DISPOSITION OF SMART METER DEFERRAL ACCOUNT AND

2 STRANDED METER BALANCES

3	
4	INTRODUCTION

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- 5 In accordance with OEB guidelines and directives, THESL seeks as part of this
- 6 application Board approval for disposition of its remaining Smart Meter deferral account
- 7 amounts. THESL also applies here for disposition of stranded meter balances, the
- 8 discontinuation of the Smart Mater Rate Adder, and the incorporation of smart meter
- 9 capital balances into rate base for rates commencing May 1, 2012.

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- THESL's first Application for disposition of Smart Meter balances (for 2006 amounts)
- was filed on March 16, 2007 (EB-2007-0582), and was later joined to the Combined
- Smart Meter Proceeding (EB-2007-0063). On March 2, 2009, THESL filed a second
- application (EB-2009-0069) seeking approval for the disposition of the 2007 year-end
- balance in the Smart Meter deferral account, together with the residual balance in the
- 16 2006 Smart Meter deferral account, by way of a rate rider effective for 12-months from
- 17 May 1, 2009. At an Oral Hearing held on April 3, 2009, the Board accepted and approved
- 18 THESL's requested disposition.

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- As of the end of 2010, THESL's Smart Meter deployment is substantially complete, and
- as part of the Board's decision in its 2011 rate application (EB-2010-0142), THESL was
- 22 authorized to incorporate all future Smart Meter costs into its ratebase and revenue
- 23 requirement as a regular distribution activity.

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- THESL hereby applies for the following:
- 1. Disposition of the separate 2008, 2009, and 2010 year-end balances in the Smart
- 27 Meter deferral account, by way of a Smart Meter disposition rate rider effective
- 28 for 36-months from May 1, 2012;

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- 2. Incorporation of the corresponding capital balances into ratebase for rates commencing May 1, 2012;
 - 3. Disposition of the Stranded Meter balances, by way of a Stranded Meter disposition rate rider effective for 36-months from May 1, 2012; and
 - 4. Discontinuation of the Smart Meter Rate Adder effective April 30, 2012.

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- On a combined basis, the proposals set out in this Application would result in a \$1.27
- 8 monthly increase for a typical residential customer, partly offset by the simultaneous
- 9 discontinuation of the Smart Meter Rate Adder. The complete bill impact of the
- proposals set out in this Application, along with the proposed distribution rates and other
- rate riders, can be found in Exhibit O1.

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AUTHORIZATION FOR RECOVERY OF SMART METER COSTS

- In preparing this Application, THESL has relied upon and conformed to the requirements
- of the Smart Meter Funding and Cost Recovery Guideline (G-2008-0002).

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- 17 With regard to the required "copy of the agreement(s) under which the smart meter assets
- have been procured", THESL submits that its Meter Supply and Services Agreement with
- 19 Elster has been previously submitted on June 8, 2007 (as INT Tab E) as part of the
- 20 Combined Smart Meter Proceeding (EB-2007-0063). In any case, due to its confidential
- 21 nature, the agreement will be provided in this proceeding confidentially under separate
- 22 cover.

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- 24 THESL confirms that this Application does not include any costs related to functions
- carried out by the SME or MDM/R, and further confirms that all cost information
- provided in this application has been audited.

- 28 THESL further confirms that all Smart Meter deferral account costs and Smart Meter
- installation numbers are exclusive of any costs and numbers related to suite meters.

1 SMART METER IMPLEMENTATION STATUS

- 2 As indicated in its 2011 EDR Application (EB-2010-0142), THESL's Smart Meter
- 3 rollout was substantially complete by the end of 2010, with 0.7% of residential
- 4 installations (3.5% of all installations) remaining for 2011. The breakdown of the
- 5 number of Smart Meter installations, by year, is shown in Table 1 below.

Table 1: Smart Meter Installations Summary by Year

	Smart Meter Installs per Year					Smart Meter Installs Cumulative			
Year	Residential	GS<50	GS>50	Total	Residential	GS<50	GS>50	Total	
2006	191,370	2,070	560	194,000	191,370	2,070	560	194,000	
2007	202,882	7,564	4,206	214,652	394,252	9,634	4,766	408,652	
2008	144,460	10,466	2,505	157,431	538,712	20,100	7,271	566,083	
2009	41,834	13,166	2,666	57,666	580,546	33,266	9,937	623,749	
2010	24,500	15,693	3,200	43,393	605,046	48,959	13,137	667,142	
	Total Smart & Conventional Meters (end of 2010)				609,065	67,952	14,250	691,267	
	Smart Meter	Conversion	n Completio	on % (end of 2010)	99.3%	72.0%	92.2%	96.5%	

8 Please refer to Appendix A for OEB filing requirement Appendix 2-Q.

THESL'S 2008-2010 SMART METER EXPENDITURES

- The actual 2008 to 2010 Smart Meter expenditures, along with the revenues recovered,
- are summarized in Table 2 below.

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Table 2: 2008-2010 Smart Meter Expenditures and Recoveries (\$000s)

Category	2008	2009	2010	2011
Meter Capital	29,200.7	19,703.5	17,691.8	
IT Capital (including Communication WAN)	5,611.8	3,129.7	2,107.6	
Depreciation - 2008	1,128.3			
Depreciation - 2009	2,681.4	781.7		
Depreciation - 2010	3,144.6	1,562.4	649.5	
Depreciation - 2011	3,237.1	1,577.5	1,546.8	
OM&A	862.7	3,132.1	3,110.3	
Recoveries (Rate Adder)	5710.7	5711.9	5855.3	5855.9

- The depreciation and amortization expense of the smart meters has been calculated on a
- 2 straight-line depreciation basis using a 15-year life.

- 4 OM&A costs include costs for meter communications, non-capitalized labour associated
- 5 with the Smart Meter implementation, and customer communication costs for Time-of-
- 6 Use (TOU) pricing.

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- 8 THESL has further broken down its Smart Meter expenses into minimum and beyond
- 9 minimum functionality, in accordance with the Board's accepted classification of smart
- meter functions, as established in Appendix A of the Decision from the Combined Smart
- 11 Meter Proceeding (EB-2007-0063).

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Table 3: Costs by Minimum and Beyond Minimum Functionality (\$)

	2	2008		2009		2010
		Beyond		Beyond		Beyond
	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum
Metering Devices	24,002,959	3,585,831	14,279,993	3,841,926	12,313,429	4,087,754
Metering Collectors	241,797		361,339		41,430	
Metering Control Computer	781,744	-	234,415	925	161,846	567,888
Other AMI Capital Costs	1,185,222	240,702	1,212,270	-	1,202,998	-
Other Capital Costs	-	4,774,276	-	2,902,320	-	1,424,040
Total Capital Costs	26,211,722	8,600,810	16,088,017	6,745,170	13,719,704	6,079,682
Total Operating Expenses	751,465	111,230	2,521,354	610,712	2,391,673	718,650
Total	26,963,187	8,712,039	18,609,371	7,355,882	16,111,377	6,798,332

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The majority of costs classified as beyond minimum functionality consist largely of the installation of Smart Meters for the GS>50kW customer class (Metering Devices), and the construction of infrastructure components related to the implementation of TOU rates (Other Capital Costs). The latter would include costs items such as TOU preparation, MDMR integration, and web presentment. While classified as beyond minimum functionality based on established definitions, THESL submits that these costs were critical to the successful and complete implementation and integration of Smart Meters

- and TOU rates. A complete breakdown of cost, categorized into minimum and beyond 1
- minimum functionality, is contained in Appendix B. 2

COST VARIANCE ANALYSIS

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- In accordance with the Smart Meter Funding and Cost Recovery Guideline G-2008-0002, 5
- THESL has conducted a variance analysis comparing actual costs to previously filed 6
- costs, as summarized in Table 4 below. Appendix C contains a complete cost breakdown 7
- and variance analysis. 8

Table 4: Smart Meter Costs (\$/Unit Installed)

	2006	2007	2008	2009	2010	Total
Installed Meter Capital Costs						
Residential & GS<50 ⁽¹⁾	158.57	127.78	156.49	266.21	307.39	166.37
GS>50	948.62	546.38	1431.47	1441.08	1277.42	1091.94
Total Average Capital Costs	160.85	135.98	221.13	395.96	456.28	206.61
Total Average Cost (including OPEX)	163.56	140.00	226.61	450.27	527.96	219.34
% Change vs average 2006 cost		-14%	39%	175%	223%	34%
Note 1: Includes Collectors						

- 10 This variance analysis shows that the average per unit cost (capital and operating) for an
- 11 installed Smart Meter (residential and commercial) has increased 223% from \$163.56 per
- Smart Meter in 2006 to \$527.96 per Smart Meter in 2010. Taken at face value, however, 12
- this figure is misleading. As first addressed in THESL's previous rate application (see 13
- 14 Exhibit F1, Tab 6, Schedule 6 of EB-2010-0142), the increase in the per unit Smart Meter
- installed costs in years 2008 through 2010 can be partly attributed to a greater number of 15
- Smart Meter installations in difficult and/or costly locations: 16

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"While the number of Smart Meters installed will decrease from 2008 through 2010, the 2010 installations involve more travel for scattered inside and difficult to access premises and special arrangements for access (power interruptions for

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small Commercial customers). These installations also involve premises with 1 2 asbestos backer boards which require special procedures in order to comply with the Occupational Health and Safety Act and to satisfy customer safety concerns" 3 4 In addition, as fewer of the common and less expensive single-phase 120/240V 200A 5 residential Smart Meters were installed in the latter years of the deployment (2008 6 through 2010), a greater proportion of more expensive three-phase 120/208V, 347/600V, 7 and 208V network transformer-type Smart Meters were installed in commercial settings 8 (and some residential settings) throughout that same time frame. The net result is a 9 higher average per unit capital and labour cost for all Smart Meters installed throughout 10 the latter years of the Smart Meter program. 11 12 13 Table 5 below illustrates (using relative values for reasons of unit price confidentiality) that while the standard residential Smart Meter capital costs has remained relatively 14 15 unchanged in 2008-2010, the commercial Smart Meter capital costs are a factor of five to ten times higher (depending on application). Labour costs for installing commercial 16 Smart Meters is generally a factor of eight times higher than the standard residential 17 Smart Meter. Labour costs for the installation of the standard residential Smart Meter 18 19 also increased in 2009 and 2010 owing to the scattered and difficult to access nature of those meters. As these commercial meters continue to make up a larger proportion of 20 total installed meters, they also increase the per unit costs. 21 22

Table 5: Relative Cost Factors of Smart Meter Installations

Meter Capital Cost (relative to Standard 2008)	2008	2009	2010
Residential Smart Meters (all Residential meter types)	1.0	1.2	1.1
Collector (all Collector meter types)	8.9	9.3	8.7
GS<50 Smart Meters (all GS<50 meter types)	4.7	4.4	3.5
GS>50 Smart Meters (all GS>50 meter types)	8.2	8.0	4.7
Meter Installation Labour Cost (relative to Standard 2008)	2008	2009	2010
Residential Smart Meters (all Residential meter types)	1.0	2.4	3.0
Collector (all Collector meter types)	13.3	11.1	15.6
GS<50 Smart Meters (all GS<50 meter types)	8.3	8.0	8.3
GS>50 Smart Meters (all GS>50 meter types)	20.3	21.7	22.9

Note: Labour Ratios only include direct labour costs; vehicle, administration costs, etc. are not included.

- 2 The Smart Meter OM&A expenses have also increased throughout the course of the
- 3 Smart Meter deployment. THESL notes that a \$2,269,371 jump in OM&A costs from
- 4 \$862,700 in 2008 to \$3,132,100 in 2009 is a direct result of increased customer
- 5 communication costs and meter communication costs. This, however, is a direct result of
- 6 the timing of TOU implementation, rather than a result of an increase in actual Smart
- 7 Meter installation costs.

