

**Exhibit 9:**

**DEFERRAL AND VARIANCE ACCOUNTS**

Exhibit 9: Deferral And Variance Accounts

---

**Tab 1 (of 4): Status of Deferral and Variance  
Accounts**

1 **OVERVIEW OF DEFERRAL AND VARIANCE ACCOUNTS**

2

3 Greater Sudbury Hydro Inc ("GSHi") has followed the Board's guidance in the  
 4 Accounting Procedures Handbook ("APH") and FAQs for recording amounts in the  
 5 deferral and variance accounts. We have also followed the Report of the Board on  
 6 Electricity Distributor's Deferral and Variance Account Review Initiative (EDDVAR) (EB-  
 7 2008-0046, July 31, 2009) for the disposition of these accounts. GSHi has completed  
 8 and included the Board's "2013 EDDVAR\_Continuity\_Schedule-CoS" spreadsheet at  
 9 Exhibit 9 Tab1, Schedule 5, Attachment 2.

10 Carrying charges have been calculated at the Board's prescribed rates, on monthly  
 11 opening principal balances, in accordance with the APH. The prescribed rate of 1.47%  
 12 for the third quarter of 2012 was used to calculate forecasted carrying charges for the  
 13 remainder of 2012 and through to April 30, 2013.

14

15 Exhibit 9, Tab 1, Schedule 2 details each of the accounts disposition is requested for  
 16 and Table 1 below is a summary of the claim for the deferral accounts.

17

**Table 1. Summary of Claim**

<b>Group 1 Accounts</b>	<b>Account</b>	<b>Total Claim</b>
LV Variance Account	1550	15,740
RSVA - Wholesale Market Service Charge	1580	(2,916,111)
RSVA - Retail Transmission Network Charge	1584	471,651
RSVA - Retail Transmission Connection Charge	1586	60,522
RSVA - Power (excluding Global Adjustment)	1588	(183,584)
RSVA - Power - Sub-account - Global Adjustment	1588	1,418,528
Recovery of Regulatory Asset Balances	1590	(111,738)

Disposition and Recovery/Refund of Regulatory Balances (2009) <sup>7</sup>	1595	(51,880)
<b>Group 1 Sub-Total (including Account 1588 - Global Adjustment)</b>		(1,296,871)
<b>Group 1 Sub-Total (excluding Account 1588 - Global Adjustment)</b>		(2,715,399)
<b>RSVA - Power - Sub-account - Global Adjustment</b>	<b>1588</b>	1,418,528
<b>Group 2 Accounts</b>		
Other Regulatory Assets - Sub-Account - Deferred IFRS Transition Costs	1508	128,910
Other Regulatory Assets - Sub-Account - Incremental Capital Charges	1508	4,391
Renewable Generation Connection Capital Deferral Account	1531	11,065
Renewable Generation Connection OM&A Deferral Account	1532	20,076
Smart Grid OM&A Deferral Account	1535	48,545
Deferred Rate Impact Amounts	1574	(1,377,264)
<b>Group 2 Sub-Total</b>		(1,164,278)
PILs and Tax Variance for 2006 and Subsequent Years (excludes sub-account and contra account below)	1592	(128,971)
PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Input Tax Credits (ITCs)	1592	(127,937)
<b>Total of Group 1 and Group 2 Accounts (including 1562 and 1592)</b>		(2,717,956)
<b>LRAM Variance Account</b>	<b>1568</b>	93,917
<b>Total including Account 1521 and Account 1568</b>		(2,624,038)



1

2

3 In this application, GSHi is seeking disposition of Group 1, Group 2 and certain other  
4 deferral and variance account balances at December 31, 2011 along with their  
5 forecasted carrying charges through to April 30, 2013. Where regulatory balances  
6 requested for disposition differ from the December 31, 2011 audited financial  
7 statements, a reconciliation of the balances is presented.

8

9 Certain accounts, due to their nature, have 2012 projected and/or unaudited amounts  
10 included for disposition. These include Accounts 1508, 1592 and 1592(HST). Each of  
11 these accounts is more fully explained in the sections that follow.

12

13 The total of all Group 1 and Group 2 (including Account 1592) accounts included for  
14 disposition, including projected carrying charges to April 30, 2013, is a credit of  
15 \$2,624,038. This amount excluded the recovery of \$1,193,861 for stranded meters  
16 which is included for disposition separately.

17

18 GSHi proposes to refund a balance of \$4,042,566, excluding Global Adjustment and  
19 Stranded Meters, over a period of 4 years, from May 1, 2013 to April 30, 2017, by means  
20 of the customer class specific rate riders shown in Table 2 below. GSHi is proposing a 4  
21 year recovery period in order to smooth customer rates in the current application and the  
22 smooth rates when the rate riders cease in 4 years.

23

24

25

1

**Table 2**

**Rate Rider Calculation for Deferral / Variance Accounts Balances (excluding Global Adj.)**

Rate Class (Enter Rate Classes in cells below)	Units	kW / kWh / # of Customers	Allocated Balance (excluding 1588 sub-account)	Rate Rider for Deferral/Variance Accounts
Residential Service	kWh	397,644,877	-\$ 2,178,930	- 0.0014
General Service Less than 50kW	kWh	143,218,155	-\$ 455,542	- 0.0008
General Service 50 to 4,999 kW	kW	957,195	-\$ 1,117,245	- 0.2918
Unmetered Scattered Load	kWh	2,310,407	-\$ 15,468	- 0.0017
Sentinel Lighting	kWh	467,079	-\$ 12,207	- 0.0065
Street Lighting	kW	24,155	-\$ 263,173	- 2.7239
<b>Total</b>			<b>-\$ 4,042,566</b>	

2

3 GSHi proposes to recover a balance of \$1,418,528 in Account 1588 RSVA - Global  
 4 Adjustment from non-RPP customers only, over a period of 4 years from May 1, 2013 to  
 5 April 30, 2017, by means of a charge of \$.0020 per kWh, and \$.8164 per kW as detailed  
 6 in Table 3. GSHi confirms that it allocates the balance of the Global Adjustment account  
 7 to the non-RPP customers.

8

**Table 3**

**Rate Rider Calculation for RSVA - Power - Sub-account - Global Adjustment**

Rate Class (Enter Rate Classes in cells below)	Units	kW / kWh / # of Customers	Balance of RSVA - Power - Sub- account - Global Adjustment	Rate Rider for RSVA - Power - Sub-account - Global Adjustment
Residential Service	kWh	49,085,578	\$ 400,626	0.0020
General Service Less than 50kW	kWh	20,259,865	\$ 165,357	0.0020
General Service 50 to 4,999 kW	kW	261,043	\$ 852,427	0.8164
Unmetered Scattered Load	kWh	2,400	\$ 20	0.0020
Sentinel Lighting	kWh	12,100	\$ 99	0.0020
Streetlighting	kW	-	\$ -	-
<b>Total</b>			<b>\$ 1,418,528</b>	

9

10

1 **Identification of Accounts that will Continue Going Forward**

2 All Group 1 accounts will continue going forward.

3 The Group 2 accounts submitted for disposition in this rate application will not continue  
4 going forward assuming final approval.

5 Account 1592 "PILs and Tax Variance for 2006 and Subsequent Years" will continue  
6 going forward.

7 Account 1592 "PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account  
8 HST/OVAT Input Tax Credits (ITCs)" will not continue going forward assuming final  
9 approval of this account that is submitted for disposition.

10

1       **DEFERRAL AND VARIANCE ACCOUNT DESCRIPTION**

2

3       Please refer to the EDDVAR continuity schedule at Exhibit 9, Tab 1, Schedule 5,  
4       Attachment 2 for a breakdown of the accounts and amounts included for review and  
5       disposition.

6

7       GSHI is proposing to dispose of the balances in all established deferral accounts without  
8       exception. A description of each account is detailed below.

9

10       **Group 1 Accounts**

11

12       Account 1550: Low Voltage (LV) Variance account

13       This account captures the difference between the amounts included in rates and billed to  
14       customers and the cost the GSHi of Hydro One's charges for using its LV lines to  
15       transmit electricity from its transformer stations to GSHi's distribution system.

16       Account 1580: RSVA - Wholesale Market Services Charge Variance Account

17       This account captures the difference between the amounts included in rates and billed to  
18       customers and the cost to GSHi of the IESO's charges for operating the IESO-  
19       administered markets and the IESO-controlled grid, as well as Hydro One's WMS  
20       charges. In recent years, the costs charged by the IESO have decreased resulting in a  
21       liability.

22

23       Account 1584: RSVA - Retail Transmission Network Charge Variance Account

24       This account captures the difference between the amounts included in rates and billed to  
25       customers using the network service component of the Board approved retail

1 transmission service (RTS) rates and the cost to GSHi of the wholesale charges for  
2 transmission network services from the IESO and Hydro One.

3

4 Account 1586: RSVA – Retail Transmission Connection Charge Variance Account

5 This account captures the difference between the amounts included in rates and billed to  
6 customers using the connection service component of the Board approved RTS rates  
7 and the cost to GSHi of the wholesale charges for transmission connection services  
8 from the IESO and Hydro One.

9

10 Account 1588: RSVA - Power (excluding Global Adjustment) Variance Account

11 this account captures the difference between the amounts included in rates and billed to  
12 customers for electricity and the cost of electricity to GSHi from the IESO, Hydro One  
13 and embedded generators. This account excluded any charges relating to global  
14 adjustment.

15

16 Account 1589: RSVA - Power - Global Adjustment Variance Account

17 This account captures the difference between the amounts billed to non-RPP customers  
18 at OEB prescribed rates for global adjustment and the cost of global adjustment to GSHi  
19 from the IESO and Hydro One for non-RPP customers. GSHi confirms that it pro-rates  
20 the global adjustment cost amounts between the RPP and non-RPP portions based on  
21 the kWh forecast for the non-RPP customers.

22

23

24

1 Account 1590: Recovery of Regulatory Asset Balances

2 This variance account, as shown on the EDDVAR continuity schedule with the Group 1  
3 accounts, captures the approved amounts related to the 2006 EDR filing (EB-2005-  
4 0370). The total balance of \$1,645,909 approved to be charged to customers was  
5 included in rates from May 1, 2006 to April 30, 2008. In the 2009 CoS application,  
6 balances remaining from the former West Nipissing Energy Services Ltd., were  
7 transferred to this account for disposal. The balance remaining is the residual owing to  
8 customers.

\$(107,743.00) Over recovery of principle

(3,995.00) carrying charges on over recovery

---

\$(111,738.00) amount owing to customers.

9 Account 1595: Disposition and Recovery/refund of Regulatory Balances (2009)  
10 Variance Account

11 This variance account, as shown on the EDDVAR continuity schedule with the Group 1  
12 accounts, captures the approved amounts related to the 2009 COS rate application  
13 (EB2008-0230). The total balance of \$2,591,261,.21 approved to be refunded to  
14 customers was included in rates from May 1, 2009 to April 30, 2011.

principle amount approved for transfer to 1595  
\$(296,388.00) less amount refunded in rates

272,378.00 carrying charges approved for transfer

(27,869.00) carrying charges on principle amount less  
refunded amounts

---

\$ (51,879.00) residual owing to customers

1

2 **Group 1 Accounts: Variance between RRR vs. 2011 Audited Balances**

3 GSHi can confirm that the balances proposed for disposition before forecasted interest  
 4 match the 2011 audited financial statements with the exception of accounts 1590 and  
 5 1595. When entering the general ledger balances for accounts 1590 and 1595 in the  
 6 2.1.7 RRR filing, there was a misalignment of accounts which directly offset one another  
 7 as noted in the "*Variance vs 2011 balances*" column in the Deferral/Variance Account  
 8 Workform.

9

10 **Energy Sales and COP Expenses vs. Audited Financial Statements**

11 In accordance with the Board's Filing Guidelines, Table 1 below details the 2011 energy  
 12 sales and cost of power expense by USoA account number. \$85,008,941 reconciles to  
 13 the 'Cost of Power' line on the 2011 Audited Financial Statements.

14

15

**Table 1 - 2011 Cost of Power Expense Accounts**

<b>Energy Sales:</b>		<b>2011</b>
4006	Residential Energy Sales	(27,968,162)
4025	Street Lighting Energy Sales	(589,628)
4030	Sentinel Lighting Energy Sales	(33,371)
4035	General Energy Sales	(36,077,652)
4055	Energy Sales for resale	(5,356,376)
4062	Billed WMS	(5,309,619)
4066	Billed NW	(5,550,686)
4068	Billed CN	(3,923,855)
4075	Billed LV	(199,593)
		(85,008,941)

<b>Cost of Power:</b>		<b>2011</b>
4705	Power Purchased	70,025,189
4708	Charges - WMS	4,189,072
4714	Charges - NW	5,550,686
4716	Charges - CN	3,923,855
4730	Rural Rate Assistance Expense	1,120,547
4750	Charges - LV	199,593
		85,008,941
<b>Net Difference</b>		-

1

2 **Group 2 Accounts**

3

4 Account 1508: Other Regulatory Assets - Sub-Account - Incremental Capital Charges

5 Per October 2009 FAQ #18, GSHi has followed the guidance provided. We have  
 6 recorded the charges arising from the Hydro One incremental capital rate relief rider  
 7 (Rider 5A) to this sub-account, plus applicable carrying charges. The total Rider 5A  
 8 charges amount to \$3,858, plus \$533 of total carrying charges to April 30, 2013. The  
 9 total of \$4,391 recoverable from ratepayers is included for review and final disposition for  
 10 this sub-account in this rate application.

11

12 Account 1525: Misc Deferred Debits

13 GSHi will not be requesting disposition of this balance, as it was written off in 2012, but  
 14 should have been cleared to nil by the end of 2011. It was an old balance which was  
 15 disposed of in 2009, the residual being additional carrying charges.

16



1 Account 1531: Renewable Generation Connection Capital Deferral Account

2 This variance account includes investments associated with expansions to connect  
3 renewable generation facilities and renewable enabling improvements. The total  
4 charges amount to \$10,852, plus \$213 of total carrying charges to April 30, 2013. The  
5 total \$11,065 recoverable from ratepayers is included for review and final disposition for  
6 this sub-account in this rate application.

7

8 Account 1532: Renewable Generation Connection OM&A Deferral Account

9 This variance account includes incremental operating, maintenance and administrative  
10 expenses directly related to expansions to connect renewable generation facilities, and  
11 renewable enabling improvements. The total charges amount to \$19,690, plus \$386 of  
12 total carrying charges to April 30, 2013. The total \$20,076 recoverable from ratepayers  
13 is included for review and final disposition for this sub-account in this rate application.

14

15 Account 1535: Smart Grid OM&A Deferral Account

16 This variance account includes operating and administrative expenses directly related to  
17 smart grid studies and planning exercises, as well as smart grid education and training.  
18 The total charges amount to \$46,726, plus \$1,819 of total carrying charges to April 30,  
19 2013. The total \$48,545 recoverable from ratepayers is included for review and final  
20 disposition for this sub-account in this rate application.

21

22

23 Account 1574: Deferred Rate Impact Amounts

24 This variance account relates to costs for shared services as Greater Sudbury Hydro  
25 Plus provides billing services to the City of Sudbury Water Services Division as well as

1 Greater Sudbury. Per EB-2008-0230, the Board ordered Greater Sudbury to create a  
2 variance account to track the difference between the costs as currently allocated and  
3 any new allocation of costs as recommended by a cost allocation study prepared by an  
4 independent third party.

5 The Board Order was for Greater Sudbury to defer 50% of the total Billing and Collection  
6 costs of \$3,642,204. This annual amount was \$1,821,102 and the entries were to  
7 commence July 1, 2009.

8 In Greater Sudbury's response to the Draft Rate Order we stated we would comply with  
9 the Board's order. Countering this entry it was stated that there would be offsetting  
10 amounts with respect to amortization (the Board adjusted the amount of capital included  
11 in rate base), pass through costs to the City and costs that were specific to electricity.  
12 After reviewing calculations Greater Sudbury determined a final annual deferral entry of  
13 \$881,424, or \$73,452 monthly.

14 The Board also ordered Greater Sudbury to complete a transfer pricing study by  
15 December 31, 2011 to be filed with the 2013 Cost of Service application. The Transfer  
16 Pricing Study, along with resulting calculations for a more appropriate cost sharing  
17 methodology, are submitted as part of the Cost of Service application Exhibit 1, Tab 1,  
18 Schedule 11, Attachment 1.

19 Based on the revised methodology using 2012 budget numbers for the evaluation,  
20 details of which can be found in the aforementioned document, a reasonable cost  
21 sharing resulted in 67.54% of the costs for Billing and Collection to be borne by the  
22 electricity component and 33.91% to be borne by the water component.

23 These same allocation methodologies were re-applied to the 2009 budget costs and an  
24 updated allocation was determined. Calculations can be found in Exhibit 9, Tab 1,  
25 Schedule 2, Attachment 1. The 2009 total budget costs were revised to \$3,398,094.  
26 Of this total, \$2,288,337 was allocated to electricity and \$1,148,799 to water.

27 The costs recovered from the City were \$793,727 as noted in this same exhibit. The  
28 difference between the required costs to be borne by the City and the actual amounts

1 passed on resulted in an annual shortfall of \$355,072. This revised amount is what  
2 Greater Sudbury feels should have been posted to the deferral account 1574. Included  
3 in the Attachment 1 are two additional schedules. One shows the revised monthly  
4 entries, offset by 50% cost of the transfer pricing study (also approved by the Board) and  
5 the other shows the running balances as they were originally booked through to current  
6 date showing a correcting adjustment to the account balance at the end of 2012.

7 The revised balance through April 30, 2013, including carrying charges is projected to be  
8 \$1,377,264. Greater Sudbury respectfully submits that the cost allocation methodology  
9 is appropriate and reasonable and seeks the Board's approval of the updated  
10 calculations.

11

**Greater Sudbury Hydro Inc**  
**Analysis of Shared Service Costs - Water and Electric Billing**  
**2009 Budgeted Costs - Applying the Results of the BDR Transfer Pricing Study**  
 Assumptions - 60/40 split on costs to the City based on analysis of calls  
 Assumptions - 50/50 split on costs to the City for billing based on meter numbers  
 Assumptions - 75/25 split on costs to the City for business analyst and supervisor

Allocator		2009 Budget	Sudbury Hydro	Greater Sudbury City Share of Budget	Key Assumptions
<b>Customer Service</b>					
Direct Labour & Benefits - clerical	% of time				minor staff reduction only negligible
Telephone	# of consoles/% of time				
<b>Billing Expenses</b>					
Billing Expenses	% of meters - 50/50 split ( 3 CSRs)	248,992	124,496	124,496	Of 63 cycles, only 13 of them (or 20%) are water only. It would take the same amount of time to bill all other cycles. Regardless of number of services effort would be comparable
Customer service/account management	based on call volumes - 60/40 split	721,202	432,721	288,481	Regarding customer contacts, only 17% are water only. Balance are electric only or both. Reasonably we could assume only time saved for the percentage water only calls - for ease of calculation use the 20% figure similar to billing
Collections management	based on call volumes - 60/40 split	A 32,504	19,503	13,002	No change in staffing. Other half day is settlement (100% wires)
Supervision & business analyst	based on call volumes - 75/25 based on system complexities/time tracking	145,969	109,477	36,492	No change in staffing
	<b>SUBTOTAL</b>	B 1,148,667	686,197	462,471	Subtotal of above
- telephone	# of consoles/% of time				Assume the number of consoles could be reduced - no benefit
IT costs & amortization	allocation based on drivers (phones/PCs/support/mtce)	81,390	40,695	40,695	Specialized reports for water tracked separately by IT - direct charge/these costs are CSR component of costs. Only minor savings of \$9/phone per month if fewer CSRs. Hardware would be absorbed by GSH
stationary	# of bills issued and occupied space on the bill	106,650	63,580	43,070	Costs calculated to electric/water direct for single service bills and allocated for joint - 76/24 split based on characters on bills
postage	# of bills issued and occupied space on the bill	279,160	167,287	111,873	Costs calculated to electric/water direct for single service bills and allocated for joint - 76/24 split based on characters on bills
miscellaneous	# of bills issued	15,086	7,543	7,543	# bill forms will not be reduced, GSH absorbs full cost.
bank charges	# of bills issued	18,000	9,000	9,000	fixed fee per transaction
- Rent (Occupancy, + Prop Tax & Dep'n)	sq footage of dept/total building/# of bills issued	28,456	14,228	14,228	Cost of unoccupied space is included for billing purposes but is a duplication of Building cost allocations reflected in Schedule A
training	60/40 split based on call volumes	30,000	18,000	12,000	
software support	use the 79/21 split based on amortization (Board order COS)	285,344	225,422	59,922	79/21 split here as well
Hub support	wires activity only	25,000	25,000		
Costs to other affiliates					
Subtotal	<b>Per 2012 Budget</b>	<b>2,017,753</b>	<b>1,256,951</b>	<b>760,802</b>	

Cash processing			198,542	99,271	99,271	No change in staffing
Meter reading	Direct charge to the City		386,800	230,600	156,200	GSH rate would go up for those accounts read with City accounts
Wholesale settlement	% of time on timesheets		95,501	95,501		hub support reported above
Retail settlement	% of time	B	47,504	47,504		
3rd party collection - electricity (water billed to affiliate)	charged direct to electric & water - no sharing	A	221,036	152,560	68,476	totally variable
- software	79% of billing software as per Board approved order (2009 COS filing)		305,000	240,950	64,050	GSH would otherwise absorb full cost of CIS system wires only - 2012 budget way to low based on actual results last 18 months
Bad debts		A	165,000	165,000		
Costs to other affiliates			(49,042)	(49,042)		
<b>Estimated total Test Year Customer Service &amp; Billing Costs</b>			<b>3,388,094</b>	<b>2,288,337</b>	<b>1,148,799</b>	<b>Estimated Net Cost Sharing Benefit from Greater Sudbury</b>

67.54% 33.91%

Amount charged to the City

Billing	505,001
Meter reading	156,200
Collections	68,476
<b>Subtotal</b>	<u>729,677</u>
Allocation of software amortization (not allowed in rate base)	64,050
<b>Revised subtotal</b>	<u>793,727</u>

**Annual Shortfall to be recovered from the City and included in deferral account annually** **355,072**

**Toal liability for period July 1, 2009 - April 30, 2013 - 46 months** 1,361,110

Meter reading	230,600	
Cashiers	82,978	
Customer accounts	1,834,492	
Market Services	95,901	
Overhead	248,556	
Depreciation	420,000	
Total cost in rates	2,912,527	
City water billing	729,677	
Total Billing & Collecting 2009 (per VECC # 34 response 2009 COS filing)	<u><b>3,642,204</b></u>	of this 50% or \$1,821,102 to go to deferral
Depreciation adjustment	(420,000)	
20% of \$2,100,000 (this was reduced to \$1,525,000 in final order)	305,000	
Revised building/IT costs		
Original IT cost	(116,400)	
Original Building costs	(132,556)	
Updated IT cost (see below)	81,390	
Updated Building cost (see below)	28,456	
<b>Adjusted 2009 Budget for Billing/Customer Service</b>	<u><b>3,388,094</b></u>	

Allocation of 2009 IT/Building costs (see below) based on results of 2012 cost allocation calculations

	<u>Budget</u>	<u>% from Study</u>	<u>Reallocation</u>
2009 Budgeted building costs - 500 Regent	\$600,343.00	4.74%	\$ 28,456.26
2009 Budgeted IT Costs	\$455,964.00	17.85%	\$ 81,389.57
			<u>\$109,845.83</u>
2012 Budgeted building costs - 500 Regent	\$648,289.00	4.74%	\$ 30,728.90
2012 Budgeted IT Costs	\$669,405.89	17.85%	\$119,488.95
			<u>\$150,217.85</u>

Greater Sudbury Hydro Inc

Account 1574 - Water Deferral Balance - Required Balance

Month	Principal	50% transfer pricing study	Cum Principal	Interest Rate	Interest	Cum Interest	Total Deferral
01-Jul-09	29,589.36		29,589.36	0.550%	-	-	29,589.36
01-Aug-09	29,589.36		59,178.71	0.550%	27.12	27.12	59,205.83
01-Sep-09	29,589.36		88,768.07	0.550%	40.69	67.81	88,835.88
01-Oct-09	29,589.36		118,357.43	0.550%	54.25	122.06	118,479.49
01-Nov-09	29,589.36		147,946.78	0.550%	67.81	189.87	148,136.65
01-Dec-09	29,589.36		177,536.14	0.550%	81.37	271.24	177,807.38
01-Jan-10	29,589.36		207,125.49	0.550%	94.93	366.17	207,491.66
01-Feb-10	29,589.36		236,714.85	0.550%	108.49	474.66	237,189.51
01-Mar-10	29,589.36		266,304.21	0.550%	122.06	596.72	266,900.93
01-Apr-10	29,589.36		295,893.56	0.550%	135.62	732.34	296,625.90
01-May-10	29,589.36		325,482.92	0.550%	149.18	881.52	326,364.44
01-Jun-10	29,589.36		355,072.28	0.550%	162.74	1,044.26	356,116.54
01-Jul-10	29,589.36		384,661.63	0.890%	285.29	1,329.55	385,991.18
01-Aug-10	29,589.36		414,250.99	0.890%	307.24	1,636.79	415,887.78
01-Sep-10	29,589.36		443,840.34	0.890%	329.18	1,965.97	445,806.31
01-Oct-10	29,589.36		473,429.70	1.200%	473.43	2,439.40	475,869.10
01-Nov-10	29,589.36		503,019.06	1.200%	503.02	2,942.42	505,961.48
01-Dec-10	29,589.36		532,608.41	1.200%	532.61	3,475.03	536,083.44
01-Jan-11	29,589.36		562,197.77	1.470%	688.69	4,163.72	566,361.49
01-Feb-11	29,589.36		591,787.13	1.470%	724.94	4,888.66	596,675.79
01-Mar-11	29,589.36		621,376.48	1.470%	761.19	5,649.85	627,026.33
01-Apr-11	29,589.36		650,965.84	1.470%	797.43	6,447.28	657,413.12
01-May-11	29,589.36		680,555.20	1.470%	833.68	7,280.96	687,836.16
01-Jun-11	29,589.36		710,144.55	1.470%	869.93	8,150.89	718,295.44
01-Jul-11	29,589.36		739,733.91	1.470%	906.17	9,057.06	748,790.97
01-Aug-11	29,589.36		769,323.26	1.470%	942.42	9,999.48	779,322.74
01-Sep-11	29,589.36		798,912.62	1.470%	978.67	10,978.15	809,890.77
01-Oct-11	29,589.36		828,501.98	1.470%	1,014.91	11,993.06	840,495.04
01-Nov-11	29,589.36		858,091.33	1.470%	1,051.16	13,044.22	871,135.55
01-Dec-11	29,589.36	(10,000.00)	877,680.69	1.470%	1,075.16	14,119.38	891,800.07
01-Jan-12	29,589.36		907,270.05	1.470%	1,111.41	15,230.79	922,500.84
01-Feb-12	29,589.36		936,859.40	1.470%	1,147.65	16,378.44	953,237.84
01-Mar-12	29,589.36		966,448.76	1.470%	1,183.90	17,562.34	984,011.10
01-Apr-12	29,589.36		996,038.11	1.470%	1,220.15	18,782.49	1,014,820.60
01-May-12	29,589.36		1,025,627.47	1.470%	1,256.39	20,038.88	1,045,666.35
01-Jun-12	29,589.36		1,055,216.83	1.470%	1,292.64	21,331.52	1,076,548.35
01-Jul-12	29,589.36		1,084,806.18	1.470%	1,328.89	22,660.41	1,107,466.59
01-Aug-12	29,589.36		1,114,395.54	1.470%	1,365.13	24,025.54	1,138,421.08
01-Sep-12	29,589.36	(10,000.00)	1,133,984.90	1.470%	1,389.13	25,414.67	1,159,399.57
01-Oct-12	29,589.36		1,163,574.25	1.470%	1,425.38	26,840.05	1,190,414.30
01-Nov-12	29,589.36		1,193,163.61	1.470%	1,461.63	28,301.68	1,221,465.29
01-Dec-12	29,589.36		1,222,752.97	1.470%	1,497.87	29,799.55	1,252,552.52
01-Jan-13	29,589.36		1,252,342.32	1.470%	1,534.12	31,333.67	1,283,675.99
01-Feb-13	29,589.36		1,281,931.68	1.470%	1,570.37	32,904.04	1,314,835.72
01-Mar-13	29,589.36		1,311,521.03	1.470%	1,606.61	34,510.65	1,346,031.68
01-Apr-13	29,589.36		1,341,110.39	1.470%	1,642.86	36,153.51	1,377,263.90
	<u>1,361,110.39</u>	<u>(20,000.00)</u>					
							1,341,110.39
							36,153.51
							<u>1,377,263.90</u>

Greater Sudbury Hydro Inc

Account 1574 - Water Deferral Balance - with correcting entry

	Principal	50% transfer pricing study	Cum Principal	Interest Rate	Interest	Cum Interest	Total Deferral
01-Jul-09	73,452.00		73,452.00	0.550%	-	-	73,452.00
01-Aug-09	73,452.00		146,904.00	0.550%	67.33	67.33	146,971.33
01-Sep-09	73,452.00		220,356.00	0.550%	101.00	168.33	220,524.33
01-Oct-09	73,452.00		293,808.00	0.550%	134.66	302.99	294,110.99
01-Nov-09	73,452.00		367,260.00	0.550%	168.33	471.32	367,731.32
01-Dec-09	73,452.00		440,712.00	0.550%	201.99	673.31	441,385.31
01-Jan-10	73,452.00		514,164.00	0.550%	235.66	908.97	515,072.97
01-Feb-10	73,452.00		587,616.00	0.550%	269.32	1,178.29	588,794.29
01-Mar-10	73,452.00		661,068.00	0.550%	302.99	1,481.28	662,549.28
01-Apr-10	73,452.00		734,520.00	0.550%	336.66	1,817.94	736,337.94
01-May-10	73,452.00		807,972.00	0.550%	370.32	2,188.26	810,160.26
01-Jun-10	73,452.00		881,424.00	0.550%	403.99	2,592.25	884,016.25
01-Jul-10	73,452.00		954,876.00	0.890%	708.20	3,300.45	958,176.45
01-Aug-10	73,452.00		1,028,328.00	0.890%	762.68	4,063.13	1,032,391.13
01-Sep-10	73,452.00		1,101,780.00	0.890%	817.15	4,880.28	1,106,660.28
01-Oct-10	73,452.00		1,175,232.00	1.200%	1,175.23	6,055.51	1,181,287.51
01-Nov-10	73,452.00		1,248,684.00	1.200%	1,248.68	7,304.19	1,255,988.19
01-Dec-10	73,452.00		1,322,136.00	1.200%	1,322.14	8,626.33	1,330,762.33
01-Jan-11	73,452.00		1,395,588.00	1.470%	1,709.60	10,335.93	1,405,923.93
01-Feb-11	73,452.00		1,469,040.00	1.470%	1,799.57	12,135.50	1,481,175.50
01-Mar-11	73,452.00		1,542,492.00	1.470%	1,889.55	14,025.05	1,556,517.05
01-Apr-11	73,452.00		1,615,944.00	1.470%	1,979.53	16,004.58	1,631,948.58
01-May-11	73,452.00		1,689,396.00	1.470%	2,069.51	18,074.09	1,707,470.09
01-Jun-11	73,452.00		1,762,848.00	1.470%	2,159.49	20,233.58	1,783,081.58
01-Jul-11	73,452.00		1,836,300.00	1.470%	2,249.47	22,483.05	1,858,783.05
01-Aug-11	73,452.00		1,909,752.00	1.470%	2,339.45	24,822.50	1,934,574.50
01-Sep-11	73,452.00		1,983,204.00	1.470%	2,429.42	27,251.92	2,010,455.92
01-Oct-11	73,452.00		2,056,656.00	1.470%	2,519.40	29,771.32	2,086,427.32
01-Nov-11	73,452.00		2,130,108.00	1.470%	2,609.38	32,380.70	2,162,488.70
01-Dec-11	73,452.00	(10,000.00)	<b>2,193,560.00</b>	1.470%	2,687.11	35,067.81	2,228,627.81
01-Jan-12	73,452.00		2,267,012.00	1.470%	2,777.09	37,844.90	2,304,856.90
01-Feb-12	73,452.00		2,340,464.00	1.470%	2,867.07	40,711.97	2,381,175.97
01-Mar-12	73,452.00		2,413,916.00	1.470%	2,957.05	43,669.02	2,457,585.02
01-Apr-12	73,452.00		2,487,368.00	1.470%	3,047.03	46,716.05	2,534,084.05
01-May-12	73,452.00		2,560,820.00	1.470%	3,137.00	49,853.05	2,610,673.05
01-Jun-12	73,452.00		2,634,272.00	1.470%	3,226.98	53,080.03	2,687,352.03
01-Jul-12	73,452.00		2,707,724.00	1.470%	3,316.96	56,396.99	2,764,120.99
01-Aug-12	73,452.00		2,781,176.00	1.470%	3,406.94	59,803.93	2,840,979.93
01-Sep-12	73,452.00	(10,000.00)	2,844,628.00	1.470%	3,484.67	63,288.60	2,907,916.60
01-Oct-12	73,452.00		2,918,080.00	1.470%	3,574.65	66,863.25	2,984,943.25
01-Nov-12	73,452.00		2,991,532.00	1.470%	3,664.63	70,527.88	3,062,059.88
01-Dec-12	73,452.00		3,064,984.00	1.470%	3,754.61	74,282.49	3,139,266.49
adjustment	<b>(1,842,231.03)</b>		1,222,752.97		<b>(44,482.94)</b>	29,799.55	1,252,552.52
01-Jan-13	29,589.36		1,252,342.32	1.470%	1,534.12	31,333.67	1,283,675.99
01-Feb-13	29,589.36		1,281,931.68	1.470%	1,570.37	32,904.04	1,314,835.72
01-Mar-13	29,589.36		1,311,521.03	1.470%	1,606.61	34,510.65	1,346,031.68
01-Apr-13	29,589.36		1,341,110.39	1.470%	1,642.86	36,153.51	1,377,263.90
	<u>1,361,110.39</u>	<u>(20,000.00)</u>					
							1,341,110.39
							36,153.51
							<u>1,377,263.90</u>

## STRANDED METERS

GSHi is seeking disposition of its stranded meter costs as at December 31, 2012. Full deployment of the smart meter program was completed in 2012 and therefore actual costs of its displaced conventional meters is used.

### **Determination of Stranded Meter Net Book Value**

Due to the enormous effort involved in calculating the net book value of all stranded meters, GSHi took an alternative approach which we deem arrives at a more reliable result.

GSHi took the approach of first calculating the net book value at December 31, 2012 of its meters that were not replaced with smart meters. This amount was then subtracted from the December 31, 2012 net book value of all meters recorded in Accounts 1860/2105. The resulting amount is therefore the net book value of all stranded meters.

GSHi's metering department was able to provide a list of all meters not replaced by smart meters. This included the year of acquisition and original capitalized cost amount for each meter. This capitalized cost amount includes the cost for labour, truck and extra materials if applicable. Estimates for incomplete data on older meters were used with today's dollars effectively slightly overstating the cost amount of the older meters. From this, the accumulated depreciation was calculated to the end of 2012 using the historical straight line rate of 25 years. Since the net book value of these meters will be slightly overstated, the resulting net book value of the stranded meters will be slightly understated which benefits ratepayers.



1 **Accounting Treatment**

2

3 GSHi is proposing to remove from its rate base the December 31, 2012 net book value  
4 of its displaced conventional meters. This will ensure the 2013 revenue requirement will  
5 not include either a cost of capital return or depreciation expense associated with the  
6 stranded meters.

