\$ 873.57	\$ 1,813.39	\$ 1,804.46	\$ 1,660.10
Closing UCC	\$ -	\$ -	\$ -	\$ 20,965.60	\$ 22,555.72	\$ 20,751.26	\$ 19,091.16

### UCC - Computer Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 914.39	\$ 553.98	\$ 249.29
Capital Additions Computer Hardware	\$ -	\$ -	\$ -	\$ 1,261.22	\$ 196.55	\$ -	\$ -
Capital Additions Computer Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 1,261.22	\$ 1,110.94	\$ 553.98	\$ 249.29
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ 630.61	\$ 98.28	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ 630.61	\$ 1,012.66	\$ 553.98	\$ 249.29
CCA Rate Class	45	50	50	50	50	50	50
CCA Rate	45%	55%	55%	55%	55%	55%	55%
CCA	\$ -	\$ -	\$ -	\$ 346.84	\$ 556.96	\$ 304.69	\$ 137.11
Closing UCC	\$ -	\$ -	\$ -	\$ 914.39	\$ 553.98	\$ 249.29	\$ 112.18

### UCC - General Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA Rate Class	8	8	8	8	8	8	8
CCA Rate	20%	20%	20%	20%	20%	20%	20%
CCA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



## PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
<b>INCOME TAX</b>							
Net Income	\$ -	\$ -	\$ -	\$ 403.60	\$ 840.77	\$ 834.31	\$ 758.67
Amortization	\$ -	\$ -	\$ -	\$ 875.81	\$ 1,888.11	\$ 2,024.59	\$ 2,006.27
CCA - Smart Meters	\$ -	\$ -	\$ -	\$ 873.57	\$ 1,813.39	\$ 1,804.46	\$ 1,660.10
CCA - Computers	\$ -	\$ -	\$ -	\$ 346.84	\$ 556.96	\$ 304.69	\$ 137.11
CCA - Applications Software	\$ -	\$ -	\$ -	\$ 65.14	\$ 75.29	\$ 10.15	\$ -
CCA - Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Change in taxable income	\$ -	\$ -	\$ -	\$ 6.13	\$ 283.23	\$ 739.61	\$ 967.73
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Income Taxes Payable	\$ -	\$ -	\$ -	\$ 2.02	\$ 87.80	\$ 208.94	\$ 254.03
<b>ONTARIO CAPITAL TAX</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 21,111.20	\$ 22,945.31	\$ 21,262.46	\$ 19,579.62
Computer Hardware	\$ -	\$ -	\$ -	\$ 1,135.10	\$ 1,059.75	\$ 768.20	\$ 476.64
Computer Software (Including Application Software)	\$ -	\$ -	\$ -	\$ 108.57	\$ 82.06	\$ 31.86	\$ -
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Base	\$ -	\$ -	\$ -	\$ 22,354.86	\$ 24,087.12	\$ 22,062.53	\$ 20,056.26
Less: Exemption	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Taxable Capital	\$ -	\$ -	\$ -	\$ 22,354.86	\$ 24,087.12	\$ 22,062.53	\$ 20,056.26
Ontario Capital Tax Rate (from Sheet 3)	0.300%	0.225%	0.225%	0.225%	0.075%	0.000%	0.000%
Net Amount (Taxable Capital x Rate)	\$ -	\$ -	\$ -	\$ 50.30	\$ 18.07	\$ -	\$ -
Change in Income Taxes Payable	\$ -	\$ -	\$ -	\$ 2.02	\$ 87.80	\$ 208.94	\$ 254.03
Change in OCT	\$ -	\$ -	\$ -	\$ 50.30	\$ 18.07	\$ -	\$ -
PILs	\$ -	\$ -	\$ -	\$ 48.27	\$ 105.87	\$ 208.94	\$ 254.03
<b>Gross Up PILs</b>							
Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Change in Income Taxes Payable	\$ -	\$ -	\$ -	\$ 3.02	\$ 127.25	\$ 291.21	\$ 344.44
Change in OCT	\$ -	\$ -	\$ -	\$ 50.30	\$ 18.07	\$ -	\$ -
PILs	\$ -	\$ -	\$ -	\$ 47.28	\$ 145.31	\$ 291.21	\$ 344.44



Ontario Energy Board

Smart Meter Model

Middlesex Power Distribution Corporation - Dutton

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	\$ -		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%	4.29%	Dec-07	2007	Q4	\$ -		5.14%	\$ -	\$ -	\$ -	
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	\$ -		5.14%	\$ -	\$ -		
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	\$ -		5.14%	\$ -	\$ -		
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	\$ -		5.14%	\$ -	\$ -		
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	\$ -		4.08%	\$ -	\$ -		
			May-08	2008	Q2	\$ -		4.08%	\$ -	\$ -		
			Jun-08	2008	Q2	\$ -		4.08%	\$ -	\$ -		
			Jul-08	2008	Q3	\$ -		3.35%	\$ -	\$ -		
			Aug-08	2008	Q3	\$ -		3.35%	\$ -	\$ -		
			Sep-08	2008	Q3	\$ -		3.35%	\$ -	\$ -		
			Oct-08	2008	Q4	\$ -		3.35%	\$ -	\$ -		
			Nov-08	2008	Q4	\$ -		3.35%	\$ -	\$ -		
			Dec-08	2008	Q4	\$ -		3.35%	\$ -	\$ -	\$ -	
			Jan-09	2009	Q1	\$ -		2.45%	\$ -	\$ -		
			Feb-09	2009	Q1	\$ -		2.45%	\$ -	\$ -		
			Mar-09	2009	Q1	\$ -		2.45%	\$ -	\$ -		
			Apr-09	2009	Q2	\$ -		1.00%	\$ -	\$ -		
			May-09	2009	Q2	\$ -		1.00%	\$ -	\$ -		
			Jun-09	2009	Q2	\$ -		1.00%	\$ -	\$ -		
			Jul-09	2009	Q3	\$ -		0.55%	\$ -	\$ -		
			Aug-09	2009	Q3	\$ -		0.55%	\$ -	\$ -		
			Sep-09	2009	Q3	\$ -		0.55%	\$ -	\$ -		
			Oct-09	2009	Q4	\$ -		0.55%	\$ -	\$ -		
			Nov-09	2009	Q4	\$ -		0.55%	\$ -	\$ -		
			Dec-09	2009	Q4	\$ -		0.55%	\$ -	\$ -	\$ -	
			Jan-10	2010	Q1	\$ -		0.55%	\$ -	\$ -		
			Feb-10	2010	Q1	\$ -		0.55%	\$ -	\$ -		
			Mar-10	2010	Q1	\$ -		0.55%	\$ -	\$ -		
			Apr-10	2010	Q2	\$ -		0.55%	\$ -	\$ -		
			May-10	2010	Q2	\$ -		0.55%	\$ -	\$ -		
			Jun-10	2010	Q2	\$ -		0.55%	\$ -	\$ -		
			Jul-10	2010	Q3	\$ -		0.89%	\$ -	\$ -		
			Aug-10	2010	Q3	\$ -		0.89%	\$ -	\$ -		
			Sep-10	2010	Q3	\$ -		0.89%	\$ -	\$ -		
			Oct-10	2010	Q4	\$ -		1.20%	\$ -	\$ -		
			Nov-10	2010	Q4	\$ -		1.20%	\$ -	\$ -		
			Dec-10	2010	Q4	\$ -	\$ 225.17	1.20%	\$ -	\$ 225.17	\$ 225.17	\$ 1.00
			Jan-11	2011	Q1	\$ 225.17	\$ 89.00	1.47%	\$ 0.28	\$ 314.45	\$ -	\$ 1.00
			Feb-11	2011	Q1	\$ 314.17	\$ 89.00	1.47%	\$ 0.38	\$ 403.55	\$ -	\$ 1.00
			Mar-11	2011	Q1	\$ 403.17	\$ 89.40	1.47%	\$ 0.49	\$ 493.06	\$ -	\$ 1.00
			Apr-11	2011	Q2	\$ 492.57	\$ 88.60	1.47%	\$ 0.60	\$ 581.77	\$ -	\$ 1.00
			May-11	2011	Q2	\$ 581.17	\$ 89.00	1.47%	\$ 0.71	\$ 670.88	\$ -	\$ 2.50
			Jun-11	2011	Q2	\$ 670.17	\$ 165.31	1.47%	\$ 0.82	\$ 836.30	\$ -	\$ 2.50
			Jul-11	2011	Q3	\$ 835.48	\$ 222.50	1.47%	\$ 1.02	\$ 1,059.00	\$ -	\$ 2.50
			Aug-11	2011	Q3	\$ 1,057.98	\$ 222.42	1.47%	\$ 1.30	\$ 1,281.70	\$ -	\$ 2.50
			Sep-11	2011	Q3	\$ 1,280.40	\$ 222.83	1.47%	\$ 1.57	\$ 1,504.80	\$ -	\$ 2.50
			Oct-11	2011	Q4	\$ 1,503.23	\$ 222.75	1.47%	\$ 1.84	\$ 1,727.82	\$ -	\$ 2.50
			Nov-11	2011	Q4	\$ 1,725.98	\$ 223.58	1.47%	\$ 2.11	\$ 1,951.67	\$ -	\$ 2.50
			Dec-11	2011	Q4	\$ 1,949.56	\$ 384.12	1.47%	\$ 2.39	\$ 2,336.07	\$ 2,122.02	\$ 2.50



This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP				Opening Balance (Principal)	Funding Adder Revenues	Interest		Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder (from Tariff)
			Date	Year	Quarter			Rate	Interest			
			Jan-12	2012	Q1	\$ 2,333.68	\$ 222.50	1.47%	\$ 2.86	\$ 2,559.04		\$ 2.50
			Feb-12	2012	Q1	\$ 2,556.18	\$ 222.50	1.47%	\$ 3.13	\$ 2,781.81		\$ 2.50
			Mar-12	2012	Q1	\$ 2,778.68	\$ 222.50	1.47%	\$ 3.40	\$ 3,004.58		\$ 2.50
			Apr-12	2012	Q2	\$ 3,001.18	\$ 222.50	1.47%	\$ 3.68	\$ 3,227.36		
			May-12	2012	Q2	\$ 3,223.68	-\$ 22.73	1.47%	\$ 3.95	\$ 3,204.90		
			Jun-12	2012	Q2	\$ 3,200.95		1.47%	\$ 3.92	\$ 3,204.87		
			Jul-12	2012	Q3	\$ 3,200.95		1.47%	\$ 3.92	\$ 3,204.87		
			Aug-12	2012	Q3	\$ 3,200.95		1.47%	\$ 3.92	\$ 3,204.87		
			Sep-12	2012	Q3	\$ 3,200.95		1.47%	\$ 3.92	\$ 3,204.87		
			Oct-12	2012	Q4	\$ 3,200.95		1.47%	\$ 3.92	\$ 3,204.87		
			Nov-12	2012	Q4	\$ 3,200.95		1.47%	\$ 3.92	\$ 3,204.87		
			Dec-12	2012	Q4	\$ 3,200.95		1.47%	\$ 3.92	\$ 3,204.87	\$ 911.73	
Total Funding Adder Revenues Collected						\$ 3,200.95		\$ 57.97	\$ 3,258.92	\$ 3,258.92		





Middlesex Power Distribution Corporation - Dutton

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%	4.29%	Dec-07	2007	Q4	-			-	5.14%	-	-
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	-			-	5.14%	-	-
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	-			-	5.14%	-	-
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	-			-	5.14%	-	-
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	-			-	4.08%	-	-
			May-08	2008	Q2	-			-	4.08%	-	-
			Jun-08	2008	Q2	-			-	4.08%	-	-
			Jul-08	2008	Q3	-			-	3.35%	-	-
			Aug-08	2008	Q3	-			-	3.35%	-	-
			Sep-08	2008	Q3	-			-	3.35%	-	-
			Oct-08	2008	Q4	-			-	3.35%	-	-
			Nov-08	2008	Q4	-			-	3.35%	-	-
			Dec-08	2008	Q4	-			-	3.35%	-	-
			Jan-09	2009	Q1	-			-	2.45%	-	-
			Feb-09	2009	Q1	-			-	2.45%	-	-
			Mar-09	2009	Q1	-			-	2.45%	-	-
			Apr-09	2009	Q2	-			-	1.00%	-	-
			May-09	2009	Q2	-			-	1.00%	-	-
			Jun-09	2009	Q2	-			-	1.00%	-	-
			Jul-09	2009	Q3	-			-	0.55%	-	-
			Aug-09	2009	Q3	-			-	0.55%	-	-
			Sep-09	2009	Q3	-			-	0.55%	-	-
			Oct-09	2009	Q4	-			-	0.55%	-	-
			Nov-09	2009	Q4	-			-	0.55%	-	-
			Dec-09	2009	Q4	-			-	0.55%	-	-
			Jan-10	2010	Q1	-			-	0.55%	-	-
			Feb-10	2010	Q1	-			-	0.55%	-	-
			Mar-10	2010	Q1	-			-	0.55%	-	-
			Apr-10	2010	Q2	-			-	0.55%	-	-
			May-10	2010	Q2	-			-	0.55%	-	-
			Jun-10	2010	Q2	-			-	0.55%	-	-
			Jul-10	2010	Q3	-			-	0.89%	-	-
			Aug-10	2010	Q3	-			-	0.89%	-	-
			Sep-10	2010	Q3	-			-	0.89%	-	-
			Oct-10	2010	Q4	-			-	1.20%	-	-
			Nov-10	2010	Q4	-			-	1.20%	-	-
			Dec-10	2010	Q4	-			-	1.20%	-	-
			Jan-11	2011	Q1	-			-	1.47%	-	-
			Feb-11	2011	Q1	-			-	1.47%	-	-
			Mar-11	2011	Q1	-			-	1.47%	-	-
			Apr-11	2011	Q2	-			-	1.47%	-	-
			May-11	2011	Q2	-			-	1.47%	-	-
			Jun-11	2011	Q2	-			-	1.47%	-	-
			Jul-11	2011	Q3	-			-	1.47%	-	-
			Aug-11	2011	Q3	-			-	1.47%	-	-
			Sep-11	2011	Q3	-			-	1.47%	-	-
			Oct-11	2011	Q4	-			-	1.47%	-	-
			Nov-11	2011	Q4	-			-	1.47%	-	-
			Dec-11	2011	Q4	-			-	1.47%	-	-
			Jan-12	2012	Q1	-			-	1.47%	-	-
			Feb-12	2012	Q1	-			-	1.47%	-	-
			Mar-12	2012	Q1	-			-	1.47%	-	-
			Apr-12	2012	Q2	-			-	1.47%	-	-
			May-12	2012	Q2	-			-	1.47%	-	-
			Jun-12	2012	Q2	-			-	1.47%	-	-
			Jul-12	2012	Q3	-			-	1.47%	-	-
			Aug-12	2012	Q3	-			-	1.47%	-	-
			Sep-12	2012	Q3	-			-	1.47%	-	-
			Oct-12	2012	Q4	-			-	1.47%	-	-
			Nov-12	2012	Q4	-			-	1.47%	-	-
			Dec-12	2012	Q4	-			-	1.47%	-	-
						\$	-	\$	-	\$	-	-



Ontario Energy Board

Smart Meter Model

# Middlesex Power Distribution Corporation - Dutton

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

Year	OM&A (from Sheet 5)	Amortization Expense (from Sheet 5)	Cumulative OM&A and Amortization Expense	Average Cumulative OM&A and Amortization Expense	Average Annual Prescribed Interest Rate for Deferral and Variance Accounts (from Sheets 8A and 8B)	Simple Interest on OM&A and Amortization Expenses
2006	\$ -	\$ -	\$ -	\$ -	4.37%	\$ -
2007	\$ -	\$ -	\$ -	\$ -	4.73%	\$ -
2008	\$ -	\$ -	\$ -	\$ -	3.98%	\$ -
2009	\$ 224.60	\$ 875.81	\$ 1,100.41	\$ 550.20	1.14%	\$ 6.26
2010	\$ 890.77	\$ 1,888.11	\$ 3,879.28	\$ 2,489.84	0.80%	\$ 19.86
2011	\$ 670.37	\$ 2,024.59	\$ 6,574.25	\$ 5,226.76	1.47%	\$ 76.83
2012	\$ 98.61	\$ 2,006.27	\$ 8,679.12	\$ 7,626.68	1.47%	\$ 112.11
Cumulative Interest to 2011						\$ 102.95
Cumulative Interest to 2012						\$ 215.06



