

Haldimand County Hydro Inc. ("HCHI") 2010 Rate Application

Second Round Interrogatories of the Vulnerable Energy Consumers Coalition

Question #28

Reference: VECC #4

- a) Please provide HCHI's estimate of the cost it would incur by undertaking a lead-lag study in 2010.

Response

Until such time as Haldimand County Hydro initiates and completes a request for proposal ("RFP") to undertake a lead-lag study, it is not possible to provide an estimate of the cost to do so.

Question #29

Reference: VECC #1 and VECC#13 including Appendix C
Exhibit 4, Tab 2, Schedule 5, page 4, Table 8
Exhibit 2, Tab 4, Schedule 1, page 3

Preamble: The response to VECC #1 indicates that HCHI's 2010 revenue requirement includes \$54,000 charged by Haldimand County Utilities Inc. ("HCU") for the Board of Directors. The referenced Table 8 shows that for each year 2006-2010 inclusive, HCHI has paid \$54,000 for "Management Fees."

The referenced Appendix C indicates that HCHI's operating budgets included amounts in Account 5605, "Board of Directors," of \$88,091 for 2006, \$84,279 for 2007, \$74,018 for 2008, and \$71,428.

Page 3 of Exhibit 2, Tab 4, Schedule 1 indicates that expenses booked to Account 5605, "Executive Salaries and Expenses" indicate amounts of \$71,032 for 2006, \$76,167 for 2007, \$67,824 for 2008, \$71,428 for 2009, and \$71,428 for 2010.

- a) Please confirm that these different referenced documents all refer to expenses in respect of the Board of Directors. If unable to so confirm, please provide a full explanation.

Response

The amounts referenced:

- ***from Appendix C "Board of Directors," of \$88,091 for 2006, \$84,279 for 2007, \$74,018 for 2008, and \$71,428" (for 2009), and***
- ***from Exhibit 2 / Tab 4 / Schedule 1 / page 3 "expenses booked to Account 5605, "Executive Salaries and Expenses" indicate amounts of \$71,032 for 2006, \$76,167 for 2007, \$67,824 for 2008, \$71,428 for 2009, and \$71,428 for 2010"***

all refer to expenses in respect of the Board of Directors for Haldimand County Hydro Inc. The difference between the numbers for the same year reflect budget versus actual.

The "\$54,000 charged by Haldimand County Utilities Inc. for the Board of Directors" is not included in either of the above two items and is independent of these.

- b) Please reconcile the Management Fees with the amounts booked to Account 5605 per Exhibit 2, Tab 4, Schedule 1.

Response

Refer to (a) above. The "\$54,000 charged by Haldimand County Utilities Inc. for the Board of Directors" is not booked to account 5605. It is booked to account 5665 in Haldimand County Hydro.

- c) Please confirm that there is no double counting of fees for the Board of Directors.

Response

The budget amounts referenced from Appendix C and the actual amounts referenced in Exhibit 2 / Tab 4 / Schedule 1 / page 3 both relate to costs associated with the Board of Directors for Haldimand County Hydro Inc. The Management Fee relates to costs associated with the holding company Haldimand County Utilities Inc. including its Board of Directors. These are independently incurred so there is no double counting of fees for the Board of Directors.

- d) For each year 2006-2010 inclusive, please show the total costs for the Board of Directors and the amounts allocated to each entity from which these costs were recovered.

Response

See question (f) below for the total costs for the Board of Directors of Haldimand County Hydro Inc. None of these costs are allocated to any affiliate.

The costs for the Board of Directors of holding company Haldimand County Utilities Inc. are shown in the table below along with the amount allocated to each entity from which these costs were recovered.

	Haldimand County Utilities Inc.				
	2006	2007	2008	2009	2010
Board of Directors cost	\$39,652	\$38,246	\$41,122	\$44,765*	\$46,396**
Allocated to Haldimand County Hydro Inc.	\$54,000	\$54,000	\$54,000	\$54,000	\$54,000
Allocated to Haldimand County Energy Inc.	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000

* Forecast for 2009

** Forecast for 2010. Corrected information, see Energy Probe Supplemental Interrogatory 37 a)

- e) Please explain the methodology by which the costs of the Board of Directors are allocated.

Response

Refer to Energy Probe Supplemental Interrogatory #37 (a) and (b).

- f) Please provide a variance explanation for the differences between the amounts budgeted for Account 5605 per Appendix C and the actual expenses booked to Account 5605 for each year 2006-2010 inclusive.

Response

Account 5605 - Costs of Board of Directors for Haldimand County Hydro Inc.					
	2006	2007	2008	2009	2010
Budget	\$88,091	\$84,279	\$74,018	\$71,428	\$71,428
Actual	\$71,032	\$76,167	\$67,824	\$71,428*	\$71,428*
Variance	\$17,059	\$8,112	\$6,194	\$0	\$0

* Forecast

The variances from budget to actual in each of the years 2006, 2007, and 2008 were due to reduced attendance by Directors at industry conferences, meetings, and seminars. This affected the number of per diem remuneration amounts paid to Directors as well as event registration fees, accommodation and meals, and vehicle mileage. Three of the eight Board members are new in the latter part of 2009 so it remains to be seen whether their educational interest and availability to attend industry related functions will cause an increase.

Question #30

Reference: VECC #6 and Board Staff #14

- a) Please confirm that the “losses” referred to by Haldimand result from the fact that actual Norfolk Power loads for 2006-2010 were/will be less than forecast in 2006.

Response

Yes, the “losses” referred to by Haldimand County Hydro result from the fact that actual Norfolk Power loads for 2006-2010 were / will be less than forecast in 2006 mainly due to Norfolk Power having eliminated one supply point from the Jarvis TS on December 12, 2008.

Question #31

Reference: VECC #11 b)

- a) Please confirm that the geometric mean formula used only considers the first and the last values in the data series. If this is not the case, please provide the formula.

