MIDLAND POWER UTILITY CORPORATION

16984 Highway#12 P.O. Box 820
Midland Ontario L4R 4P4

March 9, 2012

Ontario Energy Board
2300 Yonge Street
26th Floor
P.O. Box 2319
Toronto, Ontario
M4P 1E4

Attention: Ms. Kirsten Walli, Board Secretary

Dear Sirs:

Re: Midland Power Utility Corporation – 2012 Rate Application
Licence #ED 2002-0541; Board File No. EB-2011-0434

Enclosed please find Midland PUC's Interrogatory Response to Board Staff Interrogatories, filed under the RESS reporting system today.

Yours very truly,

MIDLAND POWER UTILITY CORPORATION

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Midland Power Utility Corporation
2012 Smart Meter Cost Recovery
EB-2011-0434

Response to:

Board Staff Interrogatories

In the Board's Notice of Application and Hearing for an Electricity Distribution Rate Change of Midland Power Utility Corporation ("Midland"), Friday February 24, 2012 was set as the deadline for interrogatories to Midland. Board staff submits the following interrogatories.

1. Letters of Comment

Following publication of the Notice of Application, the Board has, to date, received no letters of comment. Please confirm whether Midland has received any letters of comment, and if so, please file a copy of the letters of comment. For each, please confirm whether a reply was sent from Midland. If confirmed, please file that reply with the Board. Please ensure that the author's contact information except for the name is **redacted**. If not confirmed, please explain why a response was not sent and confirm if Midland intends to respond.

Midland PUC Response:
Midland PUC has not received any letters of comment.

2. Audited Balances

Midland has provided historical accounting details in the Smart Meter Model Version 2.17 ("Smart Meter Model") indicating that the balances were audited for all years up to and including 2011. However, Midland filed its application for smart meter cost recovery on December 19, 2011. It is unclear which balances have been audited, and whether the 2011 balance is a year-end figure.

a. Please state the date of the last audited balances for the Smart Meter Capital and Recovery Offset Variance Account 1555.and the Smart Meter OM&A Variance Account 1556.
b. What percentage of the total smart meter expenditures are represented by audited amounts?
c. Please confirm that the 2011 balances are estimated year-end balances.
d. Please provide the actual 2011 year end balances.

Midland PUC Response:

a) Midland PUC's financial statements were last audited the year ended December 31, 2010. Midland PUC would advise the audit for the year ended December 31, 2011 is on track to be finalized on March 23rd, 2012.

In the interim, we are advised by BDO Canada LLP there are no changes to the December 31, 2011 account balances 1555 and 1556 as represented by Midland PUC in this Application.

b) Once the 2011 audit is finalized, 91% of total smart meter expenditures will be represented by audited amounts. Table 2 b) below sets out the percentages for 2010 and 2011:

Table 2 b): Audited Smart Meter Expenditures

Rate Filing	*Total Actual*	*Total to 2010*	*Percentage*
Capital	*$1,291,251*	*$1,156,995*	
OM&A	*$220,377*	*$30,514*	
TOTAL	*$1,511,627*	*$1,187,509*	*79%*

c)

d)

e)

Rate Filing	*Total Actual*	*Total to 2011*	*Percentage*
Capital	*$1,291,251*	*$1,273,219*	
OM&A	*$220,377*	*$104,775*	
TOTAL	*$1,511,627*	*$1,377,994*	*91%*

c)

c) The 2011 balances included in the original Application are estimated year-end balances.

d) Midland PUC has updated the model to include actual costs incurred to December 31, 2011. In addition, Midland PUC has transferred the customer repair costs to a sub account within Account Number 1556 as discussed under Board IR#9.

3. Smart Meter Model – Smart Meter Costs

Midland has provided its expenditures by year in the Smart Meter Costs tab of the Smart Meter Model. Midland stated on page 7 of its application that deployment of residential and GS<50 kW meters started in 2009. However, Midland reports the following expenditures prior to 2009:

2006: $485
2007: $18,776
2008: $16,988.

Please provide further details of the nature of these expenses.

Midland PUC Response:
The costs incurred in 2006 were to purchase four meters. In 2007, Project Management Consulting costs were incurred in the sum of $17,635.55, along with mileage and accommodation expenses of $1,130.87. In 2008, Project Management Consulting costs were incurred in the sum of $16,208.75 along with travel expenses of $779.62. All of the above costs were incurred to provide assistance to Midland PUC in developing metering expertise, project plans, contract/RFP development and planning and education into the new smart metering environment.

4. Smart Meter Model – Cost of Service Parameters

Midland has provided the basic cost of service parameters for historical years in the Cost of Service Parameters tab in the Smart Meter Model. Board staff would like some clarification of some entries.

a. For 2006, the Board approved a Target Return on Equity of 9.0% for Midland. This return carried forward into the 2007 IRM applications. Please explain Midland's use of 9.9% for 2006 and 9.88% for 2007.
b. Midland has used the default debt rate of 6.25% in 2006, which carries forward also to 2007. However, in its 2006 EDR application RP-2005-0020/EB-2005-0390, Midland was approved to use a debt rate of 4.79%. Please explain the use of the 6.25%. In the alternative, please update the debt rate used for 2006 and 2007.
c. With respect to the CCA rates used for taxes/PILs, please explain the use of CCA class 1 for smart meters and class 8 for computer equipment. Please make any necessary corrections.

Midland PUC Response:

a) Midland PUC agrees the target return on equity in 2006 was 9% which should have carried forward to 2007. Midland PUC inadvertently input the incorrect rate of 9.88%.

b) Midland PUC agrees the debt rate should have been input as 4.79% in accordance with the 2006 EDR application.

c) Midland PUC has changed the smart meter class to 47 and the computer class to 12.

5. Ref: Smart Meter Model – Taxes/PILs Rates

Midland has used the maximum taxes/PILs rates input on sheet 3, row 40, for the years 2006, 2007, 2008, 2009, 2010, 2011 and 2012 and beyond. These are summarized in the following table:

Year	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012 and beyond**
Aggregate Federal and provincial income tax rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%

Please confirm that these are the tax rates corresponding to the taxes or PILs actually paid by Midland in each of the historical years, and the taxes/PILs that Midland forecasts it will pay for 2012. In the alternative, please explain the tax rates input and their derivation.

Midland PUC Response:

Midland PUC's effective tax rates for the years 2006 to 2012 are as follows:

Year	2006	2007	2008	2009	2010	2011	2012 & Beyond
Aggregate Federal and Provincial Income Tax Rate - Effective Tax Rate	28.89%	29.48%	19.59%	23.45%	21.97%	est 21.97%	est 21.97%

Midland PUC has changed the Smart Meter Model to reflect these rates and has estimated the 2011 and 2012 rates at the same level as 2010.

6. Smart Meter Model – Smart Meter Funding Adder Revenues and Interest

Midland has not projected interest through to April 30, 2012 in the Funding Adder Revenues Tab in the Smart Meter Model. As a result, interest is not estimated through to April 30, 2012. This can be adjusted by entering the current prescribed rate for interest on deferral and variance accounts of 1.47% into cells C48 (for January to March 2012) and L99 (for April 2012) on Sheet 8 Smart Meter Funding Adder Revenues and Interest.

a. Please provide Midland's reasons for not calculating interest for the first four months in 2012. In the alternative, please update the model.
b. Midland has input an estimated SMFA revenue of $14,481.18 for May 2012 on sheet 8. Given that Midland's SMFA is to sunset as of April 30, 2012, please provide the basis for the May 2012 SMFA revenues.

Midland PUC Response:

a) Midland PUC has updated the model to include the interest from January 2012 to April 2012.

b) Midland PUC bills its customers approximately one month in arrears and has included the revenues in May of 2012 to account for the billing period of April which would not be seen as revenue until May of 2012. In addition, Midland PUC has updated the SMFA revenues from January to May 2012 to $14,140 per month based on December 31, 2011 actual recoveries.

7. Unit Cost Calculations:

Midland states the average costs for residential smart meters is $87, and for GS<50 kW smart meters is $241. It references Appendix 8 as the source for these unit costs. It appears that a copy of Appendix 8 was not filed. Board staff would like to review the detailed calculations that determined the unit costs. Please file the calculations. All costs should be based on minimum functionality.

In preparing the unit and total costs, Board staff directs Midland to page 18 of *G-2011-0001 Smart Meter Funding and Cost Recovery – Final Disposition* (the "Guidelines") where it states that at a minimum an applicant should provide capital and operating unit cost per installed smart meter and in total for:

- Procurement and installation of the components of the AMI system;
- Customer information system;
- Incremental operating and maintenance activities; and
- Changes to ancillary systems.

Midland PUC Response:

Midland PUC advises the reference to "Appendix 8" was inadvertently quoted in error and should have been "Table 5: Smart Meter Disposition Rate Rider". Midland PUC apologies for this erroneous representation.

With respect to the average cost per meter, Midland PUC would advise at the time most of the meters were purchased, the cost for a residential Rex 2 meter was $87.36 and the cost for a GS<50kW A3 Alpha meter was $394.98. Approximately one half of the GS<50kW customers were serviced by the A3 Alpha Meter. Midland PUC's average cost per GS<50kW meter was therefore calculated at ((742/2 x $87) plus (742/2 x $395))/742= $241.

Midland PUC has determined there were 340, A3 Alpha meters installed in the GS<50kW class with the balance of meters installed the with Rex 2 meters.

The Table below "Average Cost Per Meter" provides an average of all meter purchases:

Table IR7: Average Cost Per Meter

Class	Type of Meter	Quantity	Meter Cost	Average Cost
Residential	Rex 2	6086	$558,092	$ 92
GS<50kW	A3 Alpha	340	$151,531	
	Rex 2	402	$ 36,180	
	TOTAL	742	$187,711	$ 253

Midland PUC has recalculated Table 5: Smart Meter Disposition Rate Rider and Table 6: Smart Meter Incremental Revenue Requirement Rate Rider to reflect the above changes to $92 per residential meter and $253 per GS<50kW meter as requested under IR #11 below.