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

Check if applicable

- ☐ Smart Meter Funding Adder (SMFA)
- ☒ Smart Meter Disposition Rider (SMDR)
- ☒ Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)

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

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

	2006	2007	2008	2009	2010	2011	2012 and later	Total
Deferred and forecasted Smart Meter Incremental Revenue Requirement (from Sheet 5)	\$ -	\$ -	\$ -	\$ 1,971.70	\$ 4,640.75	\$ 4,689.56	\$ 3,998.28	\$ 15,300.29
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B) (Check one of the boxes below)	\$ -	\$ -	\$ -	\$ 6.26	\$ 19.86	\$ 76.83		\$ 102.95
<input type="checkbox"/> Sheet 8A (Interest calculated on monthly balances)								\$ -
<input checked="" type="checkbox"/> Sheet 8B (Interest calculated on average annual balances)	\$ -	\$ -	\$ -	\$ 6.26	\$ 19.86	\$ 76.83		\$ 102.95
SMFA Revenues (from Sheet 8)	\$ -	\$ -	\$ -	\$ -	\$ 225.17	\$ 2,108.51	\$ 867.27	\$ 3,200.95
SMFA Interest (from Sheet 8)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13.51	\$ 44.46	\$ 57.97
Net Deferred Revenue Requirement	\$ -	\$ -	\$ -	\$ 1,977.96	\$ 4,435.44	\$ 2,644.37	\$ 3,086.55	\$ 12,144.32
Number of Metered Customers (average for 2012 test year)							89	

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

Years for collection or refunding	3.5	
Deferred Incremental Revenue Requirement from 2006 to December 31, 2011 plus Interest on OM&A and Amortization	\$ 11,404.96	
SMFA Revenues collected from 2006 to 2012 test year (inclusive) Plus Simple Interest on SMFA Revenues	\$ 3,258.92	
Net Deferred Revenue Requirement	\$ 8,146.04	
SMDR November 1, 2012 to April 30, 2013	\$ 2.18	Match
Check: Forecasted SMDR Revenues	\$ 8,148.84	

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

Incremental Revenue Requirement for 2012	\$ 3,998.28	
SMIRR	\$ 3.74	Match
Check: Forecasted SMIRR Revenues	\$ 3,994.32	

**Entegrus Powerlines Inc.**

SM Final Disposition – Interrogatory Responses

Board File No.: EB-2012-0289

Date Filed: September 7, 2012

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**Attachment J**  
**Smart Meter Model**  
**Newbury Residential**



Ontario Energy Board

## Smart Meter Model

## Choose Your Utility:

Middlesex Power Distribution Corporation - Newbury

Midland Power Utility Corporation

## Application Contact Information

Name: Andrya Eagen

Title: Senior Regulatory Specialist

Phone Number: 519-352-6300 Ext 243

Email Address: andryaeagen@ckenergy.com

We are applying for rates effective: November 1, 2012

Last COS Re-based Year 2006

## Legend

DROP-DOWN MENU

INPUT FIELD

CALCULATION FIELD

## Copyright

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

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



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

For 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 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
<b>Smart Meter Installation Plan</b>								
<b>Actual/Planned number of Smart Meters installed during the Calendar Year</b>								
Residential				170				170
General Service < 50 kW								0
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	0	170	0	0	0	170
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%
Actual/Planned number of GS > 50 kW meters installed								0
Other (please identify)								0
Total Number of Smart Meters installed or planned to be installed	0	0	0	170	0	0	0	170
<b>1 Capital Costs</b>								
<b>1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
1.1.1 Smart Meters (may include new meters and modules, etc.)	Smart Meter			18,467	0	0		\$ 18,467
1.1.2 Installation Costs (may include socket kits, labour, vehicle, benefits, etc.)	Smart Meter			6,693	0	0		\$ 6,693
1.1.3a Workforce Automation Hardware (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
1.1.3b Workforce Automation Software (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
Total Advanced Metering Communications Devices (AMCD)				\$ 25,161				\$ 25,161
<b>1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)</b>								
1.2.1 Collectors								\$ -
1.2.2 Repeaters (may include radio licence, etc.)	Computer Hardware			2,974	0	0		\$ 2,974
1.2.3 Installation (may include meter seals and rings, collector computer hardware, etc.)								\$ -
Total Advanced Metering Regional Collector (AMRC) (includes LAN)				\$ 2,974				\$ 2,974
<b>1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)</b>								
1.3.1 Computer Hardware								\$ -
1.3.2 Computer Software								\$ -
1.3.3 Computer Software Licences & Installation (includes hardware and software) (may include AS400 disk space, backup and recovery computer, UPS, etc.)								\$ -
Total Advanced Metering Control Computer (AMCC)								
<b>1.4 WIDE AREA NETWORK (WAN)</b>								
1.4.1 Activation Fees	Applications Software			321	0	0		\$ 321
Total Wide Area Network (WAN)				\$ 321				\$ 321
<b>1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY</b>								
1.5.1 Customer Equipment (including repair of damaged equipment)								\$ -
1.5.2 AMI Interface to CIS								\$ -
1.5.3 Professional Fees								\$ -
1.5.4 Integration								\$ -
1.5.5 Program Management								\$ -
1.5.6 Other AMI Capital								\$ -
Total Other AMI Capital Costs Related to Minimum Functionality								\$ -
Total Capital Costs Related to Minimum Functionality				\$ 28,455				\$ 28,455
<b>1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY</b>								
1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06	Computer Software							\$ -
1.6.2 Costs for deployment of smart meters to customers other than residential and small general service	Applications Software							\$ -
1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDMR, etc.								\$ -
Total Capital Costs Beyond Minimum Functionality								\$ -
Total Smart Meter Capital Costs				\$ 28,455				\$ 28,455
<b>2 OM&amp;A Expenses</b>								
<b>2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
2.1.1 Maintenance (may include meter reverification costs, etc.)				231	186	285	0	\$ 702
2.1.2 Other (please specify)								\$ -
Total Incremental AMCD OM&A Costs				\$ 231	\$ 186	\$ 285	\$ -	\$ 702


**Ontario Energy Board**  
**Smart Meter Model**

**Middlesex Power Distribution Corporation - Newbury**

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

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

	2006	2007	2008	2009	2010	2011	2012 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
2.2.1 Maintenance								\$ -
2.2.2 Other (please specify)								\$ -
<b>Total Incremental AMRC OM&amp;A Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)

2.3.1 Hardware Maintenance (may include server support, etc.)				26	28	19	16	\$ 89
2.3.2 Software Maintenance (may include maintenance support, etc.)				102	77	50	367	\$ 597
2.3.2 Other (please specify)								\$ -
<b>Total Incremental AMCC OM&amp;A Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 128</b>	<b>\$ 104</b>	<b>\$ 68</b>	<b>\$ 384</b>	<b>\$ 685</b>

2.4 WIDE AREA NETWORK (WAN)

2.4.1 WAN Maintenance								\$ -
2.4.2 Other (please specify)								\$ -
<b>Total Incremental AMRC OM&amp;A Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

2.5 OTHER AMI OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY

2.5.1 Business Process Redesign								\$ -
2.5.2 Customer Communication (may include project communication, etc.)								\$ -
2.5.3 Program Management								\$ -
2.5.4 Change Management (may include training, etc.)								\$ -
2.5.5 Administration Costs				3	0	0	0	\$ 3
2.5.6 Other AMI Expenses (please specify)				36	-139	-125	-150	-\$ 377
<b>Total Other AMI OM&amp;A Costs Related to Minimum Functionality</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 40</b>	<b>-\$ 139</b>	<b>-\$ 125</b>	<b>-\$ 150</b>	<b>-\$ 374</b>
<b>TOTAL OM&amp;A COSTS RELATED TO MINIMUM FUNCTIONALITY</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 400</b>	<b>\$ 151</b>	<b>\$ 229</b>	<b>\$ 234</b>	<b>\$ 1,013</b>

2.6 OM&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALITY

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

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

2.6.2 Costs for deployment of smart meters to customers other than residential and small general service								\$ -
2.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDMR, etc.				34	1,419	1,110	0	\$ 2,563
<b>Total OM&amp;A Costs Beyond Minimum Functionality</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 34</b>	<b>\$ 1,419</b>	<b>\$ 1,110</b>	<b>\$ -</b>	<b>\$ 2,563</b>

Total Smart Meter OM&A Costs

3 Aggregate Smart Meter Costs by Category

<b>3.1 Capital</b>								
3.1.1 Smart Meter	\$ -	\$ -	\$ -	\$ 25,161	\$ -	\$ -	\$ -	\$ 25,161
3.1.2 Computer Hardware	\$ -	\$ -	\$ -	\$ 2,974	\$ -	\$ -	\$ -	\$ 2,974
3.1.3 Computer Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3.1.4 Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3.1.5 Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3.1.6 Applications Software	\$ -	\$ -	\$ -	\$ 321	\$ -	\$ -	\$ -	\$ 321
<b>3.1.7 Total Capital Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 28,455</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 28,455</b>
<b>3.2 OM&amp;A Costs</b>								
<b>3.2.1 Total OM&amp;A Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 434</b>	<b>\$ 1,571</b>	<b>\$ 1,338</b>	<b>\$ 234</b>	<b>\$ 3,577</b>



Ontario Energy Board

## Smart Meter Model

### Middlesex Power Distribution Corporation - Newbury

	2006	2007	2008	2009	2010	2011	2012 and later
<b>Cost of Capital</b>							
<b>Capital Structure<sup>1</sup></b>							
Deemed Short-term Debt Capitalization							
Deemed Long-term Debt Capitalization	50.0%	50.0%	53.3%	56.7%	60.0%	60.0%	60.0%
Deemed Equity Capitalization	50.0%	50.0%	46.7%	43.3%	40.0%	40.0%	40.0%
Preferred Shares	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<b>Cost of Capital Parameters</b>							
Deemed Short-term Debt Rate							
Long-term Debt Rate (actual/embedded/deemed) <sup>2</sup>	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
Return on Preferred Shares							
<b>WACC</b>	8.13%	8.13%	8.07%	8.01%	7.95%	7.95%	7.95%
<b>Working Capital Allowance</b>							
Working Capital Allowance Rate (% of the sum of Cost of Power + controllable expenses)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
<b>Taxes/PILs</b>							
Aggregate Corporate Income Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%
<b>Depreciation Rates</b> (expressed as expected useful life in years)							
Smart Meters - years	15	15	15	15	15	15	15
- rate (%)	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%
Computer Hardware - years	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Computer Software - years	3	3	3	3	3	3	3
- rate (%)	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%
Tools & Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Other Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
<b>CCA Rates</b>							
Smart Meters - CCA Class	47	47	47	47	47	47	47
Smart Meters - CCA Rate	8%	8%	8%	8%	8%	8%	8%
Computer Equipment - CCA Class	45	50	50	50	50	50	50
Computer Equipment - CCA Rate	45%	55%	55%	55%	55%	55%	55%
General Equipment - CCA Class	8	8	8	8	8	8	8
General Equipment - CCA Rate	20%	20%	20%	20%	20%	20%	20%
Applications Software - CCA Class	12	12	12	12	12	12	12
Applications Software - CCA Rate	100%	100%	100%	100%	100%	100%	100%

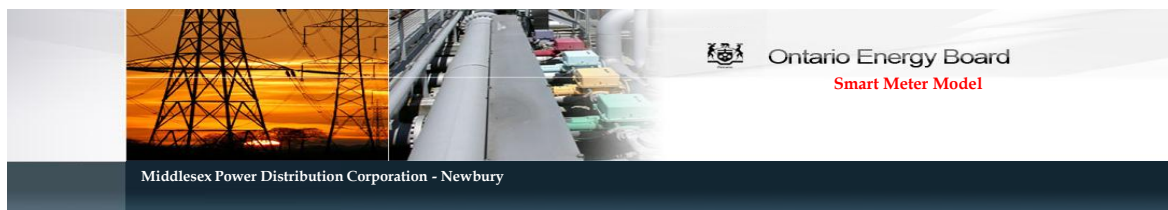
#### Assumptions

<sup>1</sup> Planned smart meter installations occur evenly throughout the year.

<sup>2</sup> Fiscal calendar year (January 1 to December 31) used.

<sup>3</sup> Amortization is done on a straight line basis and has the "half-year" rule applied.





	2006	2007	2008	2009	2010	2011	2012 and later
<b>Net Fixed Assets - Smart Meters</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 25,161	\$ 25,161	\$ 25,161
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 25,161	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 25,161	\$ 25,161	\$ 25,161	\$ 25,161
<b>Accumulated Depreciation</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 839	\$ 2,516	\$ 4,193
Amortization expense during year	\$ -	\$ -	\$ -	\$ 839	\$ 1,677	\$ 1,677	\$ 1,677
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 839	\$ 2,516	\$ 4,193	\$ 5,871
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 24,322	\$ 22,644	\$ 20,967
Closing Balance	\$ -	\$ -	\$ -	\$ 24,322	\$ 22,644	\$ 20,967	\$ 19,290
Average Net Book Value	\$ -	\$ -	\$ -	\$ 12,161	\$ 23,483	\$ 21,806	\$ 20,128
<b>Net Fixed Assets - Computer Hardware</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 2,974	\$ 2,974	\$ 2,974
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 2,974	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 2,974	\$ 2,974	\$ 2,974	\$ 2,974
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 297	\$ 892	\$ 1,487
Amortization expense during year	\$ -	\$ -	\$ -	\$ 297	\$ 595	\$ 595	\$ 595
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 297	\$ 892	\$ 1,487	\$ 2,082
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 2,677	\$ 2,082	\$ 1,487
Closing Balance	\$ -	\$ -	\$ -	\$ 2,677	\$ 2,082	\$ 1,487	\$ 892
Average Net Book Value	\$ -	\$ -	\$ -	\$ 1,339	\$ 2,380	\$ 1,785	\$ 1,190
<b>Net Fixed Assets - Computer Software (Including Applications Software)</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 321	\$ 321	\$ 321
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 321	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 321	\$ 321	\$ 321	\$ 321
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 53	\$ 160	\$ 267
Amortization expense during year	\$ -	\$ -	\$ -	\$ 53	\$ 107	\$ 107	\$ 53
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 53	\$ 160	\$ 267	\$ 321
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 267	\$ 160	\$ 53
Closing Balance	\$ -	\$ -	\$ -	\$ 267	\$ 160	\$ 53	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ 134	\$ 214	\$ 107	\$ 27
<b>Net Fixed Assets - Tools and Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Fixed Assets - Other Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