Response

The geometric mean formula uses all values in the series of data (growth rate in customer numbers year over year) except the General Service rate classes as detailed in response to Board Staff Interrogatory #11. The following table provides the calculation for each rate class:

Value	Growth Rate	Residential	General Service < 50 kW	General Service 50 to 4999 kW Non-Interval	General Service 50 to 4999 kW Interval Metered	Street Lighting	Sentinel Lights	Unmetered Scattered Loads
1	2003 over 2002	1.0102	0.9922	1.1034	1.0455	1.0150	0.9977	0.9888
2	2004 over 2003	1.0109	1.0066	0.9844	1.0435	1.0236	0.8506	0.9205
3	2005 over 2004	1.0066	1.0117	1.0000	1.0417	0.9953	0.9671	1.1481
4	2006 over 2005	1.0074	0.9948	1.0000	0.9600	0.9978	0.9830	0.9462
5	2007 over 2006	1.0063	1.0108	0.7381	1.7500	1.0131	0.9596	0.9545
6	2008 over 2007	1.0058	1.0034	0.9355	1.1905	1.0304	0.9729	1.0000
Geomean		1.0079	1.0013	1.0209	1.0220	1.0125	0.9539	0.9904
		(Value 1 to Value 6)	(Value 1 to Value 4)	(Value 1 to Value 4)	(Value 1 to Value 4)	(Value 1 to Value 6)	(Value 1 to Value 6)	(Value 1 to Value 6)

Note: The geometric mean calculated was not applied to the Street Lighting and Unmetered Scattered Load rate classes to forecast growth in number of connections for 2009 and 2010. The number of connections remained constant at the 2008 level; that is, no projection for additional connections in 2009 and 2010.

Question #32

Reference: VECC #15

- a) Please provide a “working” version of the spreadsheets used to determine HON’s LV costs.

Response

Attached as “Appendix A” is a copy of the spreadsheet “VECC Supplemental IRR # 32 – APPENDIX A_HONI LV Cost Detail” used to determine HONI’s LV costs.

Question #33

Reference: VECC #16 a)

- a) Provide a schedule setting out the derivation of the \$11.01 fixed rate and the \$0.0395 variable rate used for Residential.

Response

The following tables outline the derivation of the \$11.01 fixed rate and the \$0.0305 variable rate (not the \$0.0395 as stated above) used for the "Harmonized" Residential rate class.

May 1, 2006 Residential Rates Harmonized

SOURCE: EDR 2006 Model Sheet 6-2 "Demand, Rates"	Number of Customers			Consumption - kWh			Average Consumption - kWh	Annualized Number of Customers
	2002	2003	2004	2002	2003	2004	(as per 2006 EDR Sheet 7-1 "Allocation-Base Rev.Req." calculation)	(as per 2006 EDR Sheet 7-1 "Allocation- Base Rev.Req." - 2004 customer count)
	#	#	#	kWh	kWh	kWh		
RESIDENTIAL	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(B) = ((iv/i + v/ii + vi/iii) / 3) * iii	(D) = (iii * 12)
Urban	11,814	11,954	12,109	95,868,195	94,104,295	93,420,201	95,668,916	145,308
Suburban	5,593	5,631	5,667	81,549,095	80,917,261	78,828,037	80,963,558	68,004
	Distribution Rates - Inclusive			Base Rates - Excluding LV Charge & Smart Meter Rate Adder				
SOURCE: EDR 2006 Model Sheet 8-5 "Distribution Rates"	Distribution Rate kWh	Volumetric Rate Type	Monthly S/C (Per Cust.)	Distribution Rate kWh	Volumetric Rate Type	Monthly S/C (Per Cust.)		
	\$		\$	\$		\$		
RESIDENTIAL				(A)		(C)		
Urban	0.0315	kWh	11.17	0.0306	kWh	10.91		
Suburban	0.0317	kWh	11.66	0.0308	kWh	11.40		
	Base "Harmonized" Rates - Excluding LV Charge & Smart Meter Rate Adder							
	Distribution Volumetric Rate			Monthly Service Charge				
	Volumes	"\$"	"Harmonized" Rate	Volumes	"\$"	"Harmonized" Rate		
RESIDENTIAL	(B)	(A * B)		(D)	(C * D)			
Urban	95,668,916	\$ 2,927,469		145,308	\$ 1,585,310			
Suburban	80,963,558	\$ 2,493,678		68,004	\$ 775,246			
	176,632,473	\$ 5,421,146	\$ 0.0307	213,312	\$ 2,360,556	\$ 11.07		
	(E)	(F)	(F / E)	(G)	(H)	(H / G)		

May 1, 2007 IRM Adjustment for Harmonization

SERVICE CHARGE (Monthly)		A	B	C	D	E	F = (B+C+D+E)	G = (A+F)
	Metric	"Harmonized" Current Base Rates	K-Factor Capital Structure Transition	2007 Federal Tax Rate Adjustment	Ontario Capital Tax Adjustment	Price Cap Adjustment GDP-IPI @ 1.9% X-factor @ -1.0%	Total Price Cap Adjustment	"Harmonized" FINAL BASE RATES
		1-May-06	0.0%	0.0%	0.0%	0.9%	0.9%	1-May-07
Class								
Residential (Harmonized)	Customer - 12 per year	11.070000	0.000000	0.000000	0.000000	0.099630	0.099630	11.17
DISTRIBUTION VOLUMETRIC RATE								
	Metric							
Class								
Residential (Harmonized)	kWh	0.030700	0.000000	0.000000	0.000000	0.000276	0.000276	0.0310

May 1, 2008 IRM Adjustment for Harmonization

SERVICE CHARGE (Monthly)		A	B	C	D	E	F = (B+C+D+E)	G = (A+F)
	Metric	"Harmonized" Current Base Rates	K-Factor Capital Structure Transition	2008 Federal Tax Rate Adjustment	Ontario Capital Tax Adjustment	Price Cap Adjustment GDP-IPI @ 2.1% X-factor @ -1.0%	Total Price Cap Adjustment	"Harmonized" FINAL BASE RATES
		1-May-07	-0.5%	-2.1%	0.0%	1.1%	-1.5%	1-May-08
Class								
Residential (Harmonized)	Customer - 12 per year	11.170000					-0.167550	11.00
DISTRIBUTION VOLUMETRIC RATE								
	Metric							
Class								
Residential (Harmonized)	kWh	0.031000					-0.000465	0.0305