- 9 To prepare customers for mandatory TOU implementation, THESL mailed three sets of
- Direct-to-Customer communications (a TOU Welcome Package, Tool Kit with discount
- coupons for energy-efficient/load-shifting products, and reminder letter) in defined
- groupings throughout 2009. A total of 395,000 customers were reached in the 2009
- communication campaign at a cost of \$1,562,000, for a unit cost of less than \$4 per
- customer. In 2010, THESL customer communications changed from a Direct-to-
- 15 Customer approach to a Mass Media approach, resulting in 2010 Smart Meter OM&A
- costs for customer communications increasing slightly from 2009. While customer
- communication costs are properly classified as a Smart Meter costs (in that they are
- needed to inform the customer of the change to TOU rates), they are not a cost directly

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attributable to the installation of Smart Meters, nor to any annual per unit cost variance 1 analysis. 2 Similarly, as more and more conventional manually-read meters were replaced by Smart 4 Meters, OM&A costs for Smart Meter telecommunications increased in 2009 over 2008. 5 Costs for Smart Meter telecommunication services provided by Bell Canada, Rogers 6 Communications, and other communication providers increased from \$108,500 in 2008 7 to \$745,400 in 2009. Smart Meter OM&A costs related to telecommunications are 8 expected to continue at this level in future years. 10 Overall, THESL's average per unit cost (capital and OM&A) of \$219.34 for all 11 residential and commercial Smart Meters installed from 2006 through 2010 is slightly 12 13 higher than the \$207.37 average per unit cost for all distributors in the Province of Ontario (as reported in the Sector Smart Meter Audit Review Report" of March 31, 2010 14 15 in which \$3,053,931 Smart Meters were reported to have been installed at a total capital and OM&A cost of \$633,294,140). 16 17 SMART METER DEFERRAL ACCOUNT RECOVERIES AND CALCULATIONS 18 For purposes of disposing the Smart Meter deferral accounts from 2008, 2009, and 2010, 19 THESL accounts for the revenues received from customers through the Smart Meter rate 20 adders. These revenues are used to offset the revenue requirement that would have 21 flowed from the actual Smart Meter activity had it been included as a distribution activity 22 when setting rates for those years. This methodology was approved by the Board in the 23 Combined Smart Meter Proceedings (EB-2007-0063), and confirmed in its EB-2008-24 0138 Decision of December 11, 2008. THESL's Smart Meter deferral account 25

methodology is also consistent with the OEB's Smart Meter Funding and Cost Recovery

Guideline (G-2008-0002).

- The methodology applied in this case consists of the following three elements comprising
- ten sets of calculations (identified and further referred to in this Application as Amounts
- 3 "A" through "I"):

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- 1) The net Balance Amount resulting from the revenue requirement consequences
 (OM&A, depreciation expenses, return on rate base, and PILS) arising from
 Smart Meter activities, minus the revenue earned from the Smart Meter Rate
 Adder and carrying charges in each of 2008, 2009, and 2010. This produces a
 total of three sets of Balance Amount calculations:
 - The 2008 Balance Amount of (\$2,607,800) for 2008 Smart Meters ("A" Amounts).
 - The 2009 Balance Amount of (\$1,429,500) for 2009 Smart Meters ("E" Amounts).
 - The 2010 Balance Amount of (\$1,661,800) for 2010 Smart Meters ("H" Amounts).
 - 2) The Incremental Revenue Requirement (depreciation expenses, return on rate base, PILS, and carrying charges) for each year subsequent to the year of the Smart Meter activity until April 30, 2012. This produces a total of six sets of Incremental Revenue Requirement calculations:
 - The 2009 Incremental Revenue Requirement of \$4,004,100 due to the 2008 Smart Meters activity ("B" Amounts)
 - The 2010 Incremental Revenue Requirement of \$5,029,000 due to the 2008 Smart Meters activity ("C" Amounts).
 - The 2011 Incremental Revenue Requirement of \$5,949,800 due to the 2008 Smart Meters activity ("D" Amounts).
 - The 2010 Incremental Revenue Requirement of \$3,175,400 due to the 2009 Smart Meters activity ("F" Amounts).
 - The 2011 Incremental Revenue Requirement of \$3,211,000 due to the 2009 Smart Meters activity ("G" Amounts).

- The 2011 Incremental Revenue Requirement of \$2,820,400 due to the 2010 Smart Meters activity ("I" Amounts).
- 3) The net Balance Amount for 2011 resulting from the forecast revenue earned from the Smart Meter Rate Adder in 2011.
 - The 2011 Balance Amount of (\$5,855,900) due to the 2011 Smart Meter Rate Adder ("J" Amounts).
- 8 A summary of all 2008-2010 Balance Amounts and Incremental Revenue Requirements
- 9 is shown in Table 6 below, and further outlined in the timeline chart provided in
- 10 Appendix D.

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Table 6: Revenue Requirement Consequences of Smart Meter Installations (\$000s)

	2008 Smart Meter Installs				2009 Smart Meter Installs			10 Meter	2011 Smart Meter Installs	
	2008	2009	2010	2011	2009	2010	2011	2010	2011	2011
	Α	В	С	D	E	F	G	Н	1	J
Rate Base	13,887.5	29,024.6	28,917.5	25,726.6	10,898.9	20,229.8	18,659.8	9,790.0	18,020.9	N/A
Return on Rate Base	916.8	1,839.0	2,036.4	1,785.4	690.6	1,424.6	1,295.0	689.4	1,250.6	N/A
Operating Expenses	862.7	0.0	0.0	0.0	3,132.1	0.0	0.0	3,110.3	0.0	N/A
Depreciation	1,128.3	2,681.4	3,144.6	3,237.1	781.7	1,562.4	1,577.5	649.5	1,546.8	N/A
Revenue Requirement										
(before PILS)	2,907.7	4,520.4	5,181.0	5,022.5	4,604.3	2,987.0	2,872.5	4,449.3	2,797.4	N/A
Grossed up PILS	277.2	-618.0	-225.3	927.3	-285.6	142.2	338.5	-231.6	23.0	N/A
Revenue Requirement	3,184.9	3,902.4	4,955.7	5,949.8	4,318.8	3,129.1	3,211.0	4,217.7	2,820.4	0.0
Revenue (Rate Adder)	-5,710.7	0.0	0.0	0.0	-5,711.9	0.0	0.0	-5,855.3	0.0	-5,855.9
Balance	-2,525.7	3,902.4	4,955.7	5,949.8	-1,393.2	3,129.1	3,211.0	-1,637.6	2,820.4	-5,855.9
Carrying Charges	-82.1	101.7	73.3	0.0	-36.3	46.3	0.0	-24.2	0.0	0.0
Net Balance	-2,607.8	4,004.1	5,029.0	5,949.8	-1,429.5	3,175.4	3,211.0	-1,661.8	2,820.4	-5,855.9
					Tot	al of Indiv	idual Net	Balance A	Amounts:	12,634.8

- Appendices E1-E3, Tables 1-18 provide the details of the revenue requirement calculations for 2008-2010 above.
- Smart Meter rate adder amounts are not associated with the incremental revenue requirement amounts (i.e. "B", "C", "D", "F", "G", and "I" Amounts), as the rate adder

- amounts are only booked against the Smart Meter activities and expenditures in the year
- that the expenditures were incurred.

- 4 As Smart Meters had been incorporated into THESL's rates as part of its 2011 EDR
- 5 Application (EB-2010-0142), no Smart Meter expenses had been booked for 2011 ("J"
- 6 Amounts).

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- 8 In accordance with the Board-approved methodology, carrying costs were applied to the
- 9 difference between the amounts recovered through the Smart Meter rate adders, and the
- corresponding revenue requirement amounts, calculated as of the beginning of the rate
- year following the year in which the revenue would normally have been received. This is
- consistent with the practice followed in the 2007 Smart Meter Application (EB-2009-
- 13 0069). Details of the carrying charge calculations are provided in Appendix F.

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SMART METER CAPITAL BALANCE - INCORPORATION INTO RATEBASE

- THESL proposes to transfer a total of \$62.4 million of Smart Meter capital into opening
- 17 rate base for 2012. The calculations detailing the amount for inclusion are shown in
- Table 7 below.

Table 7: Incorporation of Smart Meter Capital into Rate Base (\$)

	2008	2009	2010	2011
Capital Spending				
Opening Balance	-	6,124,816	1,553,502	1,909,067
Add: Capital Spending For the Yr.	34,812,531	22,833,187	19,799,385	-
Less: Transfer to the Fixed Assets	(28,687,715)	(27,404,501)	(19,443,821)	-
Closing Balance	6,124,816	1,553,502	1,909,067	1,909,067
Gross Fixed Assets				
Opening Balance	-	27,559,417	51,500,772	65,588,048
Addition to Fixed Assets	28,687,715	27,404,501	19,443,821	-
Less: Accumulated Depreciation	(1,128,298)	(3,463,146)	(5,356,545)	(6,361,404)
Closing Balance	27,559,417	51,500,772	65,588,048	59,226,643
Fixed Assets to be included in Rate Ba	se (Average of 2011	Opening and Clo	sing Balance):	62,407,345

1 STRANDED METERS – TREATMENT AND RECOVERY

- 2 In this application, THESL seeks disposition of the stranded meter costs related to the
- 3 deployment of Smart Meters. The historical stranded meter gross asset values and Net
- 4 Book Values are shown in Table 8 below. Please refer to Appendix G for OEB filing
- 5 requirement Appendix 2-R.

Table 8: Stranded Meter Amounts

Year	Notes	Gross Asset Value (A)	Accumulated Amortization (B)	Contributed Capital (Net of Amortization) (C)	Net Asset (D) = (A) - (B) - (C)	Proceeds on Disposition (E)	Residual Net Book Value (F) = (D) - (E)
2006		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2007		\$ 64,097,235	\$ 47,207,275	\$ -	\$ 16,889,960	\$ -	\$16,889,960
2008		\$ 93,973,448	\$ 68,107,443	\$ -	\$ 25,866,005	\$ 224,466	\$25,641,539
2009		\$ 103,875,474	\$ 78,528,568	\$ -	\$ 25,346,906	\$ 301,868	\$25,045,038
2010		\$ 108,015,264	\$ 84,895,573	\$ -	\$ 23,119,691	\$ 412,603	\$22,707,088
2011	(1)	\$ 108,672,160	\$ 86,912,352	\$ -	\$ 21,759,808	\$ 470,266	\$21,289,542
2011	(2)	\$ 108,015,237	\$ 87,997,576	\$ -	\$ 20,017,688	\$ 511,454	\$19,506,234
Notes:	(1) The amounts provided are actual as of June 30, 2011.						
	(2) The	amounts provide	ed is forecast as	of December 31	, 2011.		

- 8 The accounting treatment of THESL's stranded meters is in accordance with the OEB's
- 9 normal regulatory ratemaking practices for meters. THESL confirms that stranded meter
- costs, to date, have remained in Account 1860, Meters. THESL reports stranded meters
- as part of PP&E (fixed assets), and those assets are amortized over 25 years.

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- As of December 31, 2010, the net book value of stranded meters related to the
- deployment of smart meters was recorded as \$23,119,691 per the published 2010
- 15 Financial Statements. THESL continues to record depreciation expenses to reduce the
- net book value through accumulated depreciation. The total depreciation expense for the
- period from 2007, when THESL began tracking stranded meter costs, until June 30, 2011
- is \$86,912,000. This amount has been recovered in rates through those years and has had
- the effect of reducing the stranded meter cost now recoverable.

- As of the end of 2011, THESL forecasts a net asset value of \$20,017,688. After
- deducting cumulative proceeds on disposition of \$511,454 (from the sale of scrap
- materials), the net value for recovery of stranded meters is \$19,506,234.