7

8 Stranded meter costs are comprised of the gross costs of the stranded conventional  
9 meters, less any capital contributions, accumulated depreciation and any net proceeds  
10 received from the disposition. This resulting net book value will be transferred to "Sub-  
11 account Stranded Meter Costs" of Account 1555 effective December 31, 2012.

12

13 GSHi confirms that it will stop recording depreciation expense on these stranded meters  
14 effective December 31, 2012.

15

16 The associated recoveries collected from the separate stranded meter rate riders will be  
17 recorded in this sub-account to draw down the balance.

18

19 Effective on the date of the rate order, carrying charges will be calculated on the monthly  
20 opening principal balance in the sub-account at the Board prescribed interest rates and  
21 will be recorded separately in "Sub-Account Stranded meter Costs Carrying Charges" of  
22 Account 1555.

23

24

25 **Ratemaking Treatment**

26 GSHi has completed Appendix 2-S 'Stranded Meter Treatment' at Exhibit 9, Tab 1,  
27 Schedule 3, Attachment 1. The resulting net recoverable amount from customers of  
28 \$1,193,861 as at December 31, 2012 is included for review and disposition in this rate  
29 application.

30

1 The balance in the 2011 audited financial statements and the 2.1.7 RRR filing for this  
2 sub-account of Account 1555 were both NIL. Therefore, in the EDDVAR continuity  
3 schedule, the \$1,193,861 recoverable amount has been included as a negative 2012  
4 disposal in column BZ labeled *Principal disposition during 2012 - instructed by Board* in  
5 order to make the model reflect the proper recoverable amount to be settled with  
6 ratepayers.

### 7 **Contributed Capital and Proceeds of Disposition**

8 GSHi started charging contributed capital in 2002. There has never been any  
9 contributed capital charged for residential or GS<50 conventional meters. Therefore no  
10 amounts have been included for contributed capital.

11 As part of the smart meter installation program, Green-port Environmental was  
12 contracted for the recycling and disposal of scrap hydro meters. GSHi received a total of  
13 \$14,493 as proceeds towards the stranded meters which has been deducted from the  
14 net book value of the assets.

### 15 **Proposed Rate Riders and Recovery Period**

16 The net book value to be recovered in Account 1555 "Sub-account Stranded Meter  
17 Costs" is proposed to be recovered by means of separate rate riders for the applicable  
18 customer classes - Residential and GS<50kW.

19 The net book value is proposed to be allocated to these customer classes based on the  
20 actual number of smart meters installed in each class at December 31, 2012 as  
21 indicated in Table 1 below.

22 For each customer class, the stranded meter rate rider is proposed to be a monthly fixed  
23 charge since the stranded meter costs are not related to a customer's demand or  
24 consumption. Therefore, each rate rider will be determined based on the forecasted  
25 number of smart meters in each customer class in 2013. The proposed recovery period  
26 is two years in order to mitigate rate impacts on the affected customers, and be

1 consistent with the disposition period of the deferral and variance account balances.  
 2 Table 1 below shows the proposed stranded meter rate rider by customer class.

3 **Table 1: Stranded Meter Rate Rider by Customer Class**

	Residential	GS<50 kW	Total
Smart Meters Installed as of December 31, 2012	42,567	4,045	46,612
Smart Meters installed as a percentage of total	91.32%	8.68%	1.00
NBV of Stranded Meters to be recovered	\$ 1,090,257	\$ 103,604	\$ 1,193,861
Less contributed capital	\$ -	\$ -	\$ -
Net	\$ 1,090,257	\$ 103,604	\$ 1,193,861
Number of Customers - using 2012 year end	42,567	4,045	46,612
Rate Rider (\$ per customer/month for 2years)	1.07	1.07	

4  
 5 **Bill Impacts**

6 The total bill impacts of the rate rider are detailed in Table 2 below.

7  
 8 **Table 2: Bill Impact of Stranded Meter Rate Rider**

9

Customer Class	Volume (kWh)	Current TOU Bill	Stranded Meter Rate Rider	Rider Grossed up for tax	OCEB	Total Bill impact	Percent of Current bill
Residential	800	\$ 114.29	\$ 1.07	\$ 1.21	-\$ 0.12	\$ 1.09	0.95%
GS<50	2000	\$ 276.02	\$ 1.07	\$ 1.21	-\$ 0.12	\$ 1.09	0.95%

- 1 **Cost Allocation for 2013 Base Rates**
- 2 GSHi confirms that the total net book value of these stranded meters has been removed
- 3 from all Cost Allocation calculations in Exhibit 7.

**File Number:** EB-2012-0126  
**Exhibit:** 9  
**Tab:** 1  
**Schedule:** 3  
**Attachment:** 1  
  
**Date:** 9 November, 2012

## Appendix 2-S Stranded Meter Treatment

Year	Notes	Gross Asset Value	Accumulated Amortization	Contributed Capital (Net of Amortization)	Net Asset	Proceeds on Disposition	Residual Net Book Value
		(A)	(B)	(C)	(D) = (A) - (B) - (C)	(E)	(F) = (D) - (E)
2006					\$ -		\$ -
2007					\$ -		\$ -
2008					\$ -		\$ -
2009					\$ -		\$ -
2010					\$ -		\$ -
2011					\$ -		\$ -
2012	(1)	\$ 7,076,701	\$ 5,868,347	\$ -	\$ 1,208,354	\$ 14,493	\$ 1,193,861

**Notes:**

(1) For 2012, please indicate whether the amounts provided are on a forecast or actual basis.

**GSHi : Scenario B applies and all amounts are on an 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.

- 1 A description of the accounting treatment followed by the applicant on stranded meter costs for financial accounting and reporting purposes.
- 2 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 sub-account as of December 31, 2010.
- 3 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.

**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:

- 1 A description of the accounting treatment followed by the applicant on stranded meter costs for financial accounting and reporting purposes.  
**GSHI: Refer to Exhibit 9, Tab 1, Schedule 3**
- 2 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.  
**GSHI: Refer to chart above**
- 3 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.  
**GSHI: Refer to Exhibit 9, Tab 1, Schedule 3**
- 4 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.  
**GSHI: not applicable**
- 5 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.  
**GSHI: Refer to Exhibit 9, Tab 1, Schedule 3**
- 6 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.  
**GSHI: Refer to Exhibit 9, Tab 1, Schedule 3**

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.

## HST DEFERRAL ACCOUNT

Account 1592: PiLs and Tax Variance for 2006 and Subsequent Years - Sub-Account  
HST/OVAT Input Tax Credits (ITCs)

The Provincial Sales Tax ("PST") and the Federal Goods and Services Tax ("GST") were harmonized into the Harmonized Sales Tax ("HST") effective July 1, 2010. Items previously subject to PST are now subject to HST, which is refundable. as a result, electricity distributors that rebased prior to 2010 may benefit from an overall net reduction in costs relative to the costs included in base rates.

the Board determined that cost reductions arising from the implementation of HST should be shared equally between ratepayers and shareholders. Thus, a new sub-account of Account 1592 was created and named "Sub-account HST/OVAT Input Tax Credits (ITCs)" which will capture the incremental savings to be shared upon disposition.

GSHi has reviewed the guidance provided in the OEB Accounting Procedures Handbook Frequently Asked Questions dated December 2010, specifically questions 1 to 5, in order to determine the appropriate amounts to be included in this sub-account of Account 1592.

### Question 1

It is indicated that the offsetting entry to Account 1592, sub account HST/OVAT Input Tax Credits should be made to Account 1592, sub-account HST/OVAT Contra Account,

1 such that the sum of these two sub-accounts should be NIL. GSHI has followed this  
2 accounting treatment.

3 Question 2

4 It is indicated that ITCs received on items not previously subject to PST should not be  
5 recorded in Account 1592. GSHI has followed this accounting treatment since there are  
6 no incremental savings to be recorded.

7 Question 3

8 Certain items not previously subject to PST (i.e. gasoline, electricity) became subject to  
9 HST, but are subject to "Recaptured ITCs ("RITCs") provision where no ITC is received;  
10 the answer to Question 3 indicates that the incremental HST on these items should not  
11 be recorded in the sub-account. GSHI has followed this accounting treatment.

12 Question 4

13 The answer to Question 4 addresses the difficulty in identifying which ITCs represent the  
14 incremental savings to be recorded in Account 1592. It suggests a proxy method that  
15 can be used instead of using a detailed transactional basis, to determine the amounts for  
16 inclusion. The proxy method alternative discusses how to derive the PST savings on  
17 OM&A and capital items for the 2009 historic year to use as a proxy for the amounts to  
18 be recorded from July 2010 until the next rebasing.

19 **For OM&A**, GSHI has not used the proxy method, instead, we have review all  
20 transactions from July 2010 to December 2010, and all of 2011 to determine the actual  
21 savings. For the 2012 year, we reviewed all transaction to October 31, 2012 to  
22 determine the savings for the first 10 months. From there we calculated a per month  
23 amount as a proxy to be used for the final 2 months of 2012 and the first 4 months to  
24 April 30, 2013.

25 From July 2010 to April 2013, GSHI has recorded a total of \$250,269 of net OM&A  
26 incremental savings to both sub-accounts of Account 1592 (which offset each other).  
27 See table 1 below.



1

<b>HST Savings on OM&amp;A</b>			
Year	Account 1592	Amount for Disposition	Carrying Charges
	100%	50%	50%
Balance at June 30, 2010			
Transactions for from July 2010 to Dec 2010	\$ 49,961	\$ 24,981	\$ 81
Transactions for from Jan 2011 to Dec 2011	\$ 84,109	\$ 42,055	\$ 702
Transactions for from Jan 2012 to Dec 2012	\$ 87,149	\$ 43,574	\$ 1,332
Transactions for from Jan 2013 to April 2013	\$ 29,050	\$ 14,525	\$ 586
Total	\$ 250,269	\$ 125,135	\$ 2,702

2

3

4 **For Capital,** the answer to Question 4 discusses whether there are any savings from  
 5 HST related to capital costs and depreciation to be recorded in Account 1592.

6 The answer to Question 4 indicates that any savings on capital purchases subsequent to  
 7 July 1, 2010 will be reflected in the cost when these assets are included in rate base at  
 8 the next cost of service application. GSHi agrees that any savings in cost due to the  
 9 elimination of PST will automatically flow to ratepayers at that time and there are no  
 10 incremental savings to be recorded in Account 1592.

11 The answer to Question indicates that, for any period before the rebasing that occurs  
 12 after July 1, 2010, the PST savings would be included in the annual depreciation of the  
 13 capital items. GSHi disagrees with this assertion. To explain, depreciation relating to  
 14 the period July 1, 2010 (HST implementation) to May 1, 2013 (new CoS rates) can be  
 15 broken down into three components.

16 First, there is depreciation recorded in the general ledger relating to capital costs  
 17 incurred prior to January 1, 2009 (last CoS rebasing test year). This depreciation relates

1 to the previously incurred capital asset cost amounts which had PST included. The  
2 corresponding depreciation in existing rates represents the recovery of these capital  
3 costs incurred prior to January 1, 2009 and accordingly there can be no incremental  
4 savings.

5 Second, there is depreciation recorded in the general ledger relating to capital costs  
6 incurred in 2009. This depreciation relates to capital costs that had PST included. The  
7 2009 CoS capital asset additions for the 2009 test year included PST, and these test  
8 year capital asset additions also formed the basis for the depreciation collected in rates.  
9 Again, since this depreciation in existing rates represents the recovery of the capital  
10 costs forecasted for 2009, there can be no incremental savings during this time period.

11 Lastly, there is depreciation recorded in the general ledger relating to capital costs  
12 incurred between January 1, 2010 and April 30, 2013. This depreciation relates to  
13 capital costs which have not yet been included in rates. These capital costs, and the  
14 corresponding depreciation, will not be included in rates until the 2013 rebasing at which  
15 time they will be included in the revenue requirement (return on rate base plus  
16 depreciation). As a result, there can be no incremental savings during this period.

17 Therefore, for capital and depreciation, GSHi has not recorded any amounts to Account  
18 1592.

19 Question 5

20 The answer to Question 5 indicates that the full 100% savings must be recorded to the  
21 sub-accounts of 1592 in order to allow the Board the ability to conduct a review of the  
22 quantum and reasonableness of the savings. GSHi has recorded 100% of the net  
23 incremental savings in the amount of \$250,269 as shown in Table 1 above.

24 Carrying Charges

25 Carrying charges have been calculated based on 50% of the liability amount recorded in  
26 Account 1592 (excluding contra sub-account). As shown in Table 1 above, these total  
27 \$2,702 for the period up to the end of April 2013.

1

2 The balance in the 2011 audited financial statements and the 2.1.7 RRR filing were both  
3 NIL. Therefore, in the EDDVAR continuity schedule, the \$142,622 liability amount has  
4 been included as a negative 2012 disposal in column BZ labeled *Principal disposition*  
5 *during 2012 - instructed by Board* and carrying charges in column CA labeled *Interest*  
6 *Disposition during 2012-instructed by the Board* in order to make the model reflect the  
7 proper liability amounts to be settled with ratepayers.

8 For further clarity, in the EDDVAR continuity schedule, row 66 captures the 50% liability  
9 amount and the related carrying charges and is included in the total claim amount  
10 (column CF).



**File Number:** EB-2012-0126  
**Exhibit:** 9  
**Tab:** 1  
**Schedule:** 5  
**Attachment:** 1  
  
**Date:** 9 November, 2012

## Appendix 2-T Deferred PILs Account 1592 Balances

The following table should be completed based on the information requested below, in accordance with the notes following the table. An explanation should be provided for any blank entries.

Tax Item	Principal as of December 31, 2011
Large Corporation Tax grossed-up proxy from 2006 EDR application PILs model for the period from May 1, 2006 to April 30, 2007 <b>Response: GSHi was not subject to LCT and therefore no proxy was included in the 2006 EDR rate application</b>	n/a
Large Corporation Tax grossed-up proxy from 2006 EDR application PILs model for the period from January 1, 2006 to April 30, 2006 (4/12ths of the approved grossed-up proxy), if not recorded in PILs account 1562 <b>Response: GSHi was not subject to LCT and therefore no proxy was included in the 2006 EDR rate</b>	n/a
Ontario Capital Tax rate decrease and increase in capital deduction for 2007 <b>Response: Refer to Note 7.</b>	\$ (16,421.68)
Ontario Capital Tax rate decrease and increase in capital deduction for 2008 <b>Response: Refer to note 8.</b>	\$ (57,733.40)
Ontario Capital Tax rate decrease and increase in capital deduction for 2009 <b>Response: Refer to Note 9 (GSHi rebased May 1, 2009)</b>	\$ (7,994.47)
Ontario Capital Tax rate decrease and increase in capital deduction for 2010	n/a
Capital Cost Allowance class changes from 2006 EDR application for 2006	n/a
Capital Cost Allowance class changes from 2006 EDR application for 2007	n/a
Capital Cost Allowance class changes from 2006 EDR application for 2008	n/a
Capital Cost Allowance class changes from 2006 EDR application for 2009	n/a
Capital Cost Allowance class changes from 2006 EDR application for 2010	n/a
Capital Cost Allowance class changes from 2006 EDR application for 2011	n/a
Capital Cost Allowance class changes from any prior application not recorded above. Please provide details and explanation separately.	n/a
<b>Corporate tax rate decrease from 36.12% to 33.50% for 2008 (Jan to April)</b>	<b>\$ (31,400.00)</b>
<b>Corporate tax rate decrease from 33.5% to 33.00% for 2009 (Jan to April)</b>	<b>\$ (5,991.00)</b>
<b>Total</b>	<b>\$ (119,540.55)</b>

**Notes:**

- 1 Revise the deferral and variance account continuity schedule to include account 1592 as a group 2 account and enter all relevant information for transactions, adjustments, etc., for all relevant years.  
  
**Response: Account 1592 has been included as a Group 2 Account in the continuity schedule**
  
- 2 Describe each type of tax item that has been recorded in account 1592.  
**Response: Refer to notes (7) to (11)**
  
- 3 Provide the calculations that show how each item was determined and provide any pertinent supporting evidence and documentation.  
**Response: Refer to notes (7) to (11)**
  
- 4 Please state whether or not the applicant followed the guidance provided in the FAQ of July 2007. If not, please provide an explanation.  
**Response: GSHi has followed the guidance provided in the FAQ of July 2007.**

- 5 Identify the account balance as of December 31, 2011 as per the 2011 Audited Financial Statements. Identify the account balance as of December 31, 2011 as per the April 2012 2.1.7 RRR filing to the Board. Provide a reconciliation if the balances provided are not identical to each other and to the total shown on the continuity schedule.

**Response:** The balance in the 2011 audited financial statements and the 2.1.7 RRR filing were both NIL.

- 6 Complete the above table based on the answers to the previous. Add rows as required to complete the analysis in an informative manner. Please provide the completed table as a working Excel spreadsheet.

**Response:** Completed.

7

Ontario Capital Tax rate decrease and increase in capital deduction for calendar 2007:

	2006EDR	2007
Taxable capital per 2006 EDR	\$ 71,977,864	\$ 71,977,864
Deduction	\$ (10,000,000)	\$ (12,500,000)
Net taxable capital	61,977,864	59,477,864
Ontario Capital tax rate	0.00300	0.00285
Capital tax	\$ 185,934	\$ 169,512
Difference = credit entry to Account 1592 for the year.		<u>\$ (16,421.68)</u>

8

Ontario Capital Tax rate decrease and increase in capital deduction for calendar 2008:

	2006EDR	2008
Taxable capital per 2006 EDR	\$ 71,977,864	\$ 71,977,864
Deduction	\$ (10,000,000)	\$ (15,000,000)
Net taxable capital	61,977,864	56,977,864
Ontario Capital tax rate	0.00300	0.00225
Capital tax	\$ 185,934	\$ 128,200
Difference = credit entry to Account 1592 for the year.		<u>\$ (57,733.40)</u>

9

Ontario Capital Tax rate decrease and increase in capital deduction for January to April 2009:

	2006EDR	2009
Taxable capital per 2009 EDR	\$ 71,977,864	\$ 71,977,864
Deduction	\$ (10,000,000)	\$ -
Net taxable capital	61,977,864	71,977,864
Ontario Capital tax rate	0.00300	0.00225
Capital tax	\$ 185,934	\$ 161,950
Difference = credit entry to Account 1592 for the 1st quarter		<u>\$ (7,994.47)</u>

10

Income tax decrease from 36.12 o 33.50% from January to April 2008

	2006EDR	2008IRM
Regulatory taxable income - per 2006 EDR	\$ 3,595,405	\$ 3,595,405
Corporate income tax rate	36.12%	33.50%
Income tax	1,298,660.29	1,204,460.68
Difference		\$ (94,199.61)
		/12 x 4
Credit entry to Account 1592 for January to April 2008		<u>-\$ 31,400</u>

11

Income tax decrease from 36.12 o 33.50% from January to April 2009

	2008IRM	2009
Regulatory taxable income - per 2008 IRM	\$ 3,595,405	\$ 3,595,405
Corporate income tax rate	33.50%	33.00%
Income tax	1,204,461	1,186,484
Difference		\$ (17,976.28)
		/12 x 4
Credit entry to Account 1592 for January to April 2009		<u>\$ (5,992.09)</u>



## Deferral/Variance Account Workform for 2013 Filers


Version 2.0

Utility Name	Greater Sudbury Hydro Inc
Service Territory	(if applicable)
Assigned EB Number	EB-2012-0126
Name of Contact and Title	Nancy Whissell, VP Corporate Services
Phone Number	705-675-0509
Email Address	<a href="mailto:nancyw@shc.com">nancyw@shc.com</a>


### General Notes

1. Please ensure that your macros have been enabled. (Tools -> Macro -> Security)
2. Due to the time lag of deferral/variance account dispositions, this model assumes that all opening balances include previously disposed of amounts. Accordingly, all "Board Approved Dispositions" are deducted from the opening balance.
3. Please provide information in this model since the last time your balances were disposed.
4. For all Board-Approved dispositions, please ensure that the disposition amount has the same sign (e.g: debit balances are to have a positive figure and credit balance are to have a negative figure) as per the related Board decision.

### Notes

 Pale green cells represent input cells.

 Pale blue cells represent drop-down lists. The applicant should select the appropriate item from the drop-down list.

 White cells contain fixed values, automatically generated values or formulae.

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





		2005									
Account Descriptions	Account Number	Opening Principal Amounts as of Jan-1-05	Transactions Debit / (Credit) during 2005 excluding interest and adjustments <sup>3</sup>	Board-Approved Disposition during 2005	Adjustments during 2005 - other <sup>2</sup>	Closing Principal Balance as of Dec-31-05	Opening Interest Amounts as of Jan-1-05	Interest Jan-1 to Dec-31-05	Board-Approved Disposition during 2005	Adjustments during 2005 - other <sup>2</sup>	Closing Interest Amounts as of Dec-31-05
<b>Special Purpose Charge Assessment Variance Account<sup>9</sup></b>	<b>1521</b>										
<b>LRAM Variance Account</b>	<b>1568</b>										
<b>Total including Account 1521 and Account 1568</b>		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Capital <sup>11</sup>	1555					\$ -					\$ -
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Recoveries <sup>11</sup>	1555					\$ -					\$ -
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Stranded Meter Costs <sup>11</sup>	1555					\$ -					\$ -
Smart Meter OM&A Variance <sup>11</sup>	1556					\$ -					\$ -
<b>The following is not included in the total claim but are included on a memo basis:</b>											
Deferred PILs Contra Account <sup>5</sup>	1563					\$ -					\$ -
IFRS-CGAAP Transition PR&E Amounts <sup>10</sup>	1575					\$ -					\$ -
PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Contra Account	1592					\$ -					\$ -
Disposition and Recovery of Regulatory Balances <sup>7</sup>	1595					\$ -					\$ -

**For all Board-Approved dispositions, please ensure that the disposition amount has the same sign (e.g. debit balances are to have a positive figure and credit balance are to have a negative figure) as per the related Board decision.**

<sup>1</sup> Provide supporting statement indicating whether due to denial of costs in 2006 EDR by the Board, 10% transition costs write-off, etc.

<sup>14</sup> Adjustments Instructed by the Board include deferral/variance account balances moved to Account 1590 as a result of the 2006 EDR and account 1595 during the 2008 EDR and subsequent years as ordered by the Board.

<sup>2</sup> Please provide explanations for the nature of the adjustments. If the adjustment relates to previously Board Approved disposed balances, please provide amounts for adjustments and include supporting documentations.

<sup>3</sup> For RSVA accounts only, report the net variance to the account during the year. For all other accounts, record the transactions during the year.

<sup>4</sup> Please describe "other" components of 1508 and add more component lines if necessary.

<sup>5</sup> 1563 is a contra-account and is not included in the total but is shown on a memo basis. Account 1562 establishes the obligation to the ratepayer.

<sup>6</sup> If the LDC's 2013 rate year begins January 1, 2013, the projected interest is recorded from January 1, 2012 to December 31, 2012 on the December 31, 2011 balance adjusted for the disposed balances approved by the Board in the 2012 rate decision. If the LDC's 2013 rate year begins May 1, 2013 the projected interest is recorded from January 1, 2012 to April 30, 2013 on the December 31, 2011 balance adjusted for the disposed balances approved by the Board in the 2012 rate decision.

<sup>7</sup> Include Account 1595 as part of Group 1 accounts (lines 31, 32 and 33) for review and disposition if the recovery (or refund) period has been completed. If the recovery (or refund) period has not been completed, include the balances in Account 1595 on a memo basis only (line 85).

<sup>8</sup> As per the January 6, 2011 Letter from the Board, regarding the implementation of the Ontario Clean Energy Benefit:

"By way of exception... The Board does anticipate that licensed distributors that cannot adapt their invoices as of January 1, 2011 will require a variance account for OCEB purposes... The Board expects that any principal balances in "Sub account Financial Assistance Payment and Recovery Variance - Ontario Clean Energy Benefit Act" will be addressed through the monthly settlement process with the IESO or the host distributor, as applicable.

<sup>9</sup> The Board expected that requests for disposition of the balances in Account 1521 were to be addressed as part of the proceedings to set rates for the 2012 rate year, except in cases where this approach would have resulted in non-compliance with the timeline set out in section 8 of the SPC regulation.

<sup>10</sup> Account 1575 shall not be cleared through the distributor's deferral and variance account rate rider. Account 1575 shall be cleared as an adjustment to the distributor's revenue requirement.

<sup>11</sup> Deferral accounts related to Smart Meter deployment are not to be recovered/refunded through the Deferral and Variance Account rate rider. For details on how to dispose of balances in Smart Meter accounts see the Board's Guideline: Smart Meter Disposition and Cost Recovery (G-2011-0001)



		2006									
Account Descriptions	Account Number	Opening Principal Amounts as of Jan-1-06	Transactions Debit/(Credit) during 2006 excluding interest and adjustments <sup>3</sup>	Board-Approved Disposition during 2006 <sup>1,1A</sup>	Adjustments during 2006 - other <sup>2</sup>	Closing Principal Balance as of Dec-31-06	Opening Interest Amounts as of Jan-1-06	Interest Jan-1 to Dec-31-06	Board-Approved Disposition during 2006 <sup>1,1A</sup>	Adjustments during 2006 - other <sup>2</sup>	Closing Interest Amounts as of Dec-31-06
<b>Special Purpose Charge Assessment Variance Account<sup>9</sup></b>	<b>1521</b>										
<b>LRAM Variance Account</b>	<b>1568</b>										
<b>Total including Account 1521 and Account 1568</b>		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Capital <sup>11</sup>	1555	\$ -				\$ -	\$ -				\$ -
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Recoveries <sup>11</sup>	1555	\$ -				\$ -	\$ -				\$ -
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Stranded Meter Costs <sup>11</sup>	1555	\$ -				\$ -	\$ -				\$ -
Smart Meter OM&A Variance <sup>11</sup>	1556	\$ -				\$ -	\$ -				\$ -
<b>The following is not included in the total claim but are included on a memo basis:</b>											
Deferred PILs Contra Account <sup>5</sup>	1563	\$ -				\$ -	\$ -				\$ -
IFRS-CGAAP Transition PP&E Amounts <sup>10</sup>	1575	\$ -				\$ -	\$ -				\$ -
PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Contra Account	1592	\$ -				\$ -	\$ -				\$ -
Disposition and Recovery of Regulatory Balances <sup>7</sup>	1595	\$ -				\$ -	\$ -				\$ -

**For all Board-Approved dispositions, please ensure that the disposition amount has the same sign (e.g. negative figure) as per the related Board decision.**

Provide supporting statement indicating whether due to denial of costs in 2006 EDR by the Board, 10% transition costs will Adjustments Instructed by the Board include deferral/variance account balances moved to Account 1590 as a result of the Please provide explanations for the nature of the adjustments. If the adjustment relates to previously Board Approved dispo For RSVA accounts only, report the net variance to the account during the year. For all other accounts, record the transact Please describe "other" components of 1508 and add more component lines if necessary.

1563 is a contra-account and is not included in the total but is shown on a memo basis. Account 1562 establishes the oblig If the LDC's 2013 rate year begins January 1, 2013, the projected interest is recorded from January 1, 2012 to December 31 Board in the 2012 rate decision. If the LDC's 2013 rate year begins May 1, 2013 the projected interest is recorded from Ja balances approved by the Board in the 2012 rate decision.

Include Account 1595 as part of Group 1 accounts (lines 31, 32 and 33) for review and disposition if the recovery (or refund balances in Account 1595 on a memo basis only (line 85).

As per the January 6, 2011 Letter from the Board, regarding the implementation of the Ontario Clean Energy Benefit: "By way of exception... The Board does anticipate that licensed distributors that cannot adapt their invoices as of January 1 balances in "Sub account Financial Assistance Payment and Recovery Variance - Ontario Clean Energy Benefit Act" will be The Board expected that requests for disposition of the balances in Account 1521 were to be addressed as part of the proc non-compliance with the timeline set out in section 8 of the SPC regulation.

Account 1575 shall not be cleared through the distributor's deferral and variance account rate rider. Account 1575 shall be Deferral accounts related to Smart Meter deployment are not to be recovered/refunded through the Deferral and Variance A Guideline: Smart Meter Disposition and Cost Recovery (G-2011-0001)



		2007									
Account Descriptions	Account Number	Opening Principal Amounts as of Jan-1-07	Transactions Debit/(Credit) during 2007 excluding interest and adjustments <sup>3</sup>	Board-Approved Disposition during 2007	Adjustments during 2007 - other <sup>2</sup>	Closing Principal Balance as of Dec-31-07	Opening Interest Amounts as of Jan-1-07	Interest Jan-1 to Dec-31-07	Board-Approved Disposition during 2007	Adjustments during 2007 - other <sup>2</sup>	Closing Interest Amounts as of Dec-31-07
<b>Special Purpose Charge Assessment Variance Account<sup>9</sup></b>	<b>1521</b>										
<b>LRAM Variance Account</b>	<b>1568</b>										
<b>Total including Account 1521 and Account 1568</b>		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Capital <sup>11</sup>	1555	\$ -				\$ -	\$ -				\$ -
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Recoveries <sup>11</sup>	1555	\$ -				\$ -	\$ -				\$ -
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Stranded Meter Costs <sup>11</sup>	1555	\$ -				\$ -	\$ -				\$ -
Smart Meter OM&A Variance <sup>11</sup>	1556	\$ -				\$ -	\$ -				\$ -
<b>The following is not included in the total claim but are included on a memo basis:</b>											
Deferred PILs Contra Account <sup>5</sup>	1563	\$ -				\$ -	\$ -				\$ -
IFRS-CGAAP Transition PP&E Amounts <sup>10</sup>	1575	\$ -				\$ -	\$ -				\$ -
PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Contra Account	1592	\$ -				\$ -	\$ -				\$ -
Disposition and Recovery of Regulatory Balances <sup>7</sup>	1595	\$ -				\$ -	\$ -				\$ -

**For all Board-Approved dispositions, please ensure that the disposition amount has the same sign (e.g. negative figure) as per the related Board decision.**

Provide supporting statement indicating whether due to denial of costs in 2006 EDR by the Board, 10% transition costs will Adjustments Instructed by the Board include deferral/variance account balances moved to Account 1590 as a result of the Please provide explanations for the nature of the adjustments. If the adjustment relates to previously Board Approved dispo For RSVA accounts only, report the net variance to the account during the year. For all other accounts, record the transact Please describe "other" components of 1508 and add more component lines if necessary.

1563 is a contra-account and is not included in the total but is shown on a memo basis. Account 1562 establishes the oblig If the LDC's 2013 rate year begins January 1, 2013, the projected interest is recorded from January 1, 2012 to December 31, 2012. Board in the 2012 rate decision. If the LDC's 2013 rate year begins May 1, 2013 the projected interest is recorded from January 1, 2013 to December 31, 2012. Board in the 2012 rate decision.

Include Account 1595 as part of Group 1 accounts (lines 31, 32 and 33) for review and disposition if the recovery (or refund) balances in Account 1595 on a memo basis only (line 85).

As per the January 6, 2011 Letter from the Board, regarding the implementation of the Ontario Clean Energy Benefit: "By way of exception... The Board does anticipate that licensed distributors that cannot adapt their invoices as of January 1, 2011 balances in "Sub account Financial Assistance Payment and Recovery Variance - Ontario Clean Energy Benefit Act" will be The Board expected that requests for disposition of the balances in Account 1521 were to be addressed as part of the proc non-compliance with the timeline set out in section 8 of the SPC regulation.

Account 1575 shall not be cleared through the distributor's deferral and variance account rate rider. Account 1575 shall be Deferral accounts related to Smart Meter deployment are not to be recovered/refunded through the Deferral and Variance A Guideline: Smart Meter Disposition and Cost Recovery (G-2011-0001)



		2008									
Account Descriptions	Account Number	Opening Principal Amounts as of Jan-1-08	Transactions Debit/(Credit) during 2008 excluding interest and adjustments <sup>3</sup>	Board-Approved Disposition during 2008	Adjustments during 2008 - other <sup>2</sup>	Closing Principal Balance as of Dec-31-08	Opening Interest Amounts as of Jan-1-08	Interest Jan-1 to Dec-31-08	Board-Approved Disposition during 2008	Adjustments during 2008 - other <sup>2</sup>	Closing Interest Amounts as of Dec-31-08
<b>Special Purpose Charge Assessment Variance Account<sup>9</sup></b>	<b>1521</b>										
<b>LRAM Variance Account</b>	<b>1568</b>										
<b>Total including Account 1521 and Account 1568</b>		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Capital <sup>11</sup>	1555	\$ -				\$ -	\$ -				\$ -
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Recoveries <sup>11</sup>	1555	\$ -				\$ -	\$ -				\$ -
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Stranded Meter Costs <sup>11</sup>	1555	\$ -				\$ -	\$ -				\$ -
Smart Meter OM&A Variance <sup>11</sup>	1556	\$ -				\$ -	\$ -				\$ -
<b>The following is not included in the total claim but are included on a memo basis:</b>											
Deferred PILs Contra Account <sup>5</sup>	1563	\$ -				\$ -	\$ -				\$ -
IFRS-CGAAP Transition PP&E Amounts <sup>10</sup>	1575	\$ -				\$ -	\$ -				\$ -
PILs and Tax Variance for 2008 and Subsequent Years - Sub-Account HST/OVAT Contra Account	1592	\$ -				\$ -	\$ -				\$ -
Disposition and Recovery of Regulatory Balances <sup>7</sup>	1595	\$ -				\$ -	\$ -				\$ -

**For all Board-Approved dispositions, please ensure that the disposition amount has the same sign (e.g. negative figure) as per the related Board decision.**

Provide supporting statement indicating whether due to denial of costs in 2006 EDR by the Board, 10% transition costs will Adjustments Instructed by the Board include deferral/variance account balances moved to Account 1590 as a result of the Please provide explanations for the nature of the adjustments. If the adjustment relates to previously Board Approved dispo For RSVA accounts only, report the net variance to the account during the year. For all other accounts, record the transact Please describe "other" components of 1508 and add more component lines if necessary.

1563 is a contra-account and is not included in the total but is shown on a memo basis. Account 1562 establishes the oblig If the LDC's 2013 rate year begins January 1, 2013, the projected interest is recorded from January 1, 2012 to December 31 Board in the 2012 rate decision. If the LDC's 2013 rate year begins May 1, 2013 the projected interest is recorded from Ja balances approved by the Board in the 2012 rate decision.

Include Account 1595 as part of Group 1 accounts (lines 31, 32 and 33) for review and disposition if the recovery (or refund balances in Account 1595 on a memo basis only (line 85).

As per the January 6, 2011 Letter from the Board, regarding the implementation of the Ontario Clean Energy Benefit: "By way of exception... The Board does anticipate that licensed distributors that cannot adapt their invoices as of January 1 balances in "Sub account Financial Assistance Payment and Recovery Variance - Ontario Clean Energy Benefit Act" will be The Board expected that requests for disposition of the balances in Account 1521 were to be addressed as part of the proc non-compliance with the timeline set out in section 8 of the SPC regulation.