May 1, 2009 IRM Adjustment for Harmonization

SERVICE CHARGE (Monthly)		A	B	C	D	E	F = (B+C+D+E)	G = (A+F)
	Metric	"Harmonized" Current Base Rates	K-Factor Capital Structure Transition	2009 Federal Tax Rate Adjustment	Ontario Capital Tax Adjustment	Price Cap Adjustment GDP-IPI @ 2.3% X-factor @ -1.0%	Total Price Cap Adjustment	"Harmonized" FINAL BASE RATES
		1-May-08	-0.5%	-0.4%	-0.3%	1.3%	0.1%	1-May-09
Class								
Residential (Harmonized)	Customer - 12 per year	11.000000	(0.055000)	(0.044000)	(0.030623)	0.143000	0.013377	11.01
DISTRIBUTION VOLUMETRIC RATE								
	Metric							
Class								
Residential (Harmonized)	kWh	0.030500	(0.000153)	(0.000122)	(0.000085)	0.000397	0.000037	0.0305

- b) Please re-do the response using the actual Urban and Suburban Residential rates for 2009. If forecast information is not available please split the forecast 2010 Residential customer count and volumes between Urban and Suburban using the most recent annual historical data.

Response

The following table has been re-calculated from the one provided in the response to VECC Interrogatory #16 (a) with the 2010 load forecast and customer count split between Residential Urban and Suburban. The approved 2009 Residential Urban and Suburban rates have been applied.

Customer Class	2010 Forecasted kWh / kW (Variable Determinant)		2010 Forecasted Annualized Customer / Connection (Fixed Determinant)		2009 Approved Variable Rate (Excluding LV)	2009 Approved Fixed Rate (Excluding Smart Meter)	2010 Variable Distribution Revenue at 2009 Approved Rates	2010 Fixed Distribution Revenue at 2009 Approved Rates	Transformer Allowance	Total 2010 Distribution Revenue at 2009 Approved Rates
					(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Residential - Urban	94,990,482	kWh	152,736	Cust.	0.0304	10.85	2,887,711	1,657,186		4,544,896
Residential - SubUrban	74,501,875	kWh	69,672	Cust.	0.0306	11.34	2,279,757	790,080		3,069,838
G/S < 50 kW	60,923,412	kWh	28,284	Cust.	0.0220	18.07	1,340,315	511,092		1,851,407
G/S 50 to 4999 kW	296,554	kW	1,716	Cust.	5.7064	33.65	1,692,256	57,743	(95,362)	1,654,637
Sentinel Lights	1,167	kW	7,068	Conn.	4.4093	1.71	5,146	12,086		17,232
Street Lighting	6,475	kW	34,548	Conn.	3.8651	1.51	25,027	52,167		77,194
Unmetered Scattered Load	482,264	kWh	1,008	Conn.	0.0226	9.03	10,899	9,102		20,001
Embedded Distributor - Hydro One Networks Inc.	276,949	kW	96	Cust.	-	-	0	0		0
							8,241,110	3,089,457	(95,362)	11,235,206

Question #34

Reference: VECC #16 d) and OEB Staff #24

- a) Please re-run the 2010 Cost Allocation and for Hydro One Embedded Distributor include Distribution Revenues of \$173,771. The distribution revenues for the other customer classes should all be reduced proportionally in order to maintain the same total Distribution Revenues.

Response

The 2010 Cost Allocation model has been re-run to include the Hydro One Embedded Distributor distribution revenue of \$173,771.

The results are attached in "Appendix B", including Sheet "I6 Customer Data", Sheet "O1 Revenue to Cost Ratio", and Sheet "O2 Fixed Charge Floor/Ceiling".

Question #35

Reference: VECC #17 b) & c) and VECC #16 a)

- a) Please re-do the response to VECC #17 b) using the variable distribution revenue and total distribution revenue after accounting for the Tx Allowance, per VECC #16 a).

Response

The following table sets out the derivation of the percentages for “Current Variable Split” and “Current Fixed Split” after accounting for the Transformer Allowance.

Customer Class	2010 Variable Distribution Revenue at 2009 Approved Rates	2010 Fixed Distribution Revenue at 2009 Approved Rates	Total 2010 Distribution Revenue at 2009 Approved Rates (before Trx Allowance)	Transformer Allowance	Total 2010 Distribution Revenue at 2009 Approved Rates	Current Variable Split	Current Fixed Split	Total
	(\$)	(\$)	(\$)	(\$)	(\$)			
Residential	5,169,517	2,448,712	7,618,229		7,618,229	67.86%	32.14%	100.00%
G/S < 50 kW	1,340,315	511,092	1,851,407		1,851,407	72.39%	27.61%	100.00%
G/S 50 to 4999 kW	1,692,256	57,743	1,749,999	(95,362)	1,654,637	96.51%	3.49%	100.00%
Sentinel Lights	5,146	12,086	17,232		17,232	29.86%	70.14%	100.00%
Street Lighting	25,027	52,167	77,194		77,194	32.42%	67.58%	100.00%
Unmetered Scattered Load	10,899	9,102	20,001		20,001	54.49%	45.51%	100.00%
Embedded Distributor - Hydro One Networks Inc.	0	0	0		0			
	8,243,159	3,090,903	11,334,062	(95,362)	11,238,700			

b) Using the results from part (a), please re-do the response to VECC #17 c).

Response

The following table has been recalculated based on the response to part (a) above.

Customer Class	Current Variable Split	Current Fixed Split	Total	2010 Net Revenue Requirement	2010 Forecasted Annualized Customer / Connection	Fixed Rate Based on Current Fixed / Variable Split
				(\$)		(\$)
Residential	67.86%	32.14%	100.00%	8,692,594	222,408	12.56
G/S < 50 kW	72.39%	27.61%	100.00%	2,112,502	28,284	20.62
G/S 50 to 4999 kW	96.51%	3.49%	100.00%	1,548,436	1,716	31.49
Sentinel Lights	29.86%	70.14%	100.00%	74,483	7,068	7.39
Street Lighting	32.42%	67.58%	100.00%	199,036	34,548	3.89
Unmetered Scattered Load	54.49%	45.51%	100.00%	22,822	1,008	10.30
Embedded Distributor - Hydro One Networks Inc.				173,771	96	
				12,823,644		

Question #36

Reference: VECC #20
Exhibit 6, Tab 1, Schedule 1, page 2

- a) Please confirm that Residential customers using 500 kWh or less will see average impact of 11.5% or more based on Haldimand's proposal.