With respect to the unit cost per installed meter Table IR7a below outlines the costs:

Table IR7a: Unit Cost Per Installed Meter

Unit Cost Calculations	Total Actual	# of Customers	Cost Per Customer
Procurement and Installation of AMI System	$ 1,258,605	6,828	$184
Customer Information System	$ 29,092	6,828	$4
Incremental Operating and Maintenance Activities	$ 179,823	6,828	$26
Changes to Ancillary Systems	$ 44,107	6,828	$6
	$1,511,627	6,828	$221

8. Costs Beyond Minimum Functionality

Midland has stated that it has only incurred costs beyond minimum functionality related to MDM/R and TOU rates. The Board, the Guidelines states, at page 17:

> "*Costs for other matters such as CIS changes or TOU bill presentment may be recoverable, but the distributor will have to support these costs and will have to demonstrate how they are required for the smart meter deployment program and that they are incremental to the distributor's normal operating costs.*"

a. Please state the level of and describe the costs incurred beyond minimum functionality, making specific reference to MDM/R, web presentment, CIS changes, TOU rates, business process changes, training and customer education costs.

b. Please state how these costs are required for Midland's smart meter programme, and how they are incremental to Midland's normal course of business.

c. Are the costs stated in Table 3 and Table 4 final? If the costs are not final costs, please provide an update, stating whether the update is final or not.

d. State the total costs for beyond minimum functionality, and the average unit costs per smart meter.

e. What is the annual impact on OM&A for beyond minimum functionality?

Midland PUC Response:

a) Midland PUC incurred $62,139 in capital costs (category 1.6.3) and $9,704 in OM&A costs (category 2.6.3). These costs are incurred to implement TOU rates, CIS enhancements and interfaces for web presentment and TOU maintenance fees, as well as customer education for TOU rates; all of which are required over and above Midland PUC's normal operating costs. These costs would not have been incurred if the TOU rate structure and guidelines were not implemented.

b) See a)

c) Midland PUC would advise the costs incurred to 2011 are final. The 2012 costs have not been finalized and are projections based on known expenses and capital requirements for 2012. Midland PUC has not included any costs in the 2012 projections for the IESO MDM/R fees. The costs set out in Tables 3 and 4 have been amended to include the changes made as a result of the OEB Staff IRs and as well, to include the final costs to 2011 and projected costs into 2012.

Table #3: Board Staff IR#8: Smart Meter Capital & OM&A

Rate Filing	Total Final to 2011	Total 2012 Projected	Total Actual	Total Budget	Variance
Minimum Functionality - Capital	$ 1,229,112	$ -	$ 1,229,112	$ 1,298,278	-$ 69,166
Minimum functionality - OM&A	$ 104,775	$ 105,897	$ 210,673	$ 279,429	-$ 68,756
Beyond Minimum Functionality - Capital	$ 44,107	$ 18,032	$ 62,139		$ 62,139
Beyond Minimum functionality - OM&A	$ -	$ 9,704	$ 9,704	$ 36,131	-$ 26,427
TOTAL	$ 1,377,994	$ 133,633	$ 1,511,628	$ 1,613,838	-$ 102,210

Table #4: Board Staff IR#8: Budget to Actual Cost Comparison 2006 to 2012

Rate Filing	Total Final to 2011	Total 2012 Projected	Total Actual	Total Budget	Variance
1.1 Advanced Metering Communication Device (AMCD)	$ 819,175	$ -	$ 819,175	$ 896,232	-$77,057
1.2 Advanced Metering Regional Collector (AMRC)	$ 104,844	$ -	$ 104,844	$ 118,568	-$13,724
1.3 Advanced Metering Control Computer (AMCC)	$ 75,719	$ -	$ 75,719	$ 86,500	-$10,781
1.5 Other AMI Capital Costs Related to Minimum Functionality	$ 229,373	$ -	$ 229,373	$ 196,978	$32,395
2.1 Advanced Metering Communication Device (AMCD)	$ 11,088	$ -	$ 11,088		$11,088
2.3 Advanced Metering Control Computer (AMCC)	$ 19,595	$ 10,943	$ 30,538	$ 64,116	-$33,578
2.4 Wide Area Network (WAN)	$ 4,471	$ 5,544	$ 10,015	$ 11,675	-$1,660
2.5 Other AMI OM&A Costs Related to M	$ 69,622	$ 89,410	$ 159,032	$ 203,638	-$44,606
Costs with the Initiative Not Identified In the OEB Smart Meter Rate Adder Model					
TOU Billing Budget (MDM/R Integration)	$44,107	$27,736	$71,843	$36,131	$35,712
	$1,377,994	$133,633	$1,511,627	$1,613,837	-$102,210

d) The total costs beyond minimum functionality are $71,843 with an average cost of $10.53

e) Midland PUC has not included expenses relating to the IESO MDMR operating fees in this Application. The annual impact on OM&A not including the IESO charges is $9,704.

9. Customer Repairs

The Board in the Guidelines stated:

> "*The actual costs for materials and parts to repair or replace any customer-owned equipment should be expensed and also tracked separately in a different sub-account of the Smart Meter OM&A Variance Account 1556 until disposition is ordered by the Board following a review for prudence of the smart meter costs. As the meter base remains the property of the customer, the Board determined that it would not be appropriate to have it form part of the distributor's rate base.*"

a. Please state the costs of repair or replacement of customer-owned equipment.

b. Are there any meter bases included in these costs? If so, please state the total amount.

c. Please confirm that these costs were recorded in a different sub-account of the Smart Meter OM&A Variance Account 1556.

Midland PUC Response:

a) Midland PUC has incurred $11,087.63 in costs relating to the redesign of the legacy metering designs where there were dual services at one residential customer location. These dual meters included one meter for electric heat service and a second meter for the remaining household consumption. The previous metering infrastructure allowed for one invoice to be sent to customers. With the introduction of smart meters, this would

not be an option – customers would receive two bills with two service charges, etc. Consequently, these costs were incurred to alleviate the necessity of installing two smart meters where one customer resides.

b) No meter bases are included in these costs.

c) In the original Application filing, Midland PUC incorporated these costs as installation capital costs. Midland PUC has transferred these costs to OM&A and has recorded them in a separate sub-account of account #1556. Midland PUC has updated the Smart Meter Model to reflect this change.

10. Ref: Smart Meter Model

If Midland has changed its inputs to the Smart Meter Model, please update and re-file its smart meter model in working Microsoft Excel format.

Midland PUC Response:
Midland PUC has changed the Smart Meter Model to reflect the changes in Board Staff questions 2, 4, 5, 6 and 9 and has refilled the Model with this response.

11. Ref: Application, Tables 5 and 6 – Cost Allocation

a) If Midland has made revisions to its Smart Meter Model as a result of its responses to interrogatories, please update its proposed class-specific SMDRs.
b) Similarly, please update the calculation of class-specific SMIRRs.

Midland PUC Response:

a) & b) Table # 5 and Table #6 are updated on the following pages. Midland PUC would point out the Smart Meter Cost of $745,803 includes the meter costs only. Included in the Smart Meter Model capital costs section 1.1.1 Smart Meters are costs for an antennae and a handheld reading device as follows:

Smart Meter 1.1.1	$755,702
Antennae	-2,497
Handheld Meter Reader	-7,402
	$745,803

Table 5: OEB IR#11 – Smart Meter Disposition Rate Rider

Smart Meter Actual Cost Recovery Rate Rider Calculated by Rate Class			
	Total	Residential	GS < 50
Allocators			
Midland Average Smart Meter Unit Cost		$ 92.00	$ 253.00
Smart Meter Cost	$ 745,803	$ 558,092	$ 187,711
Allocaiton of Smart Meter Costs	100.00%	74.83%	25.17%
Number of meters installed	6,828	6,086	742
Allocation of Number of meters installed	100.00%	89.13%	10.87%
Total Return (deemed interest plus return on equity)	$ 146,996	$ 109,999	$ 36,997
Amortization	$ 201,375	$ 150,691	$ 50,684
OM&A	$ 104,775	$ 93,389	$ 11,386
Revenue Requirement before PILs	$ 453,146	$ 354,079	$ 99,067
PILs	$ 4,600	$ 3,594	$ 1,006
Total Revenue Requirement 2006 to 2011	$ 457,746	$ 357,673	$ 100,073
	100.00%	78.14%	21.86%
Smart Meter Rate Adder Revenues	($472,907)		
Carrying Charge SMFA	($11,448)		
Carrying Charge Deferred Expenses	$4,060		
Smart Meter True-up	-$ 22,549	-$ 17,620	-$ 4,930
Metered Customers	6,828	6,086	742
Rate Rider to Recover Smart Meter Costs	-$ 0.28	-$ 0.24	-$ 0.55

Table 6: OEB IR #11 – Smart Meter Incremental Revenue Requirement Rate Rider

Smart Meter Actual Cost Recovery Rate Rider Calculated by Rate Class			
	Total	Residential	GS < 50
Allocators			
Midland Average Smart Meter Unit Cost		$ 92.00	$ 253.00
Smart Meter Cost	$ 745,803	$ 558,092	$ 187,711
Allocaiton of Smart Meter Costs	100.00%	74.83%	25.17%
Number of meters installed	6,828	6,086	742
Allocation of Number of meters installed	100.00%	89.13%	10.87%
Total Return (deemed interest plus return on equity)	$ 61,465	$ 45,995	$ 15,470
Amortization	$ 97,053	$ 72,626	$ 24,427
OM&A	$ 115,601	$ 103,039	$ 12,562
Revenue Requirement before PILs	$ 274,119	$ 221,659	$ 52,460
PILs	$ 12,985	$ 10,500	$ 2,485
Total Revenue Requirement 2012	$ 287,104	$ 232,160	$ 54,945
Metered Customers	6,828	6,086	742
Rate Rider to Recover Smart Meter Costs	$ 3.50	$ 3.18	$ 6.17

V 2.17

Ontario Energy Board

Smart Meter Model

Choose Your Utility:

Midland Power Utility Corporation
Milton Hydro Distribution inc.