Ontario Energy Board  
Smart Meter Model

Middlesex Power Distribution Corporation - Newbury

	2006	2007	2008	2009	2010	2011	2012 and Later
<b>Average Net Fixed Asset Values (from Sheet 4)</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 12,161	\$ 23,483	\$ 21,806	\$ 20,128
Computer Hardware	\$ -	\$ -	\$ -	\$ 1,339	\$ 2,380	\$ 1,785	\$ 1,190
Computer Software	\$ -	\$ -	\$ -	\$ 134	\$ 214	\$ 107	\$ 27
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Net Fixed Assets</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 13,633</b>	<b>\$ 26,076</b>	<b>\$ 23,697</b>	<b>\$ 21,345</b>
<b>Working Capital</b>							
Operating Expenses (from Sheet 2)	\$ -	\$ -	\$ -	\$ 434	\$ 1,571	\$ 1,338	\$ 234
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	\$ -	\$ -	\$ -	\$ 65	\$ 236	\$ 201	\$ 35
<b>Incremental Smart Meter Rate Base</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 13,698</b>	<b>\$ 26,312</b>	<b>\$ 23,898</b>	<b>\$ 21,380</b>
<b>Return on Rate Base</b>							
<b>Capital Structure</b>							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Long Term Debt	\$ -	\$ -	\$ -	\$ 7,767	\$ 15,787	\$ 14,339	\$ 12,828
Equity	\$ -	\$ -	\$ -	\$ 5,931	\$ 10,525	\$ 9,559	\$ 8,552
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Capitalization</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 13,698</b>	<b>\$ 26,312</b>	<b>\$ 23,898</b>	<b>\$ 21,380</b>
<b>Return on</b>							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Long Term Debt	\$ -	\$ -	\$ -	\$ 563	\$ 1,145	\$ 1,040	\$ 930
Equity	\$ -	\$ -	\$ -	\$ 534	\$ 947	\$ 860	\$ 770
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Return on Capital</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,097</b>	<b>\$ 2,092</b>	<b>\$ 1,900</b>	<b>\$ 1,700</b>
<b>Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 434</b>	<b>\$ 1,571</b>	<b>\$ 1,338</b>	<b>\$ 234</b>
<b>Amortization Expenses (from Sheet 4)</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 839	\$ 1,677	\$ 1,677	\$ 1,677
Computer Hardware	\$ -	\$ -	\$ -	\$ 297	\$ 595	\$ 595	\$ 595
Computer Software	\$ -	\$ -	\$ -	\$ 53	\$ 107	\$ 107	\$ 53
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Amortization Expense in Year</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,190</b>	<b>\$ 2,379</b>	<b>\$ 2,379</b>	<b>\$ 2,326</b>
<b>Incremental Revenue Requirement before Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,720</b>	<b>\$ 6,042</b>	<b>\$ 5,617</b>	<b>\$ 4,259</b>
<b>Calculation of Taxable Income</b>							
Incremental Operating Expenses	\$ -	\$ -	\$ -	\$ 434	\$ 1,571	\$ 1,338	\$ 234
Amortization Expense	\$ -	\$ -	\$ -	\$ 1,190	\$ 2,379	\$ 2,379	\$ 2,326
Interest Expense	\$ -	\$ -	\$ -	\$ 563	\$ 1,145	\$ 1,040	\$ 930
<b>Net Income for Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 534</b>	<b>\$ 947</b>	<b>\$ 860</b>	<b>\$ 770</b>
<b>Grossed-up Taxes/PILs (from Sheet 7)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 67.35</b>	<b>\$ 40.09</b>	<b>\$ 365.36</b>	<b>\$ 434.11</b>
<b>Revenue Requirement, including Grossed-up Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,653</b>	<b>\$ 6,082</b>	<b>\$ 5,983</b>	<b>\$ 4,693</b>



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## 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 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 24,154.12	\$ 22,221.79	\$ 20,444.05
Capital Additions	\$ -	\$ -	\$ -	\$ 25,160.54	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 25,160.54	\$ 24,154.12	\$ 22,221.79	\$ 20,444.05
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ 12,580.27	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ 12,580.27	\$ 24,154.12	\$ 22,221.79	\$ 20,444.05
CCA Rate Class	47	47	47	47	47	47	47
CCA Rate	8%	8%	8%	8%	8%	8%	8%
CCA	\$ -	\$ -	\$ -	\$ 1,006.42	\$ 1,932.33	\$ 1,777.74	\$ 1,635.52
Closing UCC	\$ -	\$ -	\$ -	\$ 24,154.12	\$ 22,221.79	\$ 20,444.05	\$ 18,808.52

### UCC - Computer Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 2,156.48	\$ 970.42	\$ 436.69
Capital Additions Computer Hardware	\$ -	\$ -	\$ -	\$ 2,974.45	\$ -	\$ -	\$ -
Capital Additions Computer Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 2,974.45	\$ 2,156.48	\$ 970.42	\$ 436.69
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ 1,487.23	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ 1,487.23	\$ 2,156.48	\$ 970.42	\$ 436.69
CCA Rate Class	45	50	50	50	50	50	50
CCA Rate	45%	55%	55%	55%	55%	55%	55%
CCA	\$ -	\$ -	\$ -	\$ 817.97	\$ 1,186.06	\$ 533.73	\$ 240.18
Closing UCC	\$ -	\$ -	\$ -	\$ 2,156.48	\$ 970.42	\$ 436.69	\$ 196.51

### UCC - General Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA Rate Class	8	8	8	8	8	8	8
CCA Rate	20%	20%	20%	20%	20%	20%	20%
CCA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



## PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
<b>INCOME TAX</b>							
Net Income	\$ -	\$ -	\$ -	\$ 533.81	\$ 947.23	\$ 860.33	\$ 769.68
Amortization	\$ -	\$ -	\$ -	\$ 1,189.55	\$ 2,379.10	\$ 2,379.10	\$ 2,325.68
CCA - Smart Meters	\$ -	\$ -	\$ -	\$ 1,006.42	\$ 1,932.33	\$ 1,777.74	\$ 1,635.52
CCA - Computers	\$ -	\$ -	\$ -	\$ 817.97	\$ 1,186.06	\$ 533.73	\$ 240.18
CCA - Applications Software	\$ -	\$ -	\$ -	\$ 160.25	\$ 160.25	\$ -	\$ -
CCA - Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Change in taxable income	\$ -	\$ -	\$ -	\$ 261.29	\$ 47.68	\$ 927.95	\$ 1,219.66
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Income Taxes Payable	\$ -	\$ -	\$ -	\$ 86.23	\$ 14.78	\$ 262.15	\$ 320.16
<b>ONTARIO CAPITAL TAX</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 24,321.86	\$ 22,644.49	\$ 20,967.12	\$ 19,289.75
Computer Hardware	\$ -	\$ -	\$ -	\$ 2,677.01	\$ 2,082.12	\$ 1,487.23	\$ 892.34
Computer Software (Including Application Software)	\$ -	\$ -	\$ -	\$ 267.09	\$ 160.25	\$ 53.42	\$ -
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Base	\$ -	\$ -	\$ -	\$ 27,265.95	\$ 24,886.86	\$ 22,507.76	\$ 20,182.08
Less: Exemption	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Taxable Capital	\$ -	\$ -	\$ -	\$ 27,265.95	\$ 24,886.86	\$ 22,507.76	\$ 20,182.08
Ontario Capital Tax Rate (from Sheet 3)	0.300%	0.225%	0.225%	0.225%	0.075%	0.000%	0.000%
Net Amount (Taxable Capital x Rate)	\$ -	\$ -	\$ -	\$ 61.35	\$ 18.67	\$ -	\$ -
Change in Income Taxes Payable	\$ -	\$ -	\$ -	\$ 86.23	\$ 14.78	\$ 262.15	\$ 320.16
Change in OCT	\$ -	\$ -	\$ -	\$ 61.35	\$ 18.67	\$ -	\$ -
PILs	\$ -	\$ -	\$ -	\$ 24.88	\$ 33.45	\$ 262.15	\$ 320.16
<b>Gross Up PILs</b>							
Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Change in Income Taxes Payable	\$ -	\$ -	\$ -	\$ 128.69	\$ 21.42	\$ 365.36	\$ 434.11
Change in OCT	\$ -	\$ -	\$ -	\$ 61.35	\$ 18.67	\$ -	\$ -
PILs	\$ -	\$ -	\$ -	\$ 67.35	\$ 40.09	\$ 365.36	\$ 434.11



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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	\$ -		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	\$ -	\$ 4.87	5.14%	\$ -	\$ 4.87	\$ 45.78	\$ 0.25
2011 Q4	1.47%	4.29%	Dec-07	2007	Q4	\$ 4.87	\$ 40.89	5.14%	\$ 0.02	\$ 45.78	\$ 45.78	\$ 0.25
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	\$ 45.76	\$ 41.43	5.14%	\$ 0.20	\$ 87.39	\$ 87.39	\$ 0.25
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	\$ 87.19	\$ 41.28	5.14%	\$ 0.37	\$ 128.84	\$ 128.84	\$ 0.25
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	\$ 128.47	\$ 41.19	5.14%	\$ 0.55	\$ 170.21	\$ 170.21	\$ 0.25
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	\$ 169.66	\$ 41.19	4.08%	\$ 0.58	\$ 211.43	\$ 211.43	\$ 0.25
			May-08	2008	Q2	\$ 210.85	\$ 41.37	4.08%	\$ 0.72	\$ 252.94	\$ 252.94	\$ 0.25
			Jun-08	2008	Q2	\$ 252.22	\$ 41.04	4.08%	\$ 0.86	\$ 294.12	\$ 294.12	\$ 0.25
			Jul-08	2008	Q3	\$ 293.26	\$ 42.12	3.35%	\$ 0.82	\$ 336.20	\$ 336.20	\$ 0.25
			Aug-08	2008	Q3	\$ 335.38	\$ 41.50	3.35%	\$ 0.94	\$ 377.82	\$ 377.82	\$ 0.25
			Sep-08	2008	Q3	\$ 376.88	\$ 41.07	3.35%	\$ 1.05	\$ 419.00	\$ 419.00	\$ 0.25
			Oct-08	2008	Q4	\$ 417.95	\$ 42.33	3.35%	\$ 1.17	\$ 461.45	\$ 461.45	\$ 0.25
			Nov-08	2008	Q4	\$ 460.28	\$ 41.64	3.35%	\$ 1.28	\$ 503.20	\$ 503.20	\$ 0.25
			Dec-08	2008	Q4	\$ 501.92	\$ 42.21	3.35%	\$ 1.40	\$ 545.53	\$ 545.53	\$ 0.25
			Jan-09	2009	Q1	\$ 544.13	\$ 42.17	2.45%	\$ 1.11	\$ 587.41	\$ 587.41	\$ 0.25
			Feb-09	2009	Q1	\$ 586.30	\$ 42.25	2.45%	\$ 1.20	\$ 629.75	\$ 629.75	\$ 0.25
			Mar-09	2009	Q1	\$ 628.55	\$ 41.65	2.45%	\$ 1.28	\$ 671.48	\$ 671.48	\$ 0.25
			Apr-09	2009	Q2	\$ 670.20	\$ 42.97	1.00%	\$ 0.56	\$ 713.73	\$ 713.73	\$ 0.25
			May-09	2009	Q2	\$ 713.17	\$ -	1.00%	\$ 0.59	\$ 713.76	\$ 713.76	\$ 1.00
			Jun-09	2009	Q2	\$ 713.17	\$ 52.42	1.00%	\$ 0.59	\$ 766.18	\$ 766.18	\$ 1.00
			Jul-09	2009	Q3	\$ 765.59	\$ 166.27	0.55%	\$ 0.35	\$ 932.21	\$ 932.21	\$ 1.00
			Aug-09	2009	Q3	\$ 931.86	\$ 167.94	0.55%	\$ 0.43	\$ 1,100.23	\$ 1,100.23	\$ 1.00
			Sep-09	2009	Q3	\$ 1,099.80	\$ 167.37	0.55%	\$ 0.50	\$ 1,267.67	\$ 1,267.67	\$ 1.00
			Oct-09	2009	Q4	\$ 1,267.17	\$ 166.30	0.55%	\$ 0.58	\$ 1,434.05	\$ 1,434.05	\$ 1.00
			Nov-09	2009	Q4	\$ 1,433.47	\$ 168.63	0.55%	\$ 0.66	\$ 1,602.76	\$ 1,602.76	\$ 1.00
			Dec-09	2009	Q4	\$ 1,602.10	\$ 247.86	0.55%	\$ 0.73	\$ 1,850.69	\$ 1,850.69	\$ 1.00
			Jan-10	2010	Q1	\$ 1,849.96	\$ 167.86	0.55%	\$ 0.85	\$ 2,018.67	\$ 2,018.67	\$ 1.00
			Feb-10	2010	Q1	\$ 2,017.82	\$ 167.63	0.55%	\$ 0.92	\$ 2,186.37	\$ 2,186.37	\$ 1.00
			Mar-10	2010	Q1	\$ 2,185.45	\$ 168.50	0.55%	\$ 1.00	\$ 2,354.95	\$ 2,354.95	\$ 1.00
			Apr-10	2010	Q2	\$ 2,353.95	\$ 168.53	0.55%	\$ 1.08	\$ 2,523.56	\$ 2,523.56	\$ 1.00
			May-10	2010	Q2	\$ 2,522.48	\$ 167.43	0.55%	\$ 1.16	\$ 2,691.07	\$ 2,691.07	\$ 1.00
			Jun-10	2010	Q2	\$ 2,689.91	\$ 168.77	0.55%	\$ 1.23	\$ 2,859.91	\$ 2,859.91	\$ 1.00
			Jul-10	2010	Q3	\$ 2,858.68	\$ 167.79	0.89%	\$ 2.12	\$ 3,028.59	\$ 3,028.59	\$ 1.00
			Aug-10	2010	Q3	\$ 3,026.47	\$ 165.20	0.89%	\$ 2.24	\$ 3,193.91	\$ 3,193.91	\$ 1.00
			Sep-10	2010	Q3	\$ 3,191.67	\$ 167.23	0.89%	\$ 2.37	\$ 3,361.27	\$ 3,361.27	\$ 1.00
			Oct-10	2010	Q4	\$ 3,358.90	\$ 167.97	1.20%	\$ 3.36	\$ 3,530.23	\$ 3,530.23	\$ 1.00
			Nov-10	2010	Q4	\$ 3,526.87	\$ 167.23	1.20%	\$ 3.53	\$ 3,697.63	\$ 3,697.63	\$ 1.00
			Dec-10	2010	Q4	\$ 3,694.10	\$ 67.00	1.20%	\$ 3.69	\$ 3,764.79	\$ 3,764.79	\$ 1.00
			Jan-11	2011	Q1	\$ 3,761.10	\$ 165.74	1.47%	\$ 4.61	\$ 3,931.45	\$ 3,931.45	\$ 1.00
			Feb-11	2011	Q1	\$ 3,926.84	\$ 168.87	1.47%	\$ 4.81	\$ 4,100.52	\$ 4,100.52	\$ 1.00
			Mar-11	2011	Q1	\$ 4,095.71	\$ 168.26	1.47%	\$ 5.02	\$ 4,268.99	\$ 4,268.99	\$ 1.00
			Apr-11	2011	Q2	\$ 4,263.97	\$ 169.19	1.47%	\$ 5.22	\$ 4,438.38	\$ 4,438.38	\$ 1.00
			May-11	2011	Q2	\$ 4,433.16	\$ 167.00	1.47%	\$ 5.43	\$ 4,605.59	\$ 4,605.59	\$ 2.50
			Jun-11	2011	Q2	\$ 4,600.16	\$ 295.17	1.47%	\$ 5.64	\$ 4,900.97	\$ 4,900.97	\$ 2.50
			Jul-11	2011	Q3	\$ 4,895.33	\$ 419.50	1.47%	\$ 6.00	\$ 5,320.83	\$ 5,320.83	\$ 2.50
			Aug-11	2011	Q3	\$ 5,314.83	\$ 421.59	1.47%	\$ 6.51	\$ 5,742.93	\$ 5,742.93	\$ 2.50
			Sep-11	2011	Q3	\$ 5,736.42	\$ 418.00	1.47%	\$ 7.03	\$ 6,161.45	\$ 6,161.45	\$ 2.50
			Oct-11	2011	Q4	\$ 6,154.42	\$ 422.00	1.47%	\$ 7.54	\$ 6,583.96	\$ 6,583.96	\$ 2.50
			Nov-11	2011	Q4	\$ 6,576.42	\$ 419.66	1.47%	\$ 8.06	\$ 7,004.14	\$ 7,004.14	\$ 2.50
			Dec-11	2011	Q4	\$ 6,996.08	\$ 891.08	1.47%	\$ 8.57	\$ 7,895.73	\$ 7,895.73	\$ 4,200.50