Response

Yes, separate bill impact schedules for Residential Urban and Residential Suburban customers using 500 kWh or less will see an average impact of 11.5% or more at the "proposed" harmonized Residential rate, as follows:

Total Bill Impact – 500 kWh

***Residential Urban – 12.44% (Response to VECC Interrogatory #20 (b))
Residential Suburban – 11.52% (Response to VECC Interrogatory #20 (b))
Residential Harmonized – 12.11% (Exhibit 8 / Tab 1 / Appendix E)***

- b) Please update the response to VECC #20 c) to include the number of Residential Urban and Residential Suburban customers that use between 250-500 kWh per month.

Response

Using recent billing information collected on January 4, 2010, Haldimand County Hydro identified 325 Residential Suburban customers and 1,175 Residential Urban customers who, on average, use between 250 and 500 kWh per month.

Haldimand County Hydro used the same methodology as in the response to VECC Interrogatory #20 which used the average monthly consumption over the most recent 12 month period.

- c) Please update the Revenue Deficiency calculation in Exhibit 6 to incorporate the effect of the Board's EB-2009-0084 Report – Cost of Capital for Ontario's Regulated Utilities.

Response

Below is the updated Revenue Deficiency calculation from Exhibit 6 / Tab 1 / Schedule 1 / Table 1 to incorporate a 9.75% Return on Equity from EB-2009-0084 "Report of the Board on the Cost of Capital for Ontario's Regulated Utilities". This results in a revised Revenue Deficiency in the amount of \$1,989,400 as compared to the Application in the amount of \$1,584,943.

**"Updated" Table 1
Calculation of Revenue Deficiency**

	2010 Test Year Existing Rates	2010 Test Year Proposed Rates
Revenue		
Sufficiency / Deficiency from Below		1,989,400
Distribution Revenue	11,238,700	11,238,700
Other Operating Revenue Offsets (Net)	1,115,334	1,115,334
Total Revenue	12,354,034	14,343,434
Distribution Costs		
Operation, Maintenance, and Administration	7,651,970	7,651,970
Depreciation & Amortization	2,932,087	2,932,087
Property & Capital Taxes	72,270	72,270
Deemed Interest Expense	1,275,060	1,275,060
Total Costs and Expenses	11,931,387	11,931,387
Utility Income Before Income Taxes	422,647	2,412,047
Tax Adjustments to Accounting Income	392,023	392,023
Taxable Income	814,670	2,804,070
Income Tax Rate	31.0%	31.0%
Income Tax on Taxable Income	252,548	869,262
Income Tax Credits	(21,000)	(21,000)
Utility Net Income	191,099	1,563,785
Utility Rate Base	40,097,055	40,097,055
Equity %	40.00%	40.00%
Equity Component of Rate Base	16,038,822	16,038,822
Income / Equity Rate Base %	1.19%	9.75%
Target Return - Equity on Rate Base	9.75%	9.75%
Target Return on Equity	1,563,785	1,563,785
Revenue Deficiency	1,372,686	
Gross Revenue Deficiency	1,989,400	

- d) Considering the results to parts a) to c), is it still Haldimand's view that no addition rate mitigation is required? If yes, please explain why. If no, what is Haldimand's proposal?

Response

It is Haldimand County Hydro's view that rate mitigation is not required since the bill impacts are below 15%. Haldimand County Hydro understands that the Board has typically had concerns when the total bill impacts have been above 10% for certain customers, and that this 10% limit was established as part of developing the first Electricity Distribution Rate Handbook ("DRH") issued on November 3, 2000. However, in section 5.6 of the DRH it further states:

"When utilities amalgamate they are required to submit an application to the Board for approval (Mergers, Acquisitions, Amalgamation and Divestitures Guidelines). Upon approval of the amalgamation the new utility must file a rate harmonization plan. The process to harmonize overall rates between or among distribution utilities following amalgamation should reduce the differences in rates by lowering those that are higher and raising those that are lower. However, any harmonization plan must be limited to +/- 5% per year rate change."

As a result, the above suggests that for the case of rate harmonization, historically an additional 5% bill impact in addition to the 10% bill impact for a typical cost of service application would be acceptable. Since this rate application includes a harmonization proposal for the Residential class it is Haldimand County Hydro's view that bill impacts up to 15% are reasonable for the Residential class.

Question #37

Reference: VECC #23 a), Table entitled "Assumptions for LRAM"

- a) Please verify that this table only applies to Third tranche and post third tranche CDM programs i.e. not to OPA-funded programs.

Response

The table referenced in response to VECC Interrogatory #23 (a) refers only to Third Tranche programs.

- b) To assist with verification, please provide a version of the Table that provides the unit kWh savings for each measure and adds a column that provides a list of cross references to the OPA 2008/2009 Measures and Assumptions List for these values and also for the Freeridership assumptions.

Response

The table entitled "Assumptions used for LRAM and SSM" has been expanded to include the Net and Gross kWh Savings per unit as well as the OPA's report "2009 Mass Market Measures and Assumptions V 1.02 April 2009" values for Gross kWh Savings / Year and Incremental cost / Unit. The area has been shaded in grey for convenient reference.

There has been no change in the free ridership rates. The free ridership rates are based on the OEB Measures and Assumptions. The OPA's report "2009 Mass Market Measures and Assumptions V q.02 April 2009" includes several factors to determine the value of the free ridership rate. Furthermore the OPA determines the free ridership rate at the time of third party evaluation. As such, free ridership rates are not provided on the "OPA Measures and Assumptions List (as of 31 October 2008)" as contained within the OPA's report noted above.