Account 1575 shall not be cleared through the distributor's deferral and variance account rate rider. Account 1575 shall be Deferral accounts related to Smart Meter deployment are not to be recovered/refunded through the Deferral and Variance A Guideline: Smart Meter Disposition and Cost Recovery (G-2011-0001)



## Deferral/Variance Account for 2013

Account Descriptions	Account Number	2009									
		Opening Principal Amounts as of Jan-1-09	Transactions Debit/(Credit) during 2009 excluding interest and adjustments <sup>3</sup>	Board-Approved Disposition during 2009	Adjustments during 2009 - other <sup>2</sup>	Closing Principal Balance as of Dec-31-09	Opening Interest Amounts as of Jan-1-09	Interest Jan-1 to Dec-31-09	Board-Approved Disposition during 2009	Adjustments during 2009 - other <sup>2</sup>	Closing Interest Amounts as of Dec-31-09
<b>Group 1 Accounts</b>											
LV Variance Account	1550	\$ -	\$ 33,803			\$ 33,803	\$ -	\$ 544		\$ 544	
RSVA - Wholesale Market Service Charge	1580	\$ -	\$ 569,587			\$ 569,587	\$ -	\$ 9,253		\$ 9,253	
RSVA - Retail Transmission Network Charge	1584	\$ -	\$ 136,182			\$ 136,182	\$ -	\$ 1,078		\$ 1,078	
RSVA - Retail Transmission Connection Charge	1586	\$ -	\$ 42,059			\$ 42,059	\$ -	\$ 621		\$ 621	
RSVA - Power (excluding Global Adjustment)	1588	\$ -	\$ 66,361			\$ 66,361	\$ -	\$ 853		\$ 853	
RSVA - Power - Sub-account - Global Adjustment	1588	\$ -	\$ 1,052,065			\$ 1,052,065	\$ -	\$ 6,904		\$ 6,904	
Recovery of Regulatory Asset Balances	1590	\$ -	\$ 96,314			\$ 96,314	\$ -	\$ 1,675		\$ 1,675	
Disposition and Recovery/Refund of Regulatory Balances (2008) <sup>7</sup>	1595	\$ -				\$ -	\$ -			\$ -	
Disposition and Recovery/Refund of Regulatory Balances (2009) <sup>7</sup>	1595	\$ -		\$ 2,863,639		\$ 2,863,639	\$ -	\$ 272,378		\$ 272,378	
Disposition and Recovery/Refund of Regulatory Balances (2010) <sup>7</sup>	1595	\$ -				\$ -	\$ -			\$ -	
<b>Group 1 Sub-Total (including Account 1588 - Global Adjustment)</b>		\$ -	\$ 531,847	\$ 2,863,639	\$ -	\$ 2,331,792	\$ -	\$ 18,598	\$ 272,378	\$ 253,780	
<b>Group 1 Sub-Total (excluding Account 1588 - Global Adjustment)</b>		\$ -	\$ 520,218	\$ 2,863,639	\$ -	\$ 3,383,857	\$ -	\$ 11,694	\$ 272,378	\$ 260,684	
<b>RSVA - Power - Sub-account - Global Adjustment</b>	<b>1588</b>	\$ -	\$ 1,052,065	\$ -	\$ -	\$ 1,052,065	\$ -	\$ 6,904	\$ -	\$ 6,904	
<b>Group 2 Accounts</b>											
Other Regulatory Assets - Sub-Account - OEB Cost Assessments	1508	\$ -				\$ -	\$ -			\$ -	
Other Regulatory Assets - Sub-Account - Pension Contributions	1508	\$ -				\$ -	\$ -			\$ -	
Other Regulatory Assets - Sub-Account - Deferred IFRS Transition Costs	1508	\$ -	\$ 2,328			\$ 2,328	\$ -			\$ -	
Other Regulatory Assets - Sub-Account - Incremental Capital Charges	1508	\$ -	\$ 475			\$ 475	\$ -	\$ 363		\$ 363	
Other Regulatory Assets - Sub-Account - Financial Assistance Payment and Recovery Variance - Ontario Clean Energy Benefit Act <sup>8</sup>	1508					\$ -	\$ -			\$ -	
Other Regulatory Assets - Sub-Account - Financial Assistance Payment and Recovery Carrying Charges	1508					\$ -	\$ -			\$ -	
Other Regulatory Assets - Sub-Account - Other <sup>4</sup>	1508	\$ -				\$ -	\$ -			\$ -	
Retail Cost Variance Account - Retail	1518	\$ -				\$ -	\$ -			\$ -	
Misc. Deferred Debits	1525	\$ -				\$ -	\$ -			\$ -	
Renewable Generation Connection Capital Deferral Account	1531					\$ -	\$ -			\$ -	
Renewable Generation Connection OM&A Deferral Account	1532					\$ -	\$ -			\$ -	
Renewable Generation Connection Funding Adder Deferral Account	1533					\$ -	\$ -			\$ -	
Smart Grid Capital Deferral Account	1534					\$ -	\$ -			\$ -	
Smart Grid OM&A Deferral Account	1535		\$ 20,963			\$ 20,963	\$ -	\$ 7		\$ 7	
Smart Grid Funding Adder Deferral Account	1536					\$ -	\$ -			\$ -	
Retail Cost Variance Account - STR	1548	\$ -				\$ -	\$ -			\$ -	
Board-Approved CDM Variance Account	1567					\$ -	\$ -			\$ -	
Extra-Ordinary Event Costs	1572	\$ -				\$ -	\$ -			\$ -	
Deferred Rate Impact Amounts	1574	\$ -	\$ 440,712			\$ 440,712	\$ -			\$ -	
RSVA - One-time	1582	\$ -				\$ -	\$ -			\$ -	
Other Deferred Credits	2425	\$ -				\$ -	\$ -			\$ -	
<b>Group 2 Sub-Total</b>		\$ -	\$ 416,946	\$ -	\$ -	\$ 416,946	\$ -	\$ 370	\$ -	\$ 370	
Deferred Payments in Lieu of Taxes	1562	\$ -				\$ -	\$ -			\$ -	
PILs and Tax Variance for 2006 and Subsequent Years (excludes sub-account and contra account below)	1592	\$ -				\$ -	\$ -			\$ -	
PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Input Tax Credits (ITCs)	1592	\$ -				\$ -	\$ -			\$ -	
<b>Total of Group 1 and Group 2 Accounts (including 1562 and 1592)</b>		\$ -	\$ 114,901	\$ 2,863,639	\$ -	\$ 2,748,738	\$ -	\$ 18,228	\$ 272,378	\$ 254,150	



		2009									
Account Descriptions	Account Number	Opening Principal Amounts as of Jan-1-09	Transactions Debit/(Credit) during 2009 excluding interest and adjustments <sup>3</sup>	Board-Approved Disposition during 2009	Adjustments during 2009 - other <sup>2</sup>	Closing Principal Balance as of Dec-31-09	Opening Interest Amounts as of Jan-1-09	Interest Jan-1 to Dec-31-09	Board-Approved Disposition during 2009	Adjustments during 2009 - other <sup>2</sup>	Closing Interest Amounts as of Dec-31-09
<b>Special Purpose Charge Assessment Variance Account<sup>9</sup></b>	<b>1521</b>										
<b>LRAM Variance Account</b>	<b>1568</b>										
<b>Total including Account 1521 and Account 1568</b>		\$ -	\$ 114,901	\$ 2,863,639	\$ -	\$ 2,748,738	\$ -	\$ 18,228	\$ 272,378	\$ -	\$ 254,150
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Capital <sup>11</sup>	1555	\$ -				\$ -	\$ -	\$ 23,478			\$ 23,478
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Recoveries <sup>11</sup>	1555	\$ -	\$ 518,527			\$ 518,527	\$ -				\$ -
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Stranded Meter Costs <sup>11</sup>	1555	\$ -				\$ -	\$ -				\$ -
Smart Meter OM&A Variance <sup>11</sup>	1556	\$ -	\$ 250,417			\$ 250,417	\$ -	\$ 8,189			\$ 8,189
<b>The following is not included in the total claim but are included on a memo basis:</b>											
Deferred PILs Contra Account <sup>5</sup>	1563	\$ -				\$ -	\$ -				\$ -
IFRS-CGAAP Transition PP&E Amounts <sup>10</sup>	1575	\$ -				\$ -	\$ -				\$ -
PILs and Tax Variance for 2008 and Subsequent Years - Sub-Account HST/OVAT Contra Account	1592	\$ -				\$ -	\$ -				\$ -
Disposition and Recovery of Regulatory Balances <sup>7</sup>	1595	\$ -				\$ -	\$ -				\$ -

For all Board-Approved dispositions, please ensure that the disposition amount has the same sign (e.g. negative figure) as per the related Board decision.

Provide supporting statement indicating whether due to denial of costs in 2006 EDR by the Board, 10% transition costs will Adjustments Instructed by the Board include deferral/variance account balances moved to Account 1590 as a result of the Please provide explanations for the nature of the adjustments. If the adjustment relates to previously Board Approved dispo For RSVA accounts only, report the net variance to the account during the year. For all other accounts, record the transact Please describe "other" components of 1508 and add more component lines if necessary.

1563 is a contra-account and is not included in the total but is shown on a memo basis. Account 1562 establishes the oblig If the LDC's 2013 rate year begins January 1, 2013, the projected interest is recorded from January 1, 2012 to December 31, 2012. Board in the 2012 rate decision. If the LDC's 2013 rate year begins May 1, 2013 the projected interest is recorded from January 1, 2013 to December 31, 2012. Board in the 2012 rate decision.

Include Account 1595 as part of Group 1 accounts (lines 31, 32 and 33) for review and disposition if the recovery (or refund) balances in Account 1595 on a memo basis only (line 85).

As per the January 6, 2011 Letter from the Board, regarding the implementation of the Ontario Clean Energy Benefit: "By way of exception... The Board does anticipate that licensed distributors that cannot adapt their invoices as of January 1, 2011 balances in "Sub account Financial Assistance Payment and Recovery Variance - Ontario Clean Energy Benefit Act" will be The Board expected that requests for disposition of the balances in Account 1521 were to be addressed as part of the proc non-compliance with the timeline set out in section 8 of the SPC regulation.

Account 1575 shall not be cleared through the distributor's deferral and variance account rate rider. Account 1575 shall be Deferral accounts related to Smart Meter deployment are not to be recovered/refunded through the Deferral and Variance A Guideline: Smart Meter Disposition and Cost Recovery (G-2011-0001)



## Deferral/Variance Account for 2013

Account Descriptions	Account Number	2010									
		Opening Principal Amounts as of Jan-1-10	Transactions Debit/(Credit) during 2010 excluding interest and adjustments <sup>3</sup>	Board-Approved Disposition during 2010	Adjustments during 2010 - other <sup>2</sup>	Closing Principal Balance as of Dec-31-10	Opening Interest Amounts as of Jan-1-10	Interest Jan-1 to Dec-31-10	Board-Approved Disposition during 2010	Adjustments during 2010 - other <sup>2</sup>	Closing Interest Amounts as of Dec-31-10
<b>Group 1 Accounts</b>											
LV Variance Account	1550	\$ 33,803	-\$ 34,065			\$ 262	\$ 544	\$ 12		\$ 556	
RSVA - Wholesale Market Service Charge	1580	-\$ 569,587	-\$ 1,155,719			-\$ 1,725,306	-\$ 9,253	-\$ 9,060		-\$ 18,313	
RSVA - Retail Transmission Network Charge	1584	\$ 136,182	\$ 408,212			\$ 544,394	\$ 1,078	\$ 2,638		\$ 1,560	
RSVA - Retail Transmission Connection Charge	1586	\$ 42,059	-\$ 30,753			\$ 11,306	\$ 621	-\$ 734		-\$ 113	
RSVA - Power (excluding Global Adjustment)	1588	-\$ 66,361	\$ 192,891			\$ 126,530	-\$ 853	\$ 14,549		\$ 13,696	
RSVA - Power - Sub-account - Global Adjustment	1588	\$ 1,052,065	\$ 279,903			\$ 1,331,968	-\$ 6,904	-\$ 5,150		-\$ 12,054	
Recovery of Regulatory Asset Balances	1590	-\$ 96,314	-\$ 11,429			-\$ 107,743	-\$ 1,675	-\$ 827		-\$ 2,502	
Disposition and Recovery/Refund of Regulatory Balances (2008) <sup>7</sup>	1595	\$ -				\$ -				\$ -	
Disposition and Recovery/Refund of Regulatory Balances (2009) <sup>7</sup>	1595	-\$ 2,863,639	\$ 1,808,280	\$ -		-\$ 1,055,359	\$ 272,378	-\$ 15,348	\$ -	\$ 257,030	
Disposition and Recovery/Refund of Regulatory Balances (2010) <sup>7</sup>	1595	\$ -				\$ -				\$ -	
<b>Group 1 Sub-Total (including Account 1588 - Global Adjustment)</b>		-\$ 2,331,792	\$ 1,457,320	\$ -	\$ -	-\$ 874,472	\$ 253,780	-\$ 13,920	\$ -	\$ 239,860	
<b>Group 1 Sub-Total (excluding Account 1588 - Global Adjustment)</b>		-\$ 3,383,857	\$ 1,177,417	\$ -	\$ -	-\$ 2,206,440	\$ 260,684	-\$ 8,770	\$ -	\$ 251,914	
<b>RSVA - Power - Sub-account - Global Adjustment</b>	<b>1588</b>	<b>\$ 1,052,065</b>	<b>\$ 279,903</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,331,968</b>	<b>-\$ 6,904</b>	<b>-\$ 5,150</b>	<b>\$ -</b>	<b>-\$ 12,054</b>	
<b>Group 2 Accounts</b>											
Other Regulatory Assets - Sub-Account - OEB Cost Assessments	1508	\$ -				\$ -				\$ -	
Other Regulatory Assets - Sub-Account - Pension Contributions	1508	\$ -				\$ -				\$ -	
Other Regulatory Assets - Sub-Account - Deferred IFRS Transition Costs	1508	\$ 2,328	\$ 41,343			\$ 43,671		\$ 156		\$ 156	
Other Regulatory Assets - Sub-Account - Incremental Capital Charges	1508	\$ 475				\$ 475	\$ 363			\$ 363	
Other Regulatory Assets - Sub-Account - Financial Assistance Payment and Recovery Variance - Ontario Clean Energy Benefit Act <sup>8</sup>	1508	\$ -				\$ -				\$ -	
Other Regulatory Assets - Sub-Account - Financial Assistance Payment and Recovery Carrying Charges	1508	\$ -				\$ -				\$ -	
Other Regulatory Assets - Sub-Account - Other <sup>4</sup>	1508	\$ -				\$ -				\$ -	
Retail Cost Variance Account - Retail	1518	\$ -				\$ -				\$ -	
Misc. Deferred Debits	1525	\$ -				\$ -				\$ -	
Renewable Generation Connection Capital Deferral Account	1531	\$ -			\$ 10,852	\$ 10,852				\$ -	
Renewable Generation Connection OM&A Deferral Account	1532	\$ -			\$ 19,690	\$ 19,690				\$ -	
Renewable Generation Connection Funding Adder Deferral Account	1533	\$ -				\$ -				\$ -	
Smart Grid Capital Deferral Account	1534	\$ -				\$ -				\$ -	
Smart Grid OM&A Deferral Account	1535	\$ 20,963	\$ 17,331			\$ 38,294	\$ 7	\$ 153		\$ 160	
Smart Grid Funding Adder Deferral Account	1536	\$ -				\$ -				\$ -	
Retail Cost Variance Account - STR	1548	\$ -				\$ -				\$ -	
Board-Approved CDM Variance Account	1567	\$ -				\$ -				\$ -	
Extra-Ordinary Event Costs	1572	\$ -				\$ -				\$ -	
Deferred Rate Impact Amounts	1574	-\$ 440,712	-\$ 881,424			-\$ 1,322,136		-\$ 7,267		-\$ 7,267	
RSVA - One-time	1582	\$ -				\$ -				\$ -	
Other Deferred Credits	2425	\$ -				\$ -				\$ -	
<b>Group 2 Sub-Total</b>		-\$ 416,946	-\$ 822,750	\$ -	\$ 30,542	-\$ 1,209,154	\$ 370	-\$ 6,958	\$ -	-\$ 6,588	
Deferred Payments in Lieu of Taxes	1562	\$ -			\$ -	\$ -				\$ -	
PILs and Tax Variance for 2006 and Subsequent Years (excludes sub-account and contra account below)	1592	\$ -				\$ -				\$ -	
PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Input Tax Credits (ITCs)	1592	\$ -				\$ -				\$ -	
<b>Total of Group 1 and Group 2 Accounts (including 1562 and 1592)</b>		-\$ 2,748,738	\$ 634,570	\$ -	\$ 30,542	-\$ 2,083,626	\$ 254,150	-\$ 20,878	\$ -	\$ 233,272	

Account Descriptions	Account Number	2010									
		Opening Principal Amounts as of Jan-1-10	Transactions Debit/(Credit) during 2010 excluding interest and adjustments <sup>3</sup>	Board-Approved Disposition during 2010	Adjustments during 2010 - other <sup>2</sup>	Closing Principal Balance as of Dec-31-10	Opening Interest Amounts as of Jan-1-10	Interest Jan-1 to Dec-31-10	Board-Approved Disposition during 2010	Adjustments during 2010 - other <sup>2</sup>	Closing Interest Amounts as of Dec-31-10
Special Purpose Charge Assessment Variance Account <sup>9</sup>	1521	\$ 378,888	-\$ 232,810		-\$ 138,090	\$ 7,988		\$ 1,718		\$ 1,718	
LRAM Variance Account	1568					\$ -				\$ -	
<b>Total including Account 1521 and Account 1568</b>		-\$ 2,369,850	\$ 401,760	\$ -	-\$ 107,548	-\$ 2,075,638	\$ 254,150	-\$ 19,160	\$ -	\$ 234,990	
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Capital <sup>11</sup>	1555	\$ -	\$ 6,014,205			\$ 6,014,205	-\$ 23,478	\$ 22,418		-\$ 1,060	
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Recoveries <sup>11</sup>	1555	-\$ 518,527	-\$ 1,014,159			-\$ 1,532,686	\$ -			\$ -	
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Stranded Meter Costs <sup>11</sup>	1555	\$ -				\$ -	\$ -			\$ -	
Smart Meter OM&A Variance <sup>11</sup>	1556	\$ 250,417	\$ 236,313			\$ 486,730	\$ 8,189	\$ 2,558		\$ 10,747	
<b>The following is not included in the total claim but are included on a memo basis:</b>											
Deferred PILs Contra Account <sup>5</sup>	1563	\$ -				\$ -	\$ -			\$ -	
IFRS-CGAAP Transition PP&E Amounts <sup>10</sup>	1575	\$ -				\$ -	\$ -			\$ -	
PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Contra Account	1592	\$ -				\$ -	\$ -			\$ -	
Disposition and Recovery of Regulatory Balances <sup>7</sup>	1595	\$ -				\$ -	\$ -			\$ -	

For all Board-Approved dispositions, please ensure that the disposition amount has the same sign (e.g. negative figure) as per the related Board decision.

Provide supporting statement indicating whether due to denial of costs in 2006 EDR by the Board, 10% transition costs will Adjustments Instructed by the Board include deferral/variance account balances moved to Account 1590 as a result of the Please provide explanations for the nature of the adjustments. If the adjustment relates to previously Board Approved dispo For RSVA accounts only, report the net variance to the account during the year. For all other accounts, record the transact Please describe "other" components of 1508 and add more component lines if necessary.

1563 is a contra-account and is not included in the total but is shown on a memo basis. Account 1562 establishes the oblig If the LDC's 2013 rate year begins January 1, 2013, the projected interest is recorded from January 1, 2012 to December 31, 2012. Board in the 2012 rate decision. If the LDC's 2013 rate year begins May 1, 2013 the projected interest is recorded from January 1, 2013 to December 31, 2012. Board in the 2012 rate decision.

Include Account 1595 as part of Group 1 accounts (lines 31, 32 and 33) for review and disposition if the recovery (or refund) balances in Account 1595 on a memo basis only (line 85).

As per the January 6, 2011 Letter from the Board, regarding the implementation of the Ontario Clean Energy Benefit: "By way of exception... The Board does anticipate that licensed distributors that cannot adapt their invoices as of January 1, 2011 balances in "Sub account Financial Assistance Payment and Recovery Variance - Ontario Clean Energy Benefit Act" will be The Board expected that requests for disposition of the balances in Account 1521 were to be addressed as part of the proc non-compliance with the timeline set out in section 8 of the SPC regulation.

Account 1575 shall not be cleared through the distributor's deferral and variance account rate rider. Account 1575 shall be Deferral accounts related to Smart Meter deployment are not to be recovered/refunded through the Deferral and Variance A Guideline: Smart Meter Disposition and Cost Recovery (G-2011-0001)



Deferral/Variance Account  
for 2013

		2011													
Account Descriptions	Account Number	Opening Principal Amounts as of Jan-1-11	Transactions Debit/(Credit) during 2011 excluding interest and adjustments <sup>3</sup>	Board-Approved Disposition during 2011	Other <sup>2</sup> Adjustments during Q1 2011	Other <sup>2</sup> Adjustments during Q2 2011	Other <sup>2</sup> Adjustments during Q3 2011	Other <sup>2</sup> Adjustments during Q4 2011	Closing Principal Balance as of Dec-31-11	Opening Interest Amounts as of Jan-1-11	Interest Jan-1 to Dec-31-11	Board-Approved Disposition during 2011	Adjustments during 2011 - other <sup>2</sup>	Closing Interest Amounts as of Dec-31-11	
<b>Group 1 Accounts</b>															
LV Variance Account	1550	-\$ 262	\$ 15,559						\$ 15,297	\$ 556	-\$ 413			\$ 143	
RSVA - Wholesale Market Service Charge	1580	-\$ 1,725,306	-\$ 1,086,438						-\$ 2,811,744	-\$ 18,313	-\$ 30,943			-\$ 49,256	
RSVA - Retail Transmission Network Charge	1584	\$ 544,394	-\$ 92,081						\$ 452,313	\$ 1,560	\$ 8,913			\$ 10,473	
RSVA - Retail Transmission Connection Charge	1586	\$ 11,306	-\$ 49,199						\$ 60,505	-\$ 113	-\$ 1,056			-\$ 1,169	
RSVA - Power (excluding Global Adjustment)	1588	\$ 126,530	-\$ 359,552						-\$ 233,022	\$ 13,696	\$ 40,309			\$ 54,005	
RSVA - Power - Sub-account - Global Adjustment	1588	\$ 1,331,968	\$ 86,546						\$ 1,418,514	-\$ 12,054	-\$ 15,735			-\$ 27,789	
Recovery of Regulatory Asset Balances	1590	-\$ 107,743							-\$ 107,743	-\$ 2,502	\$ 619			-\$ 1,883	
Disposition and Recovery/Refund of Regulatory Balances (2008) <sup>7</sup>	1595	\$ -							\$ -	\$ -				\$ -	
Disposition and Recovery/Refund of Regulatory Balances (2009) <sup>7</sup>	1595	-\$ 1,055,359	\$ 758,971	\$ -					-\$ 296,388	\$ 257,030	-\$ 6,712	\$ -		\$ 250,318	
Disposition and Recovery/Refund of Regulatory Balances (2010) <sup>7</sup>	1595	\$ -							\$ -	\$ -				\$ -	
<b>Group 1 Sub-Total (including Account 1588 - Global Adjustment)</b>		-\$ 874,472	-\$ 627,796	\$ -	\$ -	\$ -	\$ -	\$ -	-\$ 1,502,268	\$ 239,860	-\$ 5,018	\$ -	\$ -	\$ 234,842	
<b>Group 1 Sub-Total (excluding Account 1588 - Global Adjustment)</b>		-\$ 2,206,440	-\$ 714,342	\$ -	\$ -	\$ -	\$ -	\$ -	-\$ 2,920,782	\$ 251,914	\$ 10,717	\$ -	\$ -	\$ 262,631	
<b>RSVA - Power - Sub-account - Global Adjustment</b>	<b>1588</b>	\$ 1,331,968	\$ 86,546	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,418,514	-\$ 12,054	\$ 15,735	\$ -	\$ -	-\$ 27,789	
<b>Group 2 Accounts</b>															
Other Regulatory Assets - Sub-Account - OEB Cost Assessments	1508	\$ -							\$ -	\$ -				\$ -	
Other Regulatory Assets - Sub-Account - Pension Contributions	1508	\$ -							\$ -	\$ -				\$ -	
Other Regulatory Assets - Sub-Account - Deferred IFRS Transition Costs	1508	\$ 43,671	\$ 38,314						\$ 81,985	\$ 156	\$ 725			\$ 881	
Other Regulatory Assets - Sub-Account - Incremental Capital Charges	1508	\$ 475	\$ 3,383						\$ 3,858	\$ 363	\$ 94			\$ 457	
Other Regulatory Assets - Sub-Account - Financial Assistance Payment and Recovery Variance - Ontario Clean Energy Benefit Act <sup>8</sup>	1508	\$ -							\$ -	\$ -				\$ -	
Other Regulatory Assets - Sub-Account - Financial Assistance Payment and Recovery Carrying Charges	1508	\$ -							\$ -	\$ -				\$ -	
Other Regulatory Assets - Sub-Account - Other <sup>4</sup>	1508	\$ -							\$ -	\$ -				\$ -	
Retail Cost Variance Account - Retail	1518	\$ -							\$ -	\$ -				\$ -	
Misc. Deferred Debits	1525	\$ -							\$ -	\$ -				\$ -	
Renewable Generation Connection Capital Deferral Account	1531	\$ 10,852							\$ 10,852	\$ -				\$ -	
Renewable Generation Connection OM&A Deferral Account	1532	\$ 19,690							\$ 19,690	\$ -				\$ -	
Renewable Generation Connection Funding Adder Deferral Account	1533	\$ -							\$ -	\$ -				\$ -	
Smart Grid Capital Deferral Account	1534	\$ -							\$ -	\$ -				\$ -	
Smart Grid OM&A Deferral Account	1535	\$ 38,294	\$ 8,432						\$ 46,726	\$ 160	\$ 743			\$ 903	
Smart Grid Funding Adder Deferral Account	1536	\$ -							\$ -	\$ -				\$ -	
Retail Cost Variance Account - STR	1548	\$ -							\$ -	\$ -				\$ -	
Board-Approved CDM Variance Account	1567	\$ -							\$ -	\$ -				\$ -	
Extra-Ordinary Event Costs	1572	\$ -							\$ -	\$ -				\$ -	
Deferred Rate Impact Amounts	1574	-\$ 1,322,136	-\$ 871,424						-\$ 2,193,560	-\$ 7,267	-\$ 25,373			-\$ 32,640	
RSVA - One-time	1582	\$ -							\$ -	\$ -				\$ -	
Other Deferred Credits	2425	\$ -							\$ -	\$ -				\$ -	
<b>Group 2 Sub-Total</b>		-\$ 1,209,154	-\$ 821,295	\$ -	\$ -	\$ -	\$ -	\$ -	-\$ 2,030,449	-\$ 6,588	-\$ 23,811	\$ -	\$ -	-\$ 30,399	
Deferred Payments in Lieu of Taxes	1562	\$ -						-\$ 219,257	\$ 219,257	\$ -	\$ 64,116			\$ 64,116	
PILs and Tax Variance for 2006 and Subsequent Years (excludes sub-account and contra account below)	1592	\$ -							\$ -	\$ -				\$ -	
PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Input Tax Credits (ITCs)	1592	\$ -							\$ -	\$ -				\$ -	
<b>Total of Group 1 and Group 2 Accounts (including 1562 and 1592)</b>		-\$ 2,083,626	-\$ 1,449,091	\$ -	\$ -	\$ -	\$ -	-\$ 219,257	-\$ 3,751,974	\$ 233,272	\$ 35,287	\$ -	\$ -	\$ 268,559	

		2011												
Account Descriptions	Account Number	Opening Principal Amounts as of Jan-1-11	Transactions Debit/(Credit) during 2011 excluding interest and adjustments <sup>3</sup>	Board-Approved Disposition during 2011	Other <sup>2</sup> Adjustments during Q1 2011	Other <sup>2</sup> Adjustments during Q2 2011	Other <sup>2</sup> Adjustments during Q3 2011	Other <sup>2</sup> Adjustments during Q4 2011	Closing Principal Balance as of Dec-31-11	Opening Interest Amounts as of Jan-1-11	Interest Jan-1 to Dec-31-11	Board-Approved Disposition during 2011	Adjustments during 2011 - other <sup>2</sup>	Closing Interest Amounts as of Dec-31-11
Special Purpose Charge Assessment Variance Account <sup>9</sup>	1521	\$ 7,988							\$ 7,988	\$ 1,718	\$ 157			\$ 1,875
LRAM Variance Account	1568	\$ -							\$ -	\$ -				\$ -
<b>Total including Account 1521 and Account 1568</b>		-\$ 2,075,638	\$ 1,449,091	\$ -	\$ -	\$ -	\$ -	\$ 219,257	-\$ 3,743,986	\$ 234,990	\$ 35,444	\$ -	\$ -	\$ 270,434
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Capital <sup>11</sup>	1555	\$ 6,014,205	\$ 767,424						\$ 6,781,629	-\$ 1,060	\$ 40,535			\$ 39,475
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Recoveries <sup>11</sup>	1555	-\$ 1,532,686	-\$ 1,099,644						-\$ 2,632,330	\$ -				\$ -
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Stranded Meter Costs <sup>11</sup>	1555	\$ -							\$ -	\$ -				\$ -
Smart Meter OM&A Variance <sup>11</sup>	1556	\$ 486,730	\$ 350,353						\$ 837,083	\$ 10,747	\$ 8,616			\$ 19,363
<b>The following is not included in the total claim but are included on a memo basis:</b>														
Deferred PILs Contra Account <sup>5</sup>	1563	\$ -							\$ -	\$ -				\$ -
IFRS-CGAAP Transition PP&E Amounts <sup>10</sup>	1575	\$ -							\$ -	\$ -				\$ -
PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Contra Account	1592	\$ -							\$ -	\$ -				\$ -
Disposition and Recovery of Regulatory Balances <sup>7</sup>	1595	\$ -							\$ -	\$ -				\$ -
									\$ -	\$ -				\$ -

For all Board-Approved dispositions, please ensure that the disposition amount has the same sign (e.g. negative figure) as per the related Board decision.

Provide supporting statement indicating whether due to denial of costs in 2006 EDR by the Board, 10% transition costs with Adjustments Instructed by the Board include deferral/variance account balances moved to Account 1590 as a result of the Please provide explanations for the nature of the adjustments. If the adjustment relates to previously Board Approved disposition For RSVA accounts only, report the net variance to the account during the year. For all other accounts, record the transaction Please describe "other" components of 1508 and add more component lines if necessary.

1563 is a contra-account and is not included in the total but is shown on a memo basis. Account 1562 establishes the obligation If the LDC's 2013 rate year begins January 1, 2013, the projected interest is recorded from January 1, 2012 to December 31, 2012 Board in the 2012 rate decision. If the LDC's 2013 rate year begins May 1, 2013 the projected interest is recorded from January 1, 2013 balances approved by the Board in the 2012 rate decision.

Include Account 1595 as part of Group 1 accounts (lines 31, 32 and 33) for review and disposition if the recovery (or refund) balances in Account 1595 on a memo basis only (line 85).

As per the January 6, 2011 Letter from the Board, regarding the implementation of the Ontario Clean Energy Benefit: "By way of exception... The Board does anticipate that licensed distributors that cannot adapt their invoices as of January 1, 2011 balances in "Sub account Financial Assistance Payment and Recovery Variance - Ontario Clean Energy Benefit Act" will be The Board expected that requests for disposition of the balances in Account 1521 were to be addressed as part of the process non-compliance with the timeline set out in section 8 of the SPC regulation.