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DISCONTINUATION OF THE SMART METER RATE ADDER

- 6 In this application, THESL seeks discontinuation of the Smart Meter Rate Adder
- effective April 30, 2012. Costs for the remaining Smart Meter installations in 2011 have
- been approved to be included in rate base as a regular distribution activity.

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- The proposed discontinuation of THESL's Smart Meter Rate Adder effective April 30,
- 2012 is consistent with the direction to distributors in Section 2.12.5 of Chapter 2 of the
- Filing Requirements for Transmission and Distribution Applications of June 22, 2011.

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DISPOSITION AND ALLOCATION OF SMART METER DEFERRAL

ACCOUNT BALANCE AMOUNTS

- THESL requests disposition of the 2008, 2009, and 2010 year-end balances of the Smart
- Meter deferral account by way of a Smart Meter disposition rate rider effective for 36-
- months from May 1, 2012.

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- THESL proposes that the sum of the 2008-2010 Smart Meter balance amounts, and the
- 2009-2011 incremental revenue requirements for the 2008-2010 Smart Meter capital
- amounts, with a total net debit amount of \$12,634,800 be disposed to those rate classes
- that had Smart Meters installed in 2010. Those classes are Residential, GS < 50 kW, and
- GS 50 1000 kW.

- 26 THESL further proposes that these amounts be disposed by way of fixed monthly
- charges, which is consistent with how the rate adder for Smart Meters has been collected
- over 2008-2011. THESL submits that the forecasted 2012 customer numbers be used for

- the calculation of the class rate riders. Calculation of the allocation and disposition of
- these amounts by rate class is shown in Table 9 below.

Table 9: Smart Meter Deferral Account Clearance Rate Riders by Class

			GS 50-1000 kW	
Allocators	Residential	GS < 50 kW	Non Interval	Total
Operational Data				
Number of Customers - 2012 Forecast	633,121	65,907	13,776	712,804
Smart Meters Installed (as of Dec 31, 2010)	605,046	48,959	13,137	667,142
Allocator Percentages				
Smart Meters Installed as a % of the Total	90.7%	7.3%	2.0%	100.0%
Smart Meter Amounts for Recovery	11,458,747	927,217	248,797	12,634,761
Rate Rider (\$ per Customer /30 days)	0.50	0.39	0.49	

5 DISPOSITION AND ALLOCATION OF STRANDED METER COSTS

- In accordance with the June 22, 2011 Chapter 2 of the Filing Requirements for
- 7 Transmission and Distribution Applications (Section 2.5.1.5 Treatment of Stranded
- 8 Assets Related to Smart Meter Deployment), and the HONI Brampton (EB-2010-0132)
- 9 Decision and Order of April 4, 2011, THESL proposes to remove the total estimated
- stranded meters costs of \$19,506,234 (as of December 31, 2011), from rate base and
- recover that amount through separate rate riders for the applicable customer classes.
- 12 THESL proposes the length of the recovery period to be 36-months in order to mitigate
- the rate impact of clearance. Stranded Meter Rate Riders, by class, are shown in Table
- 14 10 below.

Table 10: Stranded Meter Rate Riders by Class

			GS 50-1000 kW	
Allocators	Residential	GS < 50 kW	Non Interval	Total
Operational Data				
Number of Customers - 2012 Forecast	633,121	65,907	13,776	712,804
Smart Meters Installed (as of Dec 31, 2010)	605,046	48,959	13,137	667,142
Allocator Percentages				
Smart Meters Installed as a % of the Total	90.7%	7.3%	2.0%	100.0%
Stranded Meter Amounts for Recovery	17,690,640	1,431,488	384,106	19,506,234
Rate Rider (\$ per Customer /30 days)	0.77	0.60	0.76	

3 BILL IMPACTS

- 4 On a combined basis, the proposals set out in this Application would result in a \$1.27
- 5 monthly increase for a typical residential customer during the 36-months that the
- 6 proposed rate riders are effective. This increase, however, would be partly offset by the
- 7 simultaneous discontinuation of the Smart Meter Rate Adder. The complete impact of
- 8 the proposals set out in this Application, along with the proposed distribution rates and
- other rate riders can be found in Exhibit O1.

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Date:

September 30, 2011

OEB's Appendix 2-Q Smart Meters

Irrespective of whether a distributor is actively deploying smart meters (except if the distributor has completed its smart meter deployment program and has had Board-approved disposition of the balances in accounts 1555 and 1556) the distributor should provide a completed table as follows:

Year	Sm	art Meters Insta	lled	Percentage		Accou	nt 1555	Account 1556
	Residential	GS < 50 kW	Other (GS > 50 kW) ¹	of applicable customers converted	F	nding Adder Revenues Collected	Capital Expenditures	Operating Expenses
				%		\$	\$	\$
2006	191,370	2,070	560	28.1%	\$	2,966,000	\$ 31,205,301	\$ 525,959
2007	202,882	7,564	4,206	59.1%	\$	5,617,100	\$ 29,188,372	\$ 1,761,837
2008	144,460	10,466	2,505	81.9%	\$	5,710,658	\$ 34,812,531	\$ 862,695
2009	41,834	13,166	2,666	90.2%	\$	5,711,932	\$ 22,833,187	\$ 3,132,066
2010	24,500	15,693	3,200	96.5%	\$	5,855,276	\$ 19,799,385	\$ 3,110,323
2011 and								
beyond (if								
required)					\$	5,855,939	\$ -	\$ -

Note (1): THESL has some legacy non-interval GS>50 kW customers being converter to Smart Meters.

In addition, a distributor that is requesting an increase to its current approved smart meter funding adder (e.g. to \$1.00 or another utility-specific amount), should provide the information required to support such a request in accordance with section 1.4 of *Guideline G-2008-0002: Smart Meter Funding and Cost Recovery*, or any successor document. Applicants should note that continuation of a smart meter funding adder past April 30, 2012 will only be allowed by the Board in exceptional circumstances.

Any request for disposition or partial disposition of the balances in accounts 1555 and 1556 should be supported by smart meter costs information that has been audited in accordance with the requirements of Guideline G-2008-0002 or further information communicated by the Board.

Table 1: Costs by Minimum and Beyond Minimum Functionality

Γ			200)8			1		200	9					201	0		
	Min. Fu	nctionality			/lin. Functio	nality	Min. I	unctionality		Beyond Mi	in. Functio	nality	Min.	Functionality		Beyond M	in. Functi	onality
Description	Cost	Units	Unit	Cost	Units	Unit	Cost	Units	Unit	Cost	Units	Unit	Cost	Units	Unit	Cost	Units	Unit
	(\$000's)		Cost (\$)	(\$000's)		Cost (\$)	(\$000's)		Cost (\$)	(\$000's)		Cost (\$)	(\$000's)		Cost (\$)	(\$000's)		Cost (\$)
Advanced Metering Communication Device																		
(AMCD)																		
1 Smart Meters 2 Installation	17,601,781 6,401,179	154,708 154,708	113.77 41.38	1,869,343 1,654,884	2,505 2,505	746.24 660.63	9,666,499 4,613,493	54,721 54,721	176.65 84.31	1,944,320 1,897,606	2,666 2,666	729.30 711.78	7,443,438 4,869,991	40,161 40,161	185.34 121.26	1,370,581 2,717,173	3,200 3,200	428.3° 849.12
3 Workforce Automation	0,401,179	154,708	0.00	61,605	2,505	24.59	4,613,493	54,721	0.00	0 000,188,1	2,000	0.00	4,869,991	40,161	0.00	2,717,173	3,200	0.00
Total	24,002,959	154,708	155.15	3,585,831	2,505	1,431.47	14,279,993	54,721	260.96	3,841,926	2,666	1,441.08	12,313,429	40,161	306.60	4,087,754	3,200	1,277.42
Advanced Metering Regional Collector (AMRC) (includes LAN)																		
4 Collectors	177,221	218	812.94	0	0	0.00	236,420	279	847.38	0	0	0.00	25,438	32	794.92	0	0	0.00
5 Repeaters	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
6 Installation	64,576	218	296.22	0	0	0.00	124,920	279	447.74	0	0	0.00	15,992	32 32	499.76	0	0	0.00
Total	241,797	218	1,109.16	U	U	0.00	361,339	279	1,295.12				41,430	32	1,294.68	U	0	0.00
Advanced Metering Control Computer (AMCC)																		
7 Computer Hardware	0	154,926	0.00	0	0	0.00	24,018	55,000	0.44	0	0	0.00	0	40,193	0.00	306,022	3,200	95.63
8 Computer Software	781,744	154,926	5.05	0	0	0.00	210,398	55,000	3.83	925	2,666	0.35	161,846	40,193	4.03	261,866	3,200	81.83
Computer Software Licence & Installation Total	781,744	154,926 154.926	0.00 5.05	0	0	0.00 0.00	0 234,415	55,000 55,000	0.00 4.26	925	2,666	0.00 0.35	1 61,846	40,193 40,193	0.00 4.03	0 567,888	3,200	0.00 177.4 0
Total	701,744	104,520	3.03	•		0.00	204,410	33,000	4.20	323	2,000	0.00	101,040	40,133	4.00	307,000	0,200	177.4
Wide Area Network (WAN)																		
10 Activation fees	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
Total	0	0	0.00	U	U	0.00	U	U	0.00	0	0	0.00	U	0	0.00	U	0	0.00
Other AMI Capital Costs																		
Repairs of Damaged Customer Equipment 11 AMI Interface to CIS	73,581 0	154,926 154,926	0.47 0.00	0	0	0.00	141,254 0	55,000 55,000	2.57 0.00	0	0	0.00	28,877	40,193 40,193	0.72 0.00	0	0	0.00
12 Professional Fees	0	154,926	0.00	0	0	0.00	0	55,000	0.00	0	0	0.00	0	40,193	0.00	0	0	0.00
13 Integration	0	154,926	0.00	0	0	0.00	0	55,000	0.00	0	0	0.00	0	40,193	0.00	0	0	0.00
14a Program Management	1,111,641	154,926	7.18	240,702	2,505	96.09	1,071,016	55,000	19.47		0	0.00	1,174,121	40,193	29.21	0	0	0.00
14b Program Management IT Total	0 1,185,222	154,926 154,926	0.00 7.65	0 240,702	2, 505	0.00 96.09	0 1,212,270	55,000 55,000	0.00 22.04	0	0	0.00	1, 202,998	40,193 40,193	0.00 29.93	0	0	0.00
Total	1,100,222	104,520	7.00	240,702	2,000	30.03	1,212,210	55,000	22.04		•	0.00	1,202,330	40,133	20.00			0.00
Total (1-14b)	26,211,722			3,826,534			16,088,017			3,842,851	0	0.00	13,719,704	0	0.00	4,655,642	0	0.00
Other Capital Costs																		
Web Presentment				1,206,390						277,305						0		
TOU / Business/ System Readiness MDMR Integration				2,848,093 542.894						2,096,675 513,803						1,253,493 93,582		
WAN Cost				171,089						6,557						30,745		
Cost Related to technical capabilities in the smart				5,809						7,980						46,219		
meters or related communications infrastructure																		
that exceeds those specified in O.Reg 425/6 (Stock code 9662875 & 9662876)																		
Total Other Capital Costs	0			4,774,276			0			2,902,320			0			1,424,040		
Total Capital Costs	26,211,722			8,600,810			16,088,017			6,745,170			13,719,704			6,079,682		
Total Operating Costs	751,465			111,230			2,521,354			610,712			2,391,673			718,650		
Total Costs	26,963,194			8,712,032			18,609,371			7,355,882			16,111,376			6,798,332		

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Table 1 - Variance Analysis - Summary of Smart Meter Costs
Col. 1
Col.2