Assumptions used for LRAM & SSM											
VECC - Question 37 c)		Included are the OPA Measures and Assumptions Values From Version 1.02 April 2009									
									Residential OPA Measures and Assumptions Tables V1.02 April 2009		
Programs	#of participants/ units	Net kWh Savings/year	Net kWh Savings/year/ unit	Gross kWh Savings/year	Gross kWh Savings/year/ unit	Net kW savings/ year	Free Ridership OEB Measures and Assumptions	Incremental Costs	Gross kWh Savings/Year	Incremental cost/Unit	EE Technology Life
2005											
Lighten Your Electricity Bill - CFL 11W	1035	25,802.55	24.93	28,669.50	27.70	0.93	10%	\$ (1,863.00)	27.70	\$ (2.00)	8.00
Lighten Your Electricity Bill - CFL 15W	500	19,440.00	38.88	21,600.00	43.20	0.45	10%	\$ (900.00)	43.00	\$ (2.00)	8.00
Lighten Your Electricity Bill - LED Lights - 5 Watt	1275.5	69,068.33	54.15	72,703.50	57.00	0.00	5%	\$ 2,423.45	13.70	\$ 2.00	30.00
Lighten Your Electricity Bill - LED Lights -	1275.5	8,744.78	6.86	9,205.03	7.22	0.00	5%	\$ 2,423.45	13.70	\$ 2.00	30.00
Lighten Your Electricity Bill - Outdoor and Indoor Timers	98.77	3,653.50	36.99	4,059.45	41.10	0.00	10%	\$ 1,777.86	41.10	\$ 20.00	10.00
Lighten Your Electricity Bill - Programmable Thermostat	141	20,187.76	143.18	22,430.84	159.08	20.68	10%	\$ 7,614.00	138.00	\$ 60.00	18.00
2006											
Co-Branded Mass Market - Cold Water Washing	601	280,817.25	467.25	374,423.00	623.00	9.38	25%	\$ 4,507.50	n/a	\$ 10.00	1.00
Co-Branded Mass Market - LED christmas lights 5 Watt	1000	54,150.00	54.15	57,000.00	57.00	0.00	5%	\$ 1,900.00	13.70	\$ 2.00	30.00
Co-Branded Mass Market - LED christmas lights Mini Watt	1000	6,855.96	6.86	7,216.80	7.22	0.00	5%	\$ 1,900.00	13.70	\$ 2.00	30.00
2007											
Social Housing - CFL 15W	1400	54,432.00	38.88	60,480.00	43.20	1.26	10%	\$ (2,520.00)	43.00	\$ (2.00)	8.00
Co-Branded Mass Market - LED christmas lights 5 Watt	500	27,075.00	54.15	28,500.00	57.00	0.00	5%	\$ 950.00	13.70	\$ 2.00	30.00
Co-Branded Mass Market - LED christmas lights Mini Watt	500	3,427.98	6.86	3,608.40	7.22	0.00	5%	\$ 950.00	13.70	\$ 2.00	30.00

Question #38

Reference: VECC #24 f)

Preamble: The Table supplied to HCHI by the OPA shows the input assumption sources at the time that the OPA programs were delivered. [Emphasis added] The OEB TRC Guidelines Section 7.3 Stipulate that LRAM claims should be based on the “best available” input assumptions at the time that the independent third party review and LRAM claim was prepared. The Board directed that (since January 29, 2009) the OPA 2008/2009 Measures and Assumptions list values should be used and confirmed this in its Decision regarding the carry forward portion of the Horizon Third Tranche programs.

- a) Please comment on the implied double standard (OPA measures list for Third Tranche Programs and various assumptions for OPA Programs) in the context of the HCHI LRAM claims for Third Tranche and OPA programs, particularly for mass market measures CFLs, SLEDs, PTs etc.

Response

Haldimand County Hydro’s claim for LRAM for both third tranche and OPA programs was completed as per section 7.5 of the CDM Guidelines outlined by the OEB on March 28, 2008 and further clarified on January 27, 2009. This has been interpreted that the OEB has provided a specific process for CDM programs launched within specific time parameters and funding mechanisms. Section 7.5 of the CDM Guidelines clearly notes:

“Where a distributor is making a claim for LRAM in relation to programs funded by the OPA, or where the distributor is making a claim for LRAM and/or SSM in relation to programs funded through distribution rates, distributors should engage an independent third party. This independent third party review applies to LRAM and SSM claims made in relation to programs funded in 2007 and beyond.”

It is clear that moving forward beyond third tranche programs, third party evaluations will be required equally across all programs. The OEB CDM Guidelines continues to provide for acceptance of OPA third party reviews for LRAM claims made by LDCs.

- b) Did HCHI and EnerSpectrum rely on the OPAs review of 2005-2008 OPA-funded programs or conduct its own evaluation? Please clarify.

Response

EnerSpectrum used the final program results as provided by the OPA on July 14, 2009 for the 2006 and 2007 programs. The CDM Guidelines EB-2008-0037 dated March 28, 2008 section 7.5 outlines “The Board would consider an evaluation by the OPA or a third party designated by the OPA to be sufficient.”

- c) If the 2008/2009 OPA Measures and Assumptions List values were applied across all components of the HCHI LRAM claim (instead of Third Tranche only), please provide an estimate based on the number of CFLs, SLEDs and PTs of the change in kWh saved for the OPA programs and overall LRAM claim.

Response

The analysis has been prepared as requested but it should be noted that it is not in accordance with the OEB CDM Guidelines section 7.5.

Haldimand County Hydro has estimated a decrease in the overall LRAM claim of \$15,320 when using the “2009 Mass Market Measures and Assumptions” prepared by the OPA for CFL’s, SLED and PT used in the 2006 and 2007 OPA Programs measures included in our Rate Application LRAM Submission. Please note the calculation was estimated using free ridership rates as used in our Third Tranche programs.

The estimation was prepared by determining the difference between the net kWh Savings per year and using our Distribution Volumetric rate for both the Residential Urban and Residential Suburban rate classes in the applicable year.