This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP				Opening Balance (Principal)	Funding Adder Revenues	Interest		Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder (from Tariff)
			Date	Year	Quarter			Rate	Interest			
			Jan-12	2012	Q1	\$ 7,887.16	\$ 418.91	1.47%	\$ 9.66	\$ 8,315.73		\$ 2.50
			Feb-12	2012	Q1	\$ 8,306.07	\$ 419.92	1.47%	\$ 10.17	\$ 8,736.16		\$ 2.50
			Mar-12	2012	Q1	\$ 8,725.99	\$ 418.09	1.47%	\$ 10.69	\$ 9,154.77		\$ 2.50
			Apr-12	2012	Q2	\$ 9,144.08	\$ 418.33	1.47%	\$ 11.20	\$ 9,573.61		\$ 2.50
			May-12	2012	Q2	\$ 9,562.41	-\$ 40.92	1.47%	\$ 11.71	\$ 9,533.20		
			Jun-12	2012	Q2	\$ 9,521.49		1.47%	\$ 11.66	\$ 9,533.15		
			Jul-12	2012	Q3	\$ 9,521.49		1.47%	\$ 11.66	\$ 9,533.15		
			Aug-12	2012	Q3	\$ 9,521.49		1.47%	\$ 11.66	\$ 9,533.15		
			Sep-12	2012	Q3	\$ 9,521.49		1.47%	\$ 11.66	\$ 9,533.15		
			Oct-12	2012	Q4	\$ 9,521.49		1.47%	\$ 11.66	\$ 9,533.15		
			Nov-12	2012	Q4	\$ 9,521.49		1.47%	\$ 11.66	\$ 9,533.15		
			Dec-12	2012	Q4	\$ 9,521.49		1.47%	\$ 11.66	\$ 9,533.15	\$ 1,769.38	
Total Funding Adder Revenues Collected						\$ 9,521.49			\$ 251.58	\$ 9,773.07	\$ 9,773.07	



Middlesex Power Distribution Corporation - Newbury

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%	4.29%	Dec-07	2007	Q4	-			-	5.14%	-	-
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	-			-	5.14%	-	-
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	-			-	5.14%	-	-
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	-			-	5.14%	-	-
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	-			-	4.08%	-	-
			May-08	2008	Q2	-			-	4.08%	-	-
			Jun-08	2008	Q2	-			-	4.08%	-	-
			Jul-08	2008	Q3	-			-	3.35%	-	-
			Aug-08	2008	Q3	-			-	3.35%	-	-
			Sep-08	2008	Q3	-			-	3.35%	-	-
			Oct-08	2008	Q4	-			-	3.35%	-	-
			Nov-08	2008	Q4	-			-	3.35%	-	-
			Dec-08	2008	Q4	-			-	3.35%	-	-
			Jan-09	2009	Q1	-			-	2.45%	-	-
			Feb-09	2009	Q1	-			-	2.45%	-	-
			Mar-09	2009	Q1	-			-	2.45%	-	-
			Apr-09	2009	Q2	-			-	1.00%	-	-
			May-09	2009	Q2	-			-	1.00%	-	-
			Jun-09	2009	Q2	-			-	1.00%	-	-
			Jul-09	2009	Q3	-			-	0.55%	-	-
			Aug-09	2009	Q3	-			-	0.55%	-	-
			Sep-09	2009	Q3	-			-	0.55%	-	-
			Oct-09	2009	Q4	-			-	0.55%	-	-
			Nov-09	2009	Q4	-			-	0.55%	-	-
			Dec-09	2009	Q4	-			-	0.55%	-	-
			Jan-10	2010	Q1	-			-	0.55%	-	-
			Feb-10	2010	Q1	-			-	0.55%	-	-
			Mar-10	2010	Q1	-			-	0.55%	-	-
			Apr-10	2010	Q2	-			-	0.55%	-	-
			May-10	2010	Q2	-			-	0.55%	-	-
			Jun-10	2010	Q2	-			-	0.55%	-	-
			Jul-10	2010	Q3	-			-	0.89%	-	-
			Aug-10	2010	Q3	-			-	0.89%	-	-
			Sep-10	2010	Q3	-			-	0.89%	-	-
			Oct-10	2010	Q4	-			-	1.20%	-	-
			Nov-10	2010	Q4	-			-	1.20%	-	-
			Dec-10	2010	Q4	-			-	1.20%	-	-
			Jan-11	2011	Q1	-			-	1.47%	-	-
			Feb-11	2011	Q1	-			-	1.47%	-	-
			Mar-11	2011	Q1	-			-	1.47%	-	-
			Apr-11	2011	Q2	-			-	1.47%	-	-
			May-11	2011	Q2	-			-	1.47%	-	-
			Jun-11	2011	Q2	-			-	1.47%	-	-
			Jul-11	2011	Q3	-			-	1.47%	-	-
			Aug-11	2011	Q3	-			-	1.47%	-	-
			Sep-11	2011	Q3	-			-	1.47%	-	-
			Oct-11	2011	Q4	-			-	1.47%	-	-
			Nov-11	2011	Q4	-			-	1.47%	-	-
			Dec-11	2011	Q4	-			-	1.47%	-	-
			Jan-12	2012	Q1	-			-	1.47%	-	-
			Feb-12	2012	Q1	-			-	1.47%	-	-
			Mar-12	2012	Q1	-			-	1.47%	-	-
			Apr-12	2012	Q2	-			-	1.47%	-	-
			May-12	2012	Q2	-			-	1.47%	-	-
			Jun-12	2012	Q2	-			-	1.47%	-	-
			Jul-12	2012	Q3	-			-	1.47%	-	-
			Aug-12	2012	Q3	-			-	1.47%	-	-
			Sep-12	2012	Q3	-			-	1.47%	-	-
			Oct-12	2012	Q4	-			-	1.47%	-	-
			Nov-12	2012	Q4	-			-	1.47%	-	-
			Dec-12	2012	Q4	-			-	1.47%	-	-
						\$	-	\$	-	\$	-	-



Ontario Energy Board

Smart Meter Model

## Middlesex Power Distribution Corporation - Newbury

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

Year	OM&A (from Sheet 5)	Amortization Expense (from Sheet 5)	Cumulative OM&A and Amortization Expense	Average Cumulative OM&A and Amortization Expense	Average Annual Prescribed Interest Rate for Deferral and Variance Accounts (from Sheets 8A and 8B)	Simple Interest on OM&A and Amortization Expenses
2006	\$ -	\$ -	\$ -	\$ -	4.37%	\$ -
2007	\$ -	\$ -	\$ -	\$ -	4.73%	\$ -
2008	\$ -	\$ -	\$ -	\$ -	3.98%	\$ -
2009	\$ 433.88	\$ 1,189.55	\$ 1,623.43	\$ 811.71	1.14%	\$ 9.23
2010	\$ 1,570.81	\$ 2,379.10	\$ 5,573.34	\$ 3,598.38	0.80%	\$ 28.70
2011	\$ 1,338.21	\$ 2,379.10	\$ 9,290.64	\$ 7,431.99	1.47%	\$ 109.25
2012	\$ 233.68	\$ 2,325.68	\$ 11,850.00	\$ 10,570.32	1.47%	\$ 155.38
Cumulative Interest to 2011						\$ 147.18
Cumulative Interest to 2012						\$ 302.56





Middlesex Power Distribution Corporation - Newbury

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

Check if applicable

- ☐ Smart Meter Funding Adder (SMFA)
- ☒ Smart Meter Disposition Rider (SMDR)
- ☒ Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)

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

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

	2006	2007	2008	2009	2010	2011	2012 and later	Total
Deferred and forecasted Smart Meter Incremental Revenue Requirement (from Sheet 5)	\$ -	\$ -	\$ -	\$ 2,652.99	\$ 6,081.80	\$ 5,982.56	\$ 4,693.18	\$ 19,410.53
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B) (Check one of the boxes below)	\$ -	\$ -	\$ -	\$ 9.23	\$ 28.70	\$ 109.25		\$ 147.18
<input type="checkbox"/> Sheet 8A (Interest calculated on monthly balances)								\$ -
<input checked="" type="checkbox"/> Sheet 8B (Interest calculated on average annual balances)	\$ -	\$ -	\$ -	\$ 9.23	\$ 28.70	\$ 109.25		\$ 147.18
SMFA Revenues (from Sheet 8)	\$ -	\$ 45.76	\$ 498.37	\$ 1,305.83	\$ 1,911.14	\$ 4,126.06	\$ 1,634.33	\$ 9,521.49
SMFA Interest (from Sheet 8)	\$ -	\$ 0.02	\$ 9.94	\$ 8.58	\$ 23.55	\$ 74.44	\$ 135.05	\$ 251.58
Net Deferred Revenue Requirement	\$ -	\$ 45.78	\$ 508.31	\$ 1,347.81	\$ 4,175.81	\$ 1,891.31	\$ 2,923.80	\$ 9,784.64
Number of Metered Customers (average for 2012 test year)							168	

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

Years for collection or refunding	3.5	
Deferred Incremental Revenue Requirement from 2006 to December 31, 2011 plus Interest on OM&A and Amortization	\$ 14,864.53	
SMFA Revenues collected from 2006 to 2012 test year (inclusive) Plus Simple Interest on SMFA Revenues	\$ 9,773.07	
Net Deferred Revenue Requirement	\$ 5,091.46	
SMDR November 1, 2012 to April 30, 2013	\$ 0.72	Match
Check: Forecasted SMDR Revenues	\$ 5,080.32	

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

Incremental Revenue Requirement for 2012	\$ 4,693.18	
SMIRR	\$ 2.33	Match
Check: Forecasted SMIRR Revenues	\$ 4,697.28	

**Entegrus Powerlines Inc.**

SM Final Disposition – Interrogatory Responses

Board File No.: EB-2012-0289

Date Filed: September 7, 2012

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**Attachment K  
Smart Meter Model  
Newbury GS<50kW**



Ontario Energy Board

## Smart Meter Model

## Choose Your Utility:

Middlesex Power Distribution Corporation - Newbury

Midland Power Utility Corporation

## Application Contact Information

Name: Andrya Eagen

Title: Senior Regulatory Specialist

Phone Number: 519-352-6300 Ext 243

Email Address: andryaeagen@ckenergy.com

We are applying for rates effective: November 1, 2012

Last COS Re-based Year 2006

## Legend

DROP-DOWN MENU

INPUT FIELD

CALCULATION FIELD

## Copyright

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

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



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

For 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 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
<b>Smart Meter Installation Plan</b>								
<b>Actual/Planned number of Smart Meters installed during the Calendar Year</b>								
Residential								0
General Service < 50 kW				31				31
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	0	31	0	0	0	31
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%
Actual/Planned number of GS > 50 kW meters installed								0
Other (please identify)								0
Total Number of Smart Meters installed or planned to be installed	0	0	0	31	0	0	0	31
<b>1 Capital Costs</b>								
<b>1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.1.1 Smart Meters (may include new meters and modules, etc.)	Smart Meter			4,800	0	0		\$ 4,800
1.1.2 Installation Costs (may include socket kits, labour, vehicle, benefits, etc.)	Smart Meter			1,233	0	0		\$ 1,233
1.1.3a Workforce Automation Hardware (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
1.1.3b Workforce Automation Software (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
Total Advanced Metering Communications Devices (AMCD)	\$ -	\$ -	\$ -	\$ 6,034	\$ -	\$ -	\$ -	\$ 6,034
<b>1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.2.1 Collectors								\$ -
1.2.2 Repeaters (may include radio licence, etc.)	Computer Hardware			729	0	0		\$ 729
1.2.3 Installation (may include meter seals and rings, collector computer hardware, etc.)								\$ -
Total Advanced Metering Regional Collector (AMRC) (includes LAN)	\$ -	\$ -	\$ -	\$ 729	\$ -	\$ -	\$ -	\$ 729
<b>1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.3.1 Computer Hardware								\$ -
1.3.2 Computer Software								\$ -
1.3.3 Computer Software Licences & Installation (includes hardware and software) (may include AS400 disk space, backup and recovery computer, UPS, etc.)								\$ -
Total Advanced Metering Control Computer (AMCC)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>1.4 WIDE AREA NETWORK (WAN)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.4.1 Activation Fees	Applications Software			75	0	0		\$ 75
Total Wide Area Network (WAN)	\$ -	\$ -	\$ -	\$ 75	\$ -	\$ -	\$ -	\$ 75
<b>1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.5.1 Customer Equipment (including repair of damaged equipment)								\$ -
1.5.2 AMI Interface to CIS								\$ -
1.5.3 Professional Fees								\$ -
1.5.4 Integration								\$ -
1.5.5 Program Management								\$ -
1.5.6 Other AMI Capital								\$ -
Total Other AMI Capital Costs Related to Minimum Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Capital Costs Related to Minimum Functionality	\$ -	\$ -	\$ -	\$ 6,838	\$ -	\$ -	\$ -	\$ 6,838
<b>1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06	Computer Software							\$ -
1.6.2 Costs for deployment of smart meters to customers other than residential and small general service	Applications Software							\$ -
1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDNR, etc.								\$ -
Total Capital Costs Beyond Minimum Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Smart Meter Capital Costs	\$ -	\$ -	\$ -	\$ 6,838	\$ -	\$ -	\$ -	\$ 6,838
<b>2 OM&amp;A Expenses</b>								
<b>2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
2.1.1 Maintenance (may include meter reverification costs, etc.)				42	34	52	0	\$ 128
2.1.2 Other (please specify)								\$ -
Total Incremental AMCD OM&A Costs	\$ -	\$ -	\$ -	\$ 42	\$ 34	\$ 52	\$ -	\$ 128



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

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

##### 2.2.1 Maintenance

##### 2.2.2 Other (please specify)

#### Total Incremental AMRC OM&A Costs

#### 2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)

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

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

##### 2.3.2 Other (please specify)

#### Total Incremental AMCC OM&A Costs

#### 2.4 WIDE AREA NETWORK (WAN)

##### 2.4.1 WAN Maintenance

##### 2.4.2 Other (please specify)

#### Total Incremental AMRC OM&A Costs

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

##### 2.5.1 Business Process Redesign

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

##### 2.5.3 Program Management

##### 2.5.4 Change Management (may include training, etc.)

##### 2.5.5 Administration Costs

##### 2.5.6 Other AMI Expenses

##### (please specify)

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

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

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

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

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

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

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

#### Total OM&A Costs Beyond Minimum Functionality

#### Total Smart Meter OM&A Costs

	2006	2007	2008	2009	2010	2011	2012 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
								\$ -
								\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
				5	5	3	3	\$ 16
				19	14	9	67	\$ 109
								\$ -
	\$ -	\$ -	\$ -	23	19	12	70	\$ 125
								\$ -
								\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
								\$ -
								\$ -
								\$ -
				1	0	0	0	\$ 1
				7	2	5	0	\$ 13
	\$ -	\$ -	\$ -	7	2	5	-	\$ 14
	\$ -	\$ -	\$ -	73	55	69	70	\$ 267
								\$ -
								\$ -
				6	259	202	0	\$ 467
	\$ -	\$ -	\$ -	6	259	202	-	\$ 467
	\$ -	\$ -	\$ -	79	314	271	70	\$ 734