	Col. 1	Col.2	Col.3	Col.4	Col.5	Col.6	Col.7	Col.8	Col.9	Col.10	Col.11	Col.12	Col.13
1		200	6	2007	7	2008	3	2009)	2010		Tota	l
2	Description	Amount	Cost/Unit	Amount	Cost/Unit	Amount	Cost/Unit	Amount	Cost/Unit	Amount	Cost/Unit	Amount	Cost/Unit
3		(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
4 Smart Me	eter Capital Costs												
5													
	Functionality:												
	(Res. & GS<50)	30,674,076	158.57	26,890,311	127.78	24,244,756	156.49	14,641,332	266.21	12,354,859	307.39	108,805,335	166.37
	(Min. Functionality)					781,744	5.05	234,415	4.26	161,846	4.03	1,178,005	1.80
9 Other Al						1,185,222	7.65	1,212,270	22.04	1,202,998	29.93	3,600,489	5.51
10 Total Minir	mum Functionality					26,211,722	169.19	16,088,017	292.51	13,719,704	341.35	113,583,829	173.67
11													
	Inimum Functionality:												
13 Meters (531,225	948.62	2,298,061	546.38	3,585,831	1,431.47	3,841,926	1,441.08	4,087,754	1,277.42	14,344,797	1,091.94
14 IT Costs							-	925	0.35	567,888	177.46	568,813	43.30
15 Other AM						5,014,978	2,001.99	2,902,320	1,088.64	1,424,040	445.01	9,341,338	711.07
-	ond Minimum Functionality					8,600,809	3,433.46	6,745,170	2,530.07	6,079,682	1,899.90	24,254,947	1,846.31
17 Total Sma	art Meter Capital Costs	24 205 204	400.05	20 400 272	425.00	24 042 524	221.13	22 222 427	205.00	40 700 205	450.00	427 020 777	206.61
	e from Avg 2006 Unit Cost	31,205,301	160.85 0.0%	29,188,372	135.98 -15.5%	34,812,531	37.5%	22,833,187	395.96 146.2%	19,799,385	456.28 183.7%	137,838,777	206.61
			0.0%		-13.5%		37.5%		140.2%		103.7%		20.4%
	eter Operating Costs												
21													
	Functionality												
	n Management	453,279	2.34	283,471	1.35	419,707	2.71	213,750	3.89	391,556	9.74	1,761,763	2.69
	er Communications	57,916	0.30	451,056	2.14	223,287	1.44	1,562,209	28.40	1,939,852	48.26	4,234,321	6.47
_	nmunications	13,054	0.07	82,756	0.39	108,471	0.70	745,395	13.55	60,265	1.50	1,009,942	1.54
26 Total OPE	=X	524,250	2.71	817,284	3.88	751,465	4.85	2,521,354	45.84	2,391,673	59.50	7,006,026	10.71
27 Poyond M	linimum Functionality												
28 Beyond M 29 Total OPE		1,709	2.05	46,435	11.04	111 220	44.40	610,712	220.07	719.650	17.00	1 400 705	112 22
30 TOTAL OF E		1,709	3.05	46,435	11.04	111,230	44.40	610,712	229.07	718,650	17.88	1,488,735	113.32
	art Meter Operating Costs	525,959	2.71	863,719	4.02	862,695	5.48	3,132,066	54.31	3,110,323	71.68	8,494,762	12.73
	thg from Avg 2006 Unit Cost	323,333	0.0%	003,719	48.4%	002,033	102.1%	3,132,000	1903.4%	3,110,323	2543.8%	0,494,702	369.7%
33	ing nom7 (vg 2000 cm) coot		0.070		40.470		102.170		1303.470		2040.070		303.1 70
	OSTS - Capital and OPEX	31,731,260	163.56	30,052,091	140.00	35,675,226	226.61	25,965,254	450.27	22,909,708	527.96	146,333,538	219.34
	e from Avg 2006 Unit Cost	- 1,1 - 1,1	0.0%		-14.4%	,	38.5%	,,	175.3%	,_,_,	222.8%	, ,	34.1%
36	g =000 0 0001												,
	eters Installations												
	tionality (Res. & GS<50)	193,440		210,446		154,926		55,000		40,193		654,005	
	in. Functionality (GS>50)	193,440		4,206		2,505		2,666		3,200		13,137	
40 Deyond IVI	iii. i undidilality (GG>50)	560		4,206		∠,505		∠,066		3,200		13,137	
	art Meters Installed	194.000		214,652		157,431		57.666		43.393		667,142	
Total onle	art motors instance	Previously Clea		Previously Clear		137,431		37,000		45,333		007,142	

Previously Cleared in 2007 Previously Cleared in 2009

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2008 Smart Meter Costs Close to Ratebase **THESL 2008 Smart Meter Activities Timeline** 2008 Smart Meter Installs and Costs 2008 Smart Meterr Funding Adder 2008 Revenue Requirement Carrying Charges on 2008 Rev. Req. Proposed Smart Meter Disposition Rate Rider 2009 Rev. Req. from 2008 Amor Carrying Charges on 2009 Rev. Req. "A" Amounts Carrying Charges on 2010 Rev. Req "B" Amounts 2011 Rev. Req. from 2008 Amounts "C" Amounts "D" Amounts 2009 Smart Meter Costs **THESL 2009 Smart Meter Activities Timeline** 2009 Smart Meter Funding Adder Carrying Charges on 2009 Rev. Req. 2010 Rev. Req. from 2009 Amounts "E" Amounts 2011 Rev. Req. from 2009 Amounts Proposed Smart Meter Disposition Rate Rider "F" Amounts "G" Amounts 2010 Smart Meter Costs Close to Ratebase **THESL 2010 Smart Meter Activities Timeline** 2010 Smart Meter Funding Adder Carrying Charges on 2010 Rev. Req. Proposed Smart Meter Disposition Rate Rider 2011 Rev. Req. from 2010 Amounts Proposed Smart Meter Disposition Rate Rider "H" Amounts "I" Amounts 2011 Smart Meter Funding Adder Proposed Smart Meter Disposition Rate Rider "J" Amounts

Table 1 - Recovery of 2008 Smart Meter Deferral Account Balance

	Col. 1	Col. 2	Col. 3	Col. 4
1		(\$000's)	(\$000's)	Calculation
2	Smart Meter 2008 Expenses			
3	Incremental Operating Expense		862.7	Α
4	Depreciation Expense		1,128.3	В
5	Total Expenses	-	1,991.0	C = A + B
6				
7	Calculated Return on Rate Base			
8	Smart Meter Fixed Assets Net Book Value - Dec. 31, 2008	27,559.4		D
9	Net Fixed Assets (average of Smart Meter Fixed Assets			
10	opening and closing 2008 Net Book Value)	13,779.7		E = D / 2
11	Working Capital Allowance	107.8		F = A * 12.5%
12	Total Rate Base	13,887.5		G = E + F
13				
14	Debt Cost - weighted debt rate	5.42%	470.4	H = G * 62.5% * 5.42%
15	Return on Equity	8.57%	446.3	I = G * 37.5% * 8.57%
16	Return on Rate Base		916.8	J = H + I
17				
18	Revenue Requirement before PILs	-	2,907.7	K = C + J
19				
	Calculation of Income for PILs Purposes			1.
21	Incremental Operating Expenses		862.7	A
22	Depreciation Expense		1,128.3	В
23	Interest Expense	-	470.4	H
	Income for PILs purposes		446.3	L = K - A - B - H
25	o , DII		077.0	
	Grossed up PILs	-	277.2	М
27				
	Revenue Requirement before PILs		2,907.7	K
	Grossed up PILs		277.2	M
	2008 Revenue Requirement for 2008 Smart Meters		3,184.9	N = K + M
31				
32	Revenue Earned - Smart Meter Funding			
33	Total Revenue		5,710.7	R
34				
35	Difference Over-Recovered	<u>.</u>	-2,525.7	S = N - R
36				
37	Carrying Charge on Over-Recovery (May 09-Apr 12)	<u>.</u>	-82.1	Т
38				
39	Difference Over-Recovered plus Carrying Charge	_	-2,607.8	U = S + T
40				

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Table 2 - PILs Calculation -2008

	Col. 1	Col. 2	Col. 3	Col. 4
		(\$000's)		(\$000's)
1	Income Tax			
2	Net Income	446.3		
3	Amortization	1,128.3		
4	CCA - Class 47 (8%) SM with ½ year rule	-1,147.5		
5	CCA - Class 50 (55%) Sys SW with ½ year rule	0.0		
6	CCA - Class 12 (100%) App SW with ½ year rule	0.0		
7	Change in taxable income	427.1		
8	Tax Rate	33.50%		
9	Income Taxes Payable	143.1		
10				
11	Ontario Capital Tax			
	Smart Meters	27,559.4		
	Computer Hardware	0.0		
	Computer Software	0.0		
	Rate Base	27,559.4		
	Less: Exemption	0.0		
	Deemed Taxable Capital	27,559.4		
	Ontario Capital Tax Rate	0.225%		
19	Net OCT Amount	62.0		
20				
21		Dil a Davabla	Cross IIn	Creeced Un DII e
22		PILs Payable	Gross Up	Grossed Up PILs
23	3 - 3	143.1	33.50%	215.2
	Change in OCT	62.0		62.0
25	PILs	205.1		277.2