HALDIMAND COUNTY HYDRO INC'S 2010 RATE APPLICATION

EB-2009-0265

SUPPLEMENTAL INTERROGATORIES OF
THE VULNERABLE ENERGY CONSUMERS COALITION

APPENDIX A

Embedded Distributor – Hydro One

Low Voltage Cost Details

Re: Direct Allocation in Cost
Allocation Model

Haldimand County Hydro Inc.Embedded Distribution Low Voltage Charges Inputs - Hydro One Networks Inc.(7 PMU's + Air Products)									
Note: Inclusive of all costs except Meter Reading, Meter Capital, and Customer Billing - Incorporated into Cost Allocation Model									
				Input cells					
				Calculated Cells					
Low Voltage Lines		USoA Accts		\$					
Total annual OM&A costs of asset class providing LV services	Ovhd	5020, 5025, 5030, 5095, 5005****, 5010****, 5120, 5125, 5135, 5035****, 5160****, 5105****		463,613					
	UG	5040, 5045, 5050, 5090							
		5145, 5150, 5055****							
Total OM&A Costs Allocated to LV Services	Admin	5610, 5615, 5620, 5630, 5635, 5655, 5665, 6105, 6110 (capital tax only)		10,354					
Total LV Charges Paid to HONI for HONI Load Allocated to LV Services	LV	5085 (portion not included in O&M above)		136,974					
Original cost of asset class providing LV services	Ovhd	1830, 1835, 1850, 1980		4,355,261					
	UG	1840, 1845							
Accumulative amortization on asset class providing LV services		2105***		1,673,259					
Annual amortization on asset class providing LV services		5705***		223,830					
NBV of asset class providing LV services		(Original Cost - Accumulative Amort. = NBV)		2,682,002					
Annual Amortization on Asset Class providing LV Services Allocated to LV Services				3,661					
Annual Billed Demand (kW or kVA) Total on Low Voltage Lines				600,668	}	2010 Load Forecast for Annual kW & kWh Billed (Embedded info provided by HONI)			
Annual Billed Demand (kW or kVA) of Embedded Distributor on Low Voltage Lines				276,949					
Annual Energy (kWh) of Embedded Distributor on Low Voltage Lines (if applicable)	*****	With losses		83,184,875					
Total Line Length (KM) of System (overhead and/or underground as applicable)				284					
Total Line Length (KM) to provide LV Services				5.2					

DIRECT ALLOCATION OF COSTS FOR CAR FILING							
	\$	\$	\$	\$	\$	\$	\$
Asset Class	Poles - original cost of assets used to provide LV Services	O/H Conductor - original cost of assets used to provide LV Services	Accumulative Amortization on assets used to provide LV Services	NBV of asset class used to provide LV services	Annual Amortization on assets used to provide LV Services	O&M cost associated with assets used to provide LV Services plus Administration	OM & A cost associated with assets used to provide LV Services plus HONI LV Charge Cost
Primary feeders							
Distribution Stations							
Low Voltage lines	46,772.33	24,463.90	27,368.43	43,867.81	3,661.05	10,353.91	147,328.09
Accumulative Amortization	19,717.05	7,651.38					
Amortization Expense	2,371.08	1,289.97					

Haldimand County Hydro Inc. Embedded Distribution Low Voltage Charges Inputs - Hydro One Networks Inc.(7 PMU Embedded Points Only)									
					Input cells				
					Calculated Cells				
Low Voltage Lines		USoA Accts		\$					
Total annual O&M costs of asset class providing LV services	Ovhd	5020, 5025, 5030, 5095, 5005****, 5010****, 5120, 5125, 5135, 5035****, 5160****, 5105****		-					
	UG	5040, 5045, 5050, 5090							
		5145, 5150, 5055****							
		5610, 5615, 5620, 5630, 5635, 5655, 5665, 6105, 6110							
Total OM&A Costs Allocated to LV Services	Admin	(capital tax only)		-					
Total LV Charges Paid to HONI for HONI Load Allocated to LV Services	LV	5085 (portion not included in O&M above)		136,974					
Original cost of asset class providing LV services	Ovhd	1830, 1835, 1850, 1980		-					
	UG	1840, 1845							
Accumulative amortization on asset class providing LV services		2105***		-					
Annual amortization on asset class providing LV services		5705***		-					
NBV of asset class providing LV services		(Original Cost - Accumulative Amort. = NBV)		-					
Annual Amortization on Asset Class providing LV Services Allocated to LV Services				#DIV/0!					
Annual Billed Demand (kW or kVA) Total on Low Voltage Lines				447,304					
Annual Billed Demand (kW or kVA) of Embedded Distributor on Low Voltage Lines				180,949					
Annual Energy (kWh) of Embedded Distributor on Low Voltage Lines (if applicable)	*****	With losses		83,184,875					
Total Line Length (KM) of System (overhead and/or underground as applicable)				-					
Total Line Length (KM) to provide LV Services				-					

Embedded Distribution Low Voltage Charges - Hydro One Networks Inc.(7 PMU Embedded Points Only)							
Note: Inclusive of all costs except Meter Reading, Meter Capital, and Customer Billing - Incorporated into Cost Allocation Model							
		Primary Allocation - Capital Cost (less Contributed Capital)	Primary Allocation - Accumulated Amortization	Primary Allocation - Net Book Value (as per Cost Allocation Model)	% Capital, Amort & O&MA		
	Capital - 1830			\$ -			
	Capital - 1835			\$ -			
		\$ -	\$ -	\$ -			
	Capital - 1830	Amortization Exp. (net of Contr.Capital)					
	Capital - 1835						
			\$ -				
1	2	3	4	5	6		
Asset Class	Total annual OM&A costs of asset class providing LV services	original cost of asset class providing LV services	Accumulative amortization on asset class providing LV services	Annual amortization on asset class providing LV services 2010	NBV of asset class providing LV services		
Primary feeders							
Distribution Stations							
Low Voltage lines					-		
	7	8	9	10	11		
	Share of facilities		Share of facilities				
	km	km	kW or kVA	kW or kVA	percent		
Asset Class	Total line length or station capacity in asset class	Line length providing LV services	line capacity providing LV services	line capacity or station capacity used to provide LV services	Utilization factor		
Primary feeders							
Distribution Stations							
Low Voltage lines			447,304	180,949	48.17%	** Based on Utilization Factor calculated by Engineering (HONI kWh / Total kWh of LV Lines)	