Account 1575 shall not be cleared through the distributor's deferral and variance account rate rider. Account 1575 shall be Deferral accounts related to Smart Meter deployment are not to be recovered/refunded through the Deferral and Variance A Guideline: Smart Meter Disposition and Cost Recovery (G-2011-0001)



## Deferral/Variance Account for 2013

Account Descriptions	Account Number	2012				Projected Interest on Dec-31-11 Balances			2.1.7 RRR	Variance RRR vs. 2011 Balance (Principal + Interest)
		Principal Disposition during 2012 - instructed by Board	Interest Disposition during 2012 - instructed by Board	Closing Principal Balances as of Dec 31-11 Adjusted for Dispositions during 2012	Closing Interest Balances as of Dec 31-11 Adjusted for Dispositions during 2012	Projected Interest from Jan 1, 2012 to December 31, 2012 on Dec 31 -11 balance adjusted for disposition during 2012 *	Projected Interest from January 1, 2013 to April 30, 2013 on Dec 31 -11 balance adjusted for disposition during 2012 *	Total Claim	As of Dec 31-11	
<b>Group 1 Accounts</b>										
LV Variance Account	1550			\$ 15,297	\$ 143	\$ 225	\$ 75	\$ 15,740	\$ 15,440	\$ -
RSVA - Wholesale Market Service Charge	1580			-\$ 2,811,744	-\$ 49,256	-\$ 41,333	-\$ 13,778	2,916,111	-\$ 2,861,000	\$ -
RSVA - Retail Transmission Network Charge	1584			\$ 452,313	\$ 10,473	\$ 6,649	\$ 2,216	471,651	\$ 462,786	\$ -
RSVA - Retail Transmission Connection Charge	1586			\$ 60,505	\$ 1,169	\$ 889	\$ 296	60,522	\$ 59,336	\$ -
RSVA - Power (excluding Global Adjustment)	1588			-\$ 233,022	-\$ 54,005	-\$ 3,425	-\$ 1,142	183,584	-\$ 179,017	\$ -
RSVA - Power - Sub-account - Global Adjustment	1588			\$ 1,418,514	-\$ 27,789	\$ 20,852	\$ 6,951	1,418,528	\$ 1,390,725	\$ -
Recovery of Regulatory Asset Balances	1590			-\$ 107,743	-\$ 1,883	-\$ 1,584	-\$ 528	111,738	-\$ 428,073	\$ 318,447
Disposition and Recovery/Refund of Regulatory Balances (2008) <sup>7</sup>	1595			\$ -	\$ -	\$ -	\$ -	-	\$ -	\$ -
Disposition and Recovery/Refund of Regulatory Balances (2009) <sup>7</sup>	1595			-\$ 296,388	\$ 250,318	-\$ 4,357	-\$ 1,452	51,879	\$ 272,378	\$ 318,448
Disposition and Recovery/Refund of Regulatory Balances (2010) <sup>7</sup>	1595			\$ -	\$ -	\$ -	\$ -	-	\$ -	\$ -
<b>Group 1 Sub-Total (including Account 1588 - Global Adjustment)</b>		\$ -	\$ -	-\$ 1,502,268	\$ 234,842	-\$ 22,083	-\$ 7,361	1,296,870	\$ 1,267,425	\$ 1
<b>Group 1 Sub-Total (excluding Account 1588 - Global Adjustment)</b>		\$ -	\$ -	-\$ 2,920,782	\$ 262,631	-\$ 42,935	-\$ 14,312	2,715,398	\$ 2,658,150	\$ 1
<b>RSVA - Power - Sub-account - Global Adjustment</b>	<b>1588</b>	\$ -	\$ -	\$ 1,418,514	-\$ 27,789	\$ 20,852	\$ 6,951	1,418,528	\$ 1,390,725	\$ -
<b>Group 2 Accounts</b>										
Other Regulatory Assets - Sub-Account - OEB Cost Assessments	1508			\$ -	\$ -	\$ -	\$ -	-	\$ -	\$ -
Other Regulatory Assets - Sub-Account - Pension Contributions	1508			\$ -	\$ -	\$ -	\$ -	-	\$ -	\$ -
Other Regulatory Assets - Sub-Account - Deferred IFRS Transition Costs	1508	-\$ 43,934		\$ 125,919	\$ 881	\$ 1,493	\$ 617	128,910	\$ 82,866	\$ -
Other Regulatory Assets - Sub-Account - Incremental Capital Charges	1508			\$ 3,858	\$ 457	\$ 57	\$ 19	4,391	\$ 4,315	\$ -
Other Regulatory Assets - Sub-Account - Financial Assistance Payment and Recovery Variance - Ontario Clean Energy Benefit Act <sup>8</sup>	1508			\$ -	\$ -	\$ -	\$ -	-	\$ -	\$ -
Other Regulatory Assets - Sub-Account - Financial Assistance Payment and Recovery Carrying Charges	1508			\$ -	\$ -	\$ -	\$ -	-	\$ -	\$ -
Other Regulatory Assets - Sub-Account - Other <sup>4</sup>	1508			\$ -	\$ -	\$ -	\$ -	-	\$ -	\$ -
Retail Cost Variance Account - Retail	1518			\$ -	\$ -	\$ -	\$ -	-	\$ -	\$ -
Misc. Deferred Debits	1525			\$ -	\$ -	\$ -	\$ -	-	\$ 1,582	\$ 1,582
Renewable Generation Connection Capital Deferral Account	1531			\$ 10,852	\$ -	\$ 160	\$ 53	11,065	\$ 10,852	\$ -
Renewable Generation Connection OM&A Deferral Account	1532			\$ 19,690	\$ -	\$ 289	\$ 96	20,076	\$ 19,690	\$ -
Renewable Generation Connection Funding Adder Deferral Account	1533			\$ -	\$ -	\$ -	\$ -	-	\$ -	\$ -
Smart Grid Capital Deferral Account	1534			\$ -	\$ -	\$ -	\$ -	-	\$ -	\$ -
Smart Grid OM&A Deferral Account	1535			\$ 46,726	\$ 903	\$ 687	\$ 229	48,545	\$ 47,629	\$ -
Smart Grid Funding Adder Deferral Account	1536			\$ -	\$ -	\$ -	\$ -	-	\$ -	\$ -
Retail Cost Variance Account - STR	1548			\$ -	\$ -	\$ -	\$ -	-	\$ -	\$ -
Board-Approved CDM Variance Account	1567			\$ -	\$ -	\$ -	\$ -	-	\$ -	\$ -
Extra-Ordinary Event Costs	1572			\$ -	\$ -	\$ -	\$ -	-	\$ -	\$ -
Deferred Rate Impact Amounts	1574	-\$ 842,450	-\$ 32,968	\$ 1,351,110	\$ 328	\$ 19,861	-\$ 6,620	1,377,264	\$ 2,226,200	\$ -
RSVA - One-time	1582			\$ -	\$ -	\$ -	\$ -	-	\$ -	\$ -
Other Deferred Credits	2425			\$ -	\$ -	\$ -	\$ -	-	\$ -	\$ -
<b>Group 2 Sub-Total</b>		-\$ 886,384	-\$ 32,968	-\$ 1,144,066	\$ 2,569	-\$ 17,176	-\$ 5,606	1,164,278	-\$ 2,059,267	\$ 1,582
Deferred Payments in Lieu of Taxes	1562	-\$ 219,257	\$ 63,041	\$ -	\$ 1,074	-\$ 1,074	\$ -	0	-\$ 134,182	\$ 20,959
PILs and Tax Variance for 2006 and Subsequent Years (excludes sub-account and contra account below)	1592	\$ 119,542	\$ 7,087	-\$ 119,542	-\$ 7,087	-\$ 1,757	-\$ 586	128,971	\$ -	\$ -
PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Input Tax Credits (ITCs)	1592	\$ 125,135	\$ 783	-\$ 125,135	-\$ 783	-\$ 1,332	-\$ 586	127,837	\$ -	\$ -
<b>Total of Group 1 and Group 2 Accounts (including 1562 and 1592)</b>		-\$ 860,964	\$ 37,943	-\$ 2,891,010	\$ 230,616	-\$ 43,423	-\$ 14,139	2,717,956	-\$ 3,460,874	\$ 22,542

362.5 is in here but now written off

1,582 written off in 2012 - assumed 2011 writeoff - n

adj in 2012 to balance - revised rate order - bo

Account Descriptions	Account Number	2012				Projected Interest on Dec-31-11 Balances			2.1.7 RRR	Variance RRR vs. 2011 Balance (Principal + Interest)
		Principal Disposition during 2012 - instructed by Board	Interest Disposition during 2012 - instructed by Board	Closing Principal Balances as of Dec 31-11 Adjusted for Dispositions during 2012	Closing Interest Balances as of Dec 31-11 Adjusted for Dispositions during 2012	Projected Interest from Jan 1, 2012 to December 31, 2012 on Dec 31 -11 balance adjusted for disposition during 2012 <sup>6</sup>	Projected Interest from January 1, 2013 to April 30, 2013 on Dec 31 -11 balance adjusted for disposition during 2012 <sup>6</sup>	Total Claim	As of Dec 31-11	
Special Purpose Charge Assessment Variance Account <sup>8</sup>	1521	\$ 7,988	\$ 1,875	\$ -	\$ -			\$ -	\$ 10,596	\$ 733
LRAM Variance Account	1568	-\$ 91,401	-\$ 2,068	\$ 91,401	\$ 2,068		\$ 448	\$ 93,917		\$ -
<b>Total including Account 1521 and Account 1568</b>		-\$ 944,377	\$ 37,750	-\$ 2,799,609	\$ 232,684	-\$ 43,423	-\$ 13,691	-\$ 2,624,039	-\$ 3,450,278	\$ 23,274
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Capital <sup>11</sup>	1555			\$ 6,781,629	\$ 39,475			\$ 6,821,103	\$ 6,821,103	\$ -
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Recoveries <sup>11</sup>	1555			-\$ 2,632,330	\$ -	-\$ 38,695	-\$ 12,898	-\$ 2,683,924	-\$ 2,632,330	\$ -
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Stranded Meter Costs <sup>11</sup>	1555	-\$ 1,193,861		\$ 1,193,861	\$ -	\$ -	\$ -	\$ 1,193,861		\$ -
Smart Meter OM&A Variance <sup>11</sup>	1556			\$ 837,083	\$ 19,363	\$ 12,305	\$ 4,102	\$ 872,853	\$ 856,446	\$ -
<b>The following is not included in the total claim but are included on a memo basis:</b>										
Deferred PILs Contra Account <sup>5</sup>	1563			\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,413	\$ 7,413
IFRS-CGAAP Transition PP&E Amounts <sup>10</sup>	1575			\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Contra Account	1592	-\$ 125,135	-\$ 783	\$ 125,135	\$ 783	\$ 1,332	\$ 586	\$ 127,837		\$ -
Disposition and Recovery of Regulatory Balances <sup>7</sup>	1595	-\$ 7,988	-\$ 1,875	\$ 7,988	\$ 1,875			\$ 9,863		\$ -
				\$ -	\$ -			\$ -		\$ -

For all Board-Approved dispositions, please ensure that the disposition amount has the same sign (e.g. negative figure) as per the related Board decision.

Provide supporting statement indicating whether due to denial of costs in 2006 EDR by the Board, 10% transition costs will Adjustments Instructed by the Board include deferral/variance account balances moved to Account 1590 as a result of the Please provide explanations for the nature of the adjustments. If the adjustment relates to previously Board Approved dispo For RSVA accounts only, report the net variance to the account during the year. For all other accounts, record the transact Please describe "other" components of 1508 and add more component lines if necessary.

1563 is a contra-account and is not included in the total but is shown on a memo basis. Account 1562 establishes the oblig If the LDC's 2013 rate year begins January 1, 2013, the projected interest is recorded from January 1, 2012 to December 3 Board in the 2012 rate decision. If the LDC's 2013 rate year begins May 1, 2013 the projected interest is recorded from Ja balances approved by the Board in the 2012 rate decision.

Include Account 1595 as part of Group 1 accounts (lines 31, 32 and 33) for review and disposition if the recovery (or refund balances in Account 1595 on a memo basis only (line 85).

As per the January 6, 2011 Letter from the Board, regarding the implementation of the Ontario Clean Energy Benefit: "By way of exception... The Board does anticipate that licensed distributors that cannot adapt their invoices as of January 1 balances in "Sub account Financial Assistance Payment and Recovery Variance - Ontario Clean Energy Benefit Act" will be The Board expected that requests for disposition of the balances in Account 1521 were to be addressed as part of the proc non-compliance with the timeline set out in section 8 of the SPC regulation.

Account 1575 shall not be cleared through the distributor's deferral and variance account rate rider. Account 1575 shall be Deferral accounts related to Smart Meter deployment are not to be recovered/refunded through the Deferral and Variance A Guideline: Smart Meter Disposition and Cost Recovery (G-2011-0001)



## Deferral/Variance Accounts for 2013

Account Descriptions	Account Number
<b>Group 1 Accounts</b>	
LV Variance Account	1550
RSVA - Wholesale Market Service Charge	1580
RSVA - Retail Transmission Network Charge	1584
RSVA - Retail Transmission Connection Charge	1586
RSVA - Power (excluding Global Adjustment)	1588
RSVA - Power - Sub-account - Global Adjustment	1588
Recovery of Regulatory Asset Balances	1590
Disposition and Recovery/Refund of Regulatory Balances (2008) <sup>7</sup>	1595
Disposition and Recovery/Refund of Regulatory Balances (2009) <sup>7</sup>	1595
Disposition and Recovery/Refund of Regulatory Balances (2010) <sup>7</sup>	1595
<b>Group 1 Sub-Total (including Account 1588 - Global Adjustment)</b>	
<b>Group 1 Sub-Total (excluding Account 1588 - Global Adjustment)</b>	
<b>RSVA - Power - Sub-account - Global Adjustment</b>	<b>1588</b>
<b>Group 2 Accounts</b>	
Other Regulatory Assets - Sub-Account - OEB Cost Assessments	1508
Other Regulatory Assets - Sub-Account - Pension Contributions	1508
Other Regulatory Assets - Sub-Account - Deferred IFRS Transition Costs	1508
Other Regulatory Assets - Sub-Account - Incremental Capital Charges	1508
Other Regulatory Assets - Sub-Account - Financial Assistance Payment and Recovery Variance - Ontario Clean Energy Benefit Act <sup>8</sup>	1508
Other Regulatory Assets - Sub-Account - Financial Assistance Payment and Recovery Carrying Charges	1508
Other Regulatory Assets - Sub-Account - Other <sup>4</sup>	1508
Retail Cost Variance Account - Retail	1518
Misc. Deferred Debits	1525 <sup>o claim</sup>
Renewable Generation Connection Capital Deferral Account	1531
Renewable Generation Connection OM&A Deferral Account	1532
Renewable Generation Connection Funding Adder Deferral Account	1533
Smart Grid Capital Deferral Account	1534
Smart Grid OM&A Deferral Account	1535
Smart Grid Funding Adder Deferral Account	1536
Retail Cost Variance Account - STR	1548
Board-Approved CDM Variance Account	1567
Extra-Ordinary Event Costs	1572
Deferred Rate Impact Amounts	1574
RSVA - One-time	1582
Other Deferred Credits	2425
<b>Group 2 Sub-Total</b>	
Deferred Payments in Lieu of Taxes	1562 <sup>oked in 2012</sup>
PILs and Tax Variance for 2006 and Subsequent Years (excludes sub-account and contra account below)	1592
PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Input Tax Credits (ITCs)	1592
<b>Total of Group 1 and Group 2 Accounts (including 1562 and 1592)</b>	



Account Descriptions	Account Number
----------------------	----------------

Special Purpose Charge Assessment Variance Account <sup>9</sup>	1521
LRAM Variance Account	1568

**Total including Account 1521 and Account 1568**

Smart Meter Capital and Recovery Offset Variance - Sub-Account - Capital <sup>11</sup>	1555
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Recoveries <sup>11</sup>	1555
Smart Meter Capital and Recovery Offset Variance - Sub-Account - Stranded Meter Costs <sup>11</sup>	1555
Smart Meter OM&A Variance <sup>11</sup>	1556

**The following is not included in the total claim but are included on a memo basis:**

Deferred PILs Contra Account <sup>5</sup>	1563
IFRS-CGAAP Transition PP&E Amounts <sup>10</sup>	1575
PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Contra Account	1592
Disposition and Recovery of Regulatory Balances <sup>7</sup>	1595

**For all Board-Approved dispositions, please ensure that the disposition amount has the same sign (e.g. negative figure) as per the related Board decision.**

Provide supporting statement indicating whether due to denial of costs in 2006 EDR by the Board, 10% transition costs with Adjustments Instructed by the Board include deferral/variance account balances moved to Account 1590 as a result of the Board's decision. Please provide explanations for the nature of the adjustments. If the adjustment relates to previously Board Approved dispositions, please provide a brief description of the adjustment. For RSVAs, please provide a brief description of the adjustment. For RSVAs only, report the net variance to the account during the year. For all other accounts, record the transaction as a credit to the account. Please describe "other" components of 1508 and add more component lines if necessary.

1563 is a contra-account and is not included in the total but is shown on a memo basis. Account 1562 establishes the obligation for the LDC's 2013 rate year begins January 1, 2013, the projected interest is recorded from January 1, 2012 to December 31, 2012. Board in the 2012 rate decision. If the LDC's 2013 rate year begins May 1, 2013 the projected interest is recorded from January 1, 2013 to December 31, 2013. Balances approved by the Board in the 2012 rate decision.

Include Account 1595 as part of Group 1 accounts (lines 31, 32 and 33) for review and disposition if the recovery (or refund) balances in Account 1595 on a memo basis only (line 85).

As per the January 6, 2011 Letter from the Board, regarding the implementation of the Ontario Clean Energy Benefit: "By way of exception... The Board does anticipate that licensed distributors that cannot adapt their invoices as of January 1, 2011 balances in "Sub account Financial Assistance Payment and Recovery Variance - Ontario Clean Energy Benefit Act" will be cleared through the distributor's deferral and variance account rate rider. The Board expected that requests for disposition of the balances in Account 1521 were to be addressed as part of the process for non-compliance with the timeline set out in section 8 of the SPC regulation.

Account 1575 shall not be cleared through the distributor's deferral and variance account rate rider. Account 1575 shall be cleared through the distributor's deferral and variance account rate rider. Deferral accounts related to Smart Meter deployment are not to be recovered/refunded through the Deferral and Variance A Guideline: Smart Meter Disposition and Cost Recovery (G-2011-0001)



## Deferral/Variance Account Workform for 2013 Filers

Accounts that produced a variance on the 2013 continuity schedule are listed below.  
Please provide a detailed explanation for each variance below.

Account Descriptions	Account Number	Variance RRR vs. 2011 Balance (Principal + Interest)	Explanation
<b>Group 1 Accounts</b>			
Recovery of Regulatory Asset Balances	1590	\$ (318,447.00)	RRR filing incorrect account groupings, see net effect in difference in 1595
Disposition and Recovery/Refund of Regulatory Balances (2009) <sup>7</sup>	1595	\$ 318,447.66	see above offset
Disposition and Recovery/Refund of Regulatory Balances (2010) <sup>7</sup>	1595	\$ 318,447.66	should not be pulling - cell problem - 2009 is correct
<b>Group 2 Accounts</b>			
Misc. Deferred Debits	1525	\$ 1,581.51	OEB order to write off - actual balance in 2011 but we were allowed to flow thru 2nd quarter 2012 - no claim
Deferred Payments in Lieu of Taxes	1562	\$ 20,959.45	Revision to 2012 IRM filing disposition of balances - entry to agree to approved balances was booked in 2012 but for filing purposes assumed balance was as of December 31, 2011 - full balance written off to account 1595 in 2012 as per Order
Special Purpose Charge Assessment Variance Account <sup>9</sup>	1521	\$ 732.74	Difference between approved balance of \$9,863 and account balance
Deferred PILs Contra Account <sup>5</sup>	1563	\$ 7,413.32	Carrying charges should have been reversed. See correction to account 1562 above - part of correction



## Deferral/Variance Account Workform for 2013 Filers

In the green shaded cells, enter the most recent Board Approved volumetric forecast. If there is a material difference between the latest Board-approved volumetric forecast and the most recent 12-month actual volumetric data, use the most recent 12-month actual data. Do not enter data for the MicroFit class.

Rate Class (Enter Rate Classes in cells below)	Units	# of Customers	Metered kWh	Metered kW	Billed kWh for Non-RPP Customers	Estimated kW for Non-RPP Customers	Distribution Revenue <sup>1</sup>	1590 Recovery Share Proportion	1595 Recovery Share Proportion (2008) <sup>2</sup>	1595 Recovery Share Proportion (2009) <sup>2</sup>	1595 Recovery Share Proportion (2010) <sup>2</sup>	1568 LRAM Variance Account Class Allocation (\$ amounts)
Residential Service	kWh	42,279	397,644,877		49,085,578	-	\$ 12,903,869	48.68%		48.68%		
General Service Less than 50kW	kWh	3,940	143,218,155		20,259,865	-	\$ 4,062,188	16.05%		16.05%		
General Service 50 to 4,999 kW	kW	529	382,967,078	957,195	104,441,360	261,043	\$ 4,603,990	34.40%		34.40%		
Unmetered Scattered Load	kWh	352	2,310,407		2,400	-	\$ 58,437	0.18%		0.18%		
Sentinel Lighting	kWh	436	467,079	1,287	12,100	33	\$ 32,953	0.08%		0.08%		
Streetlighting	kW	9,566	8,647,174	24,155	-	-	\$ 608,799	0.61%		0.61%		
<b>Total</b>		<b>57,102</b>	<b>935,254,770</b>	<b>982,637</b>	<b>173,801,303</b>	<b>261,076</b>	<b>\$ 22,270,236</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>	<b>0%</b>	<b>\$ -</b>

Balance as per Sheet 2    \$    93,917  
Variance                    \$    93,917

<sup>1</sup> For Account 1562, the allocation to customer classes should be performed on the basis of the test year distribution revenue allocation to customer classes found in the Applicant's Cost of Service application that was most recently approved at the time of disposition of the 1562 account balances

<sup>2</sup> Residual Account balance to be allocated to rate classes in proportion to the recovery share as established when rate riders were implemented.

Used 2011 actual data as load significantly lower than the 2009 approved forecast of 976,124,612 kWh sales and 1,038,180 of connected load



## Deferral/Variance Account Workform for 2013 Filers

		Amounts from Sheet 2	Allocator	Residential Service	General Service Less than 50kW	General Service 50 to 4,999 kW	Unmetered Scattered Load	Sentinel Lighting	Streetlighting
LV Variance Account	1550	15,740	kWh	6,692	2,410	6,445	39	8	146
RSVA - Wholesale Market Service Charge	1580	(2,916,111)	kWh	(1,239,851)	(446,552)	(1,194,086)	(7,204)	(1,456)	(26,962)
RSVA - Retail Transmission Network Charge	1584	471,651	kWh	200,533	72,225	193,131	1,165	236	4,361
RSVA - Retail Transmission Connection Charge	1586	60,522	kWh	25,732	9,268	24,783	150	30	560
RSVA - Power (excluding Global Adjustment)	1588	(183,584)	kWh	(78,055)	(28,113)	(75,174)	(454)	(92)	(1,697)
RSVA - Power - Sub-account - Global Adjustment	1588	1,418,528	Non-RPP kWh	400,626	165,357	852,427	20	99	0
Recovery of Regulatory Asset Balances	1590	(111,738)	kWh	(47,508)	(17,111)	(45,754)	(276)	(56)	(1,033)
Disposition and Recovery/Refund of Regulatory Balances (2008)	1595	0	kWh	0	0	0	0	0	0
Disposition and Recovery/Refund of Regulatory Balances (2009)	1595	(51,879)	kWh	(22,057)	(7,944)	(21,243)	(128)	(26)	(480)
Disposition and Recovery/Refund of Regulatory Balances (2010)	1595	0	kWh	0	0	0	0	0	0
<b>Total of Group 1 Accounts (excluding 1588 sub-account)</b>		<b>(2,715,398)</b>		<b>(1,154,513)</b>	<b>(415,816)</b>	<b>(1,111,898)</b>	<b>(6,708)</b>	<b>(1,356)</b>	<b>(25,106)</b>
Other Regulatory Assets - Sub-Account - OEB Cost Assessments	1508	0		0	0	0	0	0	0
Other Regulatory Assets - Sub-Account - Pension Contributions	1508	0		0	0	0	0	0	0
Other Regulatory Assets - Sub-Account - Deferred IFRS Transition Costs	1508	128,910		95,446	8,895	1,194	795	984	21,596
Other Regulatory Assets - Sub-Account - Incremental Capital Charges	1508	4,391		3,251	303	41	27	34	736
Other Regulatory Assets - Sub-Account - Financial Assistance Payment and Recovery Variance - Ontario Clean Energy Benefit Act	1508	0		0	0	0	0	0	0
Other Regulatory Assets - Sub-Account - Financial Assistance Payment and Recovery Carving Charges	1508	0		0	0	0	0	0	0
Other Regulatory Assets - Sub-Account - Other	1508	0		0	0	0	0	0	0
Retail Cost Variance Account - Retail	1518	0		0	0	0	0	0	0
Misc. Deferred Debits	1525	0		0	0	0	0	0	0
Renewable Generation Connection Capital Deferral Account	1531	11,065		8,192	763	103	68	84	1,854
Renewable Generation Connection OM&A Deferral Account	1532	20,076		14,864	1,385	186	124	153	3,363
Renewable Generation Connection Funding Adder Deferral Account	1533	0		0	0	0	0	0	0
Smart Grid Capital Deferral Account	1534	0		0	0	0	0	0	0
Smart Grid OM&A Deferral Account	1535	48,545		35,943	3,350	450	299	371	8,132
Smart Grid Funding Adder Deferral Account	1536	0		0	0	0	0	0	0
Retail Cost Variance Account - STR	1548	0		0	0	0	0	0	0
Board-Approved CDM Variance Account	1567	0		0	0	0	0	0	0
Extra-Ordinary Event Costs	1572	0		0	0	0	0	0	0
Deferred Rate Impact Amounts	1574	(1,377,264)		(1,019,743)	(95,030)	(12,759)	(8,490)	(10,516)	(230,726)
RSVA - One-time	1582	0		0	0	0	0	0	0
Other Deferred Credits	2425	0		0	0	0	0	0	0
<b>Total of Group 2 Accounts</b>		<b>(1,164,278)</b>		<b>(862,045)</b>	<b>(80,334)</b>	<b>(10,786)</b>	<b>(7,177)</b>	<b>(8,890)</b>	<b>(195,045)</b>
Deferred Payments in Lieu of Taxes	1562	0		0	0	0	0	0	0
PILs and Tax Variance for 2006 and Subsequent Years (excludes sub-account and contra account)	1592	(128,971)		(95,492)	(8,899)	(1,195)	(795)	(985)	(21,606)
PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Input Tax Credits (ITCs)	1592	(127,837)		(94,652)	(8,821)	(1,184)	(788)	(976)	(21,416)
<b>Total of Account 1562 and Account 1592</b>		<b>(256,808)</b>		<b>(190,144)</b>	<b>(17,720)</b>	<b>(2,379)</b>	<b>(1,583)</b>	<b>(1,961)</b>	<b>(43,022)</b>
Special Purpose Charge Assessment Variance Account	1521	0		0	0	0	0	0	0
LRAM Variance Account (Enter dollar amount for each class)	1568	93,918		27,772	58,328	7,818	0	0	0
(Account 1568 - total amount allocated to classes)		93,918							
Variance		(1)							
<b>Total Balance Allocated to each class (excluding 1588 sub-account)</b>		<b>(4,042,566)</b>		<b>(2,178,930)</b>	<b>(455,542)</b>	<b>(1,117,245)</b>	<b>(15,468)</b>	<b>(12,207)</b>	<b>(263,173)</b>
<b>Total Balance in Account 1588 - sub account</b>		<b>1,418,528</b>		<b>400,626</b>	<b>165,357</b>	<b>852,427</b>	<b>20</b>	<b>99</b>	<b>0</b>
<b>Total Balance Allocated to each class (including 1588 sub-account)</b>		<b>(2,624,038)</b>		<b>(1,778,305)</b>	<b>(290,186)</b>	<b>(264,818)</b>	<b>(15,449)</b>	<b>(12,108)</b>	<b>(263,173)</b>



## Deferral/Variance Account Workform for 2013 Filers

Please indicate the Rate Rider Recovery Period (in years)

### Rate Rider Calculation for Deferral / Variance Accounts Balances (excluding Global Adj.)

Rate Class (Enter Rate Classes in cells below)	Units	kW / kWh / # of Customers	Allocated Balance (excluding 1588 sub-account)	Rate Rider for Deferral/Variance Accounts	
Residential Service	kWh	397,644,877	-\$ 2,178,930	- 0.0014	\$/kWh
General Service Less than 50kW	kWh	143,218,155	-\$ 455,542	- 0.0008	\$/kWh
General Service 50 to 4,999 kW	<b>kW</b>	957,195	-\$ 1,117,245	- 0.2918	<b>\$/kW</b>
Unmetered Scattered Load	kWh	2,310,407	-\$ 15,468	- 0.0017	\$/kWh
Sentinel Lighting	kWh	467,079	-\$ 12,207	- 0.0065	\$/kWh
Streetlighting	<b>kW</b>	24,155	-\$ 263,173	- 2.7239	<b>\$/kW</b>
<b>Total</b>			<b>-\$ 4,042,566</b>		

### Rate Rider Calculation for RSVA - Power - Sub-account - Global Adjustment

Rate Class (Enter Rate Classes in cells below)	Units	kW / kWh / # of Customers	Balance of RSVA - Power - Sub-	Rate Rider for RSVA - Power -	
Residential Service	kWh	49,085,578	\$ 400,626	0.0020	\$/kWh
General Service Less than 50kW	kWh	20,259,865	\$ 165,357	0.0020	\$/kWh
General Service 50 to 4,999 kW	<b>kW</b>	261,043	\$ 852,427	0.8164	<b>\$/kW</b>
Unmetered Scattered Load	kWh	2,400	\$ 20	0.0020	\$/kWh
Sentinel Lighting	kWh	12,100	\$ 99	0.0020	\$/kWh
Streetlighting	<b>kW</b>	-	\$ -	-	<b>\$/kW</b>
<b>Total</b>			<b>\$ 1,418,528</b>		

Exhibit 9: Deferral And Variance Accounts

---

**Tab 2 (of 4): IFRS Transition**



1 The total 'salaries, wages and benefits' is \$17,195, which includes costs of \$16,414 and  
2 carrying charges of \$781. These costs relate to an accountant hired, on a contract  
3 basis, as mentioned above and a staff members overtime spent on capital asset  
4 componentization. These costs would not have been incurred if GSHi was not required  
5 to transition to IFRS.

6 The total 'associated staff training and development' is \$6,650 which includes costs of  
7 \$6,547 and carrying charges of \$103. These costs relate to various seminars and  
8 courses attended in relation to IFRS. These costs would not have been incurred if there  
9 was no requirement to transition to IFRS.

10 Therefore, the total charges amount to \$125,919, plus \$2,991 of total carrying charges to  
11 April 30, 2013. The total of \$128,910 recoverable from ratepayers is included for review  
12 and final disposition for this sub-account in this rate application.

13 GSHi confirms that there are no capital costs, ongoing IFRS compliance costs or  
14 impacts arising from adopting accounting policy changes recorded in the Deferred IFRS  
15 Transition Costs Account or IFRS Transition Costs Variance Account.

16 If the Board requires the settlement of this Sub-Account to be based on audited amounts  
17 only (2012 has not yet been audited), then GSHi is requesting that this Sub-Account be  
18 submitted for review and disposition during our 2014 IRM rate application, versus waiting  
19 until the 2017 COS rate application.

20

21



File Number: EB-2012-0126  
 Exhibit: 9  
 Tab: 2  
 Schedule: 1  
 Attachment: 1  
 Date: 9 November 2012

**Appendix 2-U  
 One-Time Incremental IFRS Transition Costs**

The following table should be completed based on the information requested below. An explanation should be provided for any blank entries. The entries should include one-time incremental IFRS transition costs that are currently included in Account 1508, Other Regulatory Assets, sub-account Deferred IFRS Transition Costs Account, or Account 1508, Other Regulatory Assets, sub-account IFRS Transition Costs Variance Account.

Nature of One-Time Incremental IFRS Transition Costs <sup>1</sup>	Audited Actual Costs Incurred 2009	Audited Actual Costs Incurred 2010	Audited Actual Costs Incurred 2011	Audited Carrying Charges to Dec 31, 2011	Total Audited Actual Costs to Dec 31, 2011	RRR 2.1.7 Balance 2011-12-31 <sup>2</sup>	Variance <sup>2</sup>	Actual Costs Incurred Jan -Sept 30, 2012	Carrying Charges Jan 1 2012 to April 30 2012	Total Costs to April 30 2012	Reasons why the costs recorded meet the criteria of one-time IFRS administrative incremental costs
professional accounting fees		\$ 38,717	\$ 37,241	\$ 820	\$ 76,778			\$ 27,000	\$ 1,287	\$ 105,065	Incremental IFRS professional accounting fees
professional legal fees					\$ -						
salaries, wages and benefits of staff added to support the transition to IFRS					\$ -			\$ 16,414	\$ 781	\$ 17,195	Incremental staff to support transition to IFRS
associated staff training and development costs	\$ 475	\$ 4,480	\$ 1,072	\$ 61	\$ 6,088			\$ 520	\$ 42	\$ 6,650	Incremental IFRS training costs
costs related to system upgrades, or replacements or changes where IFRS was the major reason for conversion					\$ -						
					\$ -						
					\$ -						
					\$ -						
					\$ -						
					\$ -						
					\$ -						
					\$ -						
Insert description of additional item(s) and new rows if needed.					\$ -						
<b>Total</b>	\$ 475	\$ 43,197	\$ 38,313	\$ 881	\$ 82,866	\$ 82,866	\$ 0	\$ 43,934	\$ 2,110	\$ 128,910	

**Note:**  
<sup>1</sup> The Deferred IFRS Transition Costs Account and the IFRS Transition Costs Variance Account are exclusively for necessary, incremental transition costs and shall not include ongoing IFRS compliance costs or impacts arising from adopting accounting policy changes that reflect changes in the timing of the recognition of income. The incremental costs in these accounts shall not include costs related to system upgrades, or replacements or changes where IFRS was not the major reason for conversion. In addition, incremental IFRS costs shall not include capital assets or expenditures.  
<sup>2</sup> Applicants are to provide an explanation of material variances in evidence

Exhibit 9: Deferral And Variance Accounts

---

**Tab 3 (of 4): LRAM and LRAM Variance Account**



1 Greater Sudbury's claim is based on the OPA 2011 Final Annual Report attached  
 2 to this schedule as Attachment 1.

3 Elenchus Research Associates has prepared a full report on the claim and has  
 4 calculated this claim in accordance with relevant guidelines. The report is  
 5 included as Attachment 2 to this schedule.

6  
 7 Table 1 below details the rate rider calculation proposed to be collected over a  
 8 four year period consistent with the period used for disposition of Group 1 and  
 9 Group 2 Deferral Accounts.

10  
 11 **Table 1 - LRAM Rate Rider Calculation**

	Total	Residential	GS<50 kW	GS>50 kW
<b>Lost Revenue Amount (\$)</b>	<b>91,401</b>	<b>27,028</b>	<b>56,765</b>	<b>7,608</b>
<b>Carrying Charges (\$)</b>	<b>2,516</b>	<b>744</b>	<b>1,563</b>	<b>209</b>
<b>Total (\$)</b>	<b>93,917</b>	<b>27,772</b>	<b>58,328</b>	<b>7,817</b>
Recovery Period (Years)	4			
Annualized Amount		6,943	14,582	1,954
Annual Volume (2013 Forecast)		401,373,120	141,856,898	969,057
Charge Parameter		kWh	kWh	kW
<b>Rate Rider</b>		<b>\$ 0.000017</b>	<b>\$ 0.000103</b>	<b>\$ 0.002017</b>

12  
 13

saveONenergy<sup>SM</sup>**Message from the Vice President:**

The OPA is pleased to provide you with the enclosed Final 2011 Results Report.

Despite some of the inertial challenges in 2011 with program start up, on average, year one province-wide forecasts were met and the year finished out with strong momentum which continues to build 2012. There are still challenges for LDCs of all sizes and we are committed to ensuring LDCs are successful in meeting their objectives. We look forward to further dialogue to discover opportunities to improve the current program suite with local program opportunities, best practices and successes to better reach our customers in the years to come.

This report was developed in collaboration with the OPA-LDC Reporting and Evaluation Working Group and is designed to help populate LDC annual report templates that will be submitted to the OEB in late September. Between the draft and final reports several improvements were made to improve clarity and transparency based on feedback provided by LDCs, such as: the addition of a glossary tab, total adjustments to savings are now broken out into both the realization rate and net-to-gross ratio for both peak demand and energy savings and modifications were made to the methodology tab. We invite you to continue to provide your feedback.

All results are now considered final for 2011. Any additional 2011 program activity not captured will be reported in the Final 2012 Results Report. Please continue to monitor saveONenergy E-blasts for any further updates and should you have any other questions or comments please contact [LDC.Support@powerauthority.on.ca](mailto:LDC.Support@powerauthority.on.ca).

We appreciate your collaboration and cooperation throughout the reporting and evaluation process. We look forward to another successful year in 2012.

Sincerely,  
Andrew Pride



Elenchus  
34 King Street East  
Suite 600  
Toronto, ON  
M5C 2X8

September 14, 2012

Paula Tarini  
Supervisor - CDM  
Greater Sudbury Hydro Inc.  
500 Regent St.  
P.O. Box 250  
Sudbury, ON  
P3E 4P1

**Re: LRAM and LRAMVA**

Dear Paula;

Elenchus is pleased to attach the 2011 LRAM LRAMVA Report For Greater Sudbury Hydro Inc. for inclusion in your 2013 COS Rate Application.

Elenchus concludes that Greater Sudbury Hydro Inc.'s electricity rates should be adjusted to reflect an LRAM claim of \$93,917.

Thank you for allowing Elenchus to be of service. Please contact me should you have any questions about this report.

Yours Truly,

A handwritten signature in black ink that reads "Martin Benum". The signature is fluid and cursive, with a large initial "M".

Martin Benum  
Senior Advisor



# **2011 LRAM LRAMVA Report**

**A Report Prepared by  
Elenchus Research Associates Inc.**

**On Behalf of  
Greater Sudbury Hydro Inc.**

**September 14, 2012**

Tab 1 of 3

Report





## Table of Contents

Title	Tab	Schedule	Attachment	Number
Cover Letter				
Cover Sheet				
Report	1			
Table of Contents	1	1		
Executive Review	1	2		
Introduction	1	3		
Assumptions	1	4		
LRAM LRAMVA Recommendations	1	5		
Works Sited and Referenced	1	6		
Tables	2			
Input Tables OPA Results	2	1	1	
OPA Residential 2010 2011 Persistence kWh	2	1	1	1
OPA GSLT50 2010 2011 Persistence kWh	2	1	1	2
OPA GSGT50 2010 2011 Persistence kW	2	1	1	3
OPA 2011 Programs All kWh	2	1	1	4
OPA 2011 Programs All kW	2	1	1	5
GSHI 2010 2011 Programs All kWh	2	1	1	6
Output Tables	2	2	1	
2011 LRAM LRAMVA Calculation	2	2	1	1
Carrying Cost Calculation	2	2	1	2
LRAM LRAMVA Summary Claim	2	2	1	3
Third Party Review	3			
Elenchus Personnel	3	1		

September 14, 2012

# 1 Executive Review

2  
3 On April 26, 2012 the Ontario Energy Board (“OEB” or “the Board”) issued Guidelines for  
4 Electricity Distributor Conservation and Demand Management (EB-2012-0003) which  
5 permit Greater Sudbury Hydro Inc. to make application for recovery of lost revenue that  
6 results from the successful operation of CDM initiatives within its boundaries.