Application Contact Information

Name:	Phil Marley
Title:	President & CEO
Phone Number:	705.526.9362 ext 204
Email Address:	pmarley@midlandpuc.on.ca
We are applying for rates effective:	May 1, 2012
Last COS Re-based Year	2009

Legend

DROP-DOWN MENU

INPUT FIELD

CALCULATION FIELD

Copyright

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

Ontario Energy Board

Smart Meter Model

Midland Power Utility Corporation

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

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

Smart Meter Capital Cost and Operational Expense Data	2006	2007	2008	2009	2010	2011	2012 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
Smart Meter Installation Plan								
Actual/Planned number of Smart Meters installed during the Calendar Yea								
Residential	0	0	0	5,947	116	23	0	6086
General Service < 50 kW	0	0	0	151	567	24	0	742
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW onl	0	0	0	6098	683	47	0	6828
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	89.31%	99.31%	100.00%	0.00%	100.00%
Actual/Planned number of GS > 50 kW meters installed	0	0	0	4	25	46	8	83
Other (please identify)								0
Total Number of Smart Meters installed or planned to be installe	0	0	0	6102	708	93	8	6911

1 Capital Costs

1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)	Asset Type (Asset type must be selected to enable calculations)	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast	Total
1.1.1 Smart Meters *(may include new meters and modules, etc.)*	Smart Meter				644,601	111,101			$ 755,702
1.1.2 Installation Costs *(may include socket kits, labour, vehicle, benefits, etc.)*	Smart Meter				53,107	15,990	-11,088		$ 58,009
1.1.3a Workforce Automation Hardware *(may include fieldwork handhelds, barcode hardware, etc.)*	Smart Meter				5,184	280			$ 5,464
1.1.3b Workforce Automation Software *(may include fieldwork handhelds, barcode hardware, etc.)*	Smart Meter								$ -
Total Advanced Metering Communications Devices (AMCD		$ -	$ -	$ -	$ 702,892	$ 127,371	-$ 11,088	$ -	$ 819,175

1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)	Asset Type	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast	Total
1.2.1 Collectors	Smart Meter				63,252	1,169	15,104		$ 79,525
1.2.2 Repeaters *(may include radio licence, etc.)*	Smart Meter				210				$ 210
1.2.3 Installation *(may include meter seals and rings, collector computer hardware, etc.)*	Smart Meter				17,225	7,884			$ 25,109
Total Advanced Metering Regional Collector (AMRC) (Includes LAN		$ -	$ -	$ -	$ 80,687	$ 9,053	$ 15,104	$ -	$ 104,844

1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.3.1 Computer Hardware	Computer Hardware				13,757		5,007		$ 18,764
1.3.2 Computer Software	Computer Software					53,030	3,925		$ 56,955
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		$ -	$ -	$ -	$ 13,757	$ 53,030	$ 8,932	$ -	$ 75,719

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

1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.5.1 Customer Equipment *(including repair of damaged equipment)*									$ -
1.5.2 AMI Interface to CIS	Computer Software				11,061				$ 11,061
1.5.3 Professional Fees	Smart Meter		17,635	16,209	22,320	13,575	18,174		$ 87,913
1.5.4 Integration	Smart Meter	485	1,131	779	9,840	12,470	9,852		$ 34,557
1.5.5 Program Management	Smart Meter				2,138	51,059	39,963		$ 93,160
1.5.6 Other AMI Capital	Smart Meter					2,683			$ 2,683
Total Other AMI Capital Costs Related to Minimum Functionalit		$ 485	$ 18,766	$ 16,988	$ 45,359	$ 79,787	$ 67,988	$ -	$ 229,373
Total Capital Costs Related to Minimum Functionality		$ 485	$ 18,766	$ 16,988	$ 842,695	$ 269,241	$ 80,937	$ -	$ 1,229,112

1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY *(Please provide a descriptive title and identify nature of beyond minimum functionality costs)*	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
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 MDM/R, etc.	Smart Meter					8,820	35,287	18,032	$ 62,139
Total Capital Costs Beyond Minimum Functionalit		$ -	$ -	$ -	$ -	$ 8,820	$ 35,287	$ 18,032	$ 62,139
Total Smart Meter Capital Costs		$ 485	$ 18,766	$ 16,988	$ 842,695	$ 278,061	$ 116,224	$ 18,032	$ 1,291,251

2 OM&A Expenses

2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)		Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
2.1.1 Maintenance *(may include meter reverification costs, etc.)*									$ -
2.1.2 Other *(please specify)*	Repairs of customer owned equipment						11,088		$ 11,088
Total Incremental AMCD OM&A Costs		$ -	$ -	$ -	$ -	$ -	$ 11,088	$ -	$ 11,088
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.)*						13,088	6,507	10,943	$ 30,538
2.3.2 Other *(please specify)*									$ -
Total Incremental AMCC OM&A Costs		$ -	$ -	$ -	$ -	$ 13,088	$ 6,507	$ 10,943	$ 30,538
2.4 WIDE AREA NETWORK (WAN)									
2.4.1 WAN Maintenance						2,137	2,334	5,544	$ 10,015
2.4.2 Other *(please specify)*									$ -
Total Incremental AMRC OM&A Costs		$ -	$ -	$ -	$ -	$ 2,137	$ 2,334	$ 5,544	$ 10,015
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.)							12,906		$ 12,906
2.5.3 Program Management									$ -
2.5.4 Change Management (may include training, etc.)						12,180	3,658	47,812	$ 63,650
2.5.5 Administration Costs						3,109	34,449	31,378	$ 68,936
2.5.6 Other AMI Expenses *(please specify)*							3,320	10,220	$ 13,540
Total Other AMI OM&A Costs Related to Minimum Functionality		$ -	$ -	$ -	$ -	$ 15,289	$ 54,333	$ 89,410	$ 159,032
TOTAL OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY		$ -	$ -	$ -	$ -	$ 30,514	$ 74,261	$ 105,897	$ 210,673
2.6 OM&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALITY		Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual		
(Please provide a descriptive title and identify nature of beyond minimum functionality costs)									
2.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06									$ -
2.6.2 Costs for deployment of smart meters to customers other than residential and small general service									$ -
2.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.							0	9,704	$ 9,704
Total OM&A Costs Beyond Minimum Functionality		$ -	$ -	$ -	$ -	$ -	$ -	$ 9,704	$ 9,704
Total Smart Meter OM&A Costs		$ -	$ -	$ -	$ -	$ 30,514	$ 74,261	$ 115,601	$ 220,377

3 Aggregate Smart Meter Costs by Category

3.1	**Capital**											
3.1.1	Smart Meter	$ 485	$ 18,766	$ 16,988	$ 817,877	$ 225,031	$ 107,292	$ 18,032	$ 1,204,471
3.1.2	Computer Hardware	$ -	$ -	$ -	$ 13,757	$ -	$ 5,007	$ -	$ 18,764
3.1.3	Computer Software	$ -	$ -	$ -	$ 11,061	$ 53,030	$ 3,925	$ -	$ 68,016
3.1.4	Tools & Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
3.1.5	Other Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
3.1.6	Applications Software	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
3.1.7	**Total Capital Costs**	**$ 485**	**$ 18,766**	**$ 16,988**	**$ 842,695**	**$ 278,061**	**$ 116,224**	**$ 18,032**	**$ 1,291,251**
3.2	**OM&A Costs**								
3.2.1	**Total OM&A Costs**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 30,514**	**$ 74,261**	**$ 115,601**	**$ 220,377**

	2006	2007	2008	2009	2010	2011	2012 and later
Cost of Capital							
Capital Structure[1]							
Deemed Short-term Debt Capitalization			4.0%	4.0%	4.0%	4.0%	4.0%
Deemed Long-term Debt Capitalization	50.0%	50.0%	49.3%	52.7%	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							
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of Capital Parameters							
Deemed Short-term Debt Rate			4.79%	1.33%	1.33%	1.33%	1.33%
Long-term Debt Rate (actual/embedded/deemed)[2]	4.79%	4.79%	4.79%	4.64%	4.64%	4.64%	4.64%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	8.01%	8.01%	8.01%	8.01%
Return on Preferred Shares							
WACC	6.90%	6.90%	6.76%	5.97%	5.86%	5.86%	5.86%
Working Capital Allowance							
Working Capital Allowance Rate	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
(% of the sum of Cost of Power + controllable expenses)							
Taxes/PILs							
Aggregate Corporate Income Tax Rate	28.89%	29.48%	19.59%	23.45%	21.97%	21.97%	21.97%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%

Depreciation Rates

(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	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Tools & Equipment - years	10	10	10	10	10	10	10
- rate (%)	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%

CCA Rates

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

Assumptions

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

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

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


Ontario Energy Board

Smart Meter Model

Midland Power Utility Corporation

	2006	2007	2008	2009	2010	2011	2012 and later
Net Fixed Assets - Smart Meters							
Gross Book Value							
Opening Balance		$ 485	$ 19,251	$ 36,239	$ 854,116	$ 1,079,147	$ 1,186,439
Capital Additions during year (from Smart Meter Costs)	$ 485	$ 18,766	$ 16,988	$ 817,877	$ 225,031	$ 107,292	$ 18,032
Retirements/Removals (if applicable)							
Closing Balance	$ 485	$ 19,251	$ 36,239	$ 854,116	$ 1,079,147	$ 1,186,439	$ 1,204,471
Accumulated Depreciation							
Opening Balance		-$ 16	-$ 674	-$ 2,524	-$ 32,202	-$ 96,644	-$ 172,164
Amortization expense during year	-$ 16	-$ 658	-$ 1,850	-$ 29,679	-$ 64,442	-$ 75,520	-$ 79,697
Retirements/Removals (if applicable)							
Closing Balance	-$ 16	-$ 674	-$ 2,524	-$ 32,202	-$ 96,644	-$ 172,164	-$ 251,861
Net Book Value							
Opening Balance	$ -	$ 469	$ 18,577	$ 33,715	$ 821,914	$ 982,503	$ 1,014,275
Closing Balance	$ 469	$ 18,577	$ 33,715	$ 821,914	$ 982,503	$ 1,014,275	$ 952,610
Average Net Book Value	$ 234	$ 9,523	$ 26,146	$ 427,815	$ 902,208	$ 998,389	$ 983,442
Net Fixed Assets - Computer Hardware							
Gross Book Value							
Opening Balance		$ -	$ -	$ -	$ 13,757	$ 13,757	$ 18,764
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ -	$ 13,757	$ -	$ 5,007	$ -
Retirements/Removals (if applicable)							
Closing Balance	$ -	$ -	$ -	$ 13,757	$ 13,757	$ 18,764	$ 18,764
Accumulated Depreciation							
Opening Balance	$ -	$ -	$ -	$ -	-$ 1,376	-$ 4,127	-$ 7,379
Amortization expense during year	$ -	$ -	$ -	-$ 1,376	-$ 2,751	-$ 3,252	-$ 3,753
Retirements/Removals (if applicable)							
Closing Balance	$ -	$ -	$ -	-$ 1,376	-$ 4,127	-$ 7,379	-$ 11,132
Net Book Value							
Opening Balance	$ -	$ -	$ -	$ -	$ 12,381	$ 9,630	$ 11,385
Closing Balance	$ -	$ -	$ -	$ 12,381	$ 9,630	$ 11,385	$ 7,632
Average Net Book Value	$ -	$ -	$ -	$ 6,191	$ 11,006	$ 10,507	$ 9,508