### 3 Aggregate Smart Meter Costs by Category

#### 3.1

##### Capital

##### 3.1.1 Smart Meter

##### 3.1.2 Computer Hardware

##### 3.1.3 Computer Software

##### 3.1.4 Tools & Equipment

##### 3.1.5 Other Equipment

##### 3.1.6 Applications Software

##### 3.1.7 Total Capital Costs

#### 3.2 OM&A Costs

##### 3.2.1 Total OM&A Costs

\$ -	\$ -	\$ -	\$ 6,034	\$ -	\$ -	\$ -	\$ -	\$ 6,034
\$ -	\$ -	\$ -	\$ 729	\$ -	\$ -	\$ -	\$ -	\$ 729
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ 75	\$ -	\$ -	\$ -	\$ -	\$ 75
\$ -	\$ -	\$ -	\$ 6,838	\$ -	\$ -	\$ -	\$ -	\$ 6,838
\$ -	\$ -	\$ -	\$ 79	\$ 314	\$ 271	\$ 70	\$ -	\$ 734



Ontario Energy Board

## Smart Meter Model

### Middlesex Power Distribution Corporation - Newbury

	2006	2007	2008	2009	2010	2011	2012 and later
<b>Cost of Capital</b>							
<b>Capital Structure<sup>1</sup></b>							
Deemed Short-term Debt Capitalization							
Deemed Long-term Debt Capitalization	50.0%	50.0%	53.3%	56.7%	60.0%	60.0%	60.0%
Deemed Equity Capitalization	50.0%	50.0%	46.7%	43.3%	40.0%	40.0%	40.0%
Preferred Shares	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<b>Cost of Capital Parameters</b>							
Deemed Short-term Debt Rate							
Long-term Debt Rate (actual/embedded/deemed) <sup>2</sup>	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
Return on Preferred Shares							
<b>WACC</b>	8.13%	8.13%	8.07%	8.01%	7.95%	7.95%	7.95%
<b>Working Capital Allowance</b>							
Working Capital Allowance Rate (% of the sum of Cost of Power + controllable expenses)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
<b>Taxes/PILs</b>							
Aggregate Corporate Income Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%
<b>Depreciation Rates</b> (expressed as expected useful life in years)							
Smart Meters - years	15	15	15	15	15	15	15
- rate (%)	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%
Computer Hardware - years	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Computer Software - years	3	3	3	3	3	3	3
- rate (%)	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%
Tools & Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Other Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
<b>CCA Rates</b>							
Smart Meters - CCA Class	47	47	47	47	47	47	47
Smart Meters - CCA Rate	8%	8%	8%	8%	8%	8%	8%
Computer Equipment - CCA Class	45	50	50	50	50	50	50
Computer Equipment - CCA Rate	45%	55%	55%	55%	55%	55%	55%
General Equipment - CCA Class	8	8	8	8	8	8	8
General Equipment - CCA Rate	20%	20%	20%	20%	20%	20%	20%
Applications Software - CCA Class	12	12	12	12	12	12	12
Applications Software - CCA Rate	100%	100%	100%	100%	100%	100%	100%

#### Assumptions

<sup>1</sup> Planned smart meter installations occur evenly throughout the year.

<sup>2</sup> Fiscal calendar year (January 1 to December 31) used.

<sup>3</sup> Amortization is done on a straight line basis and has the "half-year" rule applied.



	2006	2007	2008	2009	2010	2011	2012 and later
<b>Net Fixed Assets - Smart Meters</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 6,034	\$ 6,034	\$ 6,034
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 6,034	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 6,034	\$ 6,034	\$ 6,034	\$ 6,034
<b>Accumulated Depreciation</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 201	\$ 603	\$ 1,006
Amortization expense during year	\$ -	\$ -	\$ -	\$ 201	\$ 402	\$ 402	\$ 402
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 201	\$ 603	\$ 1,006	\$ 1,408
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 5,833	\$ 5,430	\$ 5,028
Closing Balance	\$ -	\$ -	\$ -	\$ 5,833	\$ 5,430	\$ 5,028	\$ 4,626
Average Net Book Value	\$ -	\$ -	\$ -	\$ 2,916	\$ 5,631	\$ 5,229	\$ 4,827
<b>Net Fixed Assets - Computer Hardware</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 729	\$ 729	\$ 729
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 729	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 729	\$ 729	\$ 729	\$ 729
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 73	\$ 219	\$ 364
Amortization expense during year	\$ -	\$ -	\$ -	\$ 73	\$ 146	\$ 146	\$ 146
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 73	\$ 219	\$ 364	\$ 510
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 656	\$ 510	\$ 364
Closing Balance	\$ -	\$ -	\$ -	\$ 656	\$ 510	\$ 364	\$ 219
Average Net Book Value	\$ -	\$ -	\$ -	\$ 328	\$ 563	\$ 437	\$ 292
<b>Net Fixed Assets - Computer Software (Including Applications Software)</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 75	\$ 75	\$ 75
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 75	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 75	\$ 75	\$ 75	\$ 75
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 13	\$ 38	\$ 63
Amortization expense during year	\$ -	\$ -	\$ -	\$ 13	\$ 25	\$ 25	\$ 13
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 13	\$ 38	\$ 63	\$ 75
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 63	\$ 38	\$ 13
Closing Balance	\$ -	\$ -	\$ -	\$ 63	\$ 38	\$ 13	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ 31	\$ 50	\$ 25	\$ 6
<b>Net Fixed Assets - Tools and Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Fixed Assets - Other Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



Ontario Energy Board  
Smart Meter Model

Middlesex Power Distribution Corporation - Newbury

	2006	2007	2008	2009	2010	2011	2012 and Later
<b>Average Net Fixed Asset Values (from Sheet 4)</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 2,916	\$ 5,631	\$ 5,229	\$ 4,827
Computer Hardware	\$ -	\$ -	\$ -	\$ 328	\$ 583	\$ 437	\$ 292
Computer Software	\$ -	\$ -	\$ -	\$ 31	\$ 50	\$ 25	\$ 6
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Net Fixed Assets</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,276</b>	<b>\$ 6,265</b>	<b>\$ 5,692</b>	<b>\$ 5,125</b>
<b>Working Capital</b>							
Operating Expenses (from Sheet 2)	\$ -	\$ -	\$ -	\$ 79	\$ 314	\$ 271	\$ 70
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	\$ -	\$ -	\$ -	\$ 12	\$ 47	\$ 41	\$ 10
<b>Incremental Smart Meter Rate Base</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,288</b>	<b>\$ 6,312</b>	<b>\$ 5,732</b>	<b>\$ 5,135</b>
<b>Return on Rate Base</b>							
<b>Capital Structure</b>							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Long Term Debt	\$ -	\$ -	\$ -	\$ 1,864	\$ 3,787	\$ 3,439	\$ 3,081
Equity	\$ -	\$ -	\$ -	\$ 1,423	\$ 2,525	\$ 2,293	\$ 2,054
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Capitalization</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,288</b>	<b>\$ 6,312</b>	<b>\$ 5,732</b>	<b>\$ 5,135</b>
<b>Return on</b>							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Long Term Debt	\$ -	\$ -	\$ -	\$ 135	\$ 275	\$ 249	\$ 223
Equity	\$ -	\$ -	\$ -	\$ 128	\$ 227	\$ 206	\$ 185
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Return on Capital</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 263</b>	<b>\$ 502</b>	<b>\$ 456</b>	<b>\$ 408</b>
<b>Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 79</b>	<b>\$ 314</b>	<b>\$ 271</b>	<b>\$ 70</b>
<b>Amortization Expenses (from Sheet 4)</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 201	\$ 402	\$ 402	\$ 402
Computer Hardware	\$ -	\$ -	\$ -	\$ 73	\$ 146	\$ 146	\$ 146
Computer Software	\$ -	\$ -	\$ -	\$ 13	\$ 25	\$ 25	\$ 13
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Amortization Expense in Year</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 287</b>	<b>\$ 573</b>	<b>\$ 573</b>	<b>\$ 561</b>
<b>Incremental Revenue Requirement before Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 629</b>	<b>\$ 1,389</b>	<b>\$ 1,300</b>	<b>\$ 1,039</b>
<b>Calculation of Taxable Income</b>							
Incremental Operating Expenses	\$ -	\$ -	\$ -	\$ 79	\$ 314	\$ 271	\$ 70
Amortization Expense	\$ -	\$ -	\$ -	\$ 287	\$ 573	\$ 573	\$ 561
Interest Expense	\$ -	\$ -	\$ -	\$ 135	\$ 275	\$ 249	\$ 223
<b>Net Income for Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 128</b>	<b>\$ 227</b>	<b>\$ 206</b>	<b>\$ 185</b>
<b>Grossed-up Taxes/PILs (from Sheet 7)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 17.16</b>	<b>\$ 8.38</b>	<b>\$ 87.56</b>	<b>\$ 104.78</b>
<b>Revenue Requirement, including Grossed-up Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 612</b>	<b>\$ 1,397</b>	<b>\$ 1,388</b>	<b>\$ 1,144</b>





Ontario Energy Board

Smart Meter Model

Middlesex Power Distribution Corporation - Newbury

## 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 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 5,792.33	\$ 5,328.95	\$ 4,902.63
Capital Additions	\$ -	\$ -	\$ -	\$ 6,033.68	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 6,033.68	\$ 5,792.33	\$ 5,328.95	\$ 4,902.63
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ 3,016.84	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ 3,016.84	\$ 5,792.33	\$ 5,328.95	\$ 4,902.63
CCA Rate Class	47	47	47	47	47	47	47
CCA Rate	8%	8%	8%	8%	8%	8%	8%
CCA	\$ -	\$ -	\$ -	\$ 241.35	\$ 463.39	\$ 426.32	\$ 392.21
Closing UCC	\$ -	\$ -	\$ -	\$ 5,792.33	\$ 5,328.95	\$ 4,902.63	\$ 4,510.42

### UCC - Computer Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 528.44	\$ 237.80	\$ 107.01
Capital Additions Computer Hardware	\$ -	\$ -	\$ -	\$ 728.89	\$ -	\$ -	\$ -
Capital Additions Computer Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 728.89	\$ 528.44	\$ 237.80	\$ 107.01
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ 364.44	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ 364.44	\$ 528.44	\$ 237.80	\$ 107.01
CCA Rate Class	45	50	50	50	50	50	50
CCA Rate	45%	55%	55%	55%	55%	55%	55%
CCA	\$ -	\$ -	\$ -	\$ 200.44	\$ 290.64	\$ 130.79	\$ 58.86
Closing UCC	\$ -	\$ -	\$ -	\$ 528.44	\$ 237.80	\$ 107.01	\$ 48.15

### UCC - General Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA Rate Class	8	8	8	8	8	8	8
CCA Rate	20%	20%	20%	20%	20%	20%	20%
CCA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



## PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
<b>INCOME TAX</b>							
Net Income	\$ -	\$ -	\$ -	\$ 128.11	\$ 227.23	\$ 206.36	\$ 184.87
Amortization	\$ -	\$ -	\$ -	\$ 286.56	\$ 573.12	\$ 573.12	\$ 560.57
CCA - Smart Meters	\$ -	\$ -	\$ -	\$ 241.35	\$ 463.39	\$ 426.32	\$ 392.21
CCA - Computers	\$ -	\$ -	\$ -	\$ 200.44	\$ 290.64	\$ 130.79	\$ 58.86
CCA - Applications Software	\$ -	\$ -	\$ -	\$ 37.65	\$ 37.65	\$ -	\$ -
CCA - Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Change in taxable income	\$ -	\$ -	\$ -	\$ 64.76	\$ 8.67	\$ 222.38	\$ 294.38
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Income Taxes Payable	\$ -	\$ -	\$ -	\$ 21.37	\$ 2.69	\$ 62.82	\$ 77.27
<b>ONTARIO CAPITAL TAX</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 5,832.56	\$ 5,430.31	\$ 5,028.07	\$ 4,625.82
Computer Hardware	\$ -	\$ -	\$ -	\$ 656.00	\$ 510.22	\$ 364.44	\$ 218.67
Computer Software (Including Application Software)	\$ -	\$ -	\$ -	\$ 62.74	\$ 37.65	\$ 12.55	\$ -
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Base	\$ -	\$ -	\$ -	\$ 6,551.30	\$ 5,978.18	\$ 5,405.06	\$ 4,844.49
Less: Exemption	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Taxable Capital	\$ -	\$ -	\$ -	\$ 6,551.30	\$ 5,978.18	\$ 5,405.06	\$ 4,844.49
Ontario Capital Tax Rate (from Sheet 3)	0.300%	0.225%	0.225%	0.225%	0.075%	0.000%	0.000%
Net Amount (Taxable Capital x Rate)	\$ -	\$ -	\$ -	\$ 14.74	\$ 4.48	\$ -	\$ -
Change in Income Taxes Payable	\$ -	\$ -	\$ -	\$ 21.37	\$ 2.69	\$ 62.82	\$ 77.27
Change in OCT	\$ -	\$ -	\$ -	\$ 14.74	\$ 4.48	\$ -	\$ -
PILs	\$ -	\$ -	\$ -	\$ 6.63	\$ 7.17	\$ 62.82	\$ 77.27
<b>Gross Up PILs</b>							
Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Change in Income Taxes Payable	\$ -	\$ -	\$ -	\$ 31.90	\$ 3.89	\$ 87.56	\$ 104.78
Change in OCT	\$ -	\$ -	\$ -	\$ 14.74	\$ 4.48	\$ -	\$ -
PILs	\$ -	\$ -	\$ -	\$ 17.16	\$ 8.38	\$ 87.56	\$ 104.78