DIRECT ALLOCATION OF COSTS FOR CAR FILING							
	\$	\$	\$	\$	\$	\$	\$
Asset Class	Poles - original cost of assets used to provide LV Services	O/H Conductor - original cost of assets used to provide LV Services	Accumulative Amortization on assets used to provide LV Services	NBV of asset class used to provide LV services	Annual Amortization on assets used to provide LV Services	O&M cost associated with assets used to provide LV Services plus Administration	OM & A cost associated with assets used to provide LV Services plus HONI LV Charge Cost
Primary feeders							
Distribution Stations							
Low Voltage lines	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		136,974.18
Accumulative Amortization	#DIV/0!	#DIV/0!					
Amortization Expense	#DIV/0!	#DIV/0!					
					Administration	\$ 1,973,529	
					(per 2010 Rate Application Trial Balance)		
					Net Fixed Assets	\$ 34,639,553	
					(per 2010 Rate Application Rate Base)		
	Total Annual OM&A Costs for 2010	Total annual O&M costs of asset class providing LV services			% Net Fixed Assets (for Admin Costs)	5.70%	
Forecasted O&M Costs - 2010							
A/C 5020	\$ 120,005.00	\$ -					
A/C 5025	\$ -	\$ -					
A/C 5030	\$ -	\$ -					
A/C 5120	\$ 607,398.00	\$ -					
A/C 5125	\$ 900,963.00	\$ -					
A/C 5135	\$ 556,518.00	\$ -					
	\$ 2,184,884.00	\$ -				\$ -	
% Poles & O/H Conductor Costs of Total 2010 O&M	46%						
A/C 5005	\$ 499,249.00						
A/C 5085 (does not include HONI LV Charges Paid)	\$ 192,883.00						
A/C 5105	\$ 129,706.00						
	\$ 821,838.00						
Poles & O/H Conductor Portion of the following:							
A/C 5005	\$ 229,654.54	\$ -					
A/C 5085	\$ 88,726.18	\$ -					
A/C 5105	\$ 59,664.76	\$ -					
	\$ 378,045.48	\$ -				\$ -	
TOTAL PORTION OF 2010 O&M COSTS ASSOCIATED WITH POLES & O/H CONDUCTORS	\$ 2,562,929.48	\$ -			O&M	\$ -	

					Administration	\$	-
						\$	-
TOTAL 2010 ADMINISTRATION COSTS USED							
	Total	% Allocated	Amount to LV Services		LV Charges Paid Directly to Hydro One for Hydro One Load		
A/C 5610	\$ 654,364.00	32%	\$ -		A/C 5085	\$	99,521.95
A/C 5615	\$ 542,981.00	28%	\$ -		A/C 5085	\$	37,192.98
A/C 5620	\$ 112,380.00	6%	\$ -			\$	136,714.93
A/C 5630	\$ 413,481.00	21%	\$ -				
A/C 5635	\$ 19,408.00	1%	\$ -		DS Meter Charge	\$	259.25
A/C 5655	\$ 101,208.00	5%	\$ -				
A/C 5665	\$ 57,455.00	3%	\$ -				
A/C 6105	\$ 53,447.00	3%	\$ -				
A/C 6110 (Capital Tax Only)	\$ 18,805.00	1%	\$ -	** Allocate to 50% to A/C 5610 and 50% to A/C 5615			
	\$ 1,973,529.00	100%	\$ -				

Haldimand County Hydro Inc. Embedded Distribution Low Voltage Charges Inputs - Hydro One Networks Inc. (Air Products Only)									
					Input cells				
					Calculated Cells				
Low Voltage Lines		USoA Accts		\$					
Total annual O&M costs of asset class providing LV services	Ovhd	5020, 5025, 5030, 5095, 5005****, 5010****, 5120, 5125, 5135, 5035****, 5160****, 5105****		463,613					
	UG	5040, 5045, 5050, 5090							
		5145, 5150, 5055****							
		5610, 5615, 5620, 5630, 5635, 5655, 5665, 6105, 6110							
Total OM&A Costs Allocated to LV Services	Admin	(capital tax only)		10,354					
Total LV Charges Paid to HONI for HONI Load Allocated to LV Services	LV	5085 (portion not included in O&M above)		-					
Original cost of asset class providing LV services	Ovhd	1830, 1835, 1850, 1980		4,355,261					
	UG	1840, 1845							
Accumulative amortization on asset class providing LV services		2105***		1,673,259					
Annual amortization on asset class providing LV services		5705***		223,830					
NBV of asset class providing LV services		(Original Cost - Accumulative Amort. = NBV)		2,682,002					
Annual Amortization on Asset Class providing LV Services Allocated to LV Services				3,661					
Annual Billed Demand (kW or kVA) Total on Low Voltage Lines				153,364					
Annual Billed Demand (kW or kVA) of Embedded Distributor on Low Voltage Lines				96,000					
Annual Energy (kWh) of Embedded Distributor on Low Voltage Lines (if applicable)	*****	With losses							
Total Line Length (KM) of System (overhead and/or underground as applicable)				284					
Total Line Length (KM) to provide LV Services				5.2					