Net Fixed Assets - Computer Software (including Applications Software)

Gross Book Value								
Opening Balance		$ -	$ -	$ -	$ 11,061	$ 64,091	$ 68,016	$ 68,016
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ -	$ 11,061	$ 53,030	$ 3,925	$ -	$ -
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	$ 11,061	$ 64,091	$ 68,016	$ 68,016	$ 68,016
Accumulated Depreciation								
Opening Balance	$ -	$ -	$ -	$ -	-$ 1,106	-$ 8,621	-$ 21,832	-$ 35,435
Amortization expense during year	$ -	$ -	$ -	-$ 1,106	-$ 7,515	-$ 13,211	-$ 13,603	-$ 13,603
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	-$ 1,106	-$ 8,621	-$ 21,832	-$ 35,435	-$ 49,038
Net Book Value								
Opening Balance	$ -	$ -	$ -	$ -	$ 9,955	$ 55,470	$ 46,184	$ 32,581
Closing Balance	$ -	$ -	$ -	$ 9,955	$ 55,470	$ 46,184	$ 32,581	$ 19,146
Average Net Book Value	$ -	$ -	$ -	$ 4,977	$ 32,712	$ 50,827	$ 39,382	$ 25,864

Net Fixed Assets - Tools and Equipment

Gross Book Value

Opening Balance		$ -	$ -	$ -	$ -	$ -	$ -	$ -
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Accumulated Depreciation

Opening Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Amortization expense during year	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Net Book Value

Opening Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Closing Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Average Net Book Value	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Net Fixed Assets - Other Equipment

Gross Book Value

Opening Balance		$ -	$ -	$ -	$ -	$ -	$ -	$ -
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Accumulated Depreciation

Opening Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Amortization expense during year	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Net Book Value

Opening Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Closing Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Average Net Book Value	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Ontario Energy Board

Smart Meter Model

Midland Power Utility Corporation

	2006	2007	2008	2009	2010	2011	2012 and Later
Average Net Fixed Asset Values (from Sheet 4)							
Smart Meters	$ 234	$ 9,523	$ 26,146	$ 427,815	$ 902,208	$ 998,389	$ 983,442
Computer Hardware	$ -	$ -	$ -	$ 6,191	$ 11,006	$ 10,507	$ 9,508
Computer Software	$ -	$ -	$ -	$ 4,977	$ 32,712	$ 50,827	$ 39,382
Tools & Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Net Fixed Assets	**$ 234**	**$ 9,523**	**$ 26,146**	**$ 438,983**	**$ 945,926**	**$ 1,059,723**	**$ 1,032,333**
Working Capital							
Operating Expenses (from Sheet 2)	$ -	$ -	$ -	$ -	$ 30,514	$ 74,261	$ 115,601
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	$ -	$ -	$ -	$ -	$ 4,577	$ 11,139	$ 17,340
Incremental Smart Meter Rate Base	**$ 234**	**$ 9,523**	**$ 26,146**	**$ 438,983**	**$ 950,503**	**$ 1,070,862**	**$ 1,049,673**
Return on Rate Base							
Capital Structure							
Deemed Short Term Debt	$ -	$ -	$ 1,046	$ 17,559	$ 38,020	$ 42,834	$ 41,987
Deemed Long Term Debt	$ 117	$ 4,761	$ 12,890	$ 231,344	$ 532,282	$ 599,683	$ 587,817
Equity	$ 117	$ 4,761	$ 12,210	$ 190,079	$ 380,201	$ 428,345	$ 419,869
Preferred Shares	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Capitalization	$ 234	$ 9,523	$ 26,146	$ 438,983	$ 950,503	$ 1,070,862	$ 1,049,673
Return on							
Deemed Short Term Debt	$ -	$ -	$ 50	$ 234	$ 506	$ 570	$ 558
Deemed Long Term Debt	$ 6	$ 228	$ 617	$ 10,734	$ 24,698	$ 27,825	$ 27,275
Equity	$ 11	$ 429	$ 1,099	$ 15,225	$ 30,454	$ 34,310	$ 33,632
Preferred Shares	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Return on Capital	$ 16	$ 657	$ 1,766	$ 26,193	$ 55,658	$ 62,705	$ 61,465
Operating Expenses	$ -	$ -	$ -	$ -	$ 30,514	$ 74,261	$ 115,601
Amortization Expenses (from Sheet 4)							
Smart Meters	$ 16	$ 658	$ 1,850	$ 29,679	$ 64,442	$ 75,520	$ 79,697
Computer Hardware	$ -	$ -	$ -	$ 1,376	$ 2,751	$ 3,252	$ 3,753
Computer Software	$ -	$ -	$ -	$ 1,106	$ 7,515	$ 13,211	$ 13,603
Tools & Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Amortization Expense in Year	$ 16	$ 658	$ 1,850	$ 32,160	$ 74,709	$ 91,982	$ 97,053
Incremental Revenue Requirement before Taxes/PILs	$ 32	$ 1,314	$ 3,616	$ 58,354	$ 160,880	$ 228,949	$ 274,119
Calculation of Taxable Income							
Incremental Operating Expenses	$ -	$ -	$ -	$ -	$ 30,514	$ 74,261	$ 115,601
Amortization Expense	$ 16	$ 658	$ 1,850	$ 32,160	$ 74,709	$ 91,982	$ 97,053
Interest Expense	$ 6	$ 228	$ 668	$ 10,968	$ 25,204	$ 28,395	$ 27,833
Net Income for Taxes/PILs	$ 11	$ 429	$ 1,099	$ 15,225	$ 30,454	$ 34,310	$ 33,632
Grossed-up Taxes/PILs (from Sheet 7)	$ 4.38	$ 166.59	$ 269.19	$ 1,776.86	-$ 1,473.67	$ 3,856.38	$ 12,985.36
Revenue Requirement, including Grossed-up Taxes/PILs	$ 37	$ 1,481	$ 3,885	$ 60,130	$ 159,407	$ 232,805	$ 287,104


Ontario Energy Board

Smart Meter Model

Midland Power Utility 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	$ -	$ 465.60	$ 18,443.71	$ 33,276.70	$ 815,776.48	$ 966,544.12	$ 992,220.62
Capital Additions	$ 485.00	$ 18,766.00	$ 16,988.00	$ 817,877.00	$ 225,031.00	$ 107,291.70	$ 18,032.00
Retirements/Removals (if applicable)							
UCC Before Half Year Rule	$ 485.00	$ 19,231.60	$ 35,431.71	$ 851,153.70	$ 1,040,807.48	$ 1,073,835.82	$ 1,010,252.62
Half Year Rule (1/2 Additions - Disposals)	$ 242.50	$ 9,383.00	$ 8,494.00	$ 408,938.50	$ 112,515.50	$ 53,645.85	$ 9,016.00
Reduced UCC	$ 242.50	$ 9,848.60	$ 26,937.71	$ 442,215.20	$ 928,291.98	$ 1,020,189.97	$ 1,001,236.62
CCA Rate Class	47	47	47	47	47	47	47
CCA Rate	8%	8%	8%	8%	8%	8%	8%
CCA	$ 19.40	$ 787.89	$ 2,155.02	$ 35,377.22	$ 74,263.36	$ 81,615.20	$ 80,098.93
Closing UCC	$ 465.60	$ 18,443.71	$ 33,276.70	$ 815,776.48	$ 966,544.12	$ 992,220.62	$ 930,153.69

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	$ -	$ -	$ -	$ -	$ 12,409.00	$ 26,515.00	$ 4,465.98
Capital Additions Computer Hardware	$ -	$ -	$ -	$ 13,757.00	$ -	$ 5,006.96	$ -
Capital Additions Computer Software	$ -	$ -	$ -	$ 11,061.00	$ 53,030.00	$ 3,925.00	$ -
Retirements/Removals (if applicable)							
UCC Before Half Year Rule	$ -	$ -	$ -	$ 24,818.00	$ 65,439.00	$ 35,446.96	$ 4,465.98
Half Year Rule (1/2 Additions - Disposals)	$ -	$ -	$ -	$ 12,409.00	$ 26,515.00	$ 4,465.98	$ -
Reduced UCC	$ -	$ -	$ -	$ 12,409.00	$ 38,924.00	$ 30,980.98	$ 4,465.98
CCA Rate Class	12	12	12	12	12	12	12
CCA Rate	100%	100%	100%	100%	100%	100%	100%
CCA	$ -	$ -	$ -	$ 12,409.00	$ 38,924.00	$ 30,980.98	$ 4,465.98
Closing UCC	$ -	$ -	$ -	$ 12,409.00	$ 26,515.00	$ 4,465.98	$ -

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	0	0	0	0	0	0	0
CCA Rate	0%	0%	0%	0%	0%	0%	0%
CCA	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Closing UCC	$ -	$ -	$ -	$ -	$ -	$ -	$ -