Ontario Energy Board

Smart Meter Model

Middlesex Power Distribution Corporation - Newbury

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	\$ -		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	\$ -	\$ 0.91	5.14%	\$ -	\$ 0.91		\$ 0.25
2011 Q4	1.47%	4.29%	Dec-07	2007	Q4	\$ 0.91	\$ 7.25	5.14%	\$ -	\$ 8.16	\$ 8.16	\$ 0.25
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	\$ 8.16	\$ 7.25	5.14%	\$ 0.03	\$ 15.44		\$ 0.25
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	\$ 15.41	\$ 7.25	5.14%	\$ 0.07	\$ 22.73		\$ 0.25
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	\$ 22.66	\$ 7.25	5.14%	\$ 0.10	\$ 30.01		\$ 0.25
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	\$ 29.91	\$ 7.00	4.08%	\$ 0.10	\$ 37.01		\$ 0.25
			May-08	2008	Q2	\$ 36.91	\$ 7.00	4.08%	\$ 0.13	\$ 44.04		\$ 0.25
			Jun-08	2008	Q2	\$ 43.91	\$ 7.25	4.08%	\$ 0.15	\$ 51.31		\$ 0.25
			Jul-08	2008	Q3	\$ 51.16	\$ 7.25	3.35%	\$ 0.14	\$ 58.55		\$ 0.25
			Aug-08	2008	Q3	\$ 58.41	\$ 7.25	3.35%	\$ 0.16	\$ 65.82		\$ 0.25
			Sep-08	2008	Q3	\$ 65.66	\$ 7.25	3.35%	\$ 0.18	\$ 73.09		\$ 0.25
			Oct-08	2008	Q4	\$ 72.91	\$ 7.25	3.35%	\$ 0.20	\$ 80.36		\$ 0.25
			Nov-08	2008	Q4	\$ 80.16	\$ 7.15	3.35%	\$ 0.22	\$ 87.53		\$ 0.25
			Dec-08	2008	Q4	\$ 87.31	\$ 7.36	3.35%	\$ 0.24	\$ 94.91	\$ 88.23	\$ 0.25
			Jan-09	2009	Q1	\$ 94.67	\$ 7.25	2.45%	\$ 0.19	\$ 102.11		\$ 0.25
			Feb-09	2009	Q1	\$ 101.92	\$ 7.25	2.45%	\$ 0.21	\$ 109.38		\$ 0.25
			Mar-09	2009	Q1	\$ 109.17	\$ 7.00	2.45%	\$ 0.22	\$ 116.39		\$ 0.25
			Apr-09	2009	Q2	\$ 116.17	\$ 7.00	1.00%	\$ 0.10	\$ 123.27		\$ 0.25
			May-09	2009	Q2	\$ 123.17	\$ -	1.00%	\$ 0.10	\$ 123.27		\$ 1.00
			Jun-09	2009	Q2	\$ 123.17	\$ 14.00	1.00%	\$ 0.10	\$ 137.27		\$ 1.00
			Jul-09	2009	Q3	\$ 137.17	\$ 29.00	0.55%	\$ 0.06	\$ 166.23		\$ 1.00
			Aug-09	2009	Q3	\$ 166.17	\$ 29.50	0.55%	\$ 0.08	\$ 195.75		\$ 1.00
			Sep-09	2009	Q3	\$ 195.67	\$ 30.00	0.55%	\$ 0.09	\$ 225.76		\$ 1.00
			Oct-09	2009	Q4	\$ 225.67	\$ 30.00	0.55%	\$ 0.10	\$ 255.77		\$ 1.00
			Nov-09	2009	Q4	\$ 255.67	\$ 31.20	0.55%	\$ 0.12	\$ 286.99		\$ 1.00
			Dec-09	2009	Q4	\$ 286.87	\$ 80.60	0.55%	\$ 0.13	\$ 367.60	\$ 274.30	\$ 1.00
			Jan-10	2010	Q1	\$ 367.47	\$ 31.00	0.55%	\$ 0.17	\$ 398.64		\$ 1.00
			Feb-10	2010	Q1	\$ 398.47	\$ 31.00	0.55%	\$ 0.18	\$ 429.65		\$ 1.00
			Mar-10	2010	Q1	\$ 429.47	\$ 31.00	0.55%	\$ 0.20	\$ 460.67		\$ 1.00
			Apr-10	2010	Q2	\$ 460.47	\$ 31.00	0.55%	\$ 0.21	\$ 491.68		\$ 1.00
			May-10	2010	Q2	\$ 491.47	\$ 31.00	0.55%	\$ 0.23	\$ 522.70		\$ 1.00
			Jun-10	2010	Q2	\$ 522.47	\$ 31.00	0.55%	\$ 0.24	\$ 553.71		\$ 1.00
			Jul-10	2010	Q3	\$ 553.47	\$ 31.00	0.89%	\$ 0.41	\$ 584.88		\$ 1.00
			Aug-10	2010	Q3	\$ 584.47	\$ 31.00	0.89%	\$ 0.43	\$ 615.90		\$ 1.00
			Sep-10	2010	Q3	\$ 615.47	\$ 31.00	0.89%	\$ 0.46	\$ 646.93		\$ 1.00
			Oct-10	2010	Q4	\$ 646.47	\$ 31.00	1.20%	\$ 0.65	\$ 678.12		\$ 1.00
			Nov-10	2010	Q4	\$ 677.47	\$ 31.00	1.20%	\$ 0.68	\$ 709.15		\$ 1.00
			Dec-10	2010	Q4	\$ 708.47	\$ 12.97	1.20%	\$ 0.71	\$ 722.15	\$ 358.54	\$ 1.00
			Jan-11	2011	Q1	\$ 721.44	\$ 31.10	1.47%	\$ 0.88	\$ 753.42		\$ 1.00
			Feb-11	2011	Q1	\$ 752.54	\$ 31.00	1.47%	\$ 0.92	\$ 784.46		\$ 1.00
			Mar-11	2011	Q1	\$ 783.54	\$ 31.00	1.47%	\$ 0.96	\$ 815.50		\$ 1.00
			Apr-11	2011	Q2	\$ 814.54	\$ 31.00	1.47%	\$ 1.00	\$ 846.54		\$ 1.00
			May-11	2011	Q2	\$ 845.54	\$ 31.00	1.47%	\$ 1.04	\$ 877.58		\$ 2.50
			Jun-11	2011	Q2	\$ 876.54	\$ 54.25	1.47%	\$ 1.07	\$ 931.86		\$ 2.50
			Jul-11	2011	Q3	\$ 930.79	\$ 77.50	1.47%	\$ 1.14	\$ 1,009.43		\$ 2.50
			Aug-11	2011	Q3	\$ 1,008.29	\$ 77.50	1.47%	\$ 1.24	\$ 1,087.03		\$ 2.50
			Sep-11	2011	Q3	\$ 1,085.79	\$ 77.50	1.47%	\$ 1.33	\$ 1,164.62		\$ 2.50
			Oct-11	2011	Q4	\$ 1,163.29	\$ 77.50	1.47%	\$ 1.43	\$ 1,242.22		\$ 2.50
			Nov-11	2011	Q4	\$ 1,240.79	\$ 77.50	1.47%	\$ 1.52	\$ 1,319.81		\$ 2.50
			Dec-11	2011	Q4	\$ 1,318.29	\$ 164.67	1.47%	\$ 1.61	\$ 1,484.57	\$ 775.66	\$ 2.50



This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP				Opening Balance (Principal)	Funding Adder Revenues	Interest		Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder (from Tariff)
			Date	Year	Quarter			Rate	Interest			
			Jan-12	2012	Q1	\$ 1,482.96	\$ 77.50	1.47%	\$ 1.82	\$ 1,562.28		\$ 2.50
			Feb-12	2012	Q1	\$ 1,560.46	\$ 77.50	1.47%	\$ 1.91	\$ 1,639.87		\$ 2.50
			Mar-12	2012	Q1	\$ 1,637.96	\$ 77.50	1.47%	\$ 2.01	\$ 1,717.47		\$ 2.50
			Apr-12	2012	Q2	\$ 1,715.46	\$ 77.50	1.47%	\$ 2.10	\$ 1,795.06		\$ 2.50
			May-12	2012	Q2	\$ 1,792.96	\$ 7.76	1.47%	\$ 2.20	\$ 1,787.40		
			Jun-12	2012	Q2	\$ 1,785.20		1.47%	\$ 2.19	\$ 1,787.39		
			Jul-12	2012	Q3	\$ 1,785.20		1.47%	\$ 2.19	\$ 1,787.39		
			Aug-12	2012	Q3	\$ 1,785.20		1.47%	\$ 2.19	\$ 1,787.39		
			Sep-12	2012	Q3	\$ 1,785.20		1.47%	\$ 2.19	\$ 1,787.39		
			Oct-12	2012	Q4	\$ 1,785.20		1.47%	\$ 2.19	\$ 1,787.39		
			Nov-12	2012	Q4	\$ 1,785.20		1.47%	\$ 2.19	\$ 1,787.39		
			Dec-12	2012	Q4	\$ 1,785.20		1.47%	\$ 2.19	\$ 1,787.39	\$ 327.61	
Total Funding Adder Revenues Collected						\$ 1,785.20		\$ 47.30	\$ 1,832.50	\$ 1,832.50		



Middlesex Power Distribution Corporation - Newbury

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%	4.29%	Dec-07	2007	Q4	-			-	5.14%	-	-
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	-			-	5.14%	-	-
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	-			-	5.14%	-	-
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	-			-	5.14%	-	-
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	-			-	4.08%	-	-
			May-08	2008	Q2	-			-	4.08%	-	-
			Jun-08	2008	Q2	-			-	4.08%	-	-
			Jul-08	2008	Q3	-			-	3.35%	-	-
			Aug-08	2008	Q3	-			-	3.35%	-	-
			Sep-08	2008	Q3	-			-	3.35%	-	-
			Oct-08	2008	Q4	-			-	3.35%	-	-
			Nov-08	2008	Q4	-			-	3.35%	-	-
			Dec-08	2008	Q4	-			-	3.35%	-	-
			Jan-09	2009	Q1	-			-	2.45%	-	-
			Feb-09	2009	Q1	-			-	2.45%	-	-
			Mar-09	2009	Q1	-			-	2.45%	-	-
			Apr-09	2009	Q2	-			-	1.00%	-	-
			May-09	2009	Q2	-			-	1.00%	-	-
			Jun-09	2009	Q2	-			-	1.00%	-	-
			Jul-09	2009	Q3	-			-	0.55%	-	-
			Aug-09	2009	Q3	-			-	0.55%	-	-
			Sep-09	2009	Q3	-			-	0.55%	-	-
			Oct-09	2009	Q4	-			-	0.55%	-	-
			Nov-09	2009	Q4	-			-	0.55%	-	-
			Dec-09	2009	Q4	-			-	0.55%	-	-
			Jan-10	2010	Q1	-			-	0.55%	-	-
			Feb-10	2010	Q1	-			-	0.55%	-	-
			Mar-10	2010	Q1	-			-	0.55%	-	-
			Apr-10	2010	Q2	-			-	0.55%	-	-
			May-10	2010	Q2	-			-	0.55%	-	-
			Jun-10	2010	Q2	-			-	0.55%	-	-
			Jul-10	2010	Q3	-			-	0.89%	-	-
			Aug-10	2010	Q3	-			-	0.89%	-	-
			Sep-10	2010	Q3	-			-	0.89%	-	-
			Oct-10	2010	Q4	-			-	1.20%	-	-
			Nov-10	2010	Q4	-			-	1.20%	-	-
			Dec-10	2010	Q4	-			-	1.20%	-	-
			Jan-11	2011	Q1	-			-	1.47%	-	-
			Feb-11	2011	Q1	-			-	1.47%	-	-
			Mar-11	2011	Q1	-			-	1.47%	-	-
			Apr-11	2011	Q2	-			-	1.47%	-	-
			May-11	2011	Q2	-			-	1.47%	-	-
			Jun-11	2011	Q2	-			-	1.47%	-	-
			Jul-11	2011	Q3	-			-	1.47%	-	-
			Aug-11	2011	Q3	-			-	1.47%	-	-
			Sep-11	2011	Q3	-			-	1.47%	-	-
			Oct-11	2011	Q4	-			-	1.47%	-	-
			Nov-11	2011	Q4	-			-	1.47%	-	-
			Dec-11	2011	Q4	-			-	1.47%	-	-
			Jan-12	2012	Q1	-			-	1.47%	-	-
			Feb-12	2012	Q1	-			-	1.47%	-	-
			Mar-12	2012	Q1	-			-	1.47%	-	-
			Apr-12	2012	Q2	-			-	1.47%	-	-
			May-12	2012	Q2	-			-	1.47%	-	-
			Jun-12	2012	Q2	-			-	1.47%	-	-
			Jul-12	2012	Q3	-			-	1.47%	-	-
			Aug-12	2012	Q3	-			-	1.47%	-	-
			Sep-12	2012	Q3	-			-	1.47%	-	-
			Oct-12	2012	Q4	-			-	1.47%	-	-
			Nov-12	2012	Q4	-			-	1.47%	-	-
			Dec-12	2012	Q4	-			-	1.47%	-	-
						\$	-	\$	-	\$	-	-



Ontario Energy Board

Smart Meter Model

# Middlesex Power Distribution Corporation - Newbury

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

Year	OM&A (from Sheet 5)	Amortization Expense (from Sheet 5)	Cumulative OM&A and Amortization Expense	Average Cumulative OM&A and Amortization Expense	Average Annual Prescribed Interest Rate for Deferral and Variance Accounts (from Sheets 8A and 8B)	Simple Interest on OM&A and Amortization Expenses
2006	\$ -	\$ -	\$ -	\$ -	4.37%	\$ -
2007	\$ -	\$ -	\$ -	\$ -	4.73%	\$ -
2008	\$ -	\$ -	\$ -	\$ -	3.98%	\$ -
2009	\$ 79.12	\$ 286.56	\$ 365.68	\$ 182.84	1.14%	\$ 2.08
2010	\$ 313.80	\$ 573.12	\$ 1,252.60	\$ 809.14	0.80%	\$ 6.45
2011	\$ 271.38	\$ 573.12	\$ 2,097.09	\$ 1,674.84	1.47%	\$ 24.62
2012	\$ 69.97	\$ 560.57	\$ 2,727.63	\$ 2,412.36	1.47%	\$ 35.46
Cumulative Interest to 2011						\$ 33.15
Cumulative Interest to 2012						\$ 68.61



# Ontario Energy Board

## Smart Meter Model

### Middlesex Power Distribution Corporation - Newbury

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

#### Check if applicable

- ☐ Smart Meter Funding Adder (SMFA)
- ☒ Smart Meter Disposition Rider (SMDR)
- ☒ Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)

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

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

	2006	2007	2008	2009	2010	2011	2012 and later	Total
Deferred and forecasted Smart Meter Incremental Revenue Requirement (from Sheet 5)	\$ -	\$ -	\$ -	\$ 611.78	\$ 1,397.08	\$ 1,387.78	\$ 1,143.57	\$ 4,540.21
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B) (Check one of the boxes below)	\$ -	\$ -	\$ -	\$ 2.08	\$ 6.45	\$ 24.62		\$ 33.15
<input type="checkbox"/> Sheet 8A (Interest calculated on monthly balances)								\$ -
<input checked="" type="checkbox"/> Sheet 8B (Interest calculated on average annual balances)	\$ -	\$ -	\$ -	\$ 2.08	\$ 6.45	\$ 24.62		\$ 33.15
SMFA Revenues (from Sheet 8)	\$ -	\$ 8.16	\$ 86.51	\$ 272.80	\$ 353.97	\$ 761.52	\$ 302.24	\$ 1,785.20
SMFA Interest (from Sheet 8)	\$ -	\$ -	\$ 1.72	\$ 1.50	\$ 4.57	\$ 14.14	\$ 25.37	\$ 47.30
Net Deferred Revenue Requirement	\$ -	\$ 8.16	\$ 88.23	\$ 339.56	\$ 1,045.00	\$ 636.74	\$ 815.96	\$ 2,740.86
Number of Metered Customers (average for 2012 test year)							31	

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

Years for collection or refunding	3.5	
Deferred Incremental Revenue Requirement from 2006 to December 31, 2011 plus Interest on OM&A and Amortization	\$ 3,429.79	
SMFA Revenues collected from 2006 to 2012 test year (inclusive) Plus Simple Interest on SMFA Revenues	\$ 1,832.50	
Net Deferred Revenue Requirement	\$ 1,597.29	
SMDR November 1, 2012 to April 30, 2013	\$ 1.23	Match
Check: Forecasted SMDR Revenues	\$ 1,601.46	

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

Incremental Revenue Requirement for 2012	\$ 1,143.57	
SMIRR	\$ 3.07	Match
Check: Forecasted SMIRR Revenues	\$ 1,142.04	

**Entegrus Powerlines Inc.**

SM Final Disposition – Interrogatory Responses

Board File No.: EB-2012-0289

Date Filed: September 7, 2012

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**Attachment L**  
**Smart Meter Model**  
**Newbury GS>50kW**