Table 3 - 2009 Revenue Requirement Due to 2008 Smart Meters

Rate Base Sanart Meter Fixed Assets Cost Start of 200 End of 2009 Sanart Meter Sixed Assets Cost Sanart Meter Sixed Assets Cost Sanart Meter Sixed Assets Cost Sanart Meter Accumulated Depreciation Sixed Meter Accumulated Depreciation		Col. 1	Col. 2	Col. 3	Col. 4
Start of 2008 Smart Meter Fixed Assets Cost Start of 2009 End of 2009	1		(\$000's)	(\$000's)	Calculation
Smart Meters	2	Rate Base			
H/W & S/W	3	2008 Smart Meter Fixed Assets Cost	Start of 2009	End of 2009	
H/W & S/W	4	Smart Meters	28,687.7	28,687.7	A
Total	5	H/W & S/W	0.0	5,611.8	В
Less: Smart Meter Accumulated Depreciation Smart Meters	6	Total	28,687.7		C = A + B
Smart Meters			-,		
Smart Meters	8	Less: Smart Meter Accumulated Depreciation			
HW & SW			1.128.3	3.041.8	D
Total			· ·		
Smart Meter Fixed Assets Net Book Value Smart Meters 27,559.4 25,645.9 G = A - D H = B - E I = G + H					
Smart Meter Fixed Assets Net Book Value 27,559.4 25,645.9 H = B - E		1 013.	.,0.0	3,000	
Smart Meters		Smart Meter Fixed Assets Net Book Value			
HW & SW			27 559 4	25 645 9	G - A - D
Total			,		
Average Smart Meter Fixed Assets 29,024.6					
Average Smart Meter Fixed Assets 29,024.6		Total	21,559.4	30,409.0	1-0+11
Smart Meters Fixed Assets in Rate Base 29,024.6 K = J		Average Smart Meter Fixed Assets		20 024 6	- 2\rac{1}{2}
Smart Meters Fixed Assets in Rate Base		Average Smart Meter Fixed Assets		29,024.6	$J = avg(I_{\text{start of }2009}, I_{\text{end of }2009})$
Return on Rate Base Deemed Debt Deemed Equity Deemed E					
Return on Rate Base Deemed Debt Deemed Debt Deemed Equity Deemed Equ	20	Smart Meters Fixed Assets in Rate Base		29,024.6	K = J
Deemed Debt Deemed Equity	21				
Deemed Equity A0% 11,609.8 M = K * 40% N = L + M	22				
29,024.6	23				
Weighted Debt Rate	24	Deemed Equity	40%	11,609.8	M = K * 40%
Weighted Debt Rate	25		_	29,024.6	N = L + M
Equity Rate Return on Rate Base Return	26		-		
Return on Rate Base 1,839.0 Q = O + P	27	Weighted Debt Rate	5.22%	909.1	O = L * 5.22%
Return on Rate Base	28	Equity Rate	8.01%	929.9	P = M * 8.01%
Amortization Expenses 2008 Smart Meters 2008 Smart Meters 1,913.5 R = D _{end of 2009} - D _{start of 2009} Revenue Requirement Before PILs 2,681.4 T	29	Return on Rate Base	-		Q = O + P
2008 Smart Meters: Smart Meters H/W & S/W Revenue Requirement Before PILs Calculation of Income for PILs Purposes Depreciation Expense Income for PILs purposes Income for PILs purposes Grossed up PILs Revenue Requirement Before PILs Grossed up PILs Revenue Requirement Before PILs Grossed up PILs Revenue Requirement Before PILs Grossed up PILs Grossed up PILs Carrying Charge on Under-Recovery (May 10-Apr 12) 101.7 Revenue Requirement Defore PILs Purposes 1,913.5 R = D _{end of 2009} - D _{start of 2009} S = E _{end of 2009} - D _{start of 2009} S = E _{end of 2009} - E _{start of 2009} T = R + S 4,520.4 T O O V = U - T - O W X = U + W	30		•		
2008 Smart Meters: Smart Meters H/W & S/W Revenue Requirement Before PILs Calculation of Income for PILs Purposes Depreciation Expense Income for PILs purposes Income for PILs purposes Grossed up PILs Revenue Requirement Before PILs Grossed up PILs Revenue Requirement Before PILs Grossed up PILs Revenue Requirement Before PILs Grossed up PILs Grossed up PILs Carrying Charge on Under-Recovery (May 10-Apr 12) 101.7 Revenue Requirement Defore PILs Purposes 1,913.5 R = D _{end of 2009} - D _{start of 2009} S = E _{end of 2009} - D _{start of 2009} S = E _{end of 2009} - E _{start of 2009} T = R + S 4,520.4 T O O V = U - T - O W X = U + W	31	Amortization Expenses			
Smart Meters	32				
Text	33	Smart Meters		1.913.5	R = Dond of 2000 - Dotort of 2000
2,681.4 T = R + S					
Revenue Requirement Before PILs		11/77 & 5/77	-		
Revenue Requirement Before PILs			-	2,001.4	1 = K + S
Calculation of Income for PILs Purposes Depreciation Expense Depreciation Expense 100 Depreci		Pavanua Paguirament Roforo PII s		A 520 A	_{- T+0}
Calculation of Income for PILs Purposes Depreciation Expense Depreciation Expense 1nterest Expense 909.1 O V = U - T - O		Nevenue Nequirement before FILS	-	4,020.4	0 - 1 + 4
Depreciation Expense		Calculation of Income for PILs Burneses			
Interest Expense 909.1 O V = U - T - O				2 621 1	₊
1					
43 44 45 46 47 48 48 49 Carrying Charge on Under-Recovery (May 10-Apr 12) Grossed up PILs 4,520.4 4,520.4 4,520.4 4,520.4 4,520.4 4,520.4 4,520.4 4,520.4 4,520.4 5,618.0 4,520.4 7 4,520			-		
44 Grossed up PILs Revenue Requirement Before PILs Grossed up PILs 47 Grossed up PILs 48 2009 Revenue Req't for 2008 Smart Meters Carrying Charge on Under-Recovery (May 10-Apr 12)		income for Fils purposes		929.9	V = U - 1 - U
45 46 47 48 48 49 50 Carrying Charge on Under-Recovery (May 10-Apr 12) Revenue Requirement Before PILs 4,520.4 -618.0 W X = U + W 101.7		Creeced up BILe		040.0	10/
46 Revenue Requirement Before PILs 4,520.4 U 47 Grossed up PILs -618.0 W 2009 Revenue Req't for 2008 Smart Meters 3,902.4 X = U + W 50 Carrying Charge on Under-Recovery (May 10-Apr 12) 101.7 Y		Grossea up PILS		-618.0	vv
47 Grossed up PILs 2009 Revenue Req't for 2008 Smart Meters 49 50 Carrying Charge on Under-Recovery (May 10-Apr 12) 51 Carrying Charge on Under-Recovery (May 10-Apr 12) 52 Carrying Charge on Under-Recovery (May 10-Apr 12) 53 Carrying Charge on Under-Recovery (May 10-Apr 12) 54 Carrying Charge on Under-Recovery (May 10-Apr 12)		5 5 5		4 === .	[[
48 2009 Revenue Req't for 2008 Smart Meters 3,902.4 X = U + W 50 Carrying Charge on Under-Recovery (May 10-Apr 12) 101.7 Y					
Carrying Charge on Under-Recovery (May 10-Apr 12) 101.7 Y		Grossed up PILs	-		
Carrying Charge on Under-Recovery (May 10-Apr 12) 101.7 Y	48	2009 Revenue Req't for 2008 Smart Meters		3,902.4	X = U + W
51	49				
	50	Carrying Charge on Under-Recovery (May 10-Apr	12)	101.7	Y
52 Revenue Requirement Plus Carrying Charge 4,004.1 Z = X + Y					<u> </u>
	52	Revenue Requirement Plus Carrying Charge	-	4,004.1	∠ = X + Y

Note: The amount of \$5,611,800 hardware and software costs in 2008 is included in the closing 2009 balance due to certain 2008 IT assets only becoming energized, or "used and useful", during 2009.

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Table 4 - 2009 Revenue Requirement - PILs Calculation

	Col. 1	Col. 2	Col. 3	Col. 4
		(\$000's)		(\$000's)
1	Income Tax			
2	Net Income	929.9		
3	Amortization	2,681.4		
4	CCA - Class 47 (8%) SM with ½ year rule	-2,203.2		
5	CCA - Class 50 (55%) HW with ½ year rule	-4.5		
6	CCA - Class 50 (55%) Sys SW with ½ year rule	0.0		
7	CCA - Class 12 (100%) App SW with ½ year rule	-2,797.7		
8	Change in taxable income	-1,394.0		
9	Tax Rate	33.00%		
10	Income Taxes Payable	-460.0		
11				
12	Ontario Capital Tax			
	Smart Meters	25,645.9		
14	Computer SW & Hardware	4,843.8		
	Rate Base	30,489.8		
	Less: Exemption	0.0		
	Deemed Taxable Capital	30,489.8		
18	Ontario Capital Tax Rate	0.225%		
19	Net Amount (Taxable Capital x Rate)	68.6		
20				
21		DII - D	0	O
22	Ohana 'a lana Tana Bandha	PILs Payable	Gross Up	Grossed Up PILs
23	3 ,	-460.0	33.00%	-686.6
	Change in OCT	68.6		68.6
25	PILs	-391.4		-618.0

Table 5 - 2010 Revenue Requirement Due to 2008 Smart Meters

	Col. 1	Col. 2	Col. 3	Col. 4
1		(\$000's)	(\$000's)	Calculation
2	Rate Base			
3	2008 Smart Meter Fixed Assets Cost	Start of 2010		
4	Smart Meters	28,687.7	28,687.7	Α
5	H/W & S/W	5,611.8	5,611.8	В
6	Total	34,299.5	34,299.5	C = A + B
7				
8	Less: Smart Meter Accumulated Depreciation			
9	Smart Meters	3,041.8	4,955.2	D
10	H/W & S/W	768.0	1,999.1	E
11	Total	3,809.7	6,954.4	F = D + E
12				
13	Smart Meter Fixed Assets Net Book Value			
14	Smart Meters	25,645.9	23,732.5	G = A - D
15	H/W & S/W	4,843.8	3,612.7	H = B - E
16	Total	30,489.8	27,345.2	I = G + H
17		,	, , , , , , , , , , , , , , , , , , ,	
	Average Smart Meter Fixed Assets		28,917.5	$J = avg(I_{start of 2010}, I_{end of 2010})$
19	The age of an art motor is mounted.	-	20,0	Series of Start of 2010, Felia of 2010,
20	Smart Meters Fixed Assets in Rate Base		28,917.5	K = J
	omait meters i ixeu Assets ili itate base		20,917.5	K = 3
21	Return on Rate Base			
22		000/	47.050.5	1 1/ * 000/
23	Deemed Debt	60%	17,350.5	L = K * 60%
24	Deemed Equity	40%	11,567.0	M = K * 40%
25			28,917.5	N = L + M
26				
27	Weighted Debt Rate	5.17%	897.0	O = L * 5.17%
28	Equity Rate	9.85%	1,139.3	P = M * 9.85%
29	Return on Rate Base		2,036.4	Q = O + P
30				
	Amortization Expenses			
32	2008 Smart Meters:			
33	Smart Meters		1,913.5	$R = D_{end \ of \ 2010} - D_{start \ of \ 2010}$
34	H/W & S/W		1,231.2	S = E _{end of 2010} - E _{start of 2010}
35		•	3,144.6	T = R + S
36		•	<u> </u>	
37	Revenue Requirement Before PILs		5,181.0	U = T +Q
38	•	•	· · · · · · · · · · · · · · · · · · ·	
	Calculation of Income for PILs Purposes			
40	Depreciation Expense		3,144.6	Т
41	Interest Expense		897.0	0
42	Income for PILs purposes	-	1,139.3	V = U - T - O
43	1100110 101 1 120 parpooco	•	1,100.0	
44	Grossed up PILs		-225.3	W
	orosseu up r ies		-223.3	VV
45	Povenue Pequirement Pefers DII a		E 101 0	
	Revenue Requirement Before PILs		5,181.0	U
47	Grossed up PILs 2010 Revenue Reg't for 2008 Smart Meters		-225.3	W
48	ZOTO NEVERIUE NEU LIOI ZUUO SIIIAIL WELEIS		4,955.7	X = U + W
49	Counting Charge on Under Because (Mar. 44 Acc	 -40	70.0	V
50	Carrying Charge on Under-Recovery (May 11-Apr	12) I	73.3	Y
51	Payanua Paguiramant Blua Carreira - Obarre		E 000 0	7 V V
52	Revenue Requirement Plus Carrying Charge		5,029.0	Z = X + Y

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Table 6 - 2010 Revenue Requirement - PILs Calculation

	Col. 1	Col. 2	Col. 3	Col. 4
		(\$000's)		(\$000's)
1	Income Tax			
2	Net Income	1,139.3		
3	Amortization	3,144.6		
4	CCA - Class 47 (8%) SM with ½ year rule	-2,027.0		
5	CCA - Class 50 (55%) HW with ½ year rule	-6.6		
6	CCA - Class 12 (100%) App SW with ½ year rule	-2,797.7		
7	Change in taxable income	-547.2		
8	Tax Rate	31.00%		
9	Income Taxes Payable	-169.6		
10				
11	Ontario Capital Tax			
12	Smart Meters	23,732.5		
13	Computer SW & Hardware	3,612.7		
14	Rate Base	27,345.2		
15	Less: Exemption	0.0		
16	Deemed Taxable Capital	27,345.2		
17	Ontario Capital Tax Rate	0.075%		
18	Net Amount (Taxable Capital x Rate)	20.5		
19				
20				
21		PILs Payable	Gross Up	Grossed Up PILs
22	Change in Income Taxes Payable	-169.6	31.00%	-245.8
	Change in OCT	20.5		20.5
24	PILs	-149.1		-225.3