Embedded Distribution Low Voltage Charges - Hydro One Networks Inc.(Air Products Only)						
Note: Inclusive of all costs except Meter Reading, Meter Capital, and Customer Billing - Incorporated into Cost Allocation Model						
				Haldimand County Hydro's Service Territory		
				UG & OH km	Overhead km	
			27.6	293	284	
			Total Primary	1653	1570	
			Secondary	750	584	
		Primary Allocation - Capital Cost (less Contributed Capital)	Primary Allocation - Accumulated Amortization	Primary Allocation - Net Book Value (as per Cost Allocation Model)	% Capital, Amort & O&MA	
	Capital - 1830	\$ 15,808,243	\$ 6,664,022	\$ 9,144,221	18.089%	
	Capital - 1835	\$ 8,268,377	\$ 2,586,035	\$ 5,682,342		
		\$ 24,076,620	\$ 9,250,057	\$ 14,826,563		
	Capital - 1830	Amortization Exp. (net of Contr.Capital)	\$ 801,384.80			
	Capital - 1835		\$ 435,986.21			
			\$ 1,237,371.01			
1	2	3	4	5	6	
Asset Class	Total annual OM&A costs of asset class providing LV services	original cost of asset class providing LV services	Accumulative amortization on asset class providing LV services	Annual amortization on asset class providing LV services 2010	NBV of asset class providing LV services	
Primary feeders						
Distribution Stations						
Low Voltage lines	\$ 463,612.72	\$ 4,355,261.20	\$ 1,673,258.72	\$ 223,830.17	2,682,002.48	
	7	8	9	10	11	
	Share of facilities		Share of facilities			
	km	km	kW or kVA	kW or kVA	percent	
Asset Class	Total line length or station capacity in asset class	Line length providing LV services	line capacity providing LV services	line capacity or station capacity used to provide LV services	Utilization factor	
Primary feeders						
Distribution Stations						
Low Voltage lines	284.0	5.2	153,364	96,000	90.20%	** Based on Utilization Factor calculated by Engineering (HONI kWh / Total kWh of LV Lines)

DIRECT ALLOCATION OF COSTS FOR CAR FILING							
	\$	\$	\$	\$	\$	\$	\$
Asset Class	Poles - original cost of assets used to provide LV Services	O/H Conductor - original cost of assets used to provide LV Services	Accumulative Amortization on assets used to provide LV Services	NBV of asset class used to provide LV services	Annual Amortization on assets used to provide LV Services	O&M cost associated with assets used to provide LV Services plus Administration	OM & A cost associated with assets used to provide LV Services plus HONI LV Charge Cost
Primary feeders							
Distribution Stations							
Low Voltage lines	46,772.33	24,463.90	27,368.43	43,867.81	3,661.05	10,353.91	10,353.91
Accumulative Amortization	19,717.05	7,651.38					
Amortization Expense	2,371.08	1,289.97					
					Administration	\$ 1,973,529	
					(per 2010 Rate Application Trial Balance)		
					Net Fixed Assets	\$ 34,639,553	
					(per 2010 Rate Application Rate Base)		
	Total Annual OM&A Costs for 2010	Total annual O&M costs of asset class providing LV services			% Net Fixed Assets (for Admin Costs)	5.70%	
Forecasted O&M Costs - 2010							
A/C 5020	\$ 120,005.00	\$ 21,707.91				\$ 355.06	
A/C 5025	\$ -	\$ -				\$ -	
A/C 5030	\$ -	\$ -				\$ -	
A/C 5120	\$ 607,398.00	\$ 109,873.27				\$ 1,797.13	
A/C 5125	\$ 900,963.00	\$ 162,976.75				\$ 2,665.71	
A/C 5135	\$ 556,518.00	\$ 100,669.50				\$ 1,646.59	
	\$ 2,184,884.00	\$ 395,227.42				\$ 6,464.48	
% Poles & O/H Conductor Costs of Total 2010 O&M	46%						
A/C 5005	\$ 499,249.00						
A/C 5085 (does not include HONI LV Charges Paid)	\$ 192,883.00						
A/C 5105	\$ 129,706.00						
	\$ 821,838.00						
Poles & O/H Conductor Portion of the following:							
A/C 5005	\$ 229,654.54	\$ 41,542.60				\$ 679.49	
A/C 5085	\$ 88,726.18	\$ 16,049.83				\$ 262.52	
A/C 5105	\$ 59,664.76	\$ 10,792.86				\$ 176.53	
	\$ 378,045.48	\$ 68,385.30				\$ 1,118.53	
TOTAL PORTION OF 2010 O&M COSTS ASSOCIATED WITH POLES & O/H CONDUCTORS	\$ 2,562,929.48	\$ 463,612.72			O&M	\$ 7,583.02	

					Administration	\$ 2,770.89	
						\$ 10,353.91	
TOTAL 2010 ADMINISTRATION COSTS USED							
	Total	% Allocated	Amount to LV Services		LV Charges Paid Directly to Hydro One for Hydro One Load		
A/C 5610	\$ 654,364.00	32%	\$ 886.68		A/C 5085		
A/C 5615	\$ 542,981.00	28%	\$ 775.85		A/C 5085		
A/C 5620	\$ 112,380.00	6%	\$ 166.25			\$ -	
A/C 5630	\$ 413,481.00	21%	\$ 581.89				
A/C 5635	\$ 19,408.00	1%	\$ 27.71		DS Meter Charge		
A/C 5655	\$ 101,208.00	5%	\$ 138.54				
A/C 5665	\$ 57,455.00	3%	\$ 83.13				
A/C 6105	\$ 53,447.00	3%	\$ 83.13				
A/C 6110 (Capital Tax Only)	\$ 18,805.00	1%	\$ 27.71	** Allocate to 50% to A/C 5610 and 50% to A/C 5615			
	\$ 1,973,529.00	100%	\$ 2,770.89				

HALDIMAND COUNTY HYDRO INC'S 2010 RATE APPLICATION

EB-2009-0265

SUPPLEMENTAL INTERROGATORIES OF
THE VULNERABLE ENERGY CONSUMERS COALITION

APPENDIX B

Embedded Distributor – Hydro One
Re-run 2010 Cost Allocation Model to
include HONI Distribution Revenue

(Sheet I6 – Customer Data; Sheet O1 –
Revenue to Cost Summary; and Sheet O2 –
Monthly Fixed Charge Minimum & Maximum)



2010 COST ALLOCATION STUDY
HALDIMAND COUNTY HYDRO INC.

EB-2009-0265

Friday, August 28, 2009

Sheet I6 Customer Data Worksheet - First Run 2010 Cost of Service Rate Application

Total kWhs	426,290,496
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Total kW	581,145
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Total Approved Distribution Revenue (\$)	\$12,823,643
--	--------------

			1	2	3	7	8	9	10
	ID	Total	Residential	General Service less than 50 kW	General Service 50 to 4,999 kW	Street Lighting	Sentinel Lighting	Unmetered Scattered Load	Embedded Distributor - Hydro One
Billing Data									
kWh from Load Forecast for 2010 Rate Application	