Ontario Energy Board

## Smart Meter Model

## Choose Your Utility:

Middlesex Power Distribution Corporation - Newbury

Midland Power Utility Corporation

## Application Contact Information

Name: Andrya Eagen

Title: Senior Regulatory Specialist

Phone Number: 519-352-6300 Ext 243

Email Address: andryaeagen@ckenergy.com

We are applying for rates effective: November 1, 2012

Last COS Re-based Year 2006

## Legend

DROP-DOWN MENU

INPUT FIELD

CALCULATION FIELD

## Copyright

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

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



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

For 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 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
<b>Smart Meter Installation Plan</b>								
<b>Actual/Planned number of Smart Meters installed during the Calendar Year</b>								
Residential								0
General Service < 50 kW								0
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	0	0	0	0	0	0
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Actual/Planned number of GS > 50 kW meters installed				4				4
Other (please identify)								0
Total Number of Smart Meters installed or planned to be installed	0	0	0	4	0	0	0	4
<b>1 Capital Costs</b>								
<b>1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.1.1 Smart Meters (may include new meters and modules, etc.)	Smart Meter			2,462	0	0		\$ 2,462
1.1.2 Installation Costs (may include socket kits, labour, vehicle, benefits, etc.)	Smart Meter			306	0	0		\$ 306
1.1.3a Workforce Automation Hardware (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
1.1.3b Workforce Automation Software (may include fieldwork handhelds, barcode hardware, etc.)								\$ -
Total Advanced Metering Communications Devices (AMCD)	\$ -	\$ -	\$ -	\$ 2,768	\$ -	\$ -	\$ -	\$ 2,768
<b>1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.2.1 Collectors								\$ -
1.2.2 Repeaters (may include radio licence, etc.)				0	0	0		\$ -
1.2.3 Installation (may include meter seals and rings, collector computer hardware, etc.)								\$ -
Total Advanced Metering Regional Collector (AMRC) (includes LAN)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.3.1 Computer Hardware								\$ -
1.3.2 Computer Software								\$ -
1.3.3 Computer Software Licences & Installation (includes hardware and software) (may include AS400 disk space, backup and recovery computer, UPS, etc.)								\$ -
Total Advanced Metering Control Computer (AMCC)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>1.4 WIDE AREA NETWORK (WAN)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.4.1 Activation Fees				0	0	0		\$ -
Total Wide Area Network (WAN)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.5.1 Customer Equipment (including repair of damaged equipment)								\$ -
1.5.2 AMI Interface to CIS								\$ -
1.5.3 Professional Fees								\$ -
1.5.4 Integration								\$ -
1.5.5 Program Management								\$ -
1.5.6 Other AMI Capital								\$ -
Total Other AMI Capital Costs Related to Minimum Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Capital Costs Related to Minimum Functionality	\$ -	\$ -	\$ -	\$ 2,768	\$ -	\$ -	\$ -	\$ 2,768
<b>1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06	Computer Software							\$ -
1.6.2 Costs for deployment of smart meters to customers other than residential and small general service	Applications Software							\$ -
1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDNR, etc.								\$ -
Total Capital Costs Beyond Minimum Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Smart Meter Capital Costs	\$ -	\$ -	\$ -	\$ 2,768	\$ -	\$ -	\$ -	\$ 2,768
<b>2 OM&amp;A Expenses</b>								
<b>2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
2.1.1 Maintenance (may include meter reverification costs, etc.)				5	4	7	0	\$ 17
2.1.2 Other (please specify)								\$ -
Total Incremental AMCD OM&A Costs	\$ -	\$ -	\$ -	\$ 6	\$ 4	\$ 7	\$ -	\$ 17



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

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

##### 2.2.1 Maintenance

##### 2.2.2 Other (please specify)

#### Total Incremental AMRC OM&A Costs

#### 2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)

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

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

##### 2.3.2 Other (please specify)

#### Total Incremental AMCC OM&A Costs

#### 2.4 WIDE AREA NETWORK (WAN)

##### 2.4.1 WAN Maintenance

##### 2.4.2 Other (please specify)

#### Total Incremental AMRC OM&A Costs

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

##### 2.5.1 Business Process Redesign

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

##### 2.5.3 Program Management

##### 2.5.4 Change Management (may include training, etc.)

##### 2.5.5 Administration Costs

##### 2.5.6 Other AM Expenses

##### (please specify)

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

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

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

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

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

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

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

#### Total OM&A Costs Beyond Minimum Functionality

#### Total Smart Meter OM&A Costs

	2006	2007	2008	2009	2010	2011	2012 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
								\$ -
								\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
								\$ 2
				1	1	0	0	\$ 14
				2	2	1	9	\$ -
	\$ -	\$ -	\$ -	\$ 3	\$ 2	\$ 2	\$ 9	\$ 16
								\$ -
								\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
								\$ -
								\$ -
								\$ -
								\$ -
				0	0	0	0	\$ 0
				1	0	1	0	\$ 2
	\$ -	\$ -	\$ -	\$ 1	\$ 0	\$ 1	\$ -	\$ 2
	\$ -	\$ -	\$ -	\$ 9	\$ 7	\$ 9	\$ 9	\$ 34
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual		
								\$ -
								\$ -
				0	0	0	0	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ 9	\$ 7	\$ 9	\$ 9	\$ 34

### 3 Aggregate Smart Meter Costs by Category

#### 3.1

#### Capital

##### 3.1.1 Smart Meter

##### 3.1.2 Computer Hardware

##### 3.1.3 Computer Software

##### 3.1.4 Tools & Equipment

##### 3.1.5 Other Equipment

##### 3.1.6 Applications Software

##### 3.1.7 Total Capital Costs

#### 3.2 OM&A Costs

##### 3.2.1 Total OM&A Costs

\$ -	\$ -	\$ -	\$ 2,768	\$ -	\$ -	\$ -	\$ -	\$ 2,768
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ 2,768	\$ -	\$ -	\$ -	\$ -	\$ 2,768
\$ -	\$ -	\$ -	\$ 9	\$ 7	\$ 9	\$ 9	\$ 9	\$ 34



Ontario Energy Board

## Smart Meter Model

### Middlesex Power Distribution Corporation - Newbury

	2006	2007	2008	2009	2010	2011	2012 and later
<b>Cost of Capital</b>							
<b>Capital Structure<sup>1</sup></b>							
Deemed Short-term Debt Capitalization							
Deemed Long-term Debt Capitalization	50.0%	50.0%	53.3%	56.7%	60.0%	60.0%	60.0%
Deemed Equity Capitalization	50.0%	50.0%	46.7%	43.3%	40.0%	40.0%	40.0%
Preferred Shares	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<b>Cost of Capital Parameters</b>							
Deemed Short-term Debt Rate							
Long-term Debt Rate (actual/embedded/deemed) <sup>2</sup>	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
Return on Preferred Shares							
<b>WACC</b>	8.13%	8.13%	8.07%	8.01%	7.95%	7.95%	7.95%
<b>Working Capital Allowance</b>							
Working Capital Allowance Rate (% of the sum of Cost of Power + controllable expenses)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
<b>Taxes/PILs</b>							
Aggregate Corporate Income Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%
<b>Depreciation Rates</b> (expressed as expected useful life in years)							
Smart Meters - years	15	15	15	15	15	15	15
- rate (%)	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%
Computer Hardware - years	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Computer Software - years	3	3	3	3	3	3	3
- rate (%)	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%
Tools & Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Other Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
<b>CCA Rates</b>							
Smart Meters - CCA Class	47	47	47	47	47	47	47
Smart Meters - CCA Rate	8%	8%	8%	8%	8%	8%	8%
Computer Equipment - CCA Class	45	50	50	50	50	50	50
Computer Equipment - CCA Rate	45%	55%	55%	55%	55%	55%	55%
General Equipment - CCA Class	8	8	8	8	8	8	8
General Equipment - CCA Rate	20%	20%	20%	20%	20%	20%	20%
Applications Software - CCA Class	12	12	12	12	12	12	12
Applications Software - CCA Rate	100%	100%	100%	100%	100%	100%	100%

#### Assumptions

<sup>1</sup> Planned smart meter installations occur evenly throughout the year.

<sup>2</sup> Fiscal calendar year (January 1 to December 31) used.

<sup>3</sup> Amortization is done on a straight line basis and has the "half-year" rule applied.



	2006	2007	2008	2009	2010	2011	2012 and later
<b>Net Fixed Assets - Smart Meters</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 2,768	\$ 2,768	\$ 2,768
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 2,768	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 2,768	\$ 2,768	\$ 2,768	\$ 2,768
<b>Accumulated Depreciation</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ 92	\$ 277	\$ 461
Amortization expense during year	\$ -	\$ -	\$ -	\$ 92	\$ 185	\$ 185	\$ 185
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 92	\$ 277	\$ 461	\$ 646
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 2,675	\$ 2,491	\$ 2,306
Closing Balance	\$ -	\$ -	\$ -	\$ 2,675	\$ 2,491	\$ 2,306	\$ 2,122
Average Net Book Value	\$ -	\$ -	\$ -	\$ 1,338	\$ 2,583	\$ 2,399	\$ 2,214
<b>Net Fixed Assets - Computer Hardware</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Fixed Assets - Computer Software (Including Applications Software)</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Fixed Assets - Tools and Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Fixed Assets - Other Equipment</b>							
<b>Gross Book Value</b>							
Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Accumulated Depreciation</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Book Value</b>							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



Ontario Energy Board  
Smart Meter Model

Middlesex Power Distribution Corporation - Newbury

Average Net Fixed Asset Values (from Sheet 4)

	2006	2007	2008	2009	2010	2011	2012 and Later
Smart Meters	\$ -	\$ -	\$ -	\$ 1,338	\$ 2,583	\$ 2,399	\$ 2,214
Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Computer Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Net Fixed Assets</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,338</b>	<b>\$ 2,583</b>	<b>\$ 2,399</b>	<b>\$ 2,214</b>

Working Capital

Operating Expenses (from Sheet 2)	\$ -	\$ -	\$ -	\$ 9	\$ 7	\$ 9	\$ 9
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	\$ -	\$ -	\$ -	\$ 1	\$ 1	\$ 1	\$ 1

Incremental Smart Meter Rate Base

	\$ -	\$ -	\$ -	\$ 1,339	\$ 2,584	\$ 2,400	\$ 2,215
--	------	------	------	----------	----------	----------	----------

Return on Rate Base

Capital Structure

Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Long Term Debt	\$ -	\$ -	\$ -	\$ 759	\$ 1,550	\$ 1,440	\$ 1,329
Equity	\$ -	\$ -	\$ -	\$ 580	\$ 1,034	\$ 960	\$ 886
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Capitalization</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,339</b>	<b>\$ 2,584</b>	<b>\$ 2,400</b>	<b>\$ 2,215</b>

Return on

Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Long Term Debt	\$ -	\$ -	\$ -	\$ 55	\$ 112	\$ 104	\$ 96
Equity	\$ -	\$ -	\$ -	\$ 52	\$ 93	\$ 86	\$ 80
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Return on Capital</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 107</b>	<b>\$ 205</b>	<b>\$ 191</b>	<b>\$ 176</b>

Operating Expenses

	\$ -	\$ -	\$ -	\$ 9	\$ 7	\$ 9	\$ 9
--	------	------	------	------	------	------	------

Amortization Expenses (from Sheet 4)

Smart Meters	\$ -	\$ -	\$ -	\$ 92	\$ 185	\$ 185	\$ 185
Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Computer Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Amortization Expense in Year</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 92</b>	<b>\$ 185</b>	<b>\$ 185</b>	<b>\$ 185</b>

Incremental Revenue Requirement before Taxes/PILs

	\$ -	\$ -	\$ -	\$ 209	\$ 397	\$ 384	\$ 370
--	------	------	------	--------	--------	--------	--------

Calculation of Taxable Income

Incremental Operating Expenses	\$ -	\$ -	\$ -	\$ 9	\$ 7	\$ 9	\$ 9
Amortization Expense	\$ -	\$ -	\$ -	\$ 92	\$ 185	\$ 185	\$ 185
Interest Expense	\$ -	\$ -	\$ -	\$ 55	\$ 112	\$ 104	\$ 96
<b>Net Income for Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 52</b>	<b>\$ 93</b>	<b>\$ 86</b>	<b>\$ 80</b>

Grossed-up Taxes/PILs (from Sheet 7)

	\$ -	\$ -	\$ -	\$ 22.63	\$ 31.06	\$ 29.67	\$ 30.03
--	------	------	------	----------	----------	----------	----------

Revenue Requirement, including Grossed-up Taxes/PILs

	\$ -	\$ -	\$ -	\$ 232	\$ 428	\$ 414	\$ 400
--	------	------	------	--------	--------	--------	--------



Ontario Energy Board

Smart Meter Model

Middlesex Power Distribution Corporation - Newbury

## 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 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 2,656.82	\$ 2,444.28	\$ 2,248.74
Capital Additions	\$ -	\$ -	\$ -	\$ 2,767.52	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 2,767.52	\$ 2,656.82	\$ 2,444.28	\$ 2,248.74
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ 1,383.76	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ 1,383.76	\$ 2,656.82	\$ 2,444.28	\$ 2,248.74
CCA Rate Class	47	47	47	47	47	47	47
CCA Rate	8%	8%	8%	8%	8%	8%	8%
CCA	\$ -	\$ -	\$ -	\$ 110.70	\$ 212.55	\$ 195.54	\$ 179.90
Closing UCC	\$ -	\$ -	\$ -	\$ 2,656.82	\$ 2,444.28	\$ 2,248.74	\$ 2,068.84

### UCC - Computer Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Computer Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA Rate Class	45	50	50	50	50	50	50
CCA Rate	45%	55%	55%	55%	55%	55%	55%
CCA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

### UCC - General Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA Rate Class	8	8	8	8	8	8	8
CCA Rate	20%	20%	20%	20%	20%	20%	20%
CCA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



Ontario Energy Board

Smart Meter Model

Middlesex Power Distribution Corporation - Newbury

## PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
<b>INCOME TAX</b>							
Net Income	\$ -	\$ -	\$ -	\$ 52.18	\$ 93.03	\$ 86.39	\$ 79.75
Amortization	\$ -	\$ -	\$ -	\$ 92.25	\$ 184.50	\$ 184.50	\$ 184.50
CCA - Smart Meters	\$ -	\$ -	\$ -	\$ 110.70	\$ 212.55	\$ 195.54	\$ 179.90
CCA - Computers	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA - Applications Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA - Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Change in taxable income	\$ -	\$ -	\$ -	\$ 33.73	\$ 64.98	\$ 75.35	\$ 84.36
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Income Taxes Payable	\$ -	\$ -	\$ -	\$ 11.13	\$ 20.14	\$ 21.29	\$ 22.14
<b>ONTARIO CAPITAL TAX</b>							
Smart Meters	\$ -	\$ -	\$ -	\$ 2,675.27	\$ 2,490.77	\$ 2,306.27	\$ 2,121.77
Computer Hardware	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Computer Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(Including Application Software)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Base	\$ -	\$ -	\$ -	\$ 2,675.27	\$ 2,490.77	\$ 2,306.27	\$ 2,121.77
Less: Exemption	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Taxable Capital	\$ -	\$ -	\$ -	\$ 2,675.27	\$ 2,490.77	\$ 2,306.27	\$ 2,121.77
Ontario Capital Tax Rate (from Sheet 3)	0.300%	0.225%	0.225%	0.225%	0.075%	0.000%	0.000%
Net Amount (Taxable Capital x Rate)	\$ -	\$ -	\$ -	\$ 6.02	\$ 1.87	\$ -	\$ -
Change in Income Taxes Payable	\$ -	\$ -	\$ -	\$ 11.13	\$ 20.14	\$ 21.29	\$ 22.14
Change in OCT	\$ -	\$ -	\$ -	\$ 6.02	\$ 1.87	\$ -	\$ -
PILs	\$ -	\$ -	\$ -	\$ 17.15	\$ 22.01	\$ 21.29	\$ 22.14
<b>Gross Up PILs</b>							
Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Change in Income Taxes Payable	\$ -	\$ -	\$ -	\$ 16.61	\$ 29.20	\$ 29.67	\$ 30.03
Change in OCT	\$ -	\$ -	\$ -	\$ 6.02	\$ 1.87	\$ -	\$ -
PILs	\$ -	\$ -	\$ -	\$ 22.63	\$ 31.06	\$ 29.67	\$ 30.03