7  
8 The Guidelines delineate two distinct processes for recovery of lost revenues:

- 9 • Lost Revenue Adjustment Mechanism (“LRAM”) accommodates the recovery of lost  
10 revenues resulting from CDM initiatives for the period from 2005 to the end of 2010  
11 either through approved distribution rate funding by way of the third instalment of  
12 the incremental market adjusted revenue requirement (“MAAR”) or through  
13 contracts with the OPA. The manner in which distributors were instructed to  
14 determine the LRAM amount was set out in the Board’s Guidelines for Electricity  
15 Distributor Conservation and Demand Management, dated March 28, 2008 (EB-  
16 2008-0037) (the “2008 CDM Guidelines”).
- 17  
18 • Lost Revenue Adjustment Mechanism Variance Account (“LRAMVA”) accommodates  
19 the recovery of lost revenues resulting from CDM initiatives for the period 2011-  
20 2014. The manner in which distributors were instructed to determine the LRAMVA  
21 amount is set out in the Board’s Guidelines for Electricity Distributor Conservation  
22 and Demand Management, dated April 26, 2012 (EB-2012-0003) (the “2012 CDM  
23 Guidelines”).

24  
25 A third-party review of that recovery claim is required and is the subject of this report.  
26 Elenchus Research Associates Inc. (Elenchus) acted as the third party reviewer. Personnel  
27 details can be found in Tab 3 Schedule 1.

28  
29 The third party review includes LRAM for Greater Sudbury Hydro Inc.’s 2011 persistence of  
30 CDM activities for 2010, consisting of programs initiated by the Ontario Power Authority  
31 (OPA) and programs approved in 2008 by the Board (EB-2008-0147) operated by Greater  
32 Sudbury Hydro. There is no claim for activity related to 2005 to 2009 Third Tranche MARR  
33 funding or post-Third Tranche funding. In addition the review includes 2011 LRAMVA for  
34 2011 OPA programs and Greater Sudbury Hydro programs.



September 14, 2012

- 1 Total net energy savings for which LRAM/LRAMVA is being claimed amount to over 2.2
- 2 GWh in the residential rate class, 3.1 GWh in the GS < 50 kW rate class and demand savings
- 3 in the GS 50 to 4,999 kW rate class totaled approximately 1.8 MW.
- 4 Elenchus concludes that Greater Sudbury Hydro Inc.'s electricity rates should be adjusted
- 5 to reflect an LRAM claim of \$93,917.

# 1 Introduction

2

3 The LRAM and LRAMVA are designed to ensure that Local Distribution Companies (“LDC”)  
4 “remain whole” despite the lower consumption levels that are, by design, the result of  
5 successful conservation and demand management initiatives. There should not be a  
6 disincentive for LDC’s to encourage energy efficiency and energy conservation efforts.  
7 Therefore, an LDC is compensated for these lost revenues.

8

9 This claim for LRAM respects the process outlined in the 2008 Guidelines for rate-based  
10 applications to recover revenues lost to customer energy conservation for the 2011  
11 persistence of 2006 to 2010 programs. In accordance with the 2008 Guidelines, which  
12 assume that CDM initiatives would be included in Greater Sudbury Hydro Inc. 2009 Cost of  
13 Service load forecast, Greater Sudbury Hydro Inc. is only entitled to collect the 2011  
14 persistence of 2010 programs.

15

16 In addition this review includes claim for 2011 LRAMVA based on the 2012 Guidelines for  
17 OPA programs initiated in 2011.

18

19 Greater Sudbury Hydro Inc. does not have any Board-approved programs under the  
20 current CDM Code, but does operate a suite of programs approved by the Board in 2008  
21 (EB-2008-0147). LRAM and LRAMVA, as per the description above, are claimed for both  
22 “standard” OPA province-wide programs and those approved in 2008 that are specific to  
23 Greater Sudbury Hydro Inc.

24

25 The LRAM and LRAMVA calculations are based on the sum of the electricity savings over  
26 the period of the claim, which are then valued at the appropriate distribution rate  
27 depending on the timing (year) of the savings and to which rate class they belonged.

28

29 The OPA and province-wide programs savings are the product of an energy program  
30 evaluation process, often referred to as Evaluation, Measurement and Verification (EM&V).  
31 In the case of this claim, all savings estimates for OPA programs are provided by the OPA.  
32 Greater Sudbury Hydro Inc.’s program savings for the applicable years have been  
33 previously filed in their CDM Annual Reports.

34

35 These savings estimates include persistence—the installation of energy conservation  
36 measures whose savings that last past the initial year that they are installed. A four-year

September 14, 2012

1 program that installed 10 widgets per year with a savings of 1,000 kWh each would result  
2 in the following savings profile if the widgets lasted 4 or more years (which is common):  
3  
4

**Example Savings Profile Showing Effect of Persistence**

<b>Year</b>	<b>In-Year Savings (kWh)</b>	<b>Cumulative Savings (kWh)</b>
1	10,000	10,000
2	20,000	30,000
3	30,000	60,000
4	40,000	100,000

5  
6 The OPA designed and delivered some initial programs in 2006 and 2007, but then set-out  
7 to build a portfolio of programs to address a broad cross-section of customer types that  
8 would run from 2008 to 2010. This latter time frame corresponds to an Ontario goal of  
9 shaving 1,350 MW from the electricity system in the province. Savings from these  
10 programs typically follow a pattern similar to the one illustrated in the table above. Energy  
11 program evaluations determine the energy and demand savings estimates to a reasonable  
12 degree of accuracy and also determine the persistence including patterns, or effective  
13 useful life (EUL) of new measures being installed and the remaining useful life (RUL) of  
14 measures being replaced. It is assumed that the tables provided to each LDC, Greater  
15 Sudbury Hydro Inc. , by the OPA contain accurate interpretations and transcriptions of the  
16 results from those evaluations (available on the OPA Website).  
17

18 There are “gross” savings and “net” savings for energy efficiency programs. OPA  
19 documentation details the differences between these two, and both are provided to LDC’s  
20 by the OPA, but for the purposes of this LRAM claim only “net” savings are utilized. Net  
21 savings are determined to be those savings that would not have occurred unless the energy  
22 efficiency program was running. They are not natural conservation or savings that  
23 someone could claim would have occurred anyway. They do not include savings from “free  
24 riders.”  
25

26 Some energy efficiency programs are operated at a province-wide scale. These include  
27 some behavioural-based programs and some residential/consumer-orientated initiatives  
28 like discount coupons. In certain of these cases, savings are apportioned to LDC’s by the  
29 OPA rather than an attempt made to track individual transactions (which is sometimes  
30 impossible).  
31

32 The persistence savings claimed by Greater Sudbury Hydro Inc. are therefore the net  
33 energy and demand savings that can be attributed to the programs and initiatives that



September 14, 2012

1 operated in Greater Sudbury Hydro Inc. territory during the 2006-2010 period and as  
2 apportioned to Greater Sudbury Hydro Inc. by the OPA according to its established  
3 formulae.  
4

5 Likewise the 2011 program savings claimed by Greater Sudbury Hydro Inc. are the net  
6 energy and demand savings that can be attributed to the programs and initiatives that  
7 operated in Greater Sudbury Hydro Inc. territory during the 2011 period and as  
8 apportioned to Greater Sudbury Hydro Inc. by the OPA according to its established  
9 formulae.  
10

11 Greater Sudbury Hydro Inc.'s programs approved by the Board in 2008 report savings  
12 according the procedures required under that approval.

# 1 Assumptions

2

---

3 This report for Greater Sudbury Hydro Inc. was created with the following assumptions  
4 that are often peculiar to the 2006-2010 period:

5

- 6 • “Consumer” classified as the Residential rate class
- 7 • “Business” classified as General Service <50 kW rate class
- 8 • “Industrial” classified as General Service >50 kW rate class
- 9 • “Industrial” kWh savings were omitted because they are not assignable as a  
10 volumetric charge
- 11 • “Consumer” and “Business” kW savings were omitted because they are not  
12 assignable as a volumetric charge

13

14 In addition this report for Greater Sudbury Hydro Inc. was created utilizing the above  
15 assumptions in addition to the following that are often peculiar to the 2011 period:

16

- 17 • “Home Assistance Program” classified as the Residential rate class
- 18 • “Pre-2011 Programs completed in 2011” classified as General Service >50 kW rate  
19 class

September 14, 2012

# LRAM LRAMVA Recommendations

During the period of the 2010 2011 persistence LRAM and 2011 Program LRAMVA claim, total net energy savings being claimed amount to over 2.2 GWh in the residential rate class and 3.1 GWh in the GS < 50 kW rate class. Demand savings in the GS > 50 kW rate class totaled approximately 1.8 MW.

Elenchus has concluded that Greater Sudbury Hydro Inc. can justifiably claim \$93,917 in LRAM including carrying costs to April 30, 2013, allocated by rate class as shown in Table 1 below.

## 2010 LRAM and 2011 LRAMVA

Rate Class	Savings	Amount	Interest *	Total
Residential	2.2 GWh	\$ 27,028	\$ 744	\$ 27,772
General Service Less Than 50 kW	3.1 GWh	\$ 56,765	\$ 1,563	\$ 58,328
General Service Greater Than 50 kW	1.8 MW	\$ 7,608	\$ 209	\$ 7,818
<b>Total</b>		<b>\$ 91,401</b>	<b>\$ 2,516</b>	<b>\$ 93,917</b>

\* Carrying Costs to April 30, 2013

Table 1 2010 LRAM and 2011 LRAMVA



September 14, 2012

1

## 2 Works Sited and Referenced

3

- 
- 4 1. OEB Conservation and Demand Management Code for Electricity Distributors  
5 Issued: September 16, 2010
  - 6 2. Guidelines for Electricity Distributor Conservation and Demand Management  
7 (EB-2012-0003) Issued: April 26, 2012
  - 8 3. OPA Estimated allocation of 2006-2010 provincial conservation results to Local  
9 Distribution Company service territories - update to December 2010 report  
10 November 15, 2011
    - 11 • 2006-2010 Final OPA CDM Results-Update Greater Sudbury Hydro  
12 Inc.xls
  - 13 4. OPA 2011 Final Annual Report on provincial conservation results to Local  
14 Distribution Company service territories – issued August 31, 2012
    - 15 • 2011\_Final\_Annual\_Report\_Data\_Greater\_Sudbury\_Hydro\_Inc.xls
  - 16 5. Final OEB Greater Sudbury Hydro Inc CDM plan (June 2008)
  - 17 6. 2008\_CDM\_Annual\_Report\_GreaterSudbury
  - 18 7. 2009\_CDM\_Annual\_Report\_GreaterSudbury
  - 19 8. 2010\_CDM\_Annual\_Report\_GreaterSudburyHydroInc
  - 20 9. 2011 Annual Report-Greater Sudbury Hydro(Apr 27 12)

21

Tab 2 of 3

Tables

## Input Tables OPA Results

Input Table One	OPA Residential 2010 2011 Persistence kWh
Input Table Two	OPA GSLT50 2010 2011 Persistence kWh
Input Table Three	OPA GSGT50 2010 2011 Persistence kW
Input Table Four	OPA 2011 Programs All kWh
Input Table Five	OPA 2011 Programs All kW
Input Table Six	GSHI 2010 2011 Programs All kWh

**Input Table One**  
**OPA Residential 2010 Programs**  
**2011 Persistence (kWh)**

<b>Amount</b>	
	<b>2011</b>
<b>2010</b>	
Cool Savings Rebate	203,045
Every Kilowatt Counts Power Savings Event	162,879
Great Refrigerator Roundup	340,404
peaksaver®	192
<b>2010 Total</b>	<b>706,520</b>
<b>Grand Total</b>	<b>706,520</b>

**Input Table Two**  
**OPA GSLT50 2010 Programs**  
**2011 Persistence (kWh)**

<b>Amount</b>	
	<b>2011</b>
<b>2010</b>	
High Performance New Construction	200,791
Power Savings Blitz	400,526
<b>2010 Total</b>	<b>601,316</b>
<b>Grand Total</b>	<b>601,316</b>

**Input Table Three**  
**OPA GSGT50 2010 Programs**  
**2011 Persistence (kW)**

	<b>kW</b>	<b>Months</b>	<b>Amount</b>
<b>2010</b>			
Electricity Retrofit Incentive	93	12	1,111
Multi-Family Energy Efficiency Rebates	10	12	119
<b>2010 Total</b>	<b>51</b>		<b>1,230</b>
<b>Grand Total</b>	<b>51</b>		<b>1,230</b>

**Input Table Four**  
**OPA 2011 Programs**  
**(kWh)**

	kWh
<b>RES</b>	
Appliance Exchange	5,209
Appliance Retirement	427,371
Bi-Annual Retailer Event	301,981
Conservation Instant Coupon Booklet	200,793
HVAC Incentives	555,312
Residential Demand Response	189
<b>RES Total</b>	<b>1,490,854</b>
<b>GSLT50</b>	
Commercial Demand Response (part of the Residential program sched	2
Demand Response 3 (part of the Industrial program schedule)	3,376
Direct Install Lighting	207,531
Efficiency: Equipment Replacement	1,080,286
<b>GSLT50 Total</b>	<b>1,291,195</b>
<b>Grand Total</b>	<b>2,782,049</b>

**Input Table Five**  
**OPA 2011 Programs**  
**(kW)**

	<b>kW</b>	<b>Months</b>	<b>Extended kW</b>
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	11	12	129
Electricity Retrofit Incentive Program	26	12	308
High Performance New Construction	11	12	130
<b>Grand Total</b>	<b>47</b>	<b>12</b>	<b>567</b>



**Input Table Six**  
**GSHI 2010 2011 Programs**  
**(kWh)**

kWh	2011
<b>RES</b>	
<b>2010</b>	
Community Awareness Program	0
Electric Thermal Storage Program	0
<b>2010 Total</b>	<b>0</b>
<b>2011</b>	
Community Awareness Program	0
Electric Thermal Storage Program	0
<b>2011 Total</b>	<b>0</b>
<b>RES Total</b>	<b>0</b>
<b>GSLT50</b>	
<b>2010</b>	
Commercial Parking Lot Plug Controller Program	370,818
LED Traffic Light Conversion Program	0
Vending Machine and Self Service Coolers Efficiency Program	39,690
West Nipissing Street Light Conversion Program	0
<b>2010 Total</b>	<b>410,508</b>
<b>2011</b>	
Commercial Parking Lot Plug Controller Program	79,607
LED Traffic Light Conversion Program	425,003
Vending Machine and Self Service Coolers Efficiency Program	240,975
West Nipissing Street Light Conversion Program	36,462
<b>2011 Total</b>	<b>782,047</b>
<b>GSLT50 Total</b>	<b>1,192,555</b>
<b>Grand Total</b>	<b>1,192,555</b>

## Output Tables

Output Table One	2011 LRAM LRAMVA Calculation
Output Table Two	Carrying Cost Calculation
Output Table Three	Summary Claim

## Output Table One Greater Sudbury 2010 LRAM and 2011 LRAMVA

OPA 2010 Final 2011 Persistence				Total	RES	GSLT 50	GSGT50
	kWh	2011 Rate	Amount				
RES	706,520	0.0123	\$ 8,690		\$ 8,690		
GSLT 50	601,316	0.0184	\$ 11,064			\$ 11,064	
			<u>\$ 19,754</u>				
	kW	2011 Rate	Amount				
GSGT50	1,230	4.2336	\$ 5,205.58				\$ 5,206
				<b>\$ 24,960</b>			
OPA 2011 Final 2011 Programs							
	kWh	2011 Rate	Amount				
RES	1,490,854	0.0123	\$ 18,338		\$ 18,338		
GSLT 50	1,291,195	0.0184	\$ 23,758			\$ 23,758	
			<u>\$ 42,095</u>				
	kW	2011 Rate	Amount				
GSGT50	567	4.2336	\$ 2,402.52				\$ 2,403
				<b>\$ 44,498</b>			
				<b>\$ 69,458</b>	<b>\$ 27,028</b>	<b>\$ 34,822</b>	<b>\$ 7,608</b>
GSHI 2010 Final 2011 Persistence							
	kWh	2011 Rate	Amount	Total	RES	GSLT 50	GSGT50
RES	-	0.0123	\$ -		\$ -		
GSLT 50	410,508	0.0184	\$ 7,553			\$ 7,553	
			<u>\$ 7,553</u>				
	kW	2011 Rate	Amount				
GSGT50	-	4.2336	\$ -				\$ -
				<b>\$ 7,553</b>			
GSHI 2011 Final 2011 Programs							
	kWh	2011 Rate	Amount				
RES	-	0.0123	\$ -		\$ -		
GSLT 50	782,047	0.0184	\$ 14,390			\$ 14,390	
			<u>\$ 14,390</u>				
	kW	2011 Rate	Amount				
GSGT50	-	4.2336	\$ -				\$ -
				<b>\$ 14,390</b>			
				<b>\$ 21,943</b>	<b>\$ -</b>	<b>\$ 21,943</b>	<b>\$ -</b>
				<b>\$ 91,401</b>	<b>\$ 27,028</b>	<b>\$ 56,765</b>	<b>\$ 7,608</b>

## Output Table Two

### Calculated Carrying Costs to April 30, 2013

Month	OEB Prescribed Annual Rate	Days in Month	Monthly Interest Rate	LRAM LRAMVA			Allocated Carrying Costs		
				Residential	GS LT 50	GS GT 50	Residential	GS LT 50	GS GT 50
Jan-2011	1.47%	31	0.12%	\$ 2,252	\$ 4,730	\$ 634	\$ 2.81	\$ 5.91	\$ 0.79
Feb-2011	1.47%	28	0.11%	\$ 4,505	\$ 9,461	\$ 1,268	\$ 5.08	\$ 10.67	\$ 1.43
Mar-2011	1.47%	31	0.12%	\$ 6,757	\$ 14,191	\$ 1,902	\$ 8.44	\$ 17.72	\$ 2.37
Apr-2011	1.47%	30	0.12%	\$ 9,009	\$ 18,922	\$ 2,536	\$ 10.89	\$ 22.86	\$ 3.06
May-2011	1.47%	31	0.12%	\$ 11,262	\$ 23,652	\$ 3,170	\$ 14.06	\$ 29.53	\$ 3.96
Jun-2011	1.47%	30	0.12%	\$ 13,514	\$ 28,383	\$ 3,804	\$ 16.33	\$ 34.29	\$ 4.60
Jul-2011	1.47%	31	0.12%	\$ 15,766	\$ 33,113	\$ 4,438	\$ 19.68	\$ 41.34	\$ 5.54
Aug-2011	1.47%	31	0.12%	\$ 18,018	\$ 37,843	\$ 5,072	\$ 22.50	\$ 47.25	\$ 6.33
Sep-2011	1.47%	30	0.12%	\$ 20,271	\$ 42,574	\$ 5,706	\$ 24.49	\$ 51.44	\$ 6.89
Oct-2011	1.47%	31	0.12%	\$ 22,523	\$ 47,304	\$ 6,340	\$ 28.12	\$ 59.06	\$ 7.92
Nov-2011	1.47%	30	0.12%	\$ 24,775	\$ 52,035	\$ 6,974	\$ 29.93	\$ 62.87	\$ 8.43
Dec-2011	1.47%	31	0.12%	\$ 27,028	\$ 56,765	\$ 7,608	\$ 33.74	\$ 70.87	\$ 9.50
Jan-2012	1.47%	31	0.12%	\$ 27,028	\$ 56,765	\$ 7,608	\$ 33.65	\$ 70.68	\$ 9.47
Feb-2012	1.47%	29	0.12%	\$ 27,028	\$ 56,765	\$ 7,608	\$ 31.48	\$ 66.12	\$ 8.86
Mar-2012	1.47%	31	0.12%	\$ 27,028	\$ 56,765	\$ 7,608	\$ 33.65	\$ 70.68	\$ 9.47
Apr-2012	1.47%	30	0.12%	\$ 27,028	\$ 56,765	\$ 7,608	\$ 32.57	\$ 68.40	\$ 9.17
May-2012	1.47%	31	0.12%	\$ 27,028	\$ 56,765	\$ 7,608	\$ 33.65	\$ 70.68	\$ 9.47
Jun-2012	1.47%	30	0.12%	\$ 27,028	\$ 56,765	\$ 7,608	\$ 32.57	\$ 68.40	\$ 9.17
Jul-2012	1.47%	31	0.12%	\$ 27,028	\$ 56,765	\$ 7,608	\$ 33.65	\$ 70.68	\$ 9.47
Aug-2012	1.47%	31	0.12%	\$ 27,028	\$ 56,765	\$ 7,608	\$ 33.65	\$ 70.68	\$ 9.47
Sep-2012	1.47%	30	0.12%	\$ 27,028	\$ 56,765	\$ 7,608	\$ 32.57	\$ 68.40	\$ 9.17
Oct-2012	1.47%	31	0.12%	\$ 27,028	\$ 56,765	\$ 7,608	\$ 33.65	\$ 70.68	\$ 9.47
Nov-2012	1.47%	30	0.12%	\$ 27,028	\$ 56,765	\$ 7,608	\$ 32.57	\$ 68.40	\$ 9.17
Dec-2012	1.47%	31	0.12%	\$ 27,028	\$ 56,765	\$ 7,608	\$ 33.65	\$ 70.68	\$ 9.47
Jan-2013	1.47%	31	0.12%	\$ 27,028	\$ 56,765	\$ 7,608	\$ 33.74	\$ 70.87	\$ 9.50
Feb-2013	1.47%	28	0.11%	\$ 27,028	\$ 56,765	\$ 7,608	\$ 30.48	\$ 64.01	\$ 8.58
Mar-2013	1.47%	31	0.12%	\$ 27,028	\$ 56,765	\$ 7,608	\$ 33.74	\$ 70.87	\$ 9.50
Apr-2013	1.47%	30	0.12%	\$ 27,028	\$ 56,765	\$ 7,608	\$ 32.66	\$ 68.58	\$ 9.19
				\$ 744.00	\$ 1,562.59	\$ 209.43			

## Output Table Three

### 2010 LRAM and 2011 LRAMVA

Rate Class	Savings	Amount	Interest *	Total
Residential	2.2 GWh	\$ 27,028	\$ 744	\$ 27,772
General Service Less Than 50 kW	3.1 GWh	\$ 56,765	\$ 1,563	\$ 58,328
General Service Greater Than 50 kW	1.8 MW	\$ 7,608	\$ 209	\$ 7,818
<b>Total</b>		<b>\$ 91,401</b>	<b>\$ 2,516</b>	<b>\$ 93,917</b>

\* Carrying Costs to April 30, 2013



September 14, 2012

Tab 3 of 3

Third Party Review

September 14, 2012

# Elenchus Personnel

---

## ***John Todd, President and CEO***

John Todd has specialized in government regulation for over 35 years, addressing issues related to price regulation and deregulation, market restructuring to facilitate effective competition, and regulatory methodology. Sectors of primary interest in recent years have included electricity, natural gas and the telecommunications industry. John has assisted counsel in over 200 regulatory proceedings and provided expert evidence in over 100 hearings. His clients include regulated companies, producers and generators, competitors, customers groups, regulators and government.

## ***Judy Simon, Principal, Economic Regulation and Conservation***

With over 30 years of experience in the economic regulation of energy and in demand-side management/conservation and demand management (DSM/CDM), Judy brings an excellent understanding of energy regulatory jurisdictions across Canada regarding electricity and natural gas regulated utilities. Judy's focus is on helping regulated companies to work effectively within a regulated business environment. Judy spent 10 years with the Ontario Energy Board as a part-time Board Member, adjudicating more than 150 proceedings. Judy has worked with more than 40 Canadian energy utilities across Canada, several municipalities and institutions, and provincial and national energy business associations and government departments.

## ***Marc Collins, Principal, Strategic Energy Management***

Marc is Principal of Strategic Energy Management-a new division at Elenchus. He holds CEM and CMVP certifications and has 7 years of experience in the energy sector

September 14, 2012

1 following a very diverse prior career. Marc brings a deep knowledge of energy program  
2 evaluation (EM&V) having initiated and led that function at the OPA until joining  
3 Elenchus. His focus is on maximizing the return on investment from energy demand  
4 management and continuous improvement processes. Other areas of expertise and  
5 practice include DSM/CDM program design and evaluation planning, regulation and  
6 community energy planning. Marc provides consulting services to energy agencies,  
7 utilities, municipalities, businesses and institutions.  
8

9 ***Martin Benum, Senior Consultant - Rates & Modeling***

10 Martin has been a Senior Consultant at Elenchus since 2010. He has over 25 years'  
11 experience in the electricity sectors in Ontario. Martin provides strategic regulatory  
12 advice on energy regulation and designs MS Excel based tools for clients i.e. (OEB  
13 application models). He has held senior positions with Enersource Corporation and the  
14 Ontario Energy Board. He holds a degree in Business Management and is a designated  
15 CMA.



Exhibit 9: Deferral And Variance Accounts

---

**Tab 4 (of 4): Smart Meters**

Greater Sudbury Inc.

# Application for Final Disposition of Smart Meter Costs

Filed in conjunction with 2013 Cost of Service filing EB-2012-0126

1

2 **Contents**

3 1. Application ..... 3

4 2. Executive Summary ..... 3

5 3. Smart Meter Program Status ..... 5

6 4. Greater Sudbury Hydro Inc. Minimum Functionality ..... 7

7 a. Education and Preparation for the Deployment ..... 8

8 b. Procurement - Authority to Proceed and Careful Implementation ..... 9

9 c. On-Going Operations ..... 11

10 d. Meter Installation Vendor Selection ..... 12

11 e. Customer Education Strategy ..... 12

12 5. Smart Meter Background ..... 13

13 a. AMI Deployment ..... 14

14 b. Meter Base Replacement Program ..... 14

15 c. Installation of Polyphase GS<50kW meters ..... 15

16 d. AMI Annual Security Audit ..... 15

17 6. Expenditures beyond Minimum Functionality ..... 16

18 7. Smart Meter Costs ..... 25

19 8. Rate Rider Summary and Bill Impacts ..... 28

20

21

1

## 2       **1. Application**

3

4       Greater Sudbury is filing this evidence in support of its request for final disposition of smart meter costs  
5       and inclusion of the smart meter business activity into the normal distribution operations. This application  
6       is filed together with Greater Sudbury's Cost of Service filing under Board file number EB-2012-0126.

7

8       As noted in Exhibit 1, Tab 1, Schedule 3, Greater Sudbury is seeking the following specific relief:

9

- 10       • The Board's determination that Smart Meter capital of \$7,020,288 and operating expenditures of  
11       \$1,053,086 to December 31, 2012 are prudently incurred;
- 12       • A Smart Meter Disposition Rate Rider ("SMDR") to recover the difference between the deferred  
13       revenue requirement related to smart meters to December 31, 2012 and the Smart Meter Funding  
14       Adder revenue collected to April 30, 2012, inclusive of carrying costs to April 30, 2013.
- 15       • Greater Sudbury is requesting the recovery of Stranded Meter costs as part of the Cost of Service  
16       filing.

17

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

20

- 21       • The August 8, 2007 Decision with Reasons (EB-2007-0063), which was the Board's combined  
22       proceeding in relation to Smart Meter costs for twelve distributors that were at that time  
23       authorized to conduct Smart Meter Activities.
- 24       • The Board's Smart Meter Funding and Cost Recovery – Final Disposition Guideline G-2011-  
25       0001 dated December 15, 2011 ("Smart Meter Filing Guideline"). Previous Board Decisions,  
26       such as the decision in the Powerstream application (EB-2011-0128).
- 27       • Greater Sudbury has used the OEB Smart Meter Model version 3.0 to calculate the SMDR.

28

## 29       **2. Executive Summary**

30

31       Greater Sudbury seeks approval for recovery of foregone revenue requirement from 2006 to December  
32       31, 2012, related to the deployment of its Smart Meter program. The revenue requirement is based on

1 capital expenditures of \$7,020,288 and operating costs of \$1,053,083 covering the period ending  
 2 December 31, 2012. To date Greater Sudbury has installed 46,612 meters representing 99.6% of all  
 3 meters required to be installed. This section describes the final disposition of Smart Meter costs and the  
 4 true-up of interim funding adders to-date.

5 The costs submitted with this application for approval represent both 'Minimum Functionality' and  
 6 'Beyond Minimum Functionality', as those terms are defined by the OEB in the Smart Meter Filing  
 7 Guideline. As of the date of filing 94% of all costs submitted for this application have been audited.

8

9

**Table 2.1 Overview of Costs per Meter**

10

Description	Total Cost	Cost per Meter
Smart Meter and AMI Capital Costs related to Minimum Functionality	\$6,746,841	\$144.74
Smart Meter and AMI OM&A Costs related to Minimum Functionality	\$911,123	\$19.55
<b>Total Capital and OM&amp;A related to Minimum Functionality</b>	<b>\$7,657,964</b>	<b>\$164.29</b>
Capital Costs Above Minimum Functionality	\$ 273,447	\$ 5.87
OM&A Costs Above Minimum Functionality	\$140,960	\$ 3.05
<b>Total Capital and OM&amp;A Costs Above Minimum Functionality</b>	<b>\$415,407</b>	<b>\$ 8.92</b>
Number of Smart Meters Installed		46,612
<b>Total Capital and OM&amp;A Costs</b>	<b>\$8,073,371</b>	<b>\$173.20</b>
<b>Grand Total Capital Costs</b>	<b>\$7,020,288</b>	<b>\$150.61</b>
<b>Grand Total OM&amp;A Costs</b>	<b>\$1,053,083</b>	<b>\$22.59</b>

11 The Minimum Functionality Capital and OM&A costs represent the cost of the meter, network  
 12 infrastructure, and the installation of both. The capital and OM&A costs included for recovery for  
 13 Minimum Functionality are \$7,657,964 or \$164.29 per customer.

14 The Beyond Minimum Functionality costs claimed in this application represent MDM/R Integration and  
 15 testing, inclusive of ODS integration, TOU preparation within business systems and customer education.

1 There are no costs with respect to technical capabilities in the meters beyond those set out in O.Reg  
 2 425/06. The total capital and OM&A costs included for recovery for Beyond Minimum Functionality costs  
 3 is \$415,407 or \$8.92 per customer. Greater Sudbury's costs appear to be significantly lower than the  
 4 average. Greater Sudbury has submitted all of its Beyond Minimum Functionality costs for recovery that  
 5 are required for MDM/R Integration and testing, inclusive of ODS integration, TOU preparation within  
 6 business systems and customer education.

7 While some smart meters have been installed on General Service > 50 kW services, there are no costs for  
 8 these meter included in this Application. Those GS>50 customer costs are incorporated into the normal  
 9 meter capital.

10 This disposition seeks approval for recovery of all costs incurred by Greater Sudbury to date and forecast  
 11 to December 31, 2012. There are no costs claimed for any portion of 2013. Greater Sudbury has included  
 12 the net book value of Smart Meter costs in the 2013 test year of the 2013 Cost of Service application as  
 13 well as OM&A costs.

14 The proposed recovery of smart meter costs in this application is by way of a single disposition for the  
 15 period covering 2006 to December 31, 2012, net of funding adder collections to date. This application  
 16 seeks recovery of costs by way of a Smart Meter Disposition Rider (SMDR) only, over a twelve month  
 17 period. There is no request for a SMIRR. Rate impacts with the inclusion of the rider are highlighted  
 18 below.

**Table 2.2 - Bill Impacts**

Customer Class	Average Monthly kWh	Proposed Rate Rider (SMDR only)	# Months Recovery	Total Monthly Bill Charges (includes tax)		Variance	
				Current	Proposed	\$	%
Residential	800	\$0.31	12	\$103.96	\$104.28	\$0.31	0.30%
GS<50	2,000	\$5.59	12	\$256.39	\$262.08	\$5.69	2.22%

21

### 22 **3. Smart Meter Program Status**

23 Greater Sudbury has installed 99.6% of smart meters for the residential and General Service < 50 kW

1 (“GS<50”) rate classes. Provided in Table 3.1 below is a detailed breakdown of Smart Meter installations by  
 2 year for each rate class.

3

4

**Table 3.1 - Cumulative Smart Meter Installations by Rate Class by Year**

	2009	2010	2011	2012
	Audited Actual	Audited Actual	Audited Actual	Forecast
Residential	2,352	37,684	2,310	221
General Service < 50 kW	71	1,498	2,049	427
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	2423	39182	4359	648
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	5.18%	88.90%	98.22%	99.60%

5 Greater Sudbury expects to complete the final few installations outstanding early in the new year.

6

7 Greater Sudbury’s original Mandatory TOU Date was June, 2011, but Greater Sudbury was required to seek  
 8 an extension (EB-2011-0105). The extension was necessitated because of “delays (it) experienced  
 9 implementing a new advanced metering infrastructure (“AMI”) and Customer Information System (“CIS”).”  
 10 The IESO’s decision to change the format of data exchanged through the MDM/R was a subsequent  
 11 mitigating factor. Greater Sudbury made the decision to move directly to R7.2 and the XML Bill Quantity  
 12 Request interface as soon as it became available at the provincial MDM/R. We did not build our system to  
 13 be compliant with R7.0 because we did not believe it was prudent to build a system that would only be in  
 14 operation for a few months, however that decision meant that we could not comply with our original  
 15 Mandatory TOU date. The OEB approved of our request for an extension on August 4, 2011. The approval  
 16 provided an exemption for the Mandatory TOU date until December 31, 2011 and required Greater  
 17 Sudbury to keep the OEB informed in the case of further delays beyond the control of the utility.

18 The schedule with the IESO was revised on seven separate occasions and Greater Sudbury continued to  
 19 update the OEB on our progress with the transition to TOU pricing. In the most recent update Greater  
 20 Sudbury advised that if the amended IESO schedule proceeded as planned, then Greater Sudbury would  
 21 be in a position to bill customers on TOU pricing for a consumption period starting May 1, 2012. We have  
 22 been successful in meeting that final objective.

23 Our first XML Bill Quantity Request (BQR) was sent to the provincial MDM/R the first week of July and our

1 first TOU bill was sent out the third week of July on consumption commencing May 1, 2012.

## 2 **4. Greater Sudbury Hydro Inc. Minimum Functionality**

3 Greater Sudbury's minimum functionality costs are as depicted in the table below. Greater Sudbury  
4 submits that all costs included for recovery meet the regulatory definition<sup>1</sup> and Board guidance.

5

Description	Total Cost	Cost per Meter
Smart Meter and AMI Capital Costs related to Minimum Functionality	\$6,746,841	\$144.74
Smart Meter and AMI OM&A Costs related to Minimum Functionality	\$911,123	\$19.55
<b>Total Capital and OM&amp;A related to Minimum Functionality</b>	<b>\$7,657,964</b>	<b>\$164.29</b>

6 Greater Sudbury respectfully submits that all of its costs required to provide minimum functionality for  
7 AMI have been prudently incurred and are reasonable.

8 The discussion in the remainder of this section is intended to provide detail with respect to Greater  
9 Sudbury's progression through the procurement and installation of the smart meters, infrastructure and  
10 associated items related to Minimum Functionality. It is intended to provide a narrative of the process  
11 followed and demonstrate Management's approach to this major Capital Project.

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

17 Greater Sudbury joined the Ontario Utility Smart Metering ("OUSM") working group, which had as its  
18 mandate to collaborate on research and recommendations surrounding the smart meter initiative.  
19 Membership allowed access to extensive research and testing information on many aspects of the smart  
20 meter initiative including AMI vendors, meters, security, communications, disposal of existing assets, and

---

<sup>1</sup> O. Reg. 425/06, Functional Specification for an advanced Metering infrastructure Version 2 July 5, 2007 and OEB Guideline G-2011-0001



1 MDM/R workflow requirements.

2 Greater Sudbury also set up an internal team that included representatives from all the departments that  
3 would be affected by this initiative. The core of the team numbered three people with other staff included  
4 in meetings on an as required basis. Those departments with representatives on the internal committee  
5 were as follows (core members noted):

- 6 • Engineering (Core)
- 7 • CDM (Core)
- 8 • Metering (Core)
- 9 • IT
- 10 • Billing
- 11 • Accounting

12 Meetings were held frequently in the initial period of the program. A representative from each of the core  
13 departments was in attendance at all meetings and others were called-in as needed. This allowed a  
14 broader perspective for each member of the committee that would help each individual better perform  
15 their own job, but also provided for more eyes and ears at the table when important decisions were  
16 required.