Table 7 - 2011 Revenue Requirement Due to 2008 Smart Meters

_	Col. 1	Col. 2	Col. 3	Col. 4
1		(\$000's)	(\$000's)	Calculation
	Rate Base			
3	2008 Smart Meter Fixed Assets Cost	Start of 2011	End of 2011	
4	Smart Meters	28,687.7	28,687.7	A
5	H/W & S/W	5,611.8	5,611.8	В
6	Total	34,299.5	34,299.5	C = A + B
7				
8	Less: Smart Meter Accumulated Depreciation			
9	Smart Meters	4,955.2	6,868.7	D
10	H/W & S/W	1,999.1	3,322.7	E
11	Total	6,954.4	10,191.5	F = D + E
12				
13	Smart Meter Fixed Assets Net Book Value			
14	Smart Meters	23,732.5	21,819.0	G = A - D
15	H/W & S/W	3,612.7	2,289.1	H = B - E
16	Total	27,345.2	24,108.1	I = G + H
17				
18	Average Smart Meter Fixed Assets		25,726.6	$J = avg(I_{start of 2010}, I_{end of 2010})$
19	· ·	•	·	
	Smart Meters Fixed Assets in Rate Base		25,726.6	K = J
21		•	20,: 20:0	
	Return on Rate Base			
23	Deemed Debt	60%	15,436.0	L = K * 60%
24	Deemed Equity	40%	10,290.6	M = K * 40%
25	Decined Equity	4070	25,726.6	N = L + M
26		•	25,720.0	
26 27	Weighted Debt Rate	5.18%	799.6	O = L * 5.18%
28	Equity Rate	9.58%	985.8	P = M * 9.58%
29	Return on Rate Base	3.3070	1,785.4	Q = O + P
	Notalli oli Nate Base		1,700.4	Q = 0 1 1
30	Amortization Expenses			
31 32	2008 Smart Meters:			
	Smart Meters		1 012 5	l _P - D
33			1,913.5	R = D _{end of 2010} - D _{start of 2010}
34	H/W & S/W		1,323.6	S = E _{end of 2010} - E _{start of 2010}
35			3,237.1	T = R + S
36	Devenue Demainement Defens DII e		F 000 F	II. T.O.
	Revenue Requirement Before PILs		5,022.5	U = T +Q
38	Onlandation of Income for Billia Brown and			
	Calculation of Income for PILs Purposes		0.007.4	_
40	Depreciation Expense		3,237.1	T
41	Interest Expense]	799.6	0
	Income for PILs purposes		985.8	V = U - T - O
43	0 1 50			l.,,
	Grossed up PILs		927.3	W
45				1
	Revenue Requirement Before PILs		5,022.5	U
	Grossed up PILs		927.3	W
	2011 Revenue Req't for 2008 Smart Meters]	5,949.8	X = U + W
49				
	Carrying Charge on Under-Recovery (May 12 -)		0.0	Υ
51	Revenue Requirement Plus Carrying Charge		5,949.8	Z = X + Y

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Table 8 - 2011 Revenue Requirement - PILs Calculation

	Col. 1	Col. 2	Col. 3	Col. 4
		(\$000's)		(\$000's)
1	Income Tax			
2	Net Income	985.8		
3	Amortization	3,237.1		
4	CCA - Class 47 (8%) SM with ½ year rule	-1,864.8		
5	CCA - Class 50 (55%) HW with ½ year rule	-3.0		
6	CCA - Class 12 (100%) App SW with ½ year rule	0.0		
7	Change in taxable income	2,355.2		
8	Tax Rate	28.25%		
9	Income Taxes Payable	665.3		
10				
11	Ontario Capital Tax			
12	Smart Meters	21,819.0		
13	Computer SW & Hardware	2,289.1		
14	Rate Base	24,108.1		
15	Less: Exemption	0.0		
16	Deemed Taxable Capital	24,108.1		
17	Ontario Capital Tax Rate	0.000%		
18	Net Amount (Taxable Capital x Rate)	0.0		
19				
20				
21		PILs Payable	Gross Up	Grossed Up PILs
22	Change in Income Taxes Payable	665.3	28.25%	927.3
	Change in OCT	0.0		0.0
24	PILs	665.3		927.3

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Table 9 - Recovery of 2009 Smart Meter Deferral Account Balance

	Col. 1	Col. 2	Col. 3	Col. 4
1		(\$000's)	(\$000's)	Calculation
2	Smart Meter 2009 Expenses			
3	Incremental Operating Expense		3,132.1	Α
4	Depreciation Expense	_	781.7	E = B + C + D
5	Total Expenses	_	3,913.8	F = A + E
6				
7	Calculated Return on Rate Base			
8	Smart Meter Fixed Assets Net Book Value - Dec. 31, 2009	21,011.0		I = G + H
9	Net Fixed Assets (average of Smart Meter Fixed Assets			
10	opening and closing 2009 Net Book Value)	10,505.5		J = I / 2
11	Working Capital Allowance	393.4		K = A * 12.56%
12	Total Rate Base	10,898.9		L = J + K
13			0.44.4	
14	Debt Cost - weighted debt rate	5.22%	341.4	M = L * 60% * 5.22%
15	Return on Equity	8.01%	349.2	N = L * 40% * 8.01%
16	Return on Rate Base	_	690.6	O = M + N
17	Develope Develope week before Dille		4 00 4 0	D
18	Revenue Requirement before PILs	-	4,604.3	P = F + O
19	Onlanda Carra (Inna anna Carr Bill a Barra anna			
	Calculation of Income for PILs Purposes		0.400.4	
21	Incremental Operating Expenses		3,132.1	A
22	Depreciation Expense		781.7	E
23	Interest Expense	_	341.4 349.2	M N = P - A - E - M
	Income for PILs purposes	_	349.2	N = P - A - E - W
25	Creaned up DII o		-285.6	О
	Grossed up PILs	-	-200.0	O
27	Davanua Daguirament hafara DII a		4,604.3	Р
	Revenue Requirement before PILs Grossed up PILs		-285.6	0
		-		Q = P + O
	2009 Revenue Requirement for 2009 Smart Meters	-	4,318.8	Q = P + O
31	Boyanua Farnad Smart Mater Funding			
	Revenue Earned - Smart Meter Funding		5 744 0	l
33	Total Revenue		5,711.9	U
34	D'''		4 000 0	V 0 11
	Difference Over-Recovered	<u>-</u>	-1,393.2	V = Q - U
36	0 . 0 . 0 . 0 . 10		20.0	,,,
37	Carrying Charge on Over-Recovery (May 10-Apr 12)	<u>-</u>	-36.3	W
38	Difference Over Becaused when Committee Observe		4 400 5	V V · W
	Difference Over-Recovered plus Carrying Charge	_	-1,429.5	X = V + W
40				

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Table 10 - PILs Calculation -2009

	Col. 1	Col. 2	Col. 3	Col. 4
		(\$000's)		(\$000's)
1	Income Tax			
2	Net Income	349.2		
3	Amortization	781.7		
4	CCA - Class 47 (8%) SM with ½ year rule	-811.2		
5	CCA - Class 52 (100%) HW with no ½ year rule	-477.5		
6	CCA - Class 52 (100%) Sys SW with no ½ year rule	0.0		
7	CCA - Class 12 (100%) App SW with ½ year rule	-518.1		
8	Change in taxable income	-675.8		
9	Tax Rate	33.00%		
10	Income Taxes Payable	-223.0		
11				
12	Ontario Capital Tax			
13	Smart Meters	19,534.5		
14	Computer Hardware & Software	1,476.5		
15	Rate Base	21,011.0		
16	Less: Exemption	0.0		
17	Deemed Taxable Capital	21,011.0		
18	Ontario Capital Tax Rate	0.225%		
19	Net OCT Amount	47.3		
20				
21				
22		PILs Payable	Gross Up	Grossed Up PILs
23	,	-223.0	33.00%	-332.8
24	3-	47.3		47.3
25	PILs	-175.7		-285.6

Table 11 - 2010 Revenue Requirement Due to 2009 Smart Meters

	Col. 1	Col. 2	Col. 3	Col. 4
1	Data Basa	(\$000's)	(\$000's)	Calculation
	Rate Base	Ctaut of 2010	End of 2010	
	2009 Smart Meter Fixed Assets Cost	Start of 2010		
4	Residential General Service	11,694.3		A
5	H/W & S/W	8,584.8	8,584.8	B C
6	Total	1,513.6 21,792.7		D = A + B + C
7	Total	21,192.1	21,792.7	D=A+B+C
8 9	Less: Smart Meter Accumulated Depreciation			
10	Residential	474.2	1,254.2	E
11		270.5	843.1	F
12		37.0		G
13		781.7	2,344.1	H = E + F + G
14		701.7	2,011.1	
	Smart Meter Fixed Assets Net Book Value			
16		11,220.1	10,440.1	I = A - E
17		8,314.4	•	J = B - F
18		1,476.5		K = C - G
19		21,011.0		L = I + J + K
20	r o tal	21,011.0	10,110.0	
	Average Smart Meter Fixed Assets		20,229.8	M = avg(L start of 2010, L end of 2010)
22	, wording of mark motor it mod / toodto	1		51. 5(= start of 2010) = end of 2010)
	Smart Meters Fixed Assets in Rate Base		20,229.8	М
24		i	20,220.0	'''
	Return on Rate Base			
26	Deemed Debt	60%	12,137.9	N = M * 60%
27	Deemed Equity	40%	8,091.9	O = M * 40%
28	· ,	,	20,229.8	P = N + O
29		•		
30	Weighted Debt Rate	5.17%	627.5	Q = N * 5.17%
31		9.85%	797.1	R = O * 9.85%
32	Return on Rate Base	,	1,424.6	S = Q + R
33		'		
34	Amortization Expenses			
35				
36	Residential		780.0	T = E _{end of 2010} - E _{start of 2010}
37	General Service		572.6	U = F _{end of 2010} - F _{start of 2010}
38	H/W & S/W		209.8	$V = G_{end of 2010} - G_{start of 2010}$
39			1,562.4	W = T + U + V
40				
41	Revenue Requirement Before PILs		2,987.0	X = S + W
42				
43	Calculation of Income for PILs Purposes			
44	Depreciation Expense		1,562.4	W
45	Interest Expense		627.5	Q
46	Income for PILs purposes		797.1	Y = X - W - Q
47				_
48	Grossed up PILs		142.2	Z I
49	Davis		0.007.0	<u> </u>
	Revenue Requirement Before PILs		2,987.0	X
	Grossed up PILs		142.2	<u> </u>
	2010 Revenue Req't for 2009 Smart Meters	,	3,129.1	AA = X + Z
53 54	Carrying Charge on Under-Recovery (May 11-Apr 1	 2)	46.3	AB
54 55	Carrying Charge on Onder-Recovery (May 11-Apr		40.3	\n_P
	Revenue Requirement Plus Carrying Charge	,	3,175.4	AC = AA + AB

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Table 12 - 2010 Revenue Requirement - PILs Calculation

	Col. 1	Col. 2	Col. 3	Col. 4
		(\$000's)		(\$000's)
	Income Tax			
2	Net Income	797.1		
3	Amortization	1,562.4		
4	CCA - Class 47 (8%) SM with ½ year rule	-1,557.4		
5	CCA - Class 52 (100%) Sys SW with no ½ year rule	0.0		
6	CCA - Class 12 (100%) App SW with ½ year rule	-518.1		
7	Change in taxable income	283.9		
8	Tax Rate	31.00%		
9	Income Taxes Payable	88.0		
10				
	Ontario Capital Tax			
12	Smart Meters	18,181.8		
13	Computer Hardware & Software	1,266.8		
14	Rate Base	19,448.6		
15	Less: Exemption	0.0		
16	Deemed Taxable Capital	19,448.6		
17	Ontario Capital Tax Rate	0.075%		
18	Net Amount (Taxable Capital x Rate)	14.6		
19				
20				
21		PILs Payable	Gross Up	Grossed Up PILs
	Change in Income Taxes Payable	88.0	31.00%	127.6
	Change in OCT	14.6		14.6
24	PILs	102.6		142.2

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Table 13 - 2011 Revenue Requirement Due to 2009 Smart Meters