Ontario Energy Board

Smart Meter Model

Midland Power Utility Corporation

PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
INCOME TAX							
Net Income	$ 10.55	$ 428.53	$ 1,098.92	$ 15,225.37	$ 30,454.12	$ 34,310.42	$ 33,631.53
Amortization	$ 16.17	$ 657.87	$ 1,849.67	$ 32,160.30	$ 74,708.70	$ 91,982.32	$ 97,052.97
CCA - Smart Meters	-$ 19.40	-$ 787.89	-$ 2,155.02	-$ 35,377.22	-$ 74,263.36	-$ 81,615.20	-$ 80,098.93
CCA - Computers	$ -	$ -	$ -	-$ 12,409.00	-$ 38,924.00	-$ 30,980.98	-$ 4,465.98
CCA - Applications Software	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CCA - Other Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Change in taxable income	$ 7.32	$ 298.51	$ 793.57	-$ 400.55	-$ 8,024.53	$ 13,696.57	$ 46,119.60
Tax Rate (from Sheet 3)	28.89%	29.48%	19.59%	23.45%	21.97%	21.97%	21.97%
Income Taxes Payable	$ 2.11	$ 88.00	$ 155.46	-$ 93.93	-$ 1,762.99	$ 3,009.14	$ 10,132.48
ONTARIO CAPITAL TAX							
Smart Meters	$ 468.83	$ 18,576.97	$ 33,715.30	$ 821,913.80	$ 982,502.70	$ 1,014,274.88	$ 952,609.90
Computer Hardware	$ -	$ -	$ -	$ 12,381.30	$ 9,629.90	$ 11,384.76	$ 7,631.97
Computer Software (Including Application Software)	$ -	$ -	$ -	$ 9,954.90	$ 55,469.70	$ 46,184.00	$ 32,580.80
Tools & Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Rate Base	$ 468.83	$ 18,576.97	$ 33,715.30	$ 844,250.00	$ 1,047,602.30	$ 1,071,843.64	$ 992,822.67
Less: Exemption							
Deemed Taxable Capital	$ 468.83	$ 18,576.97	$ 33,715.30	$ 844,250.00	$ 1,047,602.30	$ 1,071,843.64	$ 992,822.67
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)	$ 1.41	$ 41.80	$ 75.86	$ 1,899.56	$ 785.70	$ -	$ -
Change in Income Taxes Payable	$ 2.11	$ 88.00	$ 155.46	-$ 93.93	-$ 1,762.99	$ 3,009.14	$ 10,132.48
Change in OCT	$ 1.41	$ 41.80	$ 75.86	$ 1,899.56	$ 785.70	$ -	$ -
PILs	$ 3.52	$ 129.80	$ 231.32	$ 1,805.63	-$ 977.29	$ 3,009.14	$ 10,132.48
Gross Up PILs							
Tax Rate	28.89%	29.48%	19.59%	23.45%	21.97%	21.97%	21.97%
Change in Income Taxes Payable	$ 2.97	$ 124.79	$ 193.34	-$ 122.70	-$ 2,259.37	$ 3,856.38	$ 12,985.36
Change in OCT	$ 1.41	$ 41.80	$ 75.86	$ 1,899.56	$ 785.70	$ -	$ -
PILs	**$ 4.38**	**$ 166.59**	**$ 269.19**	**$ 1,776.86**	**-$ 1,473.67**	**$ 3,856.38**	**$ 12,985.36**

Ontario Energy Board

Smart Meter Model

Midland Power Utility 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	$ -	$ 69.49	4.14%	$ -	$ 69.49		$ 0.26
2007 Q2	4.59%	4.72%	Jun-06	2006	Q2	$ 69.49	$ 1,178.60	4.14%	$ 0.24	$ 1,248.33		$ 0.26
2007 Q3	4.59%	5.18%	Jul-06	2006	Q3	$ 1,248.09	$ 1,690.75	4.59%	$ 4.77	$ 2,943.61		$ 0.26
2007 Q4	5.14%	5.18%	Aug-06	2006	Q3	$ 2,938.84	$ 1,689.19	4.59%	$ 11.24	$ 4,639.27		$ 0.26
2008 Q1	5.14%	5.18%	Sep-06	2006	Q3	$ 4,628.03	$ 1,810.34	4.59%	$ 17.70	$ 6,456.07		$ 0.26
2008 Q2	4.08%	5.18%	Oct-06	2006	Q4	$ 6,438.37	$ 1,706.95	4.59%	$ 24.63	$ 8,169.95		$ 0.26
2008 Q3	3.35%	5.43%	Nov-06	2006	Q4	$ 8,145.32	$ 1,732.79	4.59%	$ 31.16	$ 9,909.27		$ 0.26
2008 Q4	3.35%	5.43%	Dec-06	2006	Q4	$ 9,878.11	$ 1,764.89	4.59%	$ 37.78	$ 11,680.78	$ 11,770.52	$ 0.26
2009 Q1	2.45%	6.61%	Jan-07	2007	Q1	$ 11,643.00	$ 1,737.04	4.59%	$ 44.53	$ 13,424.57		$ 0.26
2009 Q2	1.00%	6.61%	Feb-07	2007	Q1	$ 13,380.04	$ 1,815.11	4.59%	$ 51.18	$ 15,246.33		$ 0.26
2009 Q3	0.55%	5.67%	Mar-07	2007	Q1	$ 15,195.15	$ 1,712.78	4.59%	$ 58.12	$ 16,966.05		$ 0.26
2009 Q4	0.55%	4.66%	Apr-07	2007	Q2	$ 16,907.93	$ 2,094.83	4.59%	$ 64.67	$ 19,067.43		$ 0.26
2010 Q1	0.55%	4.34%	May-07	2007	Q2	$ 19,002.76	$ 1,308.00	4.59%	$ 72.69	$ 20,383.45		$ 0.26
2010 Q2	0.55%	4.34%	Jun-07	2007	Q2	$ 20,310.76	$ 1,794.22	4.59%	$ 77.69	$ 22,182.67		$ 0.26
2010 Q3	0.89%	4.66%	Jul-07	2007	Q3	$ 22,104.98	$ 1,682.21	4.59%	$ 84.55	$ 23,871.74		$ 0.26
2010 Q4	1.20%	4.01%	Aug-07	2007	Q3	$ 23,787.19	$ 1,749.76	4.59%	$ 90.99	$ 25,627.94		$ 0.26
2011 Q1	1.47%	4.29%	Sep-07	2007	Q3	$ 25,536.95	$ 1,707.50	4.59%	$ 97.68	$ 27,342.13		$ 0.26
2011 Q2	1.47%	4.29%	Oct-07	2007	Q4	$ 27,244.45	$ 1,857.60	5.14%	$ 116.70	$ 29,218.75		$ 0.26
2011 Q3	1.47%	4.29%	Nov-07	2007	Q4	$ 29,102.05	$ 1,733.00	5.14%	$ 124.65	$ 30,959.70		$ 0.26
2011 Q4	1.47%	4.29%	Dec-07	2007	Q4	$ 30,835.05	$ 1,847.97	5.14%	$ 132.08	$ 32,815.10	$ 22,055.55	$ 0.26
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	$ 32,683.02	$ 1,729.74	5.14%	$ 139.99	$ 34,552.75		$ 0.26
2012 Q2		4.29%	Feb-08	2008	Q1	$ 34,412.76	$ 1,883.17	5.14%	$ 147.40	$ 36,443.33		$ 0.26
2012 Q3		4.29%	Mar-08	2008	Q1	$ 36,295.93	$ 1,748.26	5.14%	$ 155.47	$ 38,199.66		$ 0.26
2012 Q4		4.29%	Apr-08	2008	Q2	$ 38,044.19	$ 1,801.14	4.08%	$ 129.35	$ 39,974.68		$ 0.26
			May-08	2008	Q2	$ 39,845.33	$ 1,516.39	4.08%	$ 135.47	$ 41,497.19		$ 0.26

Ontario Energy Board

Smart Meter Model

Midland Power Utility 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)
			Jun-08	2008	Q2	$ 41,361.72	$ 1,752.57	4.08%	$ 140.63	$ 43,254.92		$ 0.26
			Jul-08	2008	Q3	$ 43,114.29	$ 1,820.25	3.35%	$ 120.36	$ 45,054.90		$ 0.26
			Aug-08	2008	Q3	$ 44,934.54	$ 1,766.36	3.35%	$ 125.44	$ 46,826.34		$ 0.26
			Sep-08	2008	Q3	$ 46,700.90	$ 1,846.07	3.35%	$ 130.37	$ 48,677.34		$ 0.26
			Oct-08	2008	Q4	$ 48,546.97	$ 1,882.81	3.35%	$ 135.53	$ 50,565.31		$ 0.26
			Nov-08	2008	Q4	$ 50,429.78	$ 1,760.79	3.35%	$ 140.78	$ 52,331.35		$ 0.26
			Dec-08	2008	Q4	$ 52,190.57	$ 1,897.58	3.35%	$ 145.70	$ 54,233.85	$ 23,051.62	$ 0.26
			Jan-09	2009	Q1	$ 54,088.15	$ 1,723.03	2.45%	$ 110.43	$ 55,921.61		$ 0.26
			Feb-09	2009	Q1	$ 55,811.18	$ 1,856.91	2.45%	$ 113.95	$ 57,782.04		$ 0.26
			Mar-09	2009	Q1	$ 57,668.09	$ 2,026.33	2.45%	$ 117.74	$ 59,812.16		$ 0.26
			Apr-09	2009	Q2	$ 59,694.42	$ 1,170.64	1.00%	$ 49.75	$ 60,914.81		$ 0.26
			May-09	2009	Q2	$ 60,865.06	$ 1,858.56	1.00%	$ 50.72	$ 62,774.34		$ 0.26
			Jun-09	2009	Q2	$ 62,723.62	$ 1,836.82	1.00%	$ 52.27	$ 64,612.71		$ 0.26
			Jul-09	2009	Q3	$ 64,560.44	$ 1,676.60	0.55%	$ 29.59	$ 66,266.63		$ 0.26
			Aug-09	2009	Q3	$ 66,237.04	$ 6,210.77	0.55%	$ 30.36	$ 72,478.17		$ 1.00
			Sep-09	2009	Q3	$ 72,447.81	$ 8,524.82	0.55%	$ 33.21	$ 81,005.84		$ 1.00
			Oct-09	2009	Q4	$ 80,972.63	$ 6,882.72	0.55%	$ 37.11	$ 87,892.46		$ 1.00
			Nov-09	2009	Q4	$ 87,855.35	$ 6,644.38	0.55%	$ 40.27	$ 94,540.00		$ 1.00
			Dec-09	2009	Q4	$ 94,499.73	$ 7,167.56	0.55%	$ 43.31	$ 101,710.60	$ 48,287.85	$ 1.00
			Jan-10	2010	Q1	$ 101,667.29	$ 7,221.26	0.55%	$ 46.60	$ 108,935.15		$ 1.00
			Feb-10	2010	Q1	$ 108,888.55	$ 7,075.17	0.55%	$ 49.91	$ 116,013.63		$ 1.00
			Mar-10	2010	Q1	$ 115,963.72	$ 8,270.44	0.55%	$ 53.15	$ 124,287.31		$ 1.00
			Apr-10	2010	Q2	$ 124,234.16	$ 5,079.57	0.55%	$ 56.94	$ 129,370.67		$ 1.00
			May-10	2010	Q2	$ 129,313.73	$ 7,836.53	0.55%	$ 59.27	$ 137,209.53		$ 1.00
			Jun-10	2010	Q2	$ 137,150.26	$ 11,380.21	0.55%	$ 62.86	$ 148,593.33		$ 2.00
			Jul-10	2010	Q3	$ 148,530.47	$ 13,827.80	0.89%	$ 110.16	$ 162,468.43		$ 2.00
			Aug-10	2010	Q3	$ 162,358.27	$ 14,559.01	0.89%	$ 120.42	$ 177,037.70		$ 2.00
			Sep-10	2010	Q3	$ 176,917.28	$ 14,185.39	0.89%	$ 131.21	$ 191,233.88		$ 2.00
			Oct-10	2010	Q4	$ 191,102.67	$ 13,908.84	1.20%	$ 191.10	$ 205,202.61		$ 2.00
			Nov-10	2010	Q4	$ 205,011.51	$ 14,859.11	1.20%	$ 205.01	$ 220,075.63		$ 2.00