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

#### 20 **a. Education and Preparation for the Deployment**

21

22 Greater Sudbury's collaborative approach included our effort to educate ourselves about meter  
23 technologies and processes well before any decisions needed to be made. The Greater Sudbury team  
24 members attended Smart Metering Conferences and IESO workshops. Greater Sudbury spent a  
25 significant amount of time researching technologies, pilot programs and approaches taken by other  
26 utilities in the province.

27 The Smart Meter initiative did not mandate a specific meter technology, so early on in the process  
28 Greater Sudbury completed a pilot study to test the Tantalus meter technology. Tantalus uses a mesh  
29 communication technology that seemed ideally suited to Sudbury's hostile RF environment. The pilot took  
30 place throughout the City of Sudbury in 2007 with funds sourced from the 3<sup>rd</sup> tranche of MARR as a  
31 Conservation and Demand Management program. There are no costs from that pilot study sought to be

1 recovered through this application.

2 The Pilot was intended as a test of the technology. The pilot allowed us to gain experience with the  
3 meter technology, data collection systems and the data itself. It was a valuable experience for the utility  
4 that ultimately assisted in our decision making, even though Tantulus was ultimately not the successful  
5 meter vendor for our utility. The pilot also provided us with valuable experience dealing with customers,  
6 and the challenges that we would face with educating customers about Smart Meters.

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

13 Greater Sudbury realized that we could not be experts at everything. That was neither feasible nor the  
14 most cost effective way to conduct the program. Accordingly, in late 2008 we contacted several OUSM  
15 utilities to find smart meter consulting companies active in the industry. Only one suitable vendor was  
16 found, Util-Assist. Util-Assist was contacted, a proposal was received and a sole source contract was  
17 awarded to Util-Assist based on their experience.

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

22 Furthermore, Util-Assist has provided education/training seminars on integration to the MDM/R and  
23 associated business processes while continuing to monitor progress in projects across the province. Util-  
24 Assist began working with the Greater Sudbury smart meter team in November, 2008 and continues to  
25 work with Greater Sudbury through Time of Use (TOU) cutover and billing in 2012.

26 **b. Procurement - Authority to Proceed and Careful**  
27 **Implementation**

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

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

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

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

15 For its effort as part of the London Hydro AMI RFQ, Greater Sudbury received an Attestation Letter from  
16 the Fairness Commissioner confirming the ranking was performed in accordance with the selection  
17 decision protocols. The letter attests to the fact that the ranking was reached “in a fair (objective and  
18 competent) manner and consistent with the evaluation and selection processes set out in the Request  
19 for Proposal” (attached as Appendix 1). The Ministry of Energy recognized the London Hydro RFP use of  
20 the “best value” methodology and did so by including a direct reference to the London Hydro RFP in the  
21 draft amendment to Regulation 427/06, Smart Meters: Discretionary Metering Activity and Procurement  
22 Principle.

23 In mid 2008 the London RFP process was completed and Sensus was the 1<sup>st</sup> choice stemming from the “fair  
24 and open” process. Sensus does not use a multi point to multi point mesh communication technology but  
25 rather uses a licensed 900 MHz frequency to communicate point to point directly from the meter to a  
26 tower. In Sudbury the geology that makes the area the Nickel capital of the world creates radio frequency  
27 (RF) “black holes”, that is, there are areas where we cannot communicate with line crews by VHF radio, cell  
28 phone or pager. The point to point communication architecture of the Sensus system caused us great  
29 concern that Sensus could not operate at the required read interval success levels defined in the Smart  
30 meter regulation. Greater Sudbury needed a test protocol and process that would ensure that the Sensus  
31 system could perform to the required level. As such Greater Sudbury engaged Util-Assist in late 2008 to  
32 modify an existing pilot program, define success, issue an RFP for meter installation services associated  
33 with the pilot and embed the requirement for a successful pilot in the contract with Sensus. The pilot

1 began in the late spring of 2009 and concluded in the early winter 2009/10. The pilot was declared a  
2 success and the contract was signed on January 25, 2010.

3 **c. On-Going Operations**

4  
5 As part of the contract negotiation, Greater Sudbury performed a thorough analysis of Sensus' two options  
6 for its service offering. Option C was for Greater Sudbury to own and operate the system network and  
7 thereby assume responsibility for complying with the Functional Specification for an Advanced Metering  
8 Infrastructure, dated July 5, 2007. Option B was for Greater Sudbury to own the system and for Sensus to  
9 operate the system and thereby assume responsibility for compliance.

10  
11 Greater Sudbury determined that the most cost effective selection was to begin operations under Option B  
12 and move to Option C after the system was installed and stable. That decision was based on projected  
13 pricing for operation of the system (Greater Sudbury operating the system would have required additional  
14 staff at the utility) and the O&M costs to have Sensus continue operation. It was determined there was an  
15 advantage to KTI/Sensus being able to develop and stabilize the system using the results of multiple  
16 utility's installations and then reduce ongoing costs by the utility operating the system on its own. Greater  
17 Sudbury and KTI/Sensus installed the AMI network over an extended period during 2010 and 2011.

18 The system is now operational. Greater Sudbury was able to achieve compliance with the requirement to  
19 attain Read Interval Success (RIS) levels of 98% over 24 hours, 99% over 72 hours and 99.5%, as set out in  
20 the Functional Specifications, very early in the roll out. We are convinced the rigour that the pilot forced  
21 upon Sensus is responsible for the outstanding initial and continued success in achieving full compliance  
22 with the Functional Specifications.

23 However, the major redevelopment of the Flexnet operating system known as 3.x has resulted in  
24 significant operating issues identified in the Powerstream test environment, a cooperative effort in which  
25 Greater Sudbury Hydro is a member. The 3.x version of the Sensus Flexnet software is required to allow  
26 encryption, the cornerstone of AMI security and privacy, to proceed; to allow the retrieval and reset of  
27 demand readings; and to allow the meter to speak with a Home Area Network (HAN) over the Zigbee  
28 protocol, the cornerstone of the OPA's culture of conservation effort. Until the Flexnet 3.x software is  
29 operationally stable and the network Service Level Agreement (SLA) levels required are achieved by Sensus  
30 GSHI would be unwilling to exercise option C. Based on the schedule put forward by Sensus and Sensus's  
31 history of missing target dates it is improbable that GSGHI will exercise Option C in 2013.

32

1                   **d.           Meter Installation Vendor Selection**  
2

3       In 2009, the Greater Sudbury Smart Meter team assessed its internal resources and determined that it was  
4       necessary to seek the services of a third party for the installation of smart meters within our service  
5       territory. This decision was made having taken into account the demands on our existing staff,  
6       additional resources for storage and disposal of old meters, the tight timeline required to achieve the  
7       objective, as well as the anticipated costs associated with third party installation. Greater Sudbury utilized  
8       Util-Assist to develop and issue an RFP and evaluation process for installation services.

9       An internal evaluation committee was comprised of representatives from engineering, CDM, metering and  
10       operations departments. The committee of four members evaluated proposals following Util-Assists'  
11       evaluation process.

12       The Smart Meter Installation Services RFP was issued January 15, 2010 to two vendors. Proposals were  
13       received from both. The two proponents were invited to Greater Sudbury to make a presentation and to  
14       demonstrate their capabilities to perform according to the terms of the RFP.

15       The vendors presented their solutions to the Greater Sudbury evaluation committee on October 22, 2009.  
16       Each member of the team evaluated and scored each vendor individually on a rating scale from 1 through  
17       5 and scores were weighed according to the pre-established weighting factors that emphasized  
18       experience, completeness of offering, health & safety and pricing.

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

23  
24                   **e.           Customer Education Strategy**

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

29

1 The first phase focused strictly on information related to the overall provincial smart meter initiative and  
2 an introduction to Time of Use rates. The first phase forms part of our Minimum Functionality costs and is  
3 discussed below. Phase 2 of our customer communication strategy focused on notifying our  
4 customers of the implementation of Time of Use rates, educating them on how to shift or reduce  
5 electricity consumption and preparing customers for the new “look” of their invoices. The second phase is  
6 discussed in Beyond Minimum Functionality and in Subsection 6(e) entitled “Web  
7 Presentment and Customer Education”.

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

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

- 18 • “Your Smart Meter Has Been Installed” booklet
- 19 • “Getting Smart About Smart Meters” answer book
- 20 • Time Of Use Rates magnet
- 21

22 If customers were not present at the time of installation, the Ministry of Energy’s standard “Sorry We  
23 Missed You” card was left onsite with Greater Sudbury’s contact information contained within.

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

## 26 **5. Smart Meter Background**

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

30 The provincial Smart Meter Initiative stemmed from this Directive and all Local Distribution Companies

1 (LDCs) in Ontario became heavily involved in creating a conservation culture in Ontario and making the  
2 province a North American leader in energy efficiency. The provincial initiative mandated the installation  
3 of a smart electricity meter in every Ontario home by December 31, 2010, with the interim goal of  
4 800,000 meters being deployed by December 31, 2007. The underlying premise behind the mandate to  
5 install these meters was to educate customers on their consumption habits and to implement new rate  
6 structures that encouraged load shifting, thereby reducing the requirement for increased power  
7 generation capabilities in the province.

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

#### 14 **a. AMI Deployment**

15

16 The contractor began the mass installation in April 2010. The installation included all residential locations  
17 throughout our service territory. The three phase general service <50kW installations could not begin until  
18 late 2010 due to meter availability.

19 Olameter utilized eight installation technicians and projected completion in November of 2010. The  
20 protocol for Olameter provided detailed directions for interaction with our customers. Olameter was,  
21 at all times, acting as a Greater Sudbury approved contractor under strict guidelines approved by this  
22 utility.

#### 23 **b. Meter Base Replacement Program**

24

25 Greater Sudbury utilized pre-approved Electrical contractors to cover the supply of parts and labour to  
26 repair or replace faulty meter base jaws/meter bases and/or repairs as necessary throughout our mass  
27 installation. Significant attention to this detail mitigated the possibility of meter base fires that has been  
28 seen in other meter deployments and was the subject of a recent Communiqué of the Fire Marshall of  
29 Ontario.

30 Although the meter base is customer owned equipment, Greater Sudbury determined it was appropriate  
31 to repair broken meter bases as they were found. This decision was based on several considerations. First,

1 the meter base could not be left “as is” once it was discovered by the contractor based on employee and  
2 customer safety. Second, it was critical for a project of this magnitude to avoid potential delays that would  
3 be associated with negotiating the repair of the meter base with affected customers; this would affect our  
4 ability to achieve deadlines and, ultimately, potentially increase the cost of the project.

5 In accordance with the Filing Guidelines at page 8, the labour associated with the repair of this customer  
6 owned equipment was capitalized to account 1555 and the parts and material were expensed to  
7 account 1556.

#### 8 **c. Installation of Polyphase GS<50kW meters**

9 The installation of self contained three phase meters was part of the meter installation tender described  
10 previously and was undertaken by Olameter. From the early stages of the meter installation planning, it  
11 was Greater Sudbury’s intent to install transformer rated polyphase meters with internal resources. The  
12 narrow scope of this project made it possible to complete the work with internal resources. However,  
13 events conspired to change the plan. Delays in meter delivery and numerous significant issues with meter  
14 programming dragged polyphase meter installation into 2011 and ultimately 2012. The numerous delays  
15 forced Greater Sudbury to attempt to get contracted help to achieve the installation timelines required to  
16 meet the TOU billing requirements issued in 2010 by the OEB. The contractor was unsatisfactory and  
17 ultimately internal resources were augmented to achieve meter installation. The last of the polyphase  
18 transformer rated meters are arrived in late 2012 and will be installed forthwith.

19

#### 20 **d. AMI Annual Security Audit**

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

27 The Specifications for the Advanced Metering Infrastructure (AMI) released in July 2006 identified the  
28 need for security within the AMI network. Section 2.11 Security and Authentication states “The AMI  
29 shall have security features to prevent unauthorized access to the AMI and meter data to ensure  
30 authentication to all AMI elements.” In November 2009, the Information and Privacy Commissioner



1 identified areas of concern to be addressed in the area of smart meter and smart grid devices.

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

6 The ranking process resulted in a virtual tie between two proponents, so the successful proponent was  
7 selected based on their higher technical score. The selection of the successful proponent was a decision  
8 affecting all of the utilities involved in the process.

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

17

## 18 **6. Expenditures beyond Minimum Functionality**

19

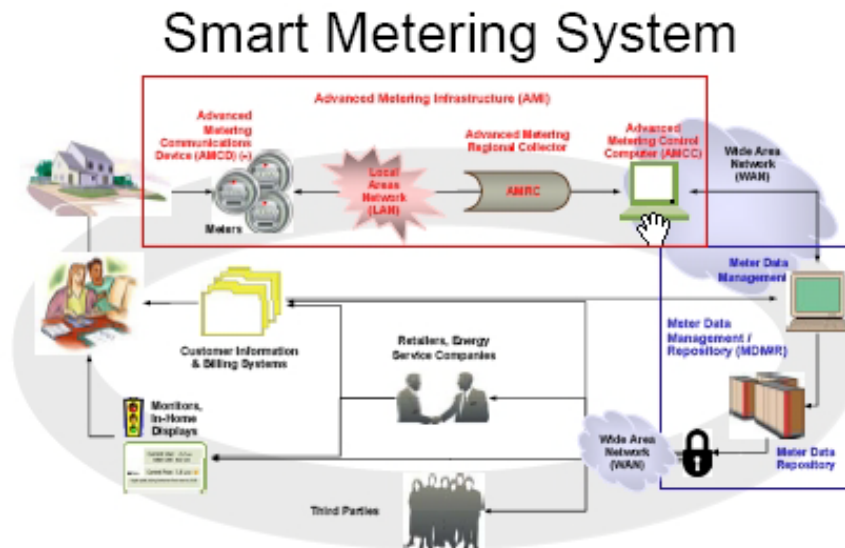
20 Ontario Regulation 425/06 sets out the definition of minimum functionality for advanced metering  
21 infrastructure for residential and small general service customers. The Board provided greater clarity with  
22 respect to the application of O. Reg. 425/06 in its Combined Proceeding<sup>2</sup> defining 14 separate allowable  
23 capital cost categories and a more limited set of OM&A expenses that directly support those capital  
24 investments. The Board's Guideline G-2011-0001, page 6, further refined the definition of Minimum  
25 Functionality as:

26 "In the Combined Proceeding, the Board defined minimum functionality as  
27 shown in the "Advanced Metering Infrastructure (AMI)" area in the  
28 diagram below. It includes an advanced metering communication device, a

---

<sup>2</sup> Combined Proceeding EB-2007-0063 - pp7 & Appendix A

1 local area network, an advanced regional collector, and an advanced  
2 metering central computer.”



3 The Board provided the chart, copied here as Figure 2, in the Smart Meter Filing Guideline as a visual  
4 indication of those functions (outlined in red) that Board Staff consider to be included in ‘minimum  
5 functionality’.

6 Figure 2 – Smart Meter System

7  
8 In order to provide greater clarity, the Guidelines specifically establish three categories of costs that are  
9 deemed to be ‘beyond minimum functionality’. They are as follows:

- 10 a) Costs for technical capabilities in the smart meters or related communication infrastructure that
- 11 exceed those specified in O.Reg 425/06;
- 12 b) Costs for deployment of smart meters to customers other than residential and small general
- 13 service; and
- 14 c) Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the
- 15 MDM/R, etc.

16 In any event, the Board has indicated that distributors may claim Beyond Minimum functionality Costs for

1 recovery as part of a Smart Meter disposition application<sup>3</sup>. "Costs for CIS systems, TOU rate  
 2 implementation, etc., are beyond minimum functionality as established by the Board in the Combined  
 3 Proceeding. However, such costs may be recoverable. In its application, a distributor should show how  
 4 these costs are required for its smart meter program. Further, a distributor should document how these  
 5 costs are incremental. For example, if a distributor has a normal budget for maintenance of its billing and  
 6 CIS systems, costs claimed for system maintenance and upgrades must be shown to be incremental to the  
 7 normal budget that is already recovered in base rates (emphasis added)."

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

**Table 6.1 – Expenditures beyond Minimum Functionality**

Description		Per meter
Capital Costs Above Minimum Functionality	\$ 273,447	\$5.87
OM&A Costs Above Minimum Functionality	\$141,960	\$3.03
<b>Total Capital and OM&amp;A Costs Above Minimum Functionality</b>	<b>\$415,407</b>	<b>\$8.92</b>

Description	2009	2010	2011	2012	Grand Total
CIS System Upgrades					
MDM/R Integration/TOU Preparation/Business Process Redesign	\$4,993	\$41,459	\$276,330	\$66,325	\$389,107
Web Presentment and customer education				\$26,300	\$26,300
<b>1.6.3 Capital Minimum Functionality</b>	<b>\$4,993</b>	<b>\$41,459</b>	<b>\$276,330</b>	<b>\$92,625</b>	<b>\$415,407</b>

<sup>3</sup> Smart Meter Filing Guideline G-2011-0001 - pp 17

1 The total amount claimed in this application for recovery as Beyond Minimum Functionality is \$415,407 or  
2 \$8.92 per customer. As noted above there are no costs submitted for meter installations other than those  
3 allowed in the G 1011-0001.

4 Therefore, Greater Sudbury respectfully submits, that its application for Beyond Minimum Functionality  
5 costs should be found to be both necessary to the desired Public Policy Objective (Time of Use Billing<sup>4</sup>) and  
6 prudently incurred.

7 The costs set out in Table 6.1 fall under the category of MDM/R Integration and relate to the  
8 integration of the MDM/R with Greater Sudbury's Harris NorthStar CIS and the Harris MeterSense  
9 Operational Data Store (ODS) solution. Additionally costs associated with preparation for billing customers  
10 based on Time of Use are included.

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

17 These costs are considered "required" for Smart Meters because the ODS system automates the process  
18 of prioritizing and to some degree responding to error messages sent from the MDM/R to the CIS. Prior to  
19 the commencement of Phase 2 of the Smart Meter Project, the CIS system was not configured for error  
20 code integration with the MDM/R. It is clear that "but for" the requirements of the Smart Metering  
21 Initiative, none of the costs for which we are seeking recovery in this application would have been  
22 incurred. The costs set out in relation to the integration of the ODS also meet the second test required by  
23 the Smart Meter Filing Guidelines in that they are "incremental" costs. Greater Sudbury has never required  
24 nor have we had an ODS prior to the Smart Meter Initiative.

25 It is important to note that Greater Sudbury is able to confidently state that the costs submitted with this  
26 application were required for the Smart Meter Initiative and incremental because we carried out a final  
27 internal review of the costs allocated to Accounts 1555 and 1556. In preparing for this cost of service  
28 application, the costs included in the Smart Meter deferral accounts were thoroughly reviewed by the  
29 Smart Meter Team. Those costs that were considered to be of broader benefit than Smart Meters, or part  
30 of normal CIS maintenance, were reallocated to regular OM&A or recorded to capital accounts that are not  
31 Smart Meter related.

---

<sup>4</sup> Guideline G-2011-0001 - pp17

1                   a. CIS Upgrades and Business Process Redesign

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

- 5
- 6       • billing process
  - 7       • final billing
  - 8       • meter changes
  - 9       • meter installations
  - 10      • meter reading
  - 11      • meter removals
  - 12      • move-in and move-out
  - 13      • new account setup
  - 14      • retailer billing and interaction
  - 15      • wholesale settlement

16 There were also new business processes that did not exist before the integration with the MDM\R was  
17 required:

- 18       • CMEP configuration and delivery methods
- 19       • CT/VT Changes
- 20       • Synchronization reports and processes for I-Sync and P-Sync

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

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

31 Smart Meters created additional steps in the business process compared to prior work processes and,  
32 therefore, one of the goals during the review of processes was to increase productivity through

1 automation where possible in order to balance the introduction of additional steps associated with Smart  
2 Meters. The end result was increased automation that has allowed Greater Sudbury to accommodate  
3 Smart Meters with two incremental permanent staff.

4 The two incremental staff are involved in the following activities:

- 5 • AMI security audits;
- 6 • AMI system management –Examples include co-ordinating enhancements such as encryption,  
7 firmware upgrades and HAN rollout;
- 8 • AMI Data management -- Operational Data Integration; Alarms
- 9 • Ongoing project management – AMI/CIS/MDMR/ODS integration;
- 10 • Troubleshooting communication problems at the meters.
- 11 • IT application integration issues.
- 12 • Interaction with AMI vendor
- 13 • Acting as a liason with AMI test group at PowerStream; attending meetings, managing results,  
14 making decisions.
- 15 • Accompany AMI contractors into substation for planned maintenance.

16 The CIS system utilized by Greater Sudbury is an “off the shelf” CIS product and therefore GSHI relies upon  
17 their service provider to develop and test the CIS interfaces with the MDM\R, with the utilities’ role limited  
18 to implementation and testing of data flows.

19 Each of the new or revised business processes were documented in detail. Those changed processes were  
20 then tested against rigorous test scripts and change iterations by Greater Sudbury staff.

21 The blueprints were successfully followed and this was a critical part of Greater Sudbury’s AMI/ODS/CIS  
22 being fully capable for TOU billing. The Reengineering of processes and existing systems has been critical  
23 to the success of the smart metering initiative at Greater Sudbury and instrumental in avoiding negative  
24 impacts to our customers or employee efficiency.

25       b)       MDM/R Integration

1 Greater Sudbury Harris Northstar CIS was modified by the vendor for integration with the components of  
2 the AMI, namely, Sensus (our AMI vendor), MeterSense (our ODS provider) and the provincial MDM/R. For  
3 each stage of the process, Greater Sudbury followed the prescribed activities during the preparation,  
4 registration and enrolment process that is described in the IESO's Smart Metering Lifecycle.

5 Greater Sudbury formally registered and enrolled with the IESO on May 20, 2010. In August 2010, Greater  
6 Sudbury received the mandatory TOU billing date from the OEB of September 2011. In April 2011 Greater  
7 Sudbury wrote the OEB requesting an extension of the mandated Time-of-Use (TOU) implementation Date  
8 to December 2011. After a written hearing held in May 2011 Greater Sudbury was granted an extension to  
9 December 2011 on August 4, 2011. In late 2011 the MDM\R go live dates to meet the Measurement  
10 Canada requirement for meter readings on the bills began to slip. Sudbury Hydro's mandatory TOU date  
11 slipped forward to May 1, 2012 as the production date for 7.2 moved outward in time.

12 c) **PRESCRIBED TESTING:**

13  
14 Prescribed testing consists of Unit Testing, SIT and QT. Of those testing protocols, Unit Testing is the critical  
15 phase for MDM/R Integration. The length of Unit Testing varies by utility from 1-3 months. Util-  
16 Assist provided Greater Sudbury with a 32 day test plan that encompassed all of the requirements of  
17 the IESO.

18 In February /March of 2011, Greater Sudbury began Unit Testing with the IESO and the Provincial MDM/R.  
19 Unit Testing is designed to test the rate structure and interaction with retailers. During Unit Testing,



1 Greater Sudbury tested the systems (AMI, CIS, etc.) with the MDM/R. The testing ensured all required  
2 interfaces with the MDM/R were developed and functional.

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

6

7 In mid 2011, our wave re-assignment was received for a late 2011 cutover to the production environment.  
8 The extension was required because Greater Sudbury determined it was appropriate to build our  
9 integration with the new protocol anticipated with R7.2, instead of building an R7.0 solution that would  
10 have only been operational for a few short months.

11 After making changes to our interfaces and business processes to accommodate R7.2 changes, Greater  
12 Sudbury began phase 2 of our Unit Testing on June 13, 2011. Unit testing was successful and Greater  
13 Sudbury received confirmation to move forward with System Integration Testing (SIT) in November 2011.  
14 Greater Sudbury conducted and completed SIT between November 14 and November 18, 2011 using  
15 MDM/R version 7.2 SP 8. SIT was conducted in the Sandbox environment with 21 test cases that were  
16 reviewed and agreed to by IBM, IESO and Greater Sudbury in the SIT Master Work Plan. All SIT test cases  
17 were executed, verified and passed.

18 Qualification Testing ("QT") ensured that the LDC's business processes can support typical business  
19 scenarios ranging from collecting and sending meter reads through to receiving billing quantity data  
20 from the MDM/R. Prior to the start of QT, the IESO provided a standard QT package containing some  
21 common LDC business scenarios. These scenarios involve multiple, short billing cycles within an  
22 approximate one month time frame. Greater Sudbury tested systems (CIS and Meter Read Data related  
23 systems) and used data and billing periods from November 24 to December 16, 2011 to perform a  
24 number of scenarios during the QT time period.

25

26

#### 27 d) Time-of-Use Preparation

28

29 As part of the smart meter initiative, and specifically in order to accommodate Time of Use (TOU) billing, a  
30 number of business process changes needed to be implemented. Through a series of meetings with Smart



1 Meter consulting partner Util-Assist, Greater Sudbury created a multifaceted, functional blueprint that  
2 detailed the new business billing and meter handling processes.

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

#### 10 e) Web Presentation and Customer Education

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

14 Directive #5 in the above noted Letter states:

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

- 17 - A smart meter must be able to measure and indicate electrical usage  
18 during pre-specified time periods.
- 19 - A smart meter must be adaptable or suitable, without removal of the  
20 meter, for seasonal and time of use commodity rates, critical peak pricing,  
21 and other foreseeable electricity rate structures
- 22 - A smart meter must be capable of being read remotely and the metering system must be  
23 capable of providing customers feedback on energy consumption with data updated no  
24 less than daily. “

25 Accordingly, Greater Sudbury asked other LDCs using Northstar who they had partnered with to provide  
26 Web services. Greater Sudbury then approached the three leading vendors and requested proposals.  
27 These proposals have been evaluated and a decision is expected shortly.

28 In addition to the mandate for Web Presentment, Greater Sudbury used a variety of advertising mediums  
29 as part of an effective campaign strategy for the purpose of providing education and notification about  
30 TOU pricing to its customers. Although Greater Sudbury has been conducting public information sessions  
31 on smart meters since third tranche, it was 2010 when education was boosted.

32 In 2010, and primarily as a first introduction for all, Greater Sudbury delivered directly to the home of its  
33 consumers a Smart Meter package that explained how smart meters work in conjunction with TOU rates

1 and further provided information about shifting electricity use to off peak periods as well as conservation  
 2 tips. This was the beginning of a full advertising campaign that crossed different media.

3 In August of 2012 a Letter was directly mailed to consumers reminding them that TOU rates would soon be  
 4 introduced. Included with the letter was a magnetic graph of TOU periods. The intent was to provide the  
 5 consumer with a convenient tool that would act as a quick, concise and easy reference guide.

6 Commencing November 2011 through August 2012, advertising mediums included newspaper  
 7 publications, radio ads, television ads that aired from Nov 21/11 through June 30/12 inclusive, and bill  
 8 inserts prior to TOU billing and with the first TOU billing.

9 **7. Smart Meter Costs**

10 Greater Sudbury is seeking recovery of costs related to the 46,612 smart meters and supporting  
 11 infrastructure. The costs have been audited to December 31, 2011 as the established deferral accounts.  
 12 1555 and 1556 form part of the annual audit performed.

13 **Table 7.1 – Amount of Audited Costs**

14

15

Year	Total Annual Smart Meter Costs	Cumulative Total	Audited
2006	\$0	\$0	YES
2007	\$64,018	\$64,018	YES
2008	\$87,482	\$151,500	YES
2009	\$470,451	\$621,951	YES
2010	\$5,875,299	\$6,497,250	YES
2011	\$1,121,461	\$7,618,711	YES
2012	\$454,663	\$8,073,374	NO
	Amount Audited (%)	94%	

16

17

18 Greater Sudbury acknowledges the Guideline which indicates that *“The Board expects that the*  
 19 *majority (ie. 90% or more) of the total program costs for which the distributor is seeking recovery*  
 20 *will be audited.”*

21

22 The above table indicates that 94.0% of costs have been audited, thereby meeting the guideline for ‘the  
 23 majority’ of program costs to be audited.

24

1  
2

**Table 7.2 - Capital Costs**

OEB Category	Description	2008	2009	2010	2011	2012	Grand Total	Cost Per Meter
	<b>Total Number of Smart Meters Installed or Planned to be Installed</b>		2423	39182	4359	648	46,612	
1.1.1	Smart Meters	\$541	\$273,191	\$4,040,826	\$245,209	\$132,767	\$4,692,534	
1.1.2	Installation		\$31,803	\$524,941	\$296,935	\$59,406	\$913,085	
1.1.3.a	Workforce Automation Hardware			\$16,502			\$16,502	
1.2.1	Collectors			\$845,761	\$6,413		\$852,174	
1.2.2	Repeaters		\$30,635	\$12,000			\$42,635	
1.2.3	Installation of AMRC						\$0	
1.3.1	AMCC Hardware			\$128,511	\$4,022		\$132,533	
1.3.2	AMCC Software			\$1,900			\$1,900	
1.5.1	Other AMI - Cust Equipment						\$0	
1.5.3	Other AMI - Professional Fees						\$0	
1.5.5	Other AMI - Program Management		\$35,011	\$30,821			\$65,832	
1.5.6	Other AMI				\$29,647		\$29,647	
	<b>Total For Minimum Functionality</b>	<b>\$541</b>	<b>\$370,640</b>	<b>\$5,601,262</b>	<b>\$582,226</b>	<b>\$192,173</b>	<b>\$6,746,842</b>	<b>\$144.74</b>
1.6.3	Capital Beyond Minimum Functionality			\$41,459	\$185,502	\$46,486	\$273,447	\$5.87
	<b>Total Smart Meter Capital Costs</b>	<b>\$541</b>	<b>\$370,640</b>	<b>\$5,642,721</b>	<b>\$767,728</b>	<b>\$238,659</b>	<b>\$7,020,288</b>	<b>\$150.61</b>

3  
4  
5  
6  
7  
8  
9  
10  
11  
12

1

**Table 7.3 - OM&A Costs**

OEB Category	Description	2007	2008	2009	2010	2011	2012	Grand Total	Cost per Meter
	<b>Total Number of Smart Meters Installed or Planned to be Installed</b>			2,423	39,182	4,359	648	46,612	
2.1.1	OM&A -AMCD Maintenance				\$4,272	\$17,377	\$63,392	\$85,041	
2.1.2	OM&A - Sensus Meter Operating Fee				\$8,132	\$23,648	\$28,826	\$60,606	
2.2.1	OM&A - AMCD Maintenance			\$13,332	\$45,182	\$43,356	\$86,806	\$188,676	
2.2.2	OM&A - Tower Rental, Radio License, TGB Operating Fee			\$4,886	\$52,058	\$62,841	\$74,925	\$194,710	
2.3.2	OM&A - Software Maintenance			\$26,246	\$9,883	\$14,576	\$35,214	\$85,919	
2.3.2	OM&A - Other - Reclass Cap/mtce 2011 in 2012 and meter reading savings					\$63,456	(\$223,456)	(\$160,000)	
2.4.2	OM&A - Other - Wan Setup and Monthly Fee			\$2,018	\$4,560	\$14,150	\$13,924	\$34,652	
2.5.1	OM&A - Business Process Redesign						\$15,331	\$15,331	
2.5.2	OM&A - Customer Communication				\$47,281		\$13,533	\$60,814	
2.5.3	OM&A - Program Management						\$24,818	\$24,818	
2.5.4	OM&A - Change Management	\$9,241		\$3,232			\$38,466	\$50,939	
2.5.5	OM&A - Administration Costs	\$54,777	\$63,126	\$43,271	\$24,473	\$5,529	\$21,839	\$213,015	
2.5.6	Other AMI Expenses		\$23,815	\$1,833	\$36,738	\$17,970	(\$23,754)	\$56,602	
	<b>Total OM&amp;A Costs Related to Minimum Functionality</b>	\$64,018	\$63,126	\$92,985	\$195,841	\$244,933	\$193,618	\$911,126	\$19.55
2.6.3	OM&A Beyond Minimum Functionality			\$4,993		\$90,828	\$46,139	\$141,960	\$3.05
	<b>Total OM&amp;A</b>	\$64,018	\$63,126	\$97,978	\$195,841	\$335,761	\$239,757	\$1,053,086	\$22.59

2

## 8. Rate Rider Summary and Bill Impacts

Greater Sudbury is seeking approval of the Smart Meter costs in this application and the transfer of the approved amounts from the smart meter deferral accounts to the required fixed asset, revenue and expense accounts. Also being requested is the approval of a Smart Meter Disposition Rate Rider (SMDR) which reconciles the revenue requirement.

Total revenue requirement by year is reflected in the Table below, and the amounts are derived from the OEB's smart meter model version 3.0.

**Table 8.1 - Smart Meter Disposition Amounts**

	<b>SMDR Amount</b>
Smart Meter Revenue Requirement 2006	
Smart Meter Revenue Requirement 2007	\$65,043
Smart Meter Revenue Requirement 2008	\$88,313
Smart Meter Revenue Requirement 2009	\$132,412
Smart Meter Revenue Requirement 2010	\$722,377
Smart Meter Revenue Requirement 2011	\$1,320,408
Smart Meter Revenue Requirement 2012	\$1,188,167
Interest on OM&A	\$57,151
<b>Revenue Requirement</b>	<b>\$3,573,871</b>
Smart Meter Rate Adder Revenues	(\$2,998,856)
Carrying Charge	(\$143,834)
<b>Smart Meter True-up</b>	<b>\$431,181</b>

Greater Sudbury is proposing that the smart meter true-up of \$431,181 be allocated to the residential and GS<50 rate classes similar to the approach taken by Guelph Hydro. Greater Sudbury did not track costs by rate class but we feel the cost allocation methodology proposed in the application is reasonable and representative of costs incurred by the classes to date.

The table below details the allocation factors utilized in the determination of revenue requirement allocated to each class. Exhibit 9, Table 4, Schedule 1, Attachment 1 details the revenue requirement allocation.

1

**Table 8.2 - Allocation Factors**

	<b>Residential</b>	<b>GS&lt;50</b>	<b>Total</b>
Average Smart Meter Unit Cost (meter and installation)	\$108	\$287	
Total Smart Meter Cost (meter and installation)	\$4,570,715	\$1,034,702	\$5,605,416
Allocation by Meter costs	81.54%	18.46%	100.00%
Number of Meters installed	42,567	4,045	46,612
Allocation by Number of Meters Installed	91.32%	8.68%	100.00%

2

3

**Table 8.3 - Determination of SMDR**

4

Revenue Requirement to December 31, 2012	Total to Allocate	Allocator for Residential	Residential \$	Allocator for GS<50	GS<50 \$
Return	\$1,095,588	81.54%	\$893,354	18.46%	\$202,234
Amortization	\$1,235,721	81.54%	\$1,007,620	18.46%	\$228,101
OM&A	\$1,053,087	91.32%	\$961,700	8.68%	\$91,387
Subtotal Before PILs	\$3,384,396	84.58%	\$2,862,673	15.42%	\$521,723
PILs	\$132,325	84.58%	\$111,926	15.42%	\$20,399
Interest	\$57,151	81.54%	\$46,601	18.46%	\$10,549
Total Revenue Requirement	\$3,573,871		\$3,021,201		\$552,670
Smart Meter Funding Adder Collected	(\$2,998,856)				
Carrying Charges	(\$143,834)				
Total Smart Meter Funding Adder Collected	(\$3,142,690)	91.04%	(\$2,861,118)	8.96%	(\$281,572)
True-up Balance	\$431,181		\$160,082		\$271,099
Number of Customers (installed meters)	46,612		42,567		4,045
Number of Months Disposition	12		0.31		5.59

5

6

1  
2

**Table 8.4 - Bill Impacts**

Customer Class	Average Monthly kWh	Proposed Rate Rider (SMDR only)	# Months Recovery	Total Monthly Bill Charges (includes tax)		Variance	
				Current	Proposed	\$	%
Residential	800	\$0.31	12	\$103.96	\$104.28	\$0.31	0.30%
GS<50	2,000	\$5.59	12	\$256.39	\$262.08	\$5.69	2.22%

3  
4  
5  
6  
7

Greater Sudbury is proposing a one year recovery of the rider for both rate classes. This rider will be included as part of the Rate Schedule in the 2013 Cost of Service application.