	Col. 1	Col. 2	Col. 3	Col. 4
1		(\$000's)	(\$000's)	Calculation
	Rate Base			
3	2009 Smart Meter Fixed Assets Cost	Start of 2011	End of 2011	
4	Residential	11,694.3	11,694.3	Α
5	General Service	8,584.8	8,584.8	В
6	H/W & S/W	1,513.6	1,513.6	[C
7	Total	21,792.7	21,792.7	D = A + B + C
8				
9	Less: Smart Meter Accumulated Depreciation			
10		1,254.2	2,034.2	le l
11	General Service	843.1	1,415.7	E F
12	H/W & S/W	246.8	471.7	G
13	Total	2,344.1	3,921.6	H = E + F + G
14		,	•	
	Smart Meter Fixed Assets Net Book Value			
16		10,440.1	9,660.1	I = A - E
17		7,741.8	7,169.2	J = B - F
18		1,266.8	1,041.9	K = C - G
19		19,448.6	17,871.1	L = I + J + K
20		13,440.0	17,071.1	L-I+S+K
	Average Smart Meter Fixed Assets		18,659.8	M = avg(L _{start of 2010} , L _{end of 2010})
		-	10,009.0	IVI — avg(∟ start of 2010, ∟ end of 2010)
22			40.0-0.0	l
23	Smart Meters Fixed Assets in Rate Base	_	18,659.8	M
24				
25	Return on Rate Base			
26		60%	11,195.9	N = M * 60%
27	Deemed Equity	40%_	7,463.9	O = M * 40%
28		_	18,659.8	P = N + O
29		-		
30	Weighted Debt Rate	5.18%	579.9	Q = N * 5.18%
31		9.58%	715.0	R = O * 9.58%
32		_	1,295.0	S = Q + R
33		-	•	
	Amortization Expenses			
35	2009 Smart Meters:			
36			780.0	T = E end of 2010 - E start of 2010
			572.6	
37				U = F end of 2010 - F start of 2010
38		=	224.9	V = G end of 2010 - G start of 2010
39		_	1,577.5	W = T + U + V
40				
41	Revenue Requirement Before PILs	_	2,872.5	X = S + W
42				
43	Calculation of Income for PILs Purposes			
44	Depreciation Expense		1,577.5	W
45	Interest Expense		579.9	Q
46	Income for PILs purposes	_	715.0	Y = X - W - Q
47		_		
48	Grossed up PILs		338.5	Z
49	- -	-		1
	Revenue Requirement Before PILs		2,872.5	x
	Grossed up PILs		338.5	Ž
	2011 Revenue Req't for 2009 Smart Meters	-	3,211.0	AA = X + Z
53		-	3,411.0	77 - Y T Z
	Carrying Charge on Under-Recovery (May 12 -)		0.0	AB
	Revenue Requirement Plus Carrying Charge	_	3,211.0	AC = AA + AB

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Table 14 - 2011 Revenue Requirement - PILs Calculation

	Col. 1	Col. 2	Col. 3	Col. 4
		(\$000's)		(\$000's)
1	Income Tax			
2	Net Income	715.0		
3	Amortization	1,577.5		
4	CCA - Class 47 (8%) SM with ½ year rule	-1,432.8		
5	CCA - Class 52 (100%) Sys SW with no $1/2$ year rule	0.0		
6	CCA - Class 12 (100%) App SW with ½ year rule	0.0		
7	Change in taxable income	859.7		
8	Tax Rate	28.25%		
9	Income Taxes Payable	242.9		
10				
11	Ontario Capital Tax			
12	Smart Meters	16,829.2		
13	Computer Hardware & Software	1,041.9		
14	Rate Base	17,871.1		
15	Less: Exemption	0.0		
16	Deemed Taxable Capital	17,871.1		
17	Ontario Capital Tax Rate	0.000%		
18	Net Amount (Taxable Capital x Rate)	0.0		
19				
20				
21		PILs Payable	Gross Up	Grossed Up PILs
22	9-	242.9	28.25%	338.5
	Change in OCT	0.0		0.0
24	PILs	242.9		338.5

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Table 15 - Recovery of 2010 Smart Meter Deferral Account Balance

	Col. 1	Col. 2	Col. 3	Col. 4
1		(\$000's)	(\$000's)	Calculation
2	Smart Meter 2010 Target Expenses			
3	Incremental Operating Expense		3,110.3	Α
4	Depreciation Expense		649.5	В
5	Total Expenses		3,759.9	C = A + B
6				
7	Calculated Return on Rate Base			
8	Smart Meter Fixed Assets Net Book Value - Dec. 31, 2010	18,794.3		D
9	Net Fixed Assets (average of Smart Meter Fixed Assets			
10	opening and closing 2010 Net Book Value)	9,397.1		E = D / 2
11	Working Capital Allowance	392.8		F = A * 12.63%
12	Total Rate Base	9,790.0		G = E + F
13				
14	Debt Cost - weighted debt rate	5.17%	303.7	H = G * 60% * 5.17%
15	Return on Equity	9.85%	385.7	I = G * 40% * 9.85%
16	Return on Rate Base		689.4	J = H + I
17				
18	Revenue Requirement before PILs		4,449.3	K = C + J
19				
20	Calculation of Income for PILs Purposes			
21	Incremental Operating Expenses		3,110.3	Α
22	Depreciation Expense		649.5	В
23	Interest Expense	_	303.7	Н
24	Income for PILs purposes		385.7	L = K - A - B - H
25		·		
26	Grossed up PILs		-231.6	M
27		•		
28	Revenue Requirement before PILs		4,449.3	K
	Grossed up PILs		-231.6	M
30	2010 Revenue Requirement for 2010 Smart Meters	•	4,217.7	N = K + M
31	•	•		
	Revenue Earned - Smart Meter Funding			
33	Total Revenue		5,855.3	R
34	Total Novolido		0,000.0	 '`
	Difference Over-Recovered		-1,637.6	S = N - R
	Dilicionos Over-iteoovereu		-1,007.0	0 - 14 - 10
36 37	Carrying Charge on Over-Recovery (May 11-Apr 12)		-24.2	lτ
	Carrying Charge on Over-Necovery (May 11-Apr 12)	•	-24.2	'
38	D''' and the Committee Of			<u> </u>
39	Difference Over-Recovered plus Carrying Charge		-1,661.8	U = S + T
40				

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Table 16 - PILs Calculation -2010

	Col. 1	Col. 2	Col. 3	Col. 4
		(\$000's)		(\$000's)
1	Income Tax			
2	Net Income	385.7		
3	Amortization	649.5		
4	CCA - Class 47 (8%) SM with ½ year rule	-710.3		
5	CCA - Class 52 (100%) HW with no ½ year rule	-56.5		
6	CCA - Class 52 (100%) Sys SW with no ½ year rule	0.0		
7	CCA - Class 12 (100%) App SW with ½ year rule	-815.3		
8	Change in taxable income	-546.8		
9	Tax Rate	31.00%		
10	Income Taxes Payable	-169.5		
11				
12	Ontario Capital Tax			
16	Rate Base	18,794.3		
17	Less: Exemption	0.0		
18	Deemed Taxable Capital	18,794.3		
19	Ontario Capital Tax Rate	0.075%		
20	Net OCT Amount	14.1		
21				
22				
23		PILs Payable	Gross Up	Grossed Up PILs
24	Change in Income Taxes Payable	-169.5	31.00%	-245.7
25	Change in OCT	14.1		14.1
26	PILs	-155.4		-231.6

Table 17 - 2011 Revenue Requirement Due to 2010 Smart Meters

Col. 1	Col. 2	Col. 3	Col. 4
	(\$000's)	(\$000's)	Calculation
Rate Base			
2010 Smart Meter Fixed Assets Cost	Start of 2011	End of 2011	
Residential	7,383.9	7,383.9	Α
General Service	10,372.9	10,372.9	В
H/W & S/W	1,687.1	1,687.1	ľc
	19,443.8		D = A + B + C
Total	19,443.0	19,443.8	D=A+B+C
Lance Council Material Account place of Democratics			
Less: Smart Meter Accumulated Depreciation	0.40.0	707.5	
Residential	246.3	737.5	E F
General Service	374.8	1,065.4	 F
H/W & S/W	28.4	393.5	G
Total	649.5	2,196.3	H = E + F + G
Smart Meter Fixed Assets Net Book Value			
Residential	7,137.6	6,646.4	I = A - E
General Service		9,307.5	J = B - F
	9,998.0		
H/W & S/W	1,658.7	1,293.6	K = C - G
Total	18,794.3	17,247.5	L = I + J + K
Average Smart Meter Fixed Assets		18,020.9	$M = avg(L_{start of 2010}, L_{end of 2010})$
	-	10,0=010	Start of 20107 end of 20107
Smart Meters Fixed Assets in Rate Base		19 020 0	М
Siliant Weters Fixed Assets III Rate base	_	18,020.9	IVI
Return on Rate Base			
Deemed Debt	60%	10,812.5	N = M * 60%
Deemed Equity	40%	7,208.4	O = M * 40%
• •	-	18,020.9	P = N + O
	_		
Weighted Debt Rate	5.18%	560.1	Q = N * 5.18%
Equity Rate	9.58%	690.6	R = O * 9.58%
Return on Rate Base	_	1,250.6	S = Q + R
Amortization Expenses			
2010 Smart Meters:			
Residential		491.1	T = E end of 2010 - E start of 2010
General Service		690.5	$U = F_{end of 2010} - F_{start of 2010}$
H/W & S/W	_	365.1	V = G end of 2010 - G start of 2010
	_	1,546.8	W = T + U + V
		<u>.</u>	
Revenue Requirement Before PILs		2,797.4	X = S + W
	_		
Calculation of Income for PILs Purposes			
Depreciation Expense		1,546.8	w
·			
Interest Expense	-	560.1	Q
Income for PILs purposes	i -	690.6	Y = X - W - Q
	1	_	
Grossed up PILs		23.0	Z
	·		
Revenue Requirement Before PILs		2,797.4	x
Grossed up PILs		23.0	Z
2011 Revenue Req't for 2010 Smart Meters	-	2,820.4	AA = X + Z
2011 Novembe Ney Clor 2010 Sindic Meters	-	2,820.4	MM = M + Z
	1		
Carrying Charge on Under-Recovery (May 12 -)	1	0.0	AB
	1		

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Table 18 - 2011 Revenue Requirement - PILs Calculation

	Col. 1	Col. 2	Col. 3	Col. 4
		(\$000's)		(\$000's)
1	Income Tax			
2	Net Income	690.6		
3	Amortization	1,546.8		
4	CCA - Class 47 (8%) SM with ½ year rule	-1,363.7		
5	CCA - Class 52 (100%) Sys SW with no ½ year rule	0.0		
6	CCA - Class 12 (100%) App SW with ½ year rule	-815.3		
7	Change in taxable income	58.4		
8	Tax Rate	28.25%		
9	Income Taxes Payable	16.5		
10				
11	Ontario Capital Tax			
14	Rate Base	17,247.5		
15	Less: Exemption	0.0		
16	Deemed Taxable Capital	17,247.5		
17	Ontario Capital Tax Rate	0.000%		
18	Net Amount (Taxable Capital x Rate)	0.0		
19				
20				
21		PILs Payable	Gross Up	Grossed Up PILs
	Change in Income Taxes Payable	16.5	28.25%	23.0
	Change in OCT	0.0		0.0
24	PILs	16.5		23.0