Ontario Energy Board

Smart Meter Model

Midland Power Utility Corporation

This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance (Principal)	Funding Adder Revenues	Interest Rate	Interest	Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder (from Tariff)
			Dec-10	2010	Q4	$ 219,870.62	$ 14,165.09	1.20%	$ 219.87	$ 234,255.58	$ 133,674.92	$ 2.00
			Jan-11	2011	Q1	$ 234,035.71	$ 13,694.00	1.47%	$ 286.69	$ 248,016.40		$ 2.00
			Feb-11	2011	Q1	$ 247,729.71	$ 14,765.61	1.47%	$ 303.47	$ 262,798.79		$ 2.00
			Mar-11	2011	Q1	$ 262,495.32	$ 13,401.18	1.47%	$ 321.56	$ 276,218.06		$ 2.00
			Apr-11	2011	Q2	$ 275,896.50	$ 13,835.29	1.47%	$ 337.97	$ 290,069.76		$ 2.00
			May-11	2011	Q2	$ 289,731.79	$ 14,103.90	1.47%	$ 354.92	$ 304,190.61		$ 2.00
			Jun-11	2011	Q2	$ 303,835.69	$ 13,865.29	1.47%	$ 372.20	$ 318,073.18		$ 2.00
			Jul-11	2011	Q3	$ 317,700.98	$ 13,306.84	1.47%	$ 389.18	$ 331,397.00		$ 2.00
			Aug-11	2011	Q3	$ 331,007.82	$ 14,382.73	1.47%	$ 405.48	$ 345,796.03		$ 2.00
			Sep-11	2011	Q3	$ 345,390.55	$ 14,481.18	1.47%	$ 423.10	$ 360,294.83		$ 2.00
			Oct-11	2011	Q4	$ 359,871.73	$ 14,021.72	1.47%	$ 440.84	$ 374,334.29		$ 2.00
			Nov-11	2011	Q4	$ 373,893.45	$ 14,170.68	1.47%	$ 458.02	$ 388,522.15		$ 2.00
			Dec-11	2011	Q4	$ 388,064.13	$ 14,140.43	1.47%	$ 475.38	$ 402,679.94	$ 172,737.66	$ 2.00
			Jan-12	2012	Q1	$ 402,204.56	$ 14,140.43	1.47%	$ 492.70	$ 416,837.69		$ 2.00
			Feb-12	2012	Q1	$ 416,344.99	$ 14,140.43	1.47%	$ 510.02	$ 430,995.44		$ 2.00
			Mar-12	2012	Q1	$ 430,485.42	$ 14,140.43	1.47%	$ 527.34	$ 445,153.19		$ 2.00
			Apr-12	2012	Q2	$ 444,625.85	$ 14,140.43	1.47%	$ 544.67	$ 459,310.95		$ 2.00
			May-12	2012	Q2	$ 458,766.28	$ 14,140.43	0.00%	$ -	$ 472,906.71		$ 2.00
			Jun-12	2012	Q2	$ 472,906.71	$ -	0.00%	$ -	$ 472,906.71		
			Jul-12	2012	Q3	$ 472,906.71	$ -	0.00%	$ -	$ 472,906.71		
			Aug-12	2012	Q3	$ 472,906.71	$ -	0.00%	$ -	$ 472,906.71		
			Sep-12	2012	Q3	$ 472,906.71	$ -	0.00%	$ -	$ 472,906.71		
			Oct-12	2012	Q4	$ 472,906.71	$ -	0.00%	$ -	$ 472,906.71		
			Nov-12	2012	Q4	$ 472,906.71	$ -	0.00%	$ -	$ 472,906.71		
			Dec-12	2012	Q4	$ 472,906.71	$ -	0.00%	$ -	$ 472,906.71	$ 72,776.88	
			Total Funding Adder Revenues Collected				**$ 472,906.71**		**$ 11,448.29**	**$ 484,355.00**	**$ 484,355.00**	


Ontario Energy Board

Smart Meter Model

Midland Power Utility 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	$ -		$ 1.35	1.35	0.00%	-	-
2006 Q2	4.14%	4.68%		Feb-06	2006	Q1	1.35		$ 1.35	2.69	0.00%	-	-
2006 Q3	4.59%	5.05%		Mar-06	2006	Q1	2.69		$ 1.35	4.04	0.00%	-	-
2006 Q4	4.59%	4.72%		Apr-06	2006	Q2	4.04		$ 1.35	5.39	4.14%	0.01	0.01
2007 Q1	4.59%	4.72%		May-06	2006	Q2	5.39		$ 1.35	6.74	4.14%	0.02	0.03
2007 Q2	4.59%	4.72%		Jun-06	2006	Q2	6.74		$ 1.35	8.08	4.14%	0.02	0.06
2007 Q3	4.59%	5.18%		Jul-06	2006	Q3	8.08		$ 1.35	9.43	4.59%	0.03	0.09
2007 Q4	5.14%	5.18%		Aug-06	2006	Q3	9.43		$ 1.35	10.78	4.59%	0.04	0.12
2008 Q1	5.14%	5.18%		Sep-06	2006	Q3	10.78		$ 1.35	12.13	4.59%	0.04	0.16
2008 Q2	4.08%	5.18%		Oct-06	2006	Q4	12.13		$ 1.35	13.47	4.59%	0.05	0.21
2008 Q3	3.35%	5.43%		Nov-06	2006	Q4	13.47		$ 1.35	14.82	4.59%	0.05	0.26
2008 Q4	3.35%	5.43%		Dec-06	2006	Q4	14.82		$ 1.35	16.17	4.59%	0.06	0.32
2009 Q1	2.45%	6.61%		Jan-07	2007	Q1	16.17		$ 54.82	70.99	4.59%	0.06	0.38
2009 Q2	1.00%	6.61%		Feb-07	2007	Q1	70.99		$ 54.82	125.81	4.59%	0.27	0.65
2009 Q3	0.55%	5.67%		Mar-07	2007	Q1	125.81		$ 54.82	180.63	4.59%	0.48	1.13
2009 Q4	0.55%	4.66%		Apr-07	2007	Q2	180.63		$ 54.82	235.46	4.59%	0.69	1.82
2010 Q1	0.55%	4.34%		May-07	2007	Q2	235.46		$ 54.82	290.28	4.59%	0.90	2.72
2010 Q2	0.55%	4.34%		Jun-07	2007	Q2	290.28		$ 54.82	345.10	4.59%	1.11	3.84
2010 Q3	0.89%	4.66%		Jul-07	2007	Q3	345.10		$ 54.82	399.92	4.59%	1.32	5.16
2010 Q4	1.20%	4.01%		Aug-07	2007	Q3	399.92		$ 54.82	454.74	4.59%	1.53	6.68
2011 Q1	1.47%	4.29%		Sep-07	2007	Q3	454.74		$ 54.82	509.57	4.59%	1.74	8.42
2011 Q2	1.47%	4.29%		Oct-07	2007	Q4	509.57		$ 54.82	564.39	5.14%	2.18	10.61
2011 Q3	1.47%	4.29%		Nov-07	2007	Q4	564.39		$ 54.82	619.21	5.14%	2.42	13.02
2011 Q4	1.47%	4.29%		Dec-07	2007	Q4	619.21		$ 54.82	674.03	5.14%	2.65	15.68