Ontario Energy Board

Smart Meter Model

Middlesex Power Distribution Corporation - Newbury

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	\$ -		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	\$ -	\$ 0.12	5.14%	\$ -	\$ 0.12		\$ 0.25
2011 Q4	1.47%	4.29%	Dec-07	2007	Q4	\$ 0.12	\$ 1.00	5.14%	\$ -	\$ 1.12	\$ 1.12	\$ 0.25
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	\$ 1.12	\$ 1.00	5.14%	\$ -	\$ 2.12		\$ 0.25
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	\$ 2.12	\$ 1.00	5.14%	\$ 0.01	\$ 3.13		\$ 0.25
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	\$ 3.12	\$ 1.00	5.14%	\$ 0.01	\$ 4.13		\$ 0.25
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	\$ 4.12	\$ 1.00	4.08%	\$ 0.01	\$ 5.13		\$ 0.25
			May-08	2008	Q2	\$ 5.12	\$ 1.00	4.08%	\$ 0.02	\$ 6.14		\$ 0.25
			Jun-08	2008	Q2	\$ 6.12	\$ 1.00	4.08%	\$ 0.02	\$ 7.14		\$ 0.25
			Jul-08	2008	Q3	\$ 7.12	\$ 1.00	3.35%	\$ 0.02	\$ 8.14		\$ 0.25
			Aug-08	2008	Q3	\$ 8.12	\$ 1.00	3.35%	\$ 0.02	\$ 9.14		\$ 0.25
			Sep-08	2008	Q3	\$ 9.12	\$ 1.00	3.35%	\$ 0.03	\$ 10.15		\$ 0.25
			Oct-08	2008	Q4	\$ 10.12	\$ 1.00	3.35%	\$ 0.03	\$ 11.15		\$ 0.25
			Nov-08	2008	Q4	\$ 11.12	\$ 1.00	3.35%	\$ 0.03	\$ 12.15		\$ 0.25
			Dec-08	2008	Q4	\$ 12.12	\$ 1.00	3.35%	\$ 0.03	\$ 13.15	\$ 12.23	\$ 0.25
			Jan-09	2009	Q1	\$ 13.12	\$ 1.00	2.45%	\$ 0.03	\$ 14.15		\$ 0.25
			Feb-09	2009	Q1	\$ 14.12	\$ 1.00	2.45%	\$ 0.03	\$ 15.15		\$ 0.25
			Mar-09	2009	Q1	\$ 15.12	\$ 1.00	2.45%	\$ 0.03	\$ 16.15		\$ 0.25
			Apr-09	2009	Q2	\$ 16.12	\$ 1.00	1.00%	\$ 0.01	\$ 17.13		\$ 0.25
			May-09	2009	Q2	\$ 17.12	\$ -	1.00%	\$ 0.01	\$ 17.13		\$ 1.00
			Jun-09	2009	Q2	\$ 17.12	\$ 2.00	1.00%	\$ 0.01	\$ 19.13		\$ 1.00
			Jul-09	2009	Q3	\$ 19.12	\$ 4.00	0.55%	\$ 0.01	\$ 23.13		\$ 1.00
			Aug-09	2009	Q3	\$ 23.12	\$ 4.00	0.55%	\$ 0.01	\$ 27.13		\$ 1.00
			Sep-09	2009	Q3	\$ 27.12	\$ 4.00	0.55%	\$ 0.01	\$ 31.13		\$ 1.00
			Oct-09	2009	Q4	\$ 31.12	\$ 4.00	0.55%	\$ 0.01	\$ 35.13		\$ 1.00
			Nov-09	2009	Q4	\$ 35.12	\$ 4.00	0.55%	\$ 0.02	\$ 39.14		\$ 1.00
			Dec-09	2009	Q4	\$ 39.12	\$ 10.33	0.55%	\$ 0.02	\$ 49.47	\$ 36.53	\$ 1.00
			Jan-10	2010	Q1	\$ 49.45	\$ 4.00	0.55%	\$ 0.02	\$ 53.47		\$ 1.00
			Feb-10	2010	Q1	\$ 53.45	\$ 4.00	0.55%	\$ 0.02	\$ 57.47		\$ 1.00
			Mar-10	2010	Q1	\$ 57.45	\$ 4.00	0.55%	\$ 0.03	\$ 61.48		\$ 1.00
			Apr-10	2010	Q2	\$ 61.45	\$ 4.00	0.55%	\$ 0.03	\$ 65.48		\$ 1.00
			May-10	2010	Q2	\$ 65.45	\$ 4.00	0.55%	\$ 0.03	\$ 69.48		\$ 1.00
			Jun-10	2010	Q2	\$ 69.45	\$ 4.00	0.55%	\$ 0.03	\$ 73.48		\$ 1.00
			Jul-10	2010	Q3	\$ 73.45	\$ 4.00	0.89%	\$ 0.05	\$ 77.50		\$ 1.00
			Aug-10	2010	Q3	\$ 77.45	\$ 4.00	0.89%	\$ 0.06	\$ 81.51		\$ 1.00
			Sep-10	2010	Q3	\$ 81.45	\$ 4.00	0.89%	\$ 0.06	\$ 85.51		\$ 1.00
			Oct-10	2010	Q4	\$ 85.45	\$ 4.00	1.20%	\$ 0.09	\$ 89.54		\$ 1.00
			Nov-10	2010	Q4	\$ 89.45	\$ 4.00	1.20%	\$ 0.09	\$ 93.54		\$ 1.00
			Dec-10	2010	Q4	\$ 93.45	\$ 1.67	1.20%	\$ 0.09	\$ 95.21	\$ 46.27	\$ 1.00
			Jan-11	2011	Q1	\$ 95.12	\$ 4.00	1.47%	\$ 0.12	\$ 99.24		\$ 1.00
			Feb-11	2011	Q1	\$ 99.12	\$ 4.00	1.47%	\$ 0.12	\$ 103.24		\$ 1.00
			Mar-11	2011	Q1	\$ 103.12	\$ 4.00	1.47%	\$ 0.13	\$ 107.25		\$ 1.00
			Apr-11	2011	Q2	\$ 107.12	\$ 4.00	1.47%	\$ 0.13	\$ 111.25		\$ 1.00
			May-11	2011	Q2	\$ 111.12	\$ 4.00	1.47%	\$ 0.14	\$ 115.26		\$ 2.50
			Jun-11	2011	Q2	\$ 115.12	\$ 7.00	1.47%	\$ 0.14	\$ 122.26		\$ 2.50
			Jul-11	2011	Q3	\$ 122.12	\$ 10.00	1.47%	\$ 0.15	\$ 132.27		\$ 2.50
			Aug-11	2011	Q3	\$ 132.12	\$ 10.00	1.47%	\$ 0.16	\$ 142.28		\$ 2.50
			Sep-11	2011	Q3	\$ 142.12	\$ 12.50	1.47%	\$ 0.17	\$ 154.79		\$ 2.50
			Oct-11	2011	Q4	\$ 154.62	\$ 12.50	1.47%	\$ 0.19	\$ 167.31		\$ 2.50
			Nov-11	2011	Q4	\$ 167.12	\$ 12.50	1.47%	\$ 0.20	\$ 179.82		\$ 2.50
			Dec-11	2011	Q4	\$ 179.62	\$ 27.65	1.47%	\$ 0.22	\$ 207.49	\$ 114.02	\$ 2.50



This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP				Opening Balance (Principal)	Funding Adder Revenues	Interest		Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder (from Tariff)
			Date	Year	Quarter			Rate	Interest			
			Jan-12	2012	Q1	\$ 207.27	\$ 12.50	1.47%	\$ 0.25	\$ 220.02		\$ 2.50
			Feb-12	2012	Q1	\$ 219.77	\$ 12.50	1.47%	\$ 0.27	\$ 232.54		\$ 2.50
			Mar-12	2012	Q1	\$ 232.27	\$ 12.50	1.47%	\$ 0.28	\$ 245.05		\$ 2.50
			Apr-12	2012	Q2	\$ 244.77	\$ 12.50	1.47%	\$ 0.30	\$ 257.57		\$ 2.50
			May-12	2012	Q2	\$ 257.27	\$ 2.05	1.47%	\$ 0.32	\$ 255.54		
			Jun-12	2012	Q2	\$ 255.22		1.47%	\$ 0.31	\$ 255.53		
			Jul-12	2012	Q3	\$ 255.22		1.47%	\$ 0.31	\$ 255.53		
			Aug-12	2012	Q3	\$ 255.22		1.47%	\$ 0.31	\$ 255.53		
			Sep-12	2012	Q3	\$ 255.22		1.47%	\$ 0.31	\$ 255.53		
			Oct-12	2012	Q4	\$ 255.22		1.47%	\$ 0.31	\$ 255.53		
			Nov-12	2012	Q4	\$ 255.22		1.47%	\$ 0.31	\$ 255.53		
			Dec-12	2012	Q4	\$ 255.22		1.47%	\$ 0.31	\$ 255.53	\$ 51.54	
Total Funding Adder Revenues Collected						\$	255.22		\$ 6.49	\$ 261.71	\$ 261.71	



Ontario Energy Board

Smart Meter Model

Middlesex Power Distribution Corporation - Newbury

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%	4.29%	Dec-07	2007	Q4	-			-	5.14%	-	-
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	-			-	5.14%	-	-
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	-			-	5.14%	-	-
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	-			-	5.14%	-	-
2012 Q4	1.47%	4.29%	Apr-08	2008	Q2	-			-	4.08%	-	-
			May-08	2008	Q2	-			-	4.08%	-	-
			Jun-08	2008	Q2	-			-	4.08%	-	-
			Jul-08	2008	Q3	-			-	3.35%	-	-
			Aug-08	2008	Q3	-			-	3.35%	-	-
			Sep-08	2008	Q3	-			-	3.35%	-	-
			Oct-08	2008	Q4	-			-	3.35%	-	-
			Nov-08	2008	Q4	-			-	3.35%	-	-
			Dec-08	2008	Q4	-			-	3.35%	-	-
			Jan-09	2009	Q1	-			-	2.45%	-	-
			Feb-09	2009	Q1	-			-	2.45%	-	-
			Mar-09	2009	Q1	-			-	2.45%	-	-
			Apr-09	2009	Q2	-			-	1.00%	-	-
			May-09	2009	Q2	-			-	1.00%	-	-
			Jun-09	2009	Q2	-			-	1.00%	-	-
			Jul-09	2009	Q3	-			-	0.55%	-	-
			Aug-09	2009	Q3	-			-	0.55%	-	-
			Sep-09	2009	Q3	-			-	0.55%	-	-
			Oct-09	2009	Q4	-			-	0.55%	-	-
			Nov-09	2009	Q4	-			-	0.55%	-	-
			Dec-09	2009	Q4	-			-	0.55%	-	-
			Jan-10	2010	Q1	-			-	0.55%	-	-
			Feb-10	2010	Q1	-			-	0.55%	-	-
			Mar-10	2010	Q1	-			-	0.55%	-	-
			Apr-10	2010	Q2	-			-	0.55%	-	-
			May-10	2010	Q2	-			-	0.55%	-	-
			Jun-10	2010	Q2	-			-	0.55%	-	-
			Jul-10	2010	Q3	-			-	0.89%	-	-
			Aug-10	2010	Q3	-			-	0.89%	-	-
			Sep-10	2010	Q3	-			-	0.89%	-	-
			Oct-10	2010	Q4	-			-	1.20%	-	-
			Nov-10	2010	Q4	-			-	1.20%	-	-
			Dec-10	2010	Q4	-			-	1.20%	-	-
			Jan-11	2011	Q1	-			-	1.47%	-	-
			Feb-11	2011	Q1	-			-	1.47%	-	-
			Mar-11	2011	Q1	-			-	1.47%	-	-
			Apr-11	2011	Q2	-			-	1.47%	-	-
			May-11	2011	Q2	-			-	1.47%	-	-
			Jun-11	2011	Q2	-			-	1.47%	-	-
			Jul-11	2011	Q3	-			-	1.47%	-	-
			Aug-11	2011	Q3	-			-	1.47%	-	-
			Sep-11	2011	Q3	-			-	1.47%	-	-
			Oct-11	2011	Q4	-			-	1.47%	-	-
			Nov-11	2011	Q4	-			-	1.47%	-	-
			Dec-11	2011	Q4	-			-	1.47%	-	-
			Jan-12	2012	Q1	-			-	1.47%	-	-
			Feb-12	2012	Q1	-			-	1.47%	-	-
			Mar-12	2012	Q1	-			-	1.47%	-	-
			Apr-12	2012	Q2	-			-	1.47%	-	-
			May-12	2012	Q2	-			-	1.47%	-	-
			Jun-12	2012	Q2	-			-	1.47%	-	-
			Jul-12	2012	Q3	-			-	1.47%	-	-
			Aug-12	2012	Q3	-			-	1.47%	-	-
			Sep-12	2012	Q3	-			-	1.47%	-	-
			Oct-12	2012	Q4	-			-	1.47%	-	-
			Nov-12	2012	Q4	-			-	1.47%	-	-
			Dec-12	2012	Q4	-			-	1.47%	-	-
						\$ -		\$ -	\$ -			



Ontario Energy Board

Smart Meter Model

## Middlesex Power Distribution Corporation - Newbury

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

Year	OM&A (from Sheet 5)	Amortization Expense (from Sheet 5)	Cumulative OM&A and Amortization Expense	Average Cumulative OM&A and Amortization Expense	Average Annual Prescribed Interest Rate for Deferral and Variance Accounts (from Sheets 8A and 8B)	Simple Interest on OM&A and Amortization Expenses
2006	\$ -	\$ -	\$ -	\$ -	4.37%	\$ -
2007	\$ -	\$ -	\$ -	\$ -	4.73%	\$ -
2008	\$ -	\$ -	\$ -	\$ -	3.98%	\$ -
2009	\$ 9.40	\$ 92.25	\$ 101.65	\$ 50.83	1.14%	\$ 0.58
2010	\$ 7.09	\$ 184.50	\$ 293.25	\$ 197.45	0.80%	\$ 1.57
2011	\$ 8.91	\$ 184.50	\$ 486.66	\$ 389.95	1.47%	\$ 5.73
2012	\$ 9.03	\$ 184.50	\$ 680.19	\$ 583.42	1.47%	\$ 8.58
Cumulative Interest to 2011						\$ 7.89
Cumulative Interest to 2012						\$ 16.46



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

Check if applicable

- ☐ Smart Meter Funding Adder (SMFA)
- ☒ Smart Meter Disposition Rider (SMDR)
- ☒ Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)

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

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

	2006	2007	2008	2009	2010	2011	2012 and later	Total
Deferred and forecasted Smart Meter Incremental Revenue Requirement (from Sheet 5)	\$ -	\$ -	\$ -	\$ 231.51	\$ 428.09	\$ 413.87	\$ 399.68	\$ 1,473.15
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B) (Check one of the boxes below)	\$ -	\$ -	\$ -	\$ 0.58	\$ 1.57	\$ 5.73		\$ 7.89
<input type="checkbox"/> Sheet 8A (Interest calculated on monthly balances)								\$ -
<input checked="" type="checkbox"/> Sheet 8B (Interest calculated on average annual balances)	\$ -	\$ -	\$ -	\$ 0.58	\$ 1.57	\$ 5.73		\$ 7.89
SMFA Revenues (from Sheet 8)	\$ -	\$ 1.12	\$ 12.00	\$ 36.33	\$ 45.67	\$ 112.15	\$ 47.95	\$ 255.22
SMFA Interest (from Sheet 8)	\$ -	\$ -	\$ 0.23	\$ 0.20	\$ 0.60	\$ 1.87	\$ 3.59	\$ 6.49
Net Deferred Revenue Requirement	\$ -	\$ 1.12	\$ 12.23	\$ 195.56	\$ 383.40	\$ 305.58	\$ 348.14	\$ 1,219.32
Number of Metered Customers (average for 2012 test year)							5	

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, 2011 plus Interest on OM&A and Amortization	\$ 1,081.36	
SMFA Revenues collected from 2006 to 2012 test year (inclusive) Plus Simple Interest on SMFA Revenues	\$ 261.71	
Net Deferred Revenue Requirement	\$ 819.65	
SMDR November 1, 2012 to October 31, 2013	\$ 13.66	Match
Check: Forecasted SMDR Revenues	\$ 819.60	

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

Incremental Revenue Requirement for 2012	\$ 399.68	
SMIRR	\$ 6.66	Match
Check: Forecasted SMIRR Revenues	\$ 399.60	