Table 1 - Carrying Cost Calculations

_	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11	Col. 12	Col. 13	Col. 14	Col. 15	Col. 16	Col. 17	Col. 18	Col. 19	Col. 20
1			2008 Balance	Δmounts	2009 Inc. Re 2008 An	•	2010 Inc. Rev 2008 Amo	•	2011 Inc. Rev. 2008 Amo	•	2009 Balanc	e Amounts	2010 Inc. Rev 2009 Am	•	2011 Inc. Rev 2009 Am	•	2010 Balance	- Δmounts		Req. for 2010 unts
1			2000 Dalance	Aillouits	Cumulative	ilouits	2000 AIII	Juiles	2000 AIIIC	, units	2003 Balanc	e Amounts	2003 AIII	ounts	2003 AIII	Julius	2010 Balance	Aillouits	Allio	unts
		Monthly	Cumulative		(Over) /		Cumulative		Cumulative		Cumulative		Cumulative		Cumulative		Cumulative		Cumulative	
		Carrying	(Over) / Under		Under		(Over) / Under	Carrying	(Over) / Under	Carrying	(Over) / Under		(Over) / Under	, ,	(Over) / Under	Carrying	(Over) / Under		(Over) / Under	
		Cost Rate	Recovery	Carrying	Recovery	Carrying	Recovery	Costs	Recovery	Costs	Recovery	Carrying	Recovery	Costs	Recovery	Costs	Recovery	Carrying	Recovery	Carrying
2	Jan-09	0.204	(000's) -2,526	Costs (000's) 0.0	(000's)	Costs (000's)	(000's)	(000's) 0.0	(000's)	(000's) 0.0	(000's)	Costs (000's) 0.0	(000's) 0	(000's) 0.0	(000's)	(000's) 0.0	(000's)	Costs (000's) 0.0	(000's)	Costs (000's)
4	Feb-09	0.204	-2,526	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0		
5	Mar-09	0.204	-2,526	0.0	0		0	0.0	0	0.0	0		0	0.0	0	0.0	0	0.0		
6	Apr-09	0.083	-2,526	0.0	0		0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	ď	
7	May-09	0.083	-2,526	-2.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	C	0.0
8	Jun-09	0.083	-2,528	-2.1	0		0	0.0	0	0.0	0		0	0.0	0	0.0	0	0.0	C	
9	Jul-09	0.046	-2,530	-1.2	0	0.0	0	0.0	0	0.0	0		0	0.0	0	0.0	0	0.0	0	0.0
10	Aug-09	0.046 0.046	-2,531	-1.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	(
11 12	Sep-09 Oct-09	0.046	-2,532 -2,533	-1.2 -1.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0		0.0
13	Nov-09	0.046	-2,535	-1.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0		
14	Dec-09	0.046	-2,536	-1.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0		
15	Jan-10	0.046	-2,537	-1.2	3,902	0.0	0	0.0	0	0.0	-1,393	0.0	0	0.0	0	0.0	0	0.0	C	
16	Feb-10	0.046	-2,538	-1.2	3,902	0.0	0	0.0	0	0.0	-1,393	0.0	0	0.0	0	0.0	0	0.0	C	0.0
17	Mar-10	0.046	-2,539	-1.2	3,902	0.0	0	0.0	0	0.0			0	0.0	0	0.0	0	0.0	C	0.0
18	Apr-10	0.046	-2,540	-1.2	3,902	0.0	0	0.0	0	0.0	-1,393		0	0.0	0	0.0	0	0.0	(0.0
19	May-10	0.046 0.046	-2,542 -2,543	-1.2 -1.2	3,902 3,904	1.8 1.8	0	0.0	0	0.0	-1,393 -1,394		0	0.0	0	0.0	0	0.0	(
20 21	Jun-10 Jul-10	0.046	-2,543 -2,544	-1.2 -1.9	3,904	2.9	0	0.0	0	0.0			0	0.0	0	0.0	0	0.0		
22	Aug-10	0.074	-2,544	-1.9	3,909	2.9	0	0.0	0	0.0	-1,395		0	0.0	0	0.0	0	0.0		
23	Sep-10	0.074	-2,548	-1.9	3,912	2.9	0	0.0	0	0.0	-1,397		0	0.0	0	0.0	0	0.0	d	
24	Oct-10	0.100	-2,550	-2.5	3,915	3.9	0	0.0	0	0.0	-1,398	-1.4	0	0.0	0	0.0	0	0.0	C	0.0
25	Nov-10	0.100	-2,552	-2.6	3,919	3.9	0	0.0	0	0.0	-1,399		0	0.0	0	0.0	0	0.0	C	0.0
26	Dec-10	0.100	-2,555	-2.6	3,923	3.9	0	0.0	0	0.0	-1,400		0	0.0	0	0.0	0	0.0	0	
27	Jan-11	0.123	-2,557	-3.1	3,926		4,956	0.0	0	0.0	-1,402		3,129	0.0	0	0.0	-1,638	0.0	(0.0
28	Feb-11 Mar-11	0.123 0.123	-2,560	-3.1	3,931	4.8	4,956	0.0	0	0.0			3,129	0.0	0	0.0	-1,638	0.0		0.0
29 30	Apr-11	0.123	-2,563 -2,567	-3.1 -3.1	3,936 3,941	4.8 4.8	4,956 4,956	0.0	0	0.0	-1,405 -1,407		3,129 3,129	0.0	0	0.0	-1,638 -1,638	0.0		
31	May-11	0.123	-2,570	-3.1	3,941	4.8	4,956	6.1	0	0.0	-1,409		3,129	3.8	0	0.0	-1,638	-2.0		
32	Jun-11	0.123	-2,573	-3.2	3,951	4.8	4,962	6.1	0	0.0	-1,410		3,133	3.8	0	0.0	-1,640	-2.0	ď	
33	Jul-11	0.123	-2,576	-3.2	3,955	4.8	4,968	6.1	0	0.0	-1,412	-1.7	3,137	3.8	0	0.0	-1,642	-2.0	C	0.0
34	Aug-11	0.123	-2,579	-3.2	3,960	4.9	4,974	6.1	0	0.0	-1,414	-1.7	3,141	3.8	0	0.0	-1,644	-2.0	C	0.0
35	Sep-11	0.123	-2,582	-3.2	3,965	4.9	4,980	6.1	0	0.0	-1,416		3,144	3.9	0	0.0	-1,646	-2.0	C	
36	Oct-11	0.123	-2,586	-3.2	3,970	4.9	4,986	6.1	0	0.0			3,148	3.9	0	0.0	-1,648	-2.0	C	
37	Nov-11	0.123	-2,589	-3.2	3,975	4.9	4,992	6.1	0	0.0	-1,419		3,152	3.9	0	0.0	-1,650	-2.0	(
38 39	Dec-11 Jan-12	0.123 0.123	-2,592 -2,595	-3.2 -3.2	3,980 3,985	4.9 4.9	4,998 5,004	6.1 6.1	0 5,950	0.0	-1,421 -1,422		3,156 3,160	3.9 3.9	0 3,211	0.0	-1,652 -1,654	-2.0 -2.0	2,820	0.0
40	Feb-12	0.123	-2,595 -2,598	-3.2	3,989	4.9	5,004	6.1	5,950	0.0	-1,422		3,164	3.9	3,211	0.0	-1,654	-2.0	2,820	
41	Mar-12	0.123	-2,601	-3.2	3,994	4.9	5,017	6.1	5,950		-1,424		3,168		3,211	0.0	-1,658	-2.0	2,820	
42	Apr-12	0.123	-2,605	-3.2	3,999	4.9	5,023	6.2	5,950	0.0			3,172		3,211	0.0	-1,660	-2.0	2,820	
43																				
44		Total		-82.1		101.7		73.3		0.0		-36.3		46.3		0.0		-24.2	i	0.0

OEB's Appendix 2-R Stranded Meter Treatment

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
	V	Natas	Gross Asset	Accumulated	Contributed Capital (Net of	Not Asset	Proceeds on Disposition	Residual Net
1	Year	Notes	Value	Amortization	Amortization)	Net Asset	(cumulative)	Book Value
-			(A)	(B)	(C)	(D) = (A) - (B) - (C)	(E)	(F) = (D) - (E)
3	2006		\$ -	\$ -		-		\$ -
4	2007		\$ 64,097,235	\$ 47,207,275	\$ -	\$ 16,889,960	\$ -	\$ 16,889,960
5	2008		\$ 93,973,448	\$ 68,107,443	\$ -	\$ 25,866,005	\$ 224,466	\$ 25,641,539
6	2009		\$ 103,875,474	\$ 78,528,568	\$ -	\$ 25,346,906	\$ 301,868	\$ 25,045,038
7	2010		\$ 108,015,264	\$ 84,895,573	\$ -	\$ 23,119,691	\$ 412,603	\$ 22,707,088
8	2011	(1)	\$ 108,672,160	\$ 86,912,352	\$ -	\$ 21,759,808	\$ 470,266	\$ 21,289,542
9	2011	(2)	\$ 108,015,237	\$ 87,997,576	\$ -	\$ 20,017,688	\$ 511,454	\$ 19,506,234

Notes: (1) The amounts provided are actual as of June 30, 2011.

(2) The amounts provided are forecast as of December 31, 2011.

(1) For 2011, please indicate whether the amounts provided are on a forecast or actual basis.

Some distributors have transferred the cost of stranded meters from Account 1860 - Meters to "Sub-account Stranded Meter Costs of Account 1555", while in some cases distributors have left these costs in Account 1860. Depending on which treatment the applicant has chosen, please provide the information under either of the two scenarios (A and B below), as applicable.

Scenario A: If the stranded meter costs were transferred to "Sub-account Stranded Meter Costs" of Account 1555, the above table should be completed and the following information should be provided.

- A description of the accounting treatment followed by the applicant on stranded meter costs for financial accounting and reporting purposes.
- The amount of the pooled residual net book value of the removed from service stranded meters, less any contributed capital (net of accumulated amortization), and less any net proceeds from sales, which were transferred to this subaccount as of December 31, 2010.
- A statement as to whether or not, since transferring the removed stranded meter costs to the sub-account, the recording of depreciation expenses was continued in order to reduce the net book value through accumulated depreciation. If so, the total depreciation expense amount for the period from the time the costs for the stranded meters were transferred to the sub-account to December 31, 2010 should be provided.

If no depreciation expenses were recorded to reduce the net book value of stranded meter costs through accumulated depreciation, the total depreciation expense amount that would have been applicable from the time that the stranded meter costs were transferred to the sub-account of Account 1555 to December 31, 2010 should be provided. In addition, the following information should be provided:

- a) Whether or not carrying charges were recorded for the stranded meter cost balances in the sub-account, and if so, the total carrying charges recorded to December 31, 2010.
- b) The estimated amount of the pooled residual net book value of the removed from service meters, less any net proceeds from sales and contributed capital, at the time when the smart meters will have been fully deployed (e.g., as of December 31, 2010). If the smart meters have been fully deployed, the actual amount should be provided.
- c) A description as to how the applicant intends to recover in rates the remaining costs for stranded meters, including the proposed accounting treatment, the proposed disposition period, and the associated bill impacts.

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Scenario B: If the stranded meter costs remained recorded in Account 1860, the above table should be completed and the following information should be provided:

- A description of the accounting treatment followed by the applicant on stranded meter costs for financial accounting and reporting purposes.
- The amount of the pooled residual net book value of the removed from service stranded meters, less any contributed capital (net of accumulated amortization), and less any net proceeds from sales, as of December 31, 2010.
- A statement as to whether or not the recording of depreciation expenses continued in order to reduce the net book value through accumulated depreciation. If so, provision of the total (cumulative) depreciation expense for the period from the time that the meters became stranded to December 31, 2010.
- If no depreciation expenses were recorded to reduce the net book value of stranded meters through accumulated depreciation, the total (cumulative) depreciation expense amount that would have been applicable for the period from the time that the meters became stranded to December 31, 2010.
- The estimated amount of the pooled residual net book value of the removed from service meters, less any net proceeds from sales and contributed capital, at the time when smart meters will have been fully deployed. If the smart meters have been fully deployed, please provide the actual amount.
- A description as to how the applicant intends to recover in rates the costs for stranded meters, including the proposed accounting treatment, the proposed disposition period and the associated bill impacts.

Distributors should also provide the Net Book Value per class of meter as of December 31, 2010 as well as the number of meters that were removed / stranded. In preparing this information, distributors should review the Board's letter of January 16, 2007 Stranded Meter Costs Related to the Installation of Smart Meters which stated that records were to be kept of the type and number of each meter to support the stranded meter costs.