2012 Q1	1.47%	4.29%		Jan-08	2008	Q1	674.03		$ 154.14	828.17	5.14%	2.89	18.56
2012 Q2	0.00%	4.29%		Feb-08	2008	Q1	828.17		$ 154.14	982.31	5.14%	3.55	22.11
2012 Q3	0.00%	4.29%		Mar-08	2008	Q1	982.31		$ 154.14	1,136.45	5.14%	4.21	26.32
2012 Q4	0.00%	4.29%		Apr-08	2008	Q2	1,136.45		$ 154.14	1,290.59	4.08%	3.86	30.18
				May-08	2008	Q2	1,290.59		$ 154.14	1,444.73	4.08%	4.39	34.57
				Jun-08	2008	Q2	1,444.73		$ 154.14	1,598.87	4.08%	4.91	39.48
				Jul-08	2008	Q3	1,598.87		$ 154.14	1,753.01	3.35%	4.46	43.95
				Aug-08	2008	Q3	1,753.01		$ 154.14	1,907.14	3.35%	4.89	48.84
				Sep-08	2008	Q3	1,907.14		$ 154.14	2,061.28	3.35%	5.32	54.16
				Oct-08	2008	Q4	2,061.28		$ 154.14	2,215.42	3.35%	5.75	59.92
				Nov-08	2008	Q4	2,215.42		$ 154.14	2,369.56	3.35%	6.18	66.10
				Dec-08	2008	Q4	2,369.56		$ 154.14	2,523.70	3.35%	6.62	72.72
				Jan-09	2009	Q1	2,523.70		$ 2,680.03	5,203.73	2.45%	5.15	77.87
				Feb-09	2009	Q1	5,203.73		$ 2,680.03	7,883.75	2.45%	10.62	88.49
				Mar-09	2009	Q1	7,883.75		$ 2,680.03	10,563.78	2.45%	16.10	104.59
				Apr-09	2009	Q2	10,563.78		$ 2,680.03	13,243.80	1.00%	8.80	113.39
				May-09	2009	Q2	13,243.80		$ 2,680.03	15,923.83	1.00%	11.04	124.43
				Jun-09	2009	Q2	15,923.83		$ 2,680.03	18,603.85	1.00%	13.27	137.70
				Jul-09	2009	Q3	18,603.85		$ 2,680.03	21,283.88	0.55%	8.53	146.23
				Aug-09	2009	Q3	21,283.88		$ 2,680.03	23,963.90	0.55%	9.76	155.98
				Sep-09	2009	Q3	23,963.90		$ 2,680.03	26,643.93	0.55%	10.98	166.97
				Oct-09	2009	Q4	26,643.93		$ 2,680.03	29,323.95	0.55%	12.21	179.18
				Nov-09	2009	Q4	29,323.95		$ 2,680.03	32,003.98	0.55%	13.44	192.62
				Dec-09	2009	Q4	32,003.98		$ 2,680.03	34,684.00	0.55%	14.67	207.29
				Jan-10	2010	Q1	34,684.00		$ 6,225.73	40,909.73	0.55%	15.90	223.18
				Feb-10	2010	Q1	40,909.73	$ 3,957.69	$ 6,225.73	51,093.14	0.55%	18.75	241.93
				Mar-10	2010	Q1	51,093.14	$ 1,206.72	$ 6,225.73	58,525.59	0.55%	23.42	265.35
				Apr-10	2010	Q2	58,525.59	$ 2,253.90	$ 6,225.73	67,005.21	0.55%	26.82	292.18
				May-10	2010	Q2	67,005.21	$ 1,168.34	$ 6,225.73	74,399.28	0.55%	30.71	322.89
				Jun-10	2010	Q2	74,399.28	$ 1,171.42	$ 6,225.73	81,796.42	0.55%	34.10	356.99
				Jul-10	2010	Q3	81,796.42	$ 2,677.15	$ 6,225.73	90,699.30	0.89%	60.67	417.65
				Aug-10	2010	Q3	90,699.30		$ 6,225.73	96,925.02	0.89%	67.27	484.92
				Sep-10	2010	Q3	96,925.02	$ 4,862.64	$ 6,225.73	108,013.39	0.89%	71.89	556.81
				Oct-10	2010	Q4	108,013.39	$ 7,564.27	$ 6,225.73	121,803.38	1.20%	108.01	664.82
				Nov-10	2010	Q4	121,803.38	$ 1,201.99	$ 6,225.73	129,231.10	1.20%	121.80	786.62
				Dec-10	2010	Q4	129,231.10	$ 4,450.26	$ 6,225.73	139,907.08	1.20%	129.23	915.85
				Jan-11	2011	Q1	139,907.08	$ 10,824.62	$ 7,665.19	158,396.89	1.47%	171.39	1,087.24
				Feb-11	2011	Q1	158,396.89	$ 1,226.23	$ 7,665.19	167,288.32	1.47%	194.04	1,281.28
				Mar-11	2011	Q1	167,288.32	$ 4,832.09	$ 7,665.19	179,785.60	1.47%	204.93	1,486.20
				Apr-11	2011	Q2	179,785.60	$ 1,246.75	$ 7,665.19	188,697.54	1.47%	220.24	1,706.44
				May-11	2011	Q2	188,697.54	$ 20,632.24	$ 7,665.19	216,994.98	1.47%	231.15	1,937.60
				Jun-11	2011	Q2	216,994.98	$ 2,494.37	$ 7,665.19	227,154.54	1.47%	265.82	2,203.42
				Jul-11	2011	Q3	227,154.54	$ 1,255.04	$ 7,665.19	236,074.77	1.47%	278.26	2,481.68
				Aug-11	2011	Q3	236,074.77	$ 9,303.31	$ 7,665.19	253,043.28	1.47%	289.19	2,770.87
				Sep-11	2011	Q3	253,043.28	-$ 4,816.59	$ 7,665.19	255,891.88	1.47%	309.98	3,080.85
				Oct-11	2011	Q4	255,891.88	$ 2,808.57	$ 7,665.19	266,365.64	1.47%	313.47	3,394.32
				Nov-11	2011	Q4	266,365.64	$ 2,700.97	$ 7,665.19	276,731.81	1.47%	326.30	3,720.61
				Dec-11	2011	Q4	276,731.81	$ 21,753.45	$ 7,665.19	306,150.45	1.47%	339.00	4,059.61
				Jan-12	2012	Q1	306,150.45	$ 8,824.71	$ 8,087.75	323,062.91	1.47%	375.03	4,434.65
				Feb-12	2012	Q1	323,062.91	$ 8,824.71	$ 8,087.75	339,975.36	1.47%	395.75	4,830.40

Mar-12	2012	Q1	339,975.36	$ 8,824.71	$ 8,087.75	356,887.82	1.47%	416.47	5,246.87
Apr-12	2012	Q2	356,887.82	$ 8,824.71	$ 8,087.75	373,800.28	1.47%	437.19	5,684.05
May-12	2012	Q2	373,800.28	$ 8,824.71	$ 8,087.75	390,712.74	0.00%	-	5,684.05
Jun-12	2012	Q2	390,712.74	$ 8,824.71	$ 8,087.75	407,625.20	0.00%	-	5,684.05
Jul-12	2012	Q3	407,625.20	$ 8,824.71	$ 8,087.75	424,537.65	0.00%	-	5,684.05
Aug-12	2012	Q3	424,537.65	$ 8,824.71	$ 8,087.75	441,450.11	0.00%	-	5,684.05
Sep-12	2012	Q3	441,450.11	$ 8,824.71	$ 8,087.75	458,362.57	0.00%	-	5,684.05
Oct-12	2012	Q4	458,362.57	$ 8,824.71	$ 8,087.75	475,275.03	0.00%	-	5,684.05
Nov-12	2012	Q4	475,275.03	$ 8,824.71	$ 8,087.75	492,187.48	0.00%	-	5,684.05
Dec-12	2012	Q4	492,187.48	$ 8,824.71	$ 8,087.75	509,099.94	0.00%	-	5,684.05
				$ 210,671.95	$ 298,427.99	$ 509,099.94			


Ontario Energy Board

Smart Meter Model

Midland Power Utility 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	$ -	$ 16.17	$ 16.17	$ 8.08	4.37%	$ 0.35
2007	$ -	$ 657.87	$ 674.03	$ 345.10	4.73%	$ 16.31
2008	$ -	$ 1,849.67	$ 2,523.70	$ 1,598.87	3.98%	$ 63.63
2009	$ -	$ 32,160.30	$ 34,684.00	$ 18,603.85	1.14%	$ 211.62
2010	$ 30,514.00	$ 74,708.70	$ 139,906.70	$ 87,295.35	0.80%	$ 696.18
2011	$ 74,261.39	$ 91,982.32	$ 306,150.41	$ 223,028.55	1.47%	$ 3,278.52
2012	$ 115,601.14	$ 97,052.97	$ 518,804.52	$ 412,477.47	1.47%	$ 6,063.42

Cumulative Interest to 2011	$ 4,266.62
Cumulative Interest to 2012	$ 10,330.04

Ontario Energy Board

Smart Meter Model

Midland Power Utility Corporation

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

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

	2006	2007	2008	2009	2010	2011	2012 and later	Total
Deferred and forecasted Smart Meter Incremental Revenue Requirement (from Sheet 5)	$ 36.71	$ 1,481.06	$ 3,885.31	$ 60,130.42	$ 159,406.70	$ 232,805.50	$ 287,104.14	$ 744,849.83
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B)	$ 0.32	$ 15.36	$ 57.04	$ 134.57	$ 708.57	$ 3,143.76		$ 4,059.61
(Check **one** of the boxes below)								
X Sheet 8A (Interest calculated on monthly balances)	$ 0.32	$ 15.36	$ 57.04	$ 134.57	$ 708.57	$ 3,143.76		$ 4,059.61
Sheet 8B (Interest calculated on average annual balances)								$ -
SMFA Revenues (from Sheet 8)	$ 11,643.00	$ 21,040.02	$ 21,405.13	$ 47,579.14	$ 132,368.42	$ 168,168.85	$ 70,702.15	$ 472,906.71
SMFA Interest (from Sheet 8)	$ 127.52	$ 1,015.53	$ 1,646.49	$ 708.71	$ 1,306.50	$ 4,568.81	$ 2,074.73	$ 11,448.29
Net Deferred Revenue Requirement	-$ 11,733.49	-$ 20,559.14	-$ 19,109.27	$ 11,977.14	$ 26,440.34	$ 63,211.60	$ 214,327.26	$ 264,554.44
Number of Metered Customers (average for 2012 test year)							6828	

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	$ 461,805.30	
SMFA Revenues collected from 2006 to 2012 test year (inclusive) Plus Simple Interest on SMFA Revenues	$ 484,355.00	
Net Deferred Revenue Requirement	-$ 22,549.70	
SMDR May 1, 2012 to April 30, 2013	-$ 0.28	Match
Check: Forecasted SMDR Revenues	-$ 22,942.08	

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

Incremental Revenue Requirement for 2012	$ 287,104.14	
SMIRR	$ 3.50	Match
Check: Forecasted SMIRR Revenues	$ 286,776.00	

Funding and Cost Recovery Mechanisms

The following table provides a summary of the three mechanisms for smart meter funding and cost recovery that the Board has established and that can be calculated by this model. The Smart Meter Funding Adder ("SMFA") was described in Guideline G-2008-0002. The Smart Meter Disposition Rider ("SMDR") and Smart Meter Incremental Revenue Requirement Rate Rider ("SMIRR") were defined by the Board in the Decision for PowerStream Inc.'s application for Smart Meter disposition [EB-2010-0209], October 1, 2010.

Title	Acronym	Description
Smart Meter Funding Adder	SMFA	• Mechanism to provide funding before and during smart meter deployment and acts to smooth the rate increases due to smart meter implementation. • First implemented in rates for May 1, 2006. • Initially established at a level of about $0.26/month per metered customer for most distributors; some utilities have had unique SMFA rates due to initial Smart Meter Implementation Plans. Distributors could subsequently apply for a standard SMFA of $1.00 per metered customer per month or a utility-specific SMFA. • SMFA revenues are tracked in a sub-account of Account 1555. Upon disposition, the SMFA revenues and simple interest are used to offset the deferred historical revenue requirement of installed smart meters plus interest on the OM&A and amortization/depreciation expenses, with the variance recovered or refunded through the SMDR. • In many 2011 EDR applications, the Board capped the SMFA at $2.50/month per metered customer. Further, the Board indicated that the SMFA would cease by April 30, 2012.
Smart Meter Disposition Rider	SMDR	• The SMDR recovers, over a specified time period, the variance between: 1) the deferred revenue requirement for the installed smart meters up to the time of disposition and interest on OM&A and depreciation/amortization expenses; and 2) the SMFA revenues collected and associated interest. • The SMDR should be calculated as a fixed monthly charge. The capital (smart meter, AMI, systems hardware and software) and operating expenses are largely fixed costs and invariant to a customer's demand, and hence should be recovered largely through fixed charges. • In many cases the SMDR has been recovered on an equal basis from all metered customer classes, although more recent decisions have dealt with class-specific disposition riders. The distributor should determine and support its proposed allocation, based on principles of cost causality and practicality.
Smart Meter Incremental Revenue Requirement Rate Rider	SMIRR	• When smart meter disposition occurs in a stand-alone application, a SMIRR is calculated as the proxy for the incremental change in the distribution rates that would have occurred if the assets and operating expenses were incorporated into the rate base and the revenue requirement. • The SMIRR is calculated as the annualized revenue requirement for the test year for the capital and operating costs for smart meters. • The SMIRR should be calculated as a fixed monthly charge, similar to the SMDR. • The allocation for the SMIRR should generally be the same as for the SMDR. • The SMIRR ceases at the time of the utility's next cost of service application when smart meter capital and operating costs are explicitly incorporated into the rate base and revenue requirement.