9.0 Conclusion

8 Greater Sudbury respectfully submits that the costs incurred to fulfill its obligations under the  
 9 provincially mandated Smart Meter initiative have been prudently incurred in accordance with the  
 10 Board Guidelines; that the proposed rate riders are just and reasonable, and that it is appropriate that  
 11 the Board approve the proposed rate riders for implementation with our Cost of Service application.

Table 8.5 - Revenue Requirement

	2007	2008	2009	2010	2011	2012	Total 2009 to 2011	Explanation Allocator	ID and Factors	Total	Residential	General Service Less than 50 kW
Revenue Requirement for the Historical Years	\$65,042.95	\$88,313.34	\$132,411.58	\$722,376.53	\$1,320,408.20	\$1,188,167.30	\$3,516,719.90					
Total Return on Capital	\$780.00	\$1,073.00	\$14,272.00	\$222,541.00	\$428,941.00	\$427,980.00	\$1,095,587.00	Weighted Meter - Capital	CWMC	100.00%	81.54%	18.46%
Allocated per Class										\$1,095,587.00	\$893,353.04	\$202,233.96
Amortization and interest Expense	\$1,296.63	\$4,453.31	\$16,572.92	\$233,435.87	\$486,676.05	\$550,436.83	\$1,292,871.61	Weighted Meter - Capital	CWMC	100.00%	81.54%	18.46%
Allocated per Class										\$1,292,871.61	\$1,054,220.97	\$238,650.64
Operating Expenses (Note 1)	\$64,018.00	\$86,941.00	\$99,811.00	\$232,579.00	\$353,733.00	\$216,004.00	\$1,053,086.00	Number of Smart Meters Installed for each Class		46,612	42,567	4,045
Allocated per Class										\$1,053,086.00	\$961,698.96	\$91,387.04
Grossed-up Taxes/PILs	\$244.34	\$281.01	\$3,896.04	\$37,802.78	\$67,454.49	\$22,645.96	\$132,324.62	Revenue Requirement allocated to each Class before PILs		\$3,441,544.61	\$2,909,272.96	\$532,271.65
Allocated per Class										\$132,324.62	\$111,859.20	\$20,465.42
<b>TOTAL REVENUE REQUIREMENT</b>							<b>\$3,573,869.23</b>			<b>\$3,573,869.23</b>	<b>\$3,021,132.17</b>	<b>\$552,737.06</b>
Percentage of costs allocated to Residential and GS < 50 kW customer classes										100.00%	84.53%	15.47%
Revenue Generated from Smart Meter Funding Adder (including Interest)							\$3,142,689.94					
SMFA Revenues directly attributable to class											90.48%	8.40%
Residual SMFA revenues (from other metered classes) attributed evenly											0.56%	0.56%
Total											91.04%	8.96%
Revenues Generated from SMFA							\$3,142,689.94					
Net Deferred Revenue Requirement							\$431,179.29					
Allocated per Class										\$431,179.29	\$160,013.83	\$271,165.46
Number of Metered Customers (2012)											42,567	4,045
Smart Meter Disposition Rate Rider											\$0.31	\$5.59

Note (1): The Operating Expenses were reduced by \$89,067 to reflect the SH&ED Tax Credit - Energy Probe TCQ # 21 c From 'Rate Class Customer Model' of Guelph's weather normalization load forecast model spreadsheet filed in the application.

Smart Meter Funding Adder Revenues

Year	Residential	Number of customers GS < 50 kW	Other Metered Customer Classes	Estimated SMFA Revenues			Total
				Residential	GS < 50 kW	Other Metered Customer Classes	
2006 (May 1, 2006)	41,477	3,888	515	\$ 67,446.49	\$ 6,426.54	\$ 842.06	\$ 74,715.09
2007	41,569	3,923	525	\$ 127,773.36	\$ 11,892.29	\$ 1,580.55	\$ 141,246.20
2008	41,648	4,027	525	\$ 129,501.80	\$ 11,901.37	\$ 1,569.22	\$ 142,972.39
2009	41,780	4,004	514	\$ 129,560.00	\$ 11,872.53	\$ 1,558.85	\$ 142,991.38
2010	41,997	4,015	518	\$ 718,569.75	\$ 66,756.14	\$ 8,784.46	\$ 794,110.35
2011	42,174	4,029	527	\$ 1,048,990.10	\$ 97,352.73	\$ 13,517.78	\$ 1,159,860.61
2012 (PER FORECAST)	42,342	4,045	529	\$ 491,535.50	\$ 45,688.46	\$ 5,736.42	\$ 542,960.38
				\$ 2,713,377.00	\$ 251,890.06	\$ 33,589.34	\$ 2,998,856.40
Interest							\$ 143,833.54
Total with interest							\$ 3,142,689.94
				90.48%	8.40%	1.12%	100.00%
Even allocation				84.53%	15.47%		
Allocation of 1.19% to Res and GS < 50 kW				50.00%	50.00%		
				0.560%	0.560%		
				91.04%	8.96%		
				\$ 2,861,118.34	\$ 281,571.60	\$ 3,142,689.94	





# PRP International, Inc.

## Fairness Advisory Services

May 30, 2008

Mr. Brian McMillan, P.Eng.  
Vice-President – Distribution Electrical Systems  
Greater Sudbury Hydro Inc.  
500 Regent Street, P.O. Box 250  
Sudbury, ON P3E 4P1

Dear Mr. McMillan:

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

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

*"It is the judgment of PRP International, Inc., as the Fairness Commissioner, that the determinations of the two (2) highest ranked Proponents for the Greater Sudbury Hydro Inc. requirements are:*

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

*These determinations were made in a fair (objective and competent) manner and consistent with the evaluation and selection processes set out in the RFP, issued August 14, 2007."*

A detailed report for your records will be submitted to you, by August 31, 2008. Should you have any questions or require clarification of any matter contained in this letter report, please contact the undersigned.

Yours truly,

Peter Sorensen  
President

cc: Mr. Gary Rains, RFP Project Director



## Smart Meter Model for Electricity Distributors (2013 Filers)

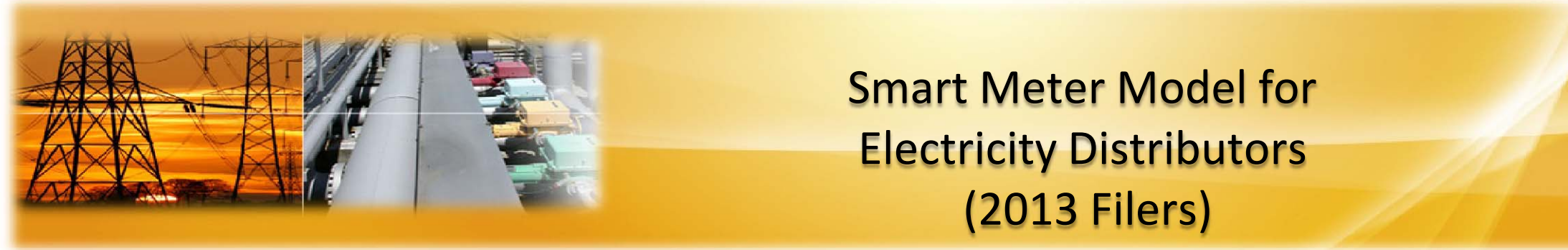
Version 3.00

Utility Name	Greater Sudbury Hydro Inc.
Assigned EB Number	EB-2012-0126
Name and Title	Nancy Whissell - VP Corporate Services
Phone Number	705-675-7536 ext 2235
Email Address	nancyw@shec.com
Date	09-Nov-12
Last COS Re-based Year	2009

**Note:** Drop-down lists are shaded blue; Input cells are shaded green.

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

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



## Smart Meter Model for Electricity Distributors (2013 Filers)

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

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

Smart Meter Capital Cost and Operational Expense Data	2006	2007	2008	2009	2010	2011	2012	2013	Total	
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast		
<b>Smart Meter Installation Plan</b>										
<b>Actual/Planned number of Smart Meters installed during the Calendar Year</b>										
Residential				2,352	37,684	2,310	221	170	42737	
General Service < 50 kW				71	1,498	2,049	427	16	4061	
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	0	2423	39182	4359	648	186	46798	
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	5.18%	88.90%	98.22%	99.60%	100.00%	100.00%	
Actual/Planned number of GS > 50 kW meters installed							150	150	300	
Other (please identify) <input type="text" value="Bi-Directional meters for renewable generation facilities"/>				1	16	21	12	24	74	
Total Number of Smart Meters installed or planned to be installed	0	0	0	2424	39198	4380	810	360	47172	
<b>1 Capital Costs</b>										
<b>1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>										
1.1.1 Smart Meters (may include new meters and modules, etc.)	Smart Meter	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	\$
				541	273,191	4,040,826	245,209	132,767	0	4,692,533
1.1.2 Installation Costs (may include socket kits, labour, vehicle, benefits, etc.)	Smart Meter				31,803	524,941	296,935	59,406		\$ 913,085
1.1.3a Workforce Automation Hardware (may include fieldwork handhelds, barcode hardware, etc.)	Tools & Equipment					16,502				\$ 16,502
1.1.3b Workforce Automation Software (may include fieldwork handhelds, barcode hardware, etc.)	Applications Software									\$ -
<b>Total Advanced Metering Communications Devices (AMCD)</b>		\$ -	\$ -	\$ 541	\$ 304,994	\$ 4,582,269	\$ 542,144	\$ 192,173	\$ -	\$ 5,622,120
<b>1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)</b>										
1.2.1 Collectors	Smart Meter	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	\$
						845,761	6,413			852,174
1.2.2 Repeaters (may include radio licence, etc.)	Computer Hardware				30,635	12,000				\$ 42,635
1.2.3 Installation (may include meter seals and rings, collector computer hardware, etc.)										\$ -
<b>Total Advanced Metering Regional Collector (AMRC) (Includes LAN)</b>		\$ -	\$ -	\$ -	\$ 30,635	\$ 857,761	\$ 6,413	\$ -	\$ -	\$ 894,809

**1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)**

- 1.3.1 Computer Hardware
- 1.3.2 Computer Software
- 1.3.3 Computer Software Licences & Installation (includes hardware and software)  
*(may include AS/400 disk space, backup and recovery computer, UPS, etc.)*

Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
Computer Hardware					128,511	4,022			\$ 132,534
Computer Software					1,900	0			\$ 1,900
									\$ -
<b>Total Advanced Metering Control Computer (AMCC)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 130,411</b>	<b>\$ 4,022</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 134,433</b>

**1.4 WIDE AREA NETWORK (WAN)**

- 1.4.1 Activation Fees

Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
									\$ -
<b>Total Wide Area Network (WAN)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY**

- 1.5.1 Customer Equipment *(including repair of damaged equipment)*
- 1.5.2 AMI Interface to CIS
- 1.5.3 Professional Fees
- 1.5.4 Integration
- 1.5.5 Program Management
- 1.5.6 Other AMI Capital

Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
Other Equipment				0	0	0			\$ -
									\$ -
									\$ -
									\$ -
Smart Meter				35,011	30,821				\$ 65,832
Computer Hardware				0	0	29,647			\$ 29,647
<b>Total Other AMI Capital Costs Related to Minimum Functionality</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 35,011</b>	<b>\$ 30,821</b>	<b>\$ 29,647</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 95,479</b>
<b>Total Capital Costs Related to Minimum Functionality</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 541</b>	<b>\$ 370,640</b>	<b>\$ 5,601,261</b>	<b>\$ 582,226</b>	<b>\$ 192,173</b>	<b>\$ -</b>	<b>\$ 6,746,841</b>

**1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY**

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

- 1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06
- 1.6.2 Costs for deployment of smart meters to customers other than residential and small general service
- 1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDMR, etc.

Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
									\$ -
Smart Meter							0	0	\$ -
Computer Software					41,459	185,502	46,486		\$ 273,447
<b>Total Capital Costs Beyond Minimum Functionality</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 41,459</b>	<b>\$ 185,502</b>	<b>\$ 46,486</b>	<b>\$ -</b>	<b>\$ 273,447</b>
<b>Total Smart Meter Capital Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 541</b>	<b>\$ 370,640</b>	<b>\$ 5,642,720</b>	<b>\$ 767,728</b>	<b>\$ 238,659</b>	<b>\$ -</b>	<b>\$ 7,020,288</b>

**2 OM&A Expenses**

	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
<b>2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>									
2.1.1 Maintenance (may include meter reverification costs, etc.)					4,272	17,377	63,392	72,489	\$ 157,531
2.1.2 Other (please specify) Sensus Meter operating fee,					8,132	23,648	28,826	29,773	\$ 90,379
<b>Total Incremental AMCD OM&amp;A Costs</b>	\$ -	\$ -	\$ -	\$ -	\$ 12,404	\$ 41,026	\$ 92,218	\$ 102,262	\$ 247,910
<b>2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)</b>									
2.2.1 Maintenance				13,332	45,182	43,356	86,806	93,078	\$ 281,754
2.2.2 Other (please specify) Tower Rental, Radio Licenses, TGB Operating Fee				4,886	52,058	62,841	74,925	61,276	\$ 255,986
<b>Total Incremental AMRC OM&amp;A Costs</b>	\$ -	\$ -	\$ -	\$ 18,219	\$ 97,240	\$ 106,197	\$ 161,731	\$ 154,354	\$ 537,741
<b>2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)</b>									
2.3.1 Hardware Maintenance (may include server support, etc.)					0				\$ -
2.3.2 Software Maintenance (may include maintenance support, etc.)				26,246	9,883	14,576	35,214	29,368	\$ 115,287
2.3.2 Other (please specify) reclass cap/mfce 2011 in 2012 and meter reading savings						63,456	-223,456		-\$ 160,000
<b>Total Incremental AMCC OM&amp;A Costs</b>	\$ -	\$ -	\$ -	\$ 26,246	\$ 9,883	\$ 78,032	-\$ 188,242	\$ 29,368	-\$ 44,713
<b>2.4 WIDE AREA NETWORK (WAN)</b>									
2.4.1 WAN Maintenance									\$ -
2.4.2 Other (please specify) Wan setup and Monthly Fees				2,018	4,560	14,150	13,924	25,762	\$ 60,415
<b>Total Incremental AMRC OM&amp;A Costs</b>	\$ -	\$ -	\$ -	\$ 2,018	\$ 4,560	\$ 14,150	\$ 13,924	\$ 25,762	\$ 60,415
<b>2.5 OTHER AMI OM&amp;A COSTS RELATED TO MINIMUM FUNCTIONALITY</b>									
2.5.1 Business Process Redesign						0	15,331	17,108	\$ 32,438
2.5.2 Customer Communication (may include project communication, etc.)					47,281		13,533	13,533	\$ 74,347
2.5.3 Program Management						0	24,818	49,555	\$ 74,373
2.5.4 Change Management (may include training, etc.)		9,241		3,232		0	38,466	41,132	\$ 92,070
2.5.5 Administration Costs		54,777	63,126	43,271	24,473	5,529	21,839	28,941	\$ 241,956
2.5.6 Other AMI Expenses (please specify)		0	23,815	1,833	36,738	17,970	-23,754	25,950	\$ 82,553
<b>Total Other AMI OM&amp;A Costs Related to Minimum Functionality</b>	\$ -	\$ 64,018	\$ 86,941	\$ 48,336	\$ 108,492	\$ 23,499	\$ 90,233	\$ 176,219	\$ 597,739
<b>TOTAL OM&amp;A COSTS RELATED TO MINIMUM FUNCTIONALITY</b>	\$ -	\$ 64,018	\$ 86,941	\$ 94,818	\$ 232,579	\$ 262,904	\$ 169,865	\$ 487,965	\$ 1,399,091
<b>2.6 OM&amp;A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALITY</b> <i>(Please provide a descriptive title and identify nature of beyond minimum functionality costs)</i>									
2.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06									\$ -
2.6.2 Costs for deployment of smart meters to customers other than residential and small general service									\$ -
2.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDMR, etc.				4,993	0	90,828	46,139	98,449	\$ 240,409
<b>Total OM&amp;A Costs Beyond Minimum Functionality</b>	\$ -	\$ -	\$ -	\$ 4,993	\$ -	\$ 90,828	\$ 46,139	\$ 98,449	\$ 240,409
<b>Total Smart Meter OM&amp;A Costs</b>	\$ -	\$ 64,018	\$ 86,941	\$ 99,811	\$ 232,579	\$ 353,733	\$ 216,004	\$ 586,413	\$ 1,639,500

**3 Aggregate Smart Meter Costs by Category**

<b>3.1</b>	<b>Capital</b>										
3.1.1	Smart Meter	\$ -	\$ -	\$ 541	\$ 340,005	\$ 5,442,348	\$ 548,557	\$ 192,173	\$ -	\$ -	\$ 6,523,624
3.1.2	Computer Hardware	\$ -	\$ -	\$ -	\$ 30,635	\$ 140,511	\$ 33,669	\$ -	\$ -	\$ -	\$ 204,815
3.1.3	Computer Software	\$ -	\$ -	\$ -	\$ -	\$ 43,359	\$ 185,502	\$ 46,486	\$ -	\$ -	\$ 275,347
3.1.4	Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ 16,502	\$ -	\$ -	\$ -	\$ -	\$ 16,502
3.1.5	Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3.1.6	Applications Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>3.1.7</b>	<b>Total Capital Costs</b>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 541</u>	<u>\$ 370,640</u>	<u>\$ 5,642,720</u>	<u>\$ 767,728</u>	<u>\$ 238,659</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 7,020,288</u>
<b>3.2</b>	<b>OM&amp;A Costs</b>										
<b>3.2.1</b>	<b>Total OM&amp;A Costs</b>	<u>\$ -</u>	<u>\$ 64,018</u>	<u>\$ 86,941</u>	<u>\$ 99,811</u>	<u>\$ 232,579</u>	<u>\$ 353,733</u>	<u>\$ 216,004</u>	<u>\$ 586,413</u>	<u>\$ -</u>	<u>\$ 1,639,500</u>





# Smart Meter Model for Electricity Distributors (2013 Filers)

	2006	2007	2008	2009	2010	2011	2012	2013
<b>Cost of Capital</b>								
<b>Capital Structure<sup>1</sup></b>								
Deemed Short-term Debt Capitalization				4.0%	4.0%	4.0%	4.0%	4.0%
Deemed Long-term Debt Capitalization	50.0%	50.0%	53.3%	52.7%	56.0%	56.0%	56.0%	56.0%
Deemed Equity Capitalization	50.0%	50.0%	46.7%	43.3%	40.0%	40.0%	40.0%	40.0%
Preferred Shares								
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<b>Cost of Capital Parameters</b>								
Deemed Short-term Debt Rate				2.07%	1.33%	1.33%	1.33%	2.08%
Long-term Debt Rate (actual/embedded/deemed) <sup>2</sup>	7.25%	7.25%	7.25%	7.25%	7.01%	7.01%	7.01%	4.41%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	8.01%	8.01%	8.01%	8.01%	9.12%
Return on Preferred Shares				0.00%				
<b>WACC</b>	8.13%	8.13%	8.07%	7.37%	7.18%	7.18%	7.18%	6.20%
<b>Working Capital Allowance</b>								
Working Capital Allowance Rate <i>(% of the sum of Cost of Power + controllable expenses)</i>	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	13.0%
<b>Taxes/PILs</b>								
Aggregate Corporate Income Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%	25.50%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%	0.00%

## Depreciation Rates

(expressed as expected useful life in years)

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

## CCA Rates

Smart Meters - CCA Class	47	47	47	47	47	47	47	47
Smart Meters - CCA Rate	8%	8%	8%	8%	8%	8%	8%	8%
Computer Equipment - CCA Class	47	47	47	47	47	47	45	45
Computer Equipment - CCA Rate	8%	8%	8%	8%	8%	8%	45%	45%
General Equipment - CCA Class	47	47	47	47	47	47	8	8
General Equipment - CCA Rate	8%	8%	8%	8%	8%	8%	20%	20%
Applications Software - CCA Class	47	47	47	47	47	47	12	12
Applications Software - CCA Rate	8%	8%	8%	8%	8%	8%	100%	100%

## Assumptions

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







## Smart Meter Model for Electricity Distributors (2013 Filers)

	2006	2007	2008	2009	2010	2011	2012	2013
<b>Average Net Fixed Asset Values (from Sheet 4)</b>								
Smart Meters	\$ -	\$ -	\$ 261	\$ 164,840	\$ 2,948,275	\$ 5,639,765	\$ 5,593,973	\$ 5,258,354
Computer Hardware	\$ -	\$ -	\$ -	\$ 13,786	\$ 87,738	\$ 145,941	\$ 123,496	\$ 82,533
Computer Software	\$ -	\$ -	\$ -	\$ -	\$ 19,511	\$ 118,163	\$ 195,335	\$ 165,834
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ 7,838	\$ 14,852	\$ 13,202	\$ 11,551
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Net Fixed Assets</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 261</b>	<b>\$ 178,626</b>	<b>\$ 3,063,363</b>	<b>\$ 5,918,720</b>	<b>\$ 5,926,006</b>	<b>\$ 5,518,272</b>
<b>Working Capital</b>								
Operating Expenses (from Sheet 2)	\$ -	\$ 64,018	\$ 86,941	\$ 99,811	\$ 232,579	\$ 353,733	\$ 216,004	\$ 586,413
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%	13%
Working Capital Allowance	\$ -	\$ 9,603	\$ 13,041	\$ 14,972	\$ 34,887	\$ 53,060	\$ 32,401	\$ 76,234
<b>Incremental Smart Meter Rate Base</b>	<b>\$ -</b>	<b>\$ 9,603</b>	<b>\$ 13,302</b>	<b>\$ 193,598</b>	<b>\$ 3,098,250</b>	<b>\$ 5,971,780</b>	<b>\$ 5,958,406</b>	<b>\$ 5,594,505</b>
<b>Return on Rate Base</b>								
<i>Capital Structure</i>								
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ 7,744	\$ 123,930	\$ 238,871	\$ 238,336	\$ 223,780
Deemed Long Term Debt	\$ -	\$ 4,801	\$ 7,090	\$ 102,026	\$ 1,735,020	\$ 3,344,197	\$ 3,336,708	\$ 3,132,923
Equity	\$ -	\$ 4,801	\$ 6,212	\$ 83,828	\$ 1,239,300	\$ 2,388,712	\$ 2,383,363	\$ 2,237,802
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Capitalization	\$ -	\$ 9,603	\$ 13,302	\$ 193,598	\$ 3,098,250	\$ 5,971,780	\$ 5,958,406	\$ 5,594,505
<i>Return on</i>								
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ 160	\$ 1,648	\$ 3,177	\$ 3,170	\$ 4,655
Deemed Long Term Debt	\$ -	\$ 348	\$ 514	\$ 7,397	\$ 121,625	\$ 234,428	\$ 233,903	\$ 138,162
Equity	\$ -	\$ 432	\$ 559	\$ 6,715	\$ 99,268	\$ 191,336	\$ 190,907	\$ 204,088
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Return on Capital</b>	<b>\$ -</b>	<b>\$ 780</b>	<b>\$ 1,073</b>	<b>\$ 14,272</b>	<b>\$ 222,541</b>	<b>\$ 428,941</b>	<b>\$ 427,980</b>	<b>\$ 346,904</b>
<b>Operating Expenses</b>	<b>\$ -</b>	<b>\$ 64,018</b>	<b>\$ 86,941</b>	<b>\$ 99,811</b>	<b>\$ 232,579</b>	<b>\$ 353,733</b>	<b>\$ 216,004</b>	<b>\$ 586,413</b>
<b>Amortization Expenses (from Sheet 4)</b>								
Smart Meters	\$ -	\$ -	\$ 18	\$ 11,370	\$ 204,115	\$ 403,812	\$ 428,503	\$ 434,908
Computer Hardware	\$ -	\$ -	\$ -	\$ 3,064	\$ 20,178	\$ 37,596	\$ 40,963	\$ 40,963
Computer Software	\$ -	\$ -	\$ -	\$ -	\$ 4,336	\$ 27,222	\$ 50,421	\$ 55,069
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ 825	\$ 1,650	\$ 1,650	\$ 1,650
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Amortization Expense in Year</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 18</b>	<b>\$ 14,433</b>	<b>\$ 229,454</b>	<b>\$ 470,280</b>	<b>\$ 521,536</b>	<b>\$ 532,591</b>
<b>Incremental Revenue Requirement before Taxes/PILs</b>	<b>\$ -</b>	<b>\$ 64,799</b>	<b>\$ 88,032</b>	<b>\$ 128,516</b>	<b>\$ 684,574</b>	<b>\$ 1,252,954</b>	<b>\$ 1,165,521</b>	<b>\$ 1,465,908</b>
<b>Calculation of Taxable Income</b>								
Incremental Operating Expenses	\$ -	\$ 64,018	\$ 86,941	\$ 99,811	\$ 232,579	\$ 353,733	\$ 216,004	\$ 586,413
Amortization Expense	\$ -	\$ -	\$ 18	\$ 14,433	\$ 229,454	\$ 470,280	\$ 521,536	\$ 532,591
Interest Expense	\$ -	\$ 348	\$ 514	\$ 7,557	\$ 123,273	\$ 237,605	\$ 237,073	\$ 142,817
<b>Net Income for Taxes/PILs</b>	<b>\$ -</b>	<b>\$ 432</b>	<b>\$ 559</b>	<b>\$ 6,715</b>	<b>\$ 99,268</b>	<b>\$ 191,336</b>	<b>\$ 190,907</b>	<b>\$ 204,088</b>
<b>Grossed-up Taxes/PILs (from Sheet 7)</b>	<b>\$ -</b>	<b>\$ 244.34</b>	<b>\$ 281.01</b>	<b>\$ 3,896.04</b>	<b>\$ 37,802.78</b>	<b>\$ 67,454.49</b>	<b>\$ 22,645.96</b>	<b>\$ 65,736.39</b>
<b>Revenue Requirement, including Grossed-up Taxes/PILs</b>	<b>\$ -</b>	<b>\$ 65,043</b>	<b>\$ 88,313</b>	<b>\$ 132,412</b>	<b>\$ 722,377</b>	<b>\$ 1,320,408</b>	<b>\$ 1,188,167</b>	<b>\$ 1,531,645</b>





## Smart Meter Model for Electricity Distributors (2013 Filers)

### PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 Forecast	2013 Forecast
<b>INCOME TAX</b>								
Net Income	\$ -	\$ 432.12	\$ 559.10	\$ 6,714.61	\$ 99,267.92	\$ 191,335.83	\$ 190,907.34	\$ 204,087.55
Amortization	\$ -	\$ -	\$ 18.02	\$ 14,433.06	\$ 229,453.74	\$ 470,279.74	\$ 521,536.49	\$ 532,590.89
CCA - Smart Meters	\$ -	\$ -	\$ 21.62	\$ 13,641.72	\$ 243,844.53	\$ 463,973.18	\$ 456,484.52	\$ 427,652.67
CCA - Computers	\$ -	\$ -	\$ -	\$ 1,225.41	\$ 9,707.56	\$ 25,052.58	\$ 189,420.04	\$ 114,640.48
CCA - Applications Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA - Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ 660.08	\$ 1,267.35	\$ 2,914.89	\$ 2,331.92
Change in taxable income	\$ -	\$ 432.12	\$ 555.50	\$ 6,280.54	\$ 74,509.50	\$ 171,322.46	\$ 63,624.37	\$ 192,053.38
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%	25.50%
Income Taxes Payable	\$ -	\$ 156.08	\$ 186.09	\$ 2,072.58	\$ 23,097.94	\$ 48,398.60	\$ 16,701.40	\$ 48,973.61
<b>ONTARIO CAPITAL TAX</b>								
Smart Meters	\$ -	\$ -	\$ 522.48	\$ 329,158.21	\$ 5,567,391.82	\$ 5,712,137.41	\$ 5,475,807.72	\$ 5,040,899.46
Computer Hardware	\$ -	\$ -	\$ -	\$ 27,571.62	\$ 147,904.46	\$ 143,977.58	\$ 103,014.51	\$ 62,051.44
Computer Software (Including Application Software)	\$ -	\$ -	\$ -	\$ -	\$ 39,022.75	\$ 197,302.61	\$ 193,368.37	\$ 138,299.00
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ 15,676.80	\$ 14,026.61	\$ 12,376.42	\$ 10,726.23
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Base	\$ -	\$ -	\$ 522.48	\$ 356,729.83	\$ 5,769,995.82	\$ 6,067,444.20	\$ 5,784,567.02	\$ 5,251,976.12
Less: Exemption	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Taxable Capital	\$ -	\$ -	\$ 522.48	\$ 356,729.83	\$ 5,769,995.82	\$ 6,067,444.20	\$ 5,784,567.02	\$ 5,251,976.12
Ontario Capital Tax Rate (from Sheet 3)	0.300%	0.225%	0.225%	0.225%	0.075%	0.000%	0.000%	0.000%
Net Amount (Taxable Capital x Rate)	\$ -	\$ -	\$ 1.18	\$ 802.64	\$ 4,327.50	\$ -	\$ -	\$ -
Change in Income Taxes Payable	\$ -	\$ 156.08	\$ 186.09	\$ 2,072.58	\$ 23,097.94	\$ 48,398.60	\$ 16,701.40	\$ 48,973.61
Change in OCT	\$ -	\$ -	\$ 1.18	\$ 802.64	\$ 4,327.50	\$ -	\$ -	\$ -
PILs	\$ -	\$ 156.08	\$ 187.27	\$ 2,875.22	\$ 27,425.44	\$ 48,398.60	\$ 16,701.40	\$ 48,973.61
<b>Gross Up PILs</b>								
Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%	25.50%
Change in Income Taxes Payable	\$ -	\$ 244.34	\$ 279.84	\$ 3,093.40	\$ 33,475.28	\$ 67,454.49	\$ 22,645.96	\$ 65,736.39
Change in OCT	\$ -	\$ -	\$ 1.18	\$ 802.64	\$ 4,327.50	\$ -	\$ -	\$ -
PILs	\$ -	\$ 244.34	\$ 281.01	\$ 3,896.04	\$ 37,802.78	\$ 67,454.49	\$ 22,645.96	\$ 65,736.39



## Smart Meter Model for Electricity Distributors (2013 Filers)

This worksheet calculates the funding adder revenues.

### Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance (Principal)	Funding Adder Revenues	Interest Rate	Interest	Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder
2006 Q1			Jan-06	2006	Q1	\$ -		0.00%	\$ -	\$ -		
2006 Q2	4.14%	4.68%	Feb-06	2006	Q1	\$ -		0.00%	\$ -	\$ -		
2006 Q3	4.59%	5.05%	Mar-06	2006	Q1	\$ -		0.00%	\$ -	\$ -		
2006 Q4	4.59%	4.72%	Apr-06	2006	Q2	\$ -		4.14%	\$ -	\$ -		
2007 Q1	4.59%	4.72%	May-06	2006	Q2	\$ -	\$ -	4.14%	\$ -	\$ -		
2007 Q2	4.59%	4.72%	Jun-06	2006	Q2	\$ -	\$ -	4.14%	\$ -	\$ -		
2007 Q3	4.59%	5.18%	Jul-06	2006	Q3	\$ -	\$ 17,540.29	4.59%	\$ -	\$ 17,540.29		\$ 0.27
2007 Q4	5.14%	5.18%	Aug-06	2006	Q3	\$ 17,540.29	\$ 14,211.06	4.59%	\$ 67.09	\$ 31,818.44		\$ 0.27
2008 Q1	5.14%	5.18%	Sep-06	2006	Q3	\$ 31,751.35	\$ 8,764.90	4.59%	\$ 121.45	\$ 40,637.70		\$ 0.27
2008 Q2	4.08%	5.18%	Oct-06	2006	Q4	\$ 40,516.25	\$ 13,509.70	4.59%	\$ 154.97	\$ 54,180.92		\$ 0.27
2008 Q3	3.35%	5.43%	Nov-06	2006	Q4	\$ 54,025.95	\$ 9,354.87	4.59%	\$ 206.65	\$ 63,587.47		\$ 0.27
2008 Q4	3.35%	5.43%	Dec-06	2006	Q4	\$ 63,380.82	\$ 11,334.27	4.59%	\$ 242.43	\$ 74,957.52	\$ 75,507.68	\$ 0.27
2009 Q1	2.45%	6.61%	Jan-07	2007	Q1	\$ 74,715.09	\$ 15,217.37	4.59%	\$ 285.79	\$ 90,218.25		\$ 0.27
2009 Q2	1.00%	6.61%	Feb-07	2007	Q1	\$ 89,932.46	\$ 11,286.32	4.59%	\$ 343.99	\$ 101,562.77		\$ 0.27
2009 Q3	0.55%	5.67%	Mar-07	2007	Q1	\$ 101,218.78	\$ 11,999.05	4.59%	\$ 387.16	\$ 113,604.99		\$ 0.27
2009 Q4	0.55%	4.66%	Apr-07	2007	Q2	\$ 113,217.83	\$ 10,040.44	4.59%	\$ 433.06	\$ 123,691.33		\$ 0.27
2010 Q1	0.55%	4.34%	May-07	2007	Q2	\$ 123,258.27	\$ 13,199.84	4.59%	\$ 471.46	\$ 136,929.57		\$ 1.94
2010 Q2	0.55%	4.34%	Jun-07	2007	Q2	\$ 136,458.11	\$ 12,681.33	4.59%	\$ 521.95	\$ 149,661.39		\$ 1.94
2010 Q3	0.89%	4.66%	Jul-07	2007	Q3	\$ 149,139.44	\$ 9,595.30	4.59%	\$ 570.46	\$ 159,305.20		\$ 1.94
2010 Q4	1.20%	4.01%	Aug-07	2007	Q3	\$ 158,734.74	\$ 14,128.19	4.59%	\$ 607.16	\$ 173,470.09		\$ 1.94
2011 Q1	1.47%	4.29%	Sep-07	2007	Q3	\$ 172,862.93	\$ 8,671.57	4.59%	\$ 661.20	\$ 182,195.70		\$ 1.94
2011 Q2	1.47%	4.29%	Oct-07	2007	Q4	\$ 181,534.50	\$ 15,009.76	5.14%	\$ 777.57	\$ 197,321.83		\$ 1.94
2011 Q3	1.47%	4.29%	Nov-07	2007	Q4	\$ 196,544.26	\$ 10,758.31	5.14%	\$ 841.86	\$ 208,144.43		\$ 1.94
2011 Q4	1.47%	3.92%	Dec-07	2007	Q4	\$ 207,302.57	\$ 8,658.72	5.14%	\$ 887.95	\$ 216,849.24	\$ 148,035.81	\$ 1.94
2012 Q1	1.47%	3.92%	Jan-08	2008	Q1	\$ 215,961.29	\$ 15,752.99	5.14%	\$ 925.03	\$ 232,639.31		\$ 1.94
2012 Q2	1.47%	3.51%	Feb-08	2008	Q1	\$ 231,714.28	\$ 10,358.85	5.14%	\$ 992.51	\$ 243,065.64		\$ 1.94
2012 Q3	1.47%	3.51%	Mar-08	2008	Q1	\$ 242,073.13	\$ 10,056.31	5.14%	\$ 1,036.88	\$ 253,166.32		\$ 1.94
2012 Q4	1.47%	3.23%	Apr-08	2008	Q2	\$ 252,129.44	\$ 13,941.49	4.08%	\$ 857.24	\$ 266,928.17		\$ 1.94
2013 Q1	1.47%	3.23%	May-08	2008	Q2	\$ 266,070.93	\$ 12,182.82	4.08%	\$ 904.64	\$ 279,158.39		\$ 1.94
2013 Q2	1.47%	3.23%	Jun-08	2008	Q2	\$ 278,253.75	\$ 11,506.25	4.08%	\$ 946.06	\$ 290,706.06		\$ 1.94
2013 Q3	1.47%	3.23%	Jul-08	2008	Q3	\$ 289,760.00	\$ 12,330.71	3.35%	\$ 808.91	\$ 302,899.62		\$ 1.94



## Smart Meter Model for Electricity Distributors (2013 Filers)

This worksheet calculates the funding adder revenues.

### Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance (Principal)	Funding Adder Revenues	Interest Rate	Interest	Closing Balance	Annual amounts	Board Approved
												Funding Adder
2013 Q4	1.47%	3.23%	Aug-08	2008	Q3	\$ 302,090.71	\$ 10,067.16	3.35%	\$ 843.34	\$ 313,001.21		\$ 1.94
			Sep-08	2008	Q3	\$ 312,157.87	\$ 11,769.20	3.35%	\$ 871.44	\$ 324,798.51		\$ 1.94
			Oct-08	2008	Q4	\$ 323,927.07	\$ 13,894.46	3.35%	\$ 904.30	\$ 338,725.83		\$ 1.94
			Nov-08	2008	Q4	\$ 337,821.53	\$ 9,126.17	3.35%	\$ 943.09	\$ 347,890.79		\$ 1.94
			Dec-08	2008	Q4	\$ 346,947.70	\$ 12,025.79	3.35%	\$ 968.56	\$ 359,942.05	\$ 154,014.20	\$ 1.94
			Jan-09	2009	Q1	\$ 358,973.49	\$ 11,117.92	2.45%	\$ 732.90	\$ 370,824.31		\$ 1.94
			Feb-09	2009	Q1	\$ 370,091.41	\$ 13,217.74	2.45%	\$ 755.60	\$ 384,064.75		\$ 1.94
			Mar-09	2009	Q1	\$ 383,309.15	\$ 12,853.70	2.45%	\$ 782.59	\$ 396,945.44		\$ 1.94
			Apr-09	2009	Q2	\$ 396,162.85	\$ 11,633.29	1.00%	\$ 330.14	\$ 408,126.28		\$ 1.94
			May-09	2009	Q2	\$ 407,796.14	\$ 12,054.23	1.00%	\$ 339.83	\$ 420,190.20		\$ 1.94
			Jun-09	2009	Q2	\$ 419,850.37	\$ 11,891.57	1.00%	\$ 349.88	\$ 432,091.82		\$ 1.94
			Jul-09	2009	Q3	\$ 431,741.94	\$ 11,240.65	0.55%	\$ 197.88	\$ 443,180.47		\$ 1.94
			Aug-09	2009	Q3	\$ 442,982.59	\$ 11,339.93	0.55%	\$ 203.03	\$ 454,525.55		\$ 1.94
			Sep-09	2009	Q3	\$ 454,322.52	\$ 12,775.10	0.55%	\$ 208.23	\$ 467,305.85		\$ 1.94
			Oct-09	2009	Q4	\$ 467,097.62	\$ 10,632.25	0.55%	\$ 214.09	\$ 477,943.96		\$ 1.94
			Nov-09	2009	Q4	\$ 477,729.87	\$ 12,302.80	0.55%	\$ 218.96	\$ 490,251.63		\$ 1.94
			Dec-09	2009	Q4	\$ 490,032.67	\$ 11,932.20	0.55%	\$ 224.60	\$ 502,189.47	\$ 147,549.11	\$ 1.94
			Jan-10	2010	Q1	\$ 501,964.87	\$ 11,331.90	0.55%	\$ 230.07	\$ 513,526.84		\$ 1.94
			Feb-10	2010	Q1	\$ 513,296.77	\$ 15,432.17	0.55%	\$ 235.26	\$ 528,964.20		\$ 1.94
			Mar-10	2010	Q1	\$ 528,728.94	\$ 84,670.46	0.55%	\$ 242.33	\$ 613,641.73		\$ 1.94
			Apr-10	2010	Q2	\$ 613,399.40	\$ 36,720.30	0.55%	\$ 281.14	\$ 650,400.84		\$ 1.94
			May-10	2010	Q2	\$ 650,119.70	\$ 92,989.93	0.55%	\$ 297.97	\$ 743,407.60		\$ 1.94
			Jun-10	2010	Q2	\$ 743,109.63	\$ 98,983.48	0.55%	\$ 340.59	\$ 842,433.70		\$ 1.94
			Jul-10	2010	Q3	\$ 842,093.11	\$ 107,692.02	0.89%	\$ 624.55	\$ 950,409.68		\$ 1.94
			Aug-10	2010	Q3	\$ 949,785.13	\$ 90,043.19	0.89%	\$ 704.42	\$ 1,040,532.74		\$ 1.94
			Sep-10	2010	Q3	\$ 1,039,828.32	\$ 86,903.84	0.89%	\$ 771.21	\$ 1,127,503.37		\$ 1.94
			Oct-10	2010	Q4	\$ 1,126,732.16	\$ 74,712.79	1.20%	\$ 1,126.73	\$ 1,202,571.68		\$ 1.94
			Nov-10	2010	Q4	\$ 1,201,444.95	\$ 10,812.12	1.20%	\$ 1,201.44	\$ 1,213,458.51		\$ 1.94
			Dec-10	2010	Q4	\$ 1,212,257.07	\$ 83,822.03	1.20%	\$ 1,212.26	\$ 1,297,291.36	\$ 801,382.20	\$ 1.94
			Jan-11	2011	Q1	\$ 1,296,079.10	\$ 123,920.81	1.47%	\$ 1,587.70	\$ 1,421,587.61		\$ 1.94
			Feb-11	2011	Q1	\$ 1,419,999.91	\$ 138,066.70	1.47%	\$ 1,739.50	\$ 1,559,806.11		\$ 1.94
			Mar-11	2011	Q1	\$ 1,558,066.61	\$ 113,636.61	1.47%	\$ 1,908.63	\$ 1,673,611.85		\$ 1.94





## Smart Meter Model for Electricity Distributors (2013 Filers)

This worksheet calculates the funding adder revenues.

### Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance (Principal)	Funding Adder Revenues	Interest		Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder
								Interest Rate	Interest			
			Apr-11	2011	Q2	\$ 1,671,703.22	\$ 72,800.44	1.47%	\$ 2,047.84	\$ 1,746,551.50		\$ 1.94
			May-11	2011	Q2	\$ 1,744,503.66	\$ 100,278.06	1.47%	\$ 2,137.02	\$ 1,846,918.74		\$ 1.94
			Jun-11	2011	Q2	\$ 1,844,781.72	\$ 74,490.08	1.47%	\$ 2,259.86	\$ 1,921,531.66		\$ 1.94
			Jul-11	2011	Q3	\$ 1,919,271.80	\$ 110,329.65	1.47%	\$ 2,351.11	\$ 2,031,952.56		\$ 1.94
			Aug-11	2011	Q3	\$ 2,029,601.45	\$ 60,260.86	1.47%	\$ 2,486.26	\$ 2,092,348.57		\$ 1.94
			Sep-11	2011	Q3	\$ 2,089,862.31	\$ 106,955.05	1.47%	\$ 2,560.08	\$ 2,199,377.44		\$ 1.94
			Oct-11	2011	Q4	\$ 2,196,817.36	\$ 77,205.20	1.47%	\$ 2,691.10	\$ 2,276,713.66		\$ 1.94
			Nov-11	2011	Q4	\$ 2,274,022.56	\$ 76,646.91	1.47%	\$ 2,785.68	\$ 2,353,455.15		\$ 1.94
			Dec-11	2011	Q4	\$ 2,350,669.47	\$ 105,274.00	1.47%	\$ 2,879.57	\$ 2,458,823.04	\$ 1,187,298.72	\$ 1.94
			Jan-12	2012	Q1	\$ 2,455,943.47	\$ 106,291.01	1.47%	\$ 3,008.53	\$ 2,565,243.01		\$ 1.94
			Feb-12	2012	Q1	\$ 2,562,234.48	\$ 84,305.21	1.47%	\$ 3,138.74	\$ 2,649,678.43		\$ 1.94
			Mar-12	2012	Q1	\$ 2,646,539.69	\$ 124,853.82	1.47%	\$ 3,242.01	\$ 2,774,635.52		\$ 1.94
			Apr-12	2012	Q2	\$ 2,771,393.51	\$ 66,626.85	1.47%	\$ 3,394.96	\$ 2,841,415.32		\$ 1.94
			May-12	2012	Q2	\$ 2,838,020.36	\$ 113,244.70	1.47%	\$ 3,476.57	\$ 2,954,741.63		
			Jun-12	2012	Q2	\$ 2,951,265.06	\$ 38,203.56	1.47%	\$ 3,615.30	\$ 2,993,083.92		
			Jul-12	2012	Q3	\$ 2,989,468.62	\$ 9,289.96	1.47%	\$ 3,662.10	\$ 3,002,420.68		
			Aug-12	2012	Q3	\$ 2,998,758.58	\$ 97.82	1.47%	\$ 3,673.48	\$ 3,002,529.88		
			Sep-12	2012	Q3	\$ 2,998,856.40	\$ -	1.47%	\$ 3,673.60	\$ 3,002,530.00		
			Oct-12	2012	Q4	\$ 2,998,856.40		1.47%	\$ 3,673.60	\$ 3,002,530.00		
			Nov-12	2012	Q4	\$ 2,998,856.40		1.47%	\$ 3,673.60	\$ 3,002,530.00		
			Dec-12	2012	Q4	\$ 2,998,856.40		1.47%	\$ 3,673.60	\$ 3,002,530.00	\$ 584,819.02	
			Jan-13	2013	Q1	\$ 2,998,856.40		1.47%	\$ 3,673.60	\$ 3,002,530.00		
			Feb-13	2013	Q1	\$ 2,998,856.40		1.47%	\$ 3,673.60	\$ 3,002,530.00		
			Mar-13	2013	Q1	\$ 2,998,856.40		1.47%	\$ 3,673.60	\$ 3,002,530.00		
			Apr-13	2013	Q2	\$ 2,998,856.40		1.47%	\$ 3,673.60	\$ 3,002,530.00		
			May-13	2013	Q2	\$ 2,998,856.40		1.47%	\$ 3,673.60	\$ 3,002,530.00		
			Jun-13	2013	Q2	\$ 2,998,856.40		1.47%	\$ 3,673.60	\$ 3,002,530.00		
			Jul-13	2013	Q3	\$ 2,998,856.40		1.47%	\$ 3,673.60	\$ 3,002,530.00		
			Aug-13	2013	Q3	\$ 2,998,856.40		1.47%	\$ 3,673.60	\$ 3,002,530.00		
			Sep-13	2013	Q3	\$ 2,998,856.40		1.47%	\$ 3,673.60	\$ 3,002,530.00		
			Oct-13	2013	Q4	\$ 2,998,856.40		1.47%	\$ 3,673.60	\$ 3,002,530.00		
			Nov-13	2013	Q4	\$ 2,998,856.40		1.47%	\$ 3,673.60	\$ 3,002,530.00		



## Smart Meter Model for Electricity Distributors (2013 Filers)

This worksheet calculates the funding adder revenues.

### Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance (Principal)	Funding Adder Revenues	Interest Rate	Interest	Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder
			Dec-13	2013	Q4	\$ 2,998,856.40		1.47%	\$ 3,673.60	\$ 3,002,530.00	\$ 44,083.20	
<b>Total Funding Adder Revenues Collected</b>							<b>\$ 2,998,856.40</b>		<b>\$ 99,750.34</b>	<b>\$ 3,098,606.74</b>	<b>\$ 3,098,606.74</b>	





## Smart Meter Model for Electricity Distributors (2013 Filers)

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

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

Prescribed Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance	Amortization / Depreciation Expense		Closing Balance	(Annual) Interest Rate	Interest (on opening balance)	Cumulative Interest
						(Principal)	OM&A Expenses		(Principal)			
2006 Q1	0.00%	0.00%	Jan-06	2006	Q1	\$ -			-	0.00%	-	-
2006 Q2	4.14%	4.68%	Feb-06	2006	Q1	-			-	0.00%	-	-
2006 Q3	4.59%	5.05%	Mar-06	2006	Q1	-			-	0.00%	-	-
2006 Q4	4.59%	4.72%	Apr-06	2006	Q2	-			-	4.14%	-	-
2007 Q1	4.59%	4.72%	May-06	2006	Q2	-			-	4.14%	-	-
2007 Q2	4.59%	4.72%	Jun-06	2006	Q2	-			-	4.14%	-	-
2007 Q3	4.59%	5.18%	Jul-06	2006	Q3	-			-	4.59%	-	-
2007 Q4	5.14%	5.18%	Aug-06	2006	Q3	-			-	4.59%	-	-
2008 Q1	5.14%	5.18%	Sep-06	2006	Q3	-			-	4.59%	-	-
2008 Q2	4.08%	5.18%	Oct-06	2006	Q4	-			-	4.59%	-	-
2008 Q3	3.35%	5.43%	Nov-06	2006	Q4	-			-	4.59%	-	-
2008 Q4	3.35%	5.43%	Dec-06	2006	Q4	-			-	4.59%	-	-
2009 Q1	2.45%	6.61%	Jan-07	2007	Q1	-			-	4.59%	-	-
2009 Q2	1.00%	6.61%	Feb-07	2007	Q1	-			-	4.59%	-	-
2009 Q3	0.55%	5.67%	Mar-07	2007	Q1	2,451.53	\$ 2,451.53	\$ -	2,451.53	4.59%	-	-
2009 Q4	0.55%	4.66%	Apr-07	2007	Q2	7,734.42	\$ 4,500.55	\$ -	12,234.97	4.59%	9.38	9.38
2010 Q1	0.55%	4.34%	May-07	2007	Q2	12,234.97	\$ 5,649.54	\$ -	17,884.51	4.59%	29.58	38.96
2010 Q2	0.55%	4.34%	Jun-07	2007	Q2	17,884.51	\$ 10,159.68	\$ -	28,044.19	4.59%	46.80	85.76
2010 Q3	0.89%	4.66%	Jul-07	2007	Q3	28,044.19	\$ 5,139.97	\$ -	33,184.16	4.59%	68.41	154.17
2010 Q4	1.20%	4.01%	Aug-07	2007	Q3	33,184.16	\$ 4,318.90	\$ -	37,503.06	4.59%	107.27	261.44
2011 Q1	1.47%	4.29%	Sep-07	2007	Q3	37,503.06	\$ 21,612.31	\$ -	59,115.37	4.59%	126.93	388.37
2011 Q2	1.47%	4.29%	Oct-07	2007	Q4	59,115.37	\$ 294.43	\$ -	59,409.80	4.59%	143.45	531.82
2011 Q3	1.47%	4.29%	Nov-07	2007	Q4	59,409.80	\$ 622.00	\$ -	60,031.80	5.14%	253.21	785.03
2011 Q4	1.47%	3.92%	Dec-07	2007	Q4	60,031.80	\$ 3,875.44	\$ -	63,907.24	5.14%	254.47	1,039.50
2012 Q1	1.47%	3.92%	Jan-08	2008	Q1	63,907.24	\$ 1,159.16	\$ -	65,066.40	5.14%	257.14	1,296.63
2012 Q2	1.47%	3.51%	Feb-08	2008	Q1	65,066.40	\$ 25,909.44	\$ -	90,975.84	5.14%	273.74	1,570.37
2012 Q3	1.47%	3.51%	Mar-08	2008	Q1	90,975.84	\$ 15,652.99	\$ -	106,628.83	5.14%	278.70	1,849.07
2012 Q4	1.47%	3.23%	Apr-08	2008	Q2	106,628.83	\$ 11,118.39	\$ -	117,747.22	5.14%	389.68	2,238.75
2013 Q1	1.47%	3.23%	May-08	2008	Q2	117,747.22	\$ 6,924.66	\$ -	124,671.88	4.08%	362.54	2,601.29
2013 Q2	1.47%	3.23%	Jun-08	2008	Q2	124,671.88	\$ 8,815.74	\$ -	133,487.62	4.08%	400.34	3,001.63
2013 Q3	1.47%	3.23%	Jul-08	2008	Q3	133,487.62	\$ -	\$ -	133,487.62	4.08%	423.88	3,425.51
2013 Q4	1.47%	3.23%	Aug-08	2008	Q3	133,487.62	\$ -	\$ -	133,487.62	3.35%	372.65	3,798.17
							\$ -	\$ -		3.35%	372.65	4,170.82

Sep-08	2008	Q3	133,487.62	\$ 8,419.74	\$ -	141,907.36	3.35%	372.65	4,543.47
Oct-08	2008	Q4	141,907.36	\$ -	\$ -	141,907.36	3.35%	396.16	4,939.63
Nov-08	2008	Q4	141,907.36	\$ -	\$ -	141,907.36	3.35%	396.16	5,335.79
Dec-08	2008	Q4	141,907.36	\$ 9,481.61	\$ 18.00	151,406.97	3.35%	396.16	5,731.95
Jan-09	2009	Q1	151,406.97	\$ 7,363.29	\$ 1,202.83	159,973.09	2.45%	309.12	6,041.07
Feb-09	2009	Q1	159,973.09	\$ 7,464.76	\$ 1,202.83	168,640.69	2.45%	326.61	6,367.68
Mar-09	2009	Q1	168,640.69	\$ 33,090.36	\$ 1,202.83	202,933.88	2.45%	344.31	6,711.99
Apr-09	2009	Q2	202,933.88	\$ 10,518.67	\$ 1,202.83	214,655.38	1.00%	169.11	6,881.10
May-09	2009	Q2	214,655.38	\$ 4,494.50	\$ 1,202.83	220,352.72	1.00%	178.88	7,059.98
Jun-09	2009	Q2	220,352.72	\$ 1,808.08	\$ 1,202.83	223,363.63	1.00%	183.63	7,243.61
Jul-09	2009	Q3	223,363.63	\$ 1,654.87	\$ 1,202.83	226,221.33	0.55%	102.37	7,345.98
Aug-09	2009	Q3	226,221.33	\$ 6,706.80	\$ 1,202.83	234,130.97	0.55%	103.68	7,449.67
Sep-09	2009	Q3	234,130.97	\$ 4,256.04	\$ 1,202.83	239,589.84	0.55%	107.31	7,556.98
Oct-09	2009	Q4	239,589.84	\$ 39,145.55	\$ 1,202.83	201,647.12	0.55%	109.81	7,666.79
Nov-09	2009	Q4	201,647.12	\$ 42,943.17	\$ 1,202.83	245,793.13	0.55%	92.42	7,759.21
Dec-09	2009	Q4	245,793.13	\$ 17,873.36	\$ 1,202.83	264,869.32	0.55%	112.66	7,871.87
Jan-10	2010	Q1	264,869.32	\$ 1,486.16	\$ 24,941.50	291,296.98	0.55%	121.40	7,993.27
Feb-10	2010	Q1	291,296.98	\$ 14,861.09	\$ 24,941.50	331,099.57	0.55%	133.51	8,126.78
Mar-10	2010	Q1	331,099.57	\$ 4,463.60	\$ 24,941.50	360,504.67	0.55%	151.75	8,278.53
Apr-10	2010	Q2	360,504.67	\$ 1,326.83	\$ 24,941.50	386,773.00	0.55%	165.23	8,443.76
May-10	2010	Q2	386,773.00	\$ 15,041.47	\$ 24,941.50	426,755.97	0.55%	177.27	8,621.03
Jun-10	2010	Q2	426,755.97	\$ 15,444.29	\$ 24,941.50	467,141.76	0.55%	195.60	8,816.63
Jul-10	2010	Q3	467,141.76	\$ 6,138.74	\$ 24,941.50	498,222.00	0.89%	346.46	9,163.09
Aug-10	2010	Q3	498,222.00	\$ 22,390.65	\$ 24,941.50	545,554.15	0.89%	369.51	9,532.61
Sep-10	2010	Q3	545,554.15	\$ 10,783.83	\$ 24,941.50	581,279.48	0.89%	404.62	9,937.23
Oct-10	2010	Q4	581,279.48	\$ 8,865.20	\$ 24,941.50	615,086.18	1.20%	581.28	10,518.51
Nov-10	2010	Q4	615,086.18	\$ 80,115.54	\$ 24,941.50	720,143.22	1.20%	615.09	11,133.59
Dec-10	2010	Q4	720,143.22	\$ 55,395.16	\$ 24,941.50	800,479.88	1.20%	720.14	11,853.74
Jan-11	2011	Q1	800,479.88	\$ 2,290.12	\$ 39,190.00	837,379.76	1.47%	980.59	12,834.32
Feb-11	2011	Q1	837,379.76	\$ 7,547.51	\$ 39,190.00	884,117.27	1.47%	1,025.79	13,860.11
Mar-11	2011	Q1	884,117.27	\$ 46,780.60	\$ 39,190.00	970,087.87	1.47%	1,083.04	14,943.16
Apr-11	2011	Q2	970,087.87	\$ 7,010.41	\$ 39,190.00	1,016,288.28	1.47%	1,188.36	16,131.52
May-11	2011	Q2	1,016,288.28	\$ 33,968.56	\$ 39,190.00	1,089,446.84	1.47%	1,244.95	17,376.47
Jun-11	2011	Q2	1,089,446.84	\$ 20,342.34	\$ 39,190.00	1,148,979.18	1.47%	1,334.57	18,711.04
Jul-11	2011	Q3	1,148,979.18	\$ -	\$ 39,190.00	1,188,169.18	1.47%	1,407.50	20,118.54
Aug-11	2011	Q3	1,188,169.18	\$ -	\$ 39,190.00	1,227,359.18	1.47%	1,455.51	21,574.05
Sep-11	2011	Q3	1,227,359.18	\$ 72,017.67	\$ 39,190.00	1,338,566.85	1.47%	1,503.51	23,077.56
Oct-11	2011	Q4	1,338,566.85	\$ 37,335.60	\$ 39,190.00	1,415,092.45	1.47%	1,639.74	24,717.31
Nov-11	2011	Q4	1,415,092.45	\$ 14,283.49	\$ 39,190.00	1,468,565.94	1.47%	1,733.49	26,450.79
Dec-11	2011	Q4	1,468,565.94	\$ 51,222.63	\$ 39,190.00	1,558,978.57	1.47%	1,798.99	28,249.79
Jan-12	2012	Q1	1,558,978.57	\$ 67,664.37	\$ 43,684.75	1,670,327.69	1.47%	1,909.75	30,159.54
Feb-12	2012	Q1	1,670,327.69	\$ 33,498.66	\$ 43,684.75	1,747,511.10	1.47%	2,046.15	32,205.69
Mar-12	2012	Q1	1,747,511.10	\$ 8,199.76	\$ 43,684.75	1,799,395.61	1.47%	2,140.70	34,346.39
Apr-12	2012	Q2	1,799,395.61	\$ 37,949.82	\$ 43,684.75	1,881,030.18	1.47%	2,204.26	36,550.65
May-12	2012	Q2	1,881,030.18	\$ 22,060.54	\$ 43,684.75	1,946,775.47	1.47%	2,304.26	38,854.91
Jun-12	2012	Q2	1,946,775.47	\$ 21,225.20	\$ 43,684.75	2,011,685.42	1.47%	2,384.80	41,239.71
Jul-12	2012	Q3	2,011,685.42	\$ 26,283.53	\$ 43,684.75	2,081,653.70	1.47%	2,464.31	43,704.03
Aug-12	2012	Q3	2,081,653.70	\$ 21,496.70	\$ 43,684.75	2,146,835.15	1.47%	2,550.03	46,254.05
Sep-12	2012	Q3	2,146,835.15	\$ 15,235.55	\$ 43,684.75	2,205,755.45	1.47%	2,629.87	48,883.92
Oct-12	2012	Q4	2,205,755.45	\$ -	\$ 43,684.75	2,249,440.20	1.47%	2,702.05	51,585.97
Nov-12	2012	Q4	2,249,440.20	\$ -	\$ 43,684.75	2,293,124.95	1.47%	2,755.56	54,341.54
Dec-12	2012	Q4	2,293,124.95	\$ -	\$ 43,684.75	2,336,809.70	1.47%	2,809.08	57,150.62
Jan-13	2013	Q1	2,336,809.70			2,336,809.70	1.47%	2,862.59	60,013.21
Feb-13	2013	Q1	2,336,809.70			2,336,809.70	1.47%	2,862.59	62,875.80
Mar-13	2013	Q1	2,336,809.70			2,336,809.70	1.47%	2,862.59	65,738.39
Apr-13	2013	Q2	2,336,809.70			2,336,809.70	1.47%	2,862.59	68,600.98
May-13	2013	Q2	2,336,809.70			2,336,809.70	1.47%	2,862.59	71,463.58
Jun-13	2013	Q2	2,336,809.70			2,336,809.70	1.47%	2,862.59	74,326.17
Jul-13	2013	Q3	2,336,809.70			2,336,809.70	1.47%	2,862.59	77,188.76
Aug-13	2013	Q3	2,336,809.70			2,336,809.70	1.47%	2,862.59	80,051.35
Sep-13	2013	Q3	2,336,809.70			2,336,809.70	1.47%	2,862.59	82,913.94
Oct-13	2013	Q4	2,336,809.70			2,336,809.70	1.47%	2,862.59	85,776.54
Nov-13	2013	Q4	2,336,809.70			2,336,809.70	1.47%	2,862.59	88,639.13
Dec-13	2013	Q4	2,336,809.70			2,336,809.70	1.47%	2,862.59	91,501.72

\$ 1,028,562.70 \$ 1,308,247.00 \$ 2,336,809.70



## Smart Meter Model for Electricity Distributors (2013 Filers)

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

Year	OM&A (from Sheet 5)	Amortization Expense (from Sheet 5)	Cumulative OM&A and Amortization Expense	Average Cumulative OM&A and Amortization Expense	Average Annual Prescribed Interest Rate for Deferral and Variance Accounts (from Sheets 8A and 8B)	Simple Interest on OM&A and Amortization Expenses
2006	\$ -	\$ -	\$ -	\$ -	4.37%	\$ -
2007	\$ 64,018.39	\$ -	\$ 64,018.39	\$ 32,009.20	4.73%	\$ 1,513.23
2008	\$ 86,941.17	\$ 18.02	\$ 150,977.58	\$ 107,497.98	3.98%	\$ 4,278.42
2009	\$ 99,810.69	\$ 14,433.06	\$ 265,221.32	\$ 208,099.45	1.14%	\$ 2,367.13
2010	\$ 232,578.94	\$ 229,453.74	\$ 727,254.00	\$ 496,237.66	0.80%	\$ 3,957.50
2011	\$ 353,732.96	\$ 470,279.74	\$ 1,551,266.70	\$ 1,139,260.35	1.47%	\$ 16,747.13
2012	\$ 216,004.45	\$ 521,536.49	\$ 2,288,807.63	\$ 1,920,037.17	1.47%	\$ 28,224.55
2013	\$ 586,413.29	\$ 532,590.89	\$ 3,407,811.82	\$ 2,848,309.73	1.47%	\$ 41,870.15
<b>Cumulative Interest to 2011</b>						\$ 28,863.41
<b>Cumulative Interest to 2012</b>						\$ 57,087.95
<b>Cumulative Interest to 2013</b>						\$ 98,958.11



## Smart Meter Model for Electricity Distributors (2013 Filers)

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

**Check if applicable**

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

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

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

	2006	2007	2008	2009	2010	2011	2012	2013	Total
Deferred and forecasted Smart Meter Incremental Revenue Requirement (from Sheet 5)	\$ -	\$ 65,042.95	\$ 88,313.34	\$ 132,411.58	\$ 722,376.53	\$ 1,320,408.20	\$ 1,188,167.30	\$ 1,531,644.66	\$ 3,516,719.91
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B) (Check one of the boxes below)	\$ -	\$ 1,296.63	\$ 4,435.31	\$ 2,139.92	\$ 3,981.87	\$ 16,396.05	\$ 28,900.83		\$ 57,150.62
<input checked="" type="checkbox"/> Sheet 8A (Interest calculated on monthly balances)	\$ -	\$ 1,296.63	\$ 4,435.31	\$ 2,139.92	\$ 3,981.87	\$ 16,396.05	\$ 28,900.83	\$ 34,351.10	\$ 57,150.62
<input type="checkbox"/> Sheet 8B (Interest calculated on average annual balances)									
SMFA Revenues (from Sheet 8)	\$ 74,715.09	\$ 141,246.20	\$ 143,012.20	\$ 142,991.38	\$ 794,114.23	\$ 1,159,864.37	\$ 542,912.93	\$ -	\$ 2,998,856.40
SMFA Interest (from Sheet 8)	\$ 792.59	\$ 6,789.61	\$ 11,002.00	\$ 4,557.73	\$ 7,267.97	\$ 27,434.35	\$ 41,906.09	\$ 44,083.20	\$ 143,833.54
Net Deferred Revenue Requirement	-\$ 75,507.68	-\$ 81,696.22	-\$ 61,265.55	-\$ 12,997.61	-\$ 75,023.80	\$ 149,505.53	\$ 632,249.11	\$ 1,487,561.46	\$ 431,180.58

Number of Metered Customers (average for 2013 test year) 46705  
 - Number of metered customers for which smart meter were deployed as part of program). Residential and GS < 50 kW customer classes and any other metered classes involved (e.g. GS 50 to 4999 kW for which interval meters were upgraded to utilize AMI and ODS assets)

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

Years for collection or refunding	1	
Deferred Incremental Revenue Requirement from 2006 to December 31, 2012 plus Interest on OM&A and Amortization	\$ 3,573,870.52	
SMFA Revenues collected from 2006 to 2013 test year (inclusive) Plus Simple Interest on SMFA Revenues	\$ 3,142,689.94	
Net Deferred Revenue Requirement	\$ 431,180.58	}
SMDR <span style="border: 1px solid black; padding: 2px;">May 1, 2013 - April 30, 2014</span>	\$ 0.77	
<b>Check: Forecasted SMDR Revenues</b>	\$ 431,554.20	Match

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

Incremental Revenue Requirement for 2013	\$ 1,531,644.66	}
SMIRR	\$ 2.73	
<b>Check: Forecasted SMIRR Revenues</b>	\$ 1,530,055.80	Match



## Smart Meter Model for Electricity Distributors (2013 Filers)

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

### Class-specific SMDRs

Revenue Requirement for Historical Years	2006	2007	2008	2009	2010	2011	2012	Total 2006 to 2012	Explanation / Allocator Check Row if SMDR/SMIRR apply to class	Residential	GS < 50 kW	GS 50 to 4999 kW	Other (please specify)	Total
										X	X			
										%	%	%	%	
Return on Capital	\$ -	\$ 780.22	\$ 1,073.14	\$ 14,271.79	\$ 222,541.08	\$ 428,941.01	\$ 427,980.41	\$ 1,095,587.65	Weighted Meter Cost - Capital Allocated per class	\$ -	\$ -	\$ -	\$ -	0%
Depreciation/Amortization expense and related interest	\$ -	\$ -	\$ 18.02	\$ 14,433.06	\$ 229,453.74	\$ 470,279.74	\$ 521,536.49	\$ 1,267,763.92	Weighted Meter Cost - Capital Allocated per class	\$ -	\$ -	\$ -	\$ -	0%
Operating Expenses and related interest	\$ -	\$ 64,018.39	\$ 86,941.17	\$ 99,810.69	\$ 232,578.94	\$ 353,732.96	\$ 216,004.45	\$ 1,078,194.33	Number of Smart Meters installed by Class Allocated per class	\$ 984,631.63	\$ 93,562.70	\$ 0	\$ 0	
Revenue Requirement before Taxes/PILs		\$ 65,315.02	\$ 91,375.56	\$ 101,680.26	\$ 234,583.34	\$ 360,771.47	\$ 224,468.67	\$ 3,441,545.90	Revenue Requirement before PILs	\$ 984,631.63	\$ 93,562.70	\$ -	\$ -	\$ 2,363,351.57
Grossed-up Taxes/PILs	\$ -	\$ 244.34	\$ 281.01	\$ 3,896.04	\$ 37,802.78	\$ 67,454.49	\$ 22,645.96	\$ 132,324.62	Percentage of costs allocated to each class	\$ 120,841.86	\$ 11,482.76	\$ -	\$ -	
Total Revenue Requirement plus interest on OMS&A and depreciation expense								\$ 3,573,870.52	Percentage of costs for classes with SMDR/SMIRR	\$ 1,105,473.49	\$ 105,045.46	\$ -	\$ -	
										91.32%	8.68%	0.00%	0.00%	
										91.32%	8.68%	0.00%	0.00%	
										91.32%	8.68%	0.00%	0.00%	
										%	%	%	%	
									SMFA Revenues directly attributable to class	0.00%	0.00%	0.00%	0.00%	0%
									Residual SMFA Revenues (from other metered classes) attributed evenly	50.00%	50.00%	0.00%	0.00%	0.00%
									Total	50.00%	50.00%	0.00%	0.00%	0.00%
SMFA Revenues plus interest expense								\$ 3,142,689.94		\$ 1,571,344.97	\$ 1,571,344.97	\$ -	\$ -	
Net Deferred Revenue Requirement to be recovered via SMDR								\$ 431,180.58		-\$ 465,871.48	-\$ 1,466,299.51	\$ -	\$ -	
Average number of metered customers by class (2013)									Average number of customers (2013)	42737	4061	0	0	
Number of Years for SMDR recovery									years	0	0	0	0	



## Smart Meter Model for Electricity Distributors (2013 Filers)

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

### Class-specific SMDRs

#### Revenue Requirement for 2013

	2013	Explanation / Allocator Check Row if SMDR/SMIRR apply to class	Residential X	GS < 50 kW X	GS 50 to 4999 kW %	Other (please specify) %	Total
Return on Capital	\$ 346,904.08	Weighted Meter Cost - Capital Allocated per class	\$ 0.00%	\$ 0.00%	\$ 0.00%	\$ 0.00%	2 0%
Depreciation/Amortization expense	\$ 532,590.89	Weighted Meter Cost - Capital Allocated per class	\$ 0.00%	\$ 0.00%	\$ 0.00%	\$ 0.00%	0%
Operating Expenses	\$ 586,413.29	Number of Smart Meters installed by Class	# 42,737	# 4,061	# -	# -	
	\$ 586,413.29	Allocated per class	\$ 535,525.98	\$ 50,887.31	\$ -	\$ -	
Revenue Requirement before Taxes/PILs	\$ 1,465,908.27	Revenue Requirement before PILs	\$ 535,525.98	\$ 50,887.31	\$ -	\$ -	#####
			91.32%	8.68%	0.00%	0.00%	100%
Grossed-up Taxes/PILs	\$ 65,736.39		\$ 60,031.97	\$ 5,704.42	\$ -	\$ -	
Total Revenue Requirement for 2013	\$ 1,531,644.66		\$ 595,557.95	\$ 56,591.73	\$ -	\$ -	
	\$ -	Percentage of costs allocated to each class	91.32%	8.68%	0.00%	0.00%	
		Percentage of costs for classes with SMDR/SMIRR	91.32%	8.68%	0.00%	0.00%	
Average number of metered customers by class (2013)			42,737	4,061	-	-	
The SMIRR is recovered as an annualized rate until the effective date of the distributor's next rebased rates resulting from a cost of service application	1 year		1	1	1	1	
Smart Meter Incremental Revenue Requirement Rate Rider (\$/month per metered customer in the customer class)			\$ 1.16	\$ 1.16			
Estimated SMIRR Revenues	\$ 651,428.16		\$ 594,899.04	\$ 56,529.12	\$ -	\$ -	