Cost of Service Applications

The recovery of smart meter capital and operating costs is normally approved (or denied) following a review for prudence and disposition in a cost of service proceeding. A smart meter disposition rate rider (SMDR) is used to recover the residual revenue requirement that is made up of smart meter costs up to the time of disposition plus interest on OM&A and depreciation/amortization expenses, less amounts collected through the SMFA and associated interest. The approved gross book value and accumulated depreciation of installed smart meters are then added to rate base, and the test period operating expenses are added to OM&A. This ensures the recovery of the incremental revenue requirement on a going-forward basis through base rates. Further, smart meter capital and operating costs should be reflected in the cost allocation study to ensure an appropriate allocation of costs to the various customer classes.[1]

If a distributor seeks approval for costs related to 100% smart meter deployment, any capital and operating costs for smart meters that are installed beyond the (2012) test year (i.e. for new customers) should not be recorded in Accounts 1555 and 1556.

The Board considers that rates will be fully compensatory when smart meter costs are either incorporated into base rates or recovered by means of the SMIRR. When smart meters are installed for new customers, these customers will pay rates that reflect the recovery of smart meter costs. The costs of these additional smart meter costs should be reflected in normal capital and operating accounts, akin to other normal distribution assets and costs.

Stand-alone Applications

As per *Chapter 3 of the Filing Requirements for Transmission and Distribution Applications*, issued June 22, 2011, the Board expects those distributors that are scheduled to remain on IRM to file a stand-alone application with the Board seeking final approval for smart meter related costs. When rates are adjusted in a stand-alone application, there is no re-evaluation of rate base or of the revenue requirement for the purpose of setting distribution rates. Where the Board approves smart meter capital and operating costs outside of a cost of service proceeding, a SMDR is still required. In addition, a smart meter incremental revenue requirement rate rider (SMIRR) is established to recover the prospective annualized incremental revenue requirement for the approved smart meters, until the distributor's next cost of service application. The SMIRR continues until the effective date of the distributor's next cost of service rate order, at which time assets and costs are incorporated into the rate base and revenue requirement and recovered on a going-forward basis through base rates.

As in a cost of service application, when smart meter costs are approved for 100% deployment, capital and operating costs for smart meters on a going-forward basis are no longer recorded in Accounts 1555 and 1556; instead the costs are recorded in the applicable capital or operating expense account (e.g. Account 1860 – Meters for smart meter capital assets).

Evidence to be Filed in Support of Smart Meter Cost Recovery in a Cost of Service or Stand-Alone Application

The purpose of this model is to calculate a smart meter revenue requirement from a distributor's capital and OM&A costs, and to provide one methodology for the determination of associated riders and/or adders. In addition to filing this model, distributors must provide in any application for cost recovery detailed descriptions of all costs incurred. The onus is on the distributor to support its case, and the distributor should provide any additional information necessary to understand the distributor's costs in light of its circumstances. In considering the recovery of smart meter costs, the Board also expects that a distributor will provide evidence on any operational efficiencies and cost savings that result from smart meter implementation. As an example, meter reading expenses may be reduced with the activation of remote meter reading through the AMI network for residential and small general service customers.

When applying for the recovery of smart meter costs, a distributor should ensure that historical cost information has been audited including the smart meter-related deferral account balances up to the distributor's last Audited Financial Statements. A distributor may also include historical costs that are not audited and estimated costs, corresponding to a stub period or to a forecast for the test rate year. The Board expects that the majority (i.e. 90% or more) of costs for which the distributor is seeking recovery will be audited. In all cases, the Board expects that the distributor will document and explain any differences between unaudited or forecasted amounts and audited costs.

Costs Beyond Minimum Functionality

While authorized smart meter deployment must meet the requirements for minimum functionality, a distributor may incur costs that are beyond the "minimum functionality". To date, the Board has reviewed three types of costs that are "beyond minimum functionality":

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

B. Costs for deployment of smart meters to customers other than residential and small general service (i.e. Residential and GS < 50 kW customers); and

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

Costs beyond minimum functionality for which recovery is sought must be recorded in the Smart Meter Costs tab of the model in these three categories, and appropriate supporting evidence for each cost type must be provided in the application. Further comments on each of these cost types are provided below.

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

O.Reg. 425/06 specifies that costs that exceed minimum functionality may be approved by the Board for recovery. In deciding whether technical capabilities of installed smart meters or associated communications or other infrastructure that exceed minimum functionality are recoverable, the Board will consider the benefits of the added technical features and the prudence of these costs. Any distributor seeking recovery for these additional capabilities should provide documentation of the additional technical capabilities, the reasons for them and a detailed cost/benefit analysis.

Technical functionality beyond minimum functionality was dealt with by the Board with respect to Hydro One Networks' 2008 cost of service application, regarding the costs and benefits of super-capacitors in the smart meters and AMI collectors. In its Decision and Order on that application (EB-2007-0681), issued December 18, 2008, the Board approved the recovery of the incremental costs.

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

O.Reg. 425/06 defines smart meter deployment as pertaining to residential and small general service customers. The Functional Specification sets the required minimum level of functionality for the AMI to be "for residential and small general service consumers where the metering of demand is not required." As such, minimum functionality has been defined as customers in the residential and general service ("GS") < 50 kW classes.

While some customers in other metered customer classes (GS > 50 kW, Intermediate, Large Use) have interval meters that measure peak demand in a time interval, some distributors may have customers in these classes that have conventional meters and are not eligible for the regulated price plan ("RPP") and therefore are subject to the weighted average spot market price.

A distributor may, as part of its smart meter deployment program, decide to install smart meters for these customers. This could be on the basis that these customers will have higher demand than will typical residential and GS < 50 kW customers, and providing them with better information on how much and when they consume electricity may provide these customers with opportunities for more energy conservation and load shifting. While such meter conversions may generally appear to be logical, they are outside of the regulation and hence are beyond minimum functionality. In other instances, a distributor may convert the meters of interval-metered customers upon repair or re-sealing to "smart" meters that communicate using the AMI infrastructure that the distributor has installed, replacing the existing communications systems for these meters. Again, as these are for meters for customers other than residential and small general service, they are outside of the regulation and hence beyond minimum functionality.

The Board, as part of the Combined Proceeding (EB-2007-0063, December 13, 2007), approved cost recovery for meter conversions for GS > 50 kW customers for both Toronto Hydro Electric System Limited ("Toronto Hydro") and Hydro Ottawa Limited. However the Board stated:

"*The Board is explicitly not finding that the costs associated with these meters fall into the minimum functionality costs. The Board approval of these costs is ancillary to the smart meter decision."*

With respect to Toronto Hydro, the Board subsequently approved the recovery of these costs for smart meter installation/conversion for GS > 50 kW customers in Toronto Hydro's 2008-2009 [EB-2007-0681] and 2011 [EB-2010-0142] cost of service rate applications.

Some distributors may be doing "smart meter" conversions for General Service > 50 kW customers upon repair or resealing to enable meter data collection through the AMI infrastructure. While it is recognized that these smart meter installations and conversions are "beyond minimum functionality", a distributor may apply for the recovery of such costs. The application should document the nature, the justification and the cost per meter separately from those for the residential and GS < 50 kW customers.

C. Costs for TOU rate implementation, CIS system upgrades, web presentation, etc.

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

All costs beyond minimum functionality should be clearly identified and supported. Costs that are for meter data functions that will be the responsibility of the Smart Metering Entity will not be recoverable, unless already allowed for as per O.Reg. 426/06. Costs for other matters such as CIS changes or TOU bill presentment may be recoverable, but the distributor will have to support these costs and will have to demonstrate how they are required for the smart meter deployment program and that they are incremental to the distributor's normal operating costs.

Cost recovery for ongoing costs of the Smart Metering Entity should not be included in any smart meter cost recovery application, until such time as the Board establishes a cost recovery mechanism. To date, the Board has disallowed requests for either cost recovery or the establishment of a deferral account to track these costs.

Cost Allocation

The model does not deal with allocations between customer rate classes. In calculating the SMDR and SMIRR, the Board has approved, in some applications, the recovery of amounts from certain applicable customer classes based on the availability of detailed data at the customer class level and on principles of cost causality.

If a distributor does not have sufficient information to support an allocation to the applicable classes, a distributor may choose to propose a recovery on the basis of all metered customers resulting in one uniform rate rider for all metered customer classes. The model calculates the SMFA, SMIRR and SMDR on this basis.

Whichever method is adopted, the Board is of the view that any cost allocation approach should be consistent between the SMDR and the SMIRR when disposition is sought in a stand-alone application. The Board will entertain proposals supported by analysis for SMDRs and SMIRRs based on principles of cost causality and where the distributor has the necessary historical and forecasted data. Distributors should refer to the PowerStream application considered under EB-2010-0209 for a practical approach. However, if a distributor decides to adopt this approach in its application, it will have to adjust it to its own circumstances.[2] Further, adoption of this approach will not predetermine its approval by the Board in an individual application.

Stranded Meters

The model does not address the recovery of stranded meter costs. Distributors filing Cost of Service applications should refer to *Chapter 2 of the Filing Requirements for Transmission and Distribution Applications*, issued June 22, 2011 (Section 2.5.1.5).

While it would be preferable, conceptually, to also deal with stranded meter costs in a non-cost of service application, the Board recognizes that practical difficulties would arise since there is no restatement of rate base and rates. The Board therefore expects that stranded meter costs will be left in rate base until the distributor's next cost of service application.

The Stranded Meter Rate Rider to recover the residual Net Book Value of stranded (i.e. replaced conventional) meters is separate from any SMDR or SMIRR. In other words, a distributor must calculate (and should show its derivation) the Stranded Meter Rate Rider on a stand-alone basis.

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[1] See Section 2.10 – Cost Allocation of Chapter 2 of the Filing Requirements for Transmission and Distribution Applications, issued June 22, 2011.

[2] For example, if a distributor has deployed smart meters to classes other than Residential and GS < 50 kW, it will have to reflect the additional classes in any cost allocation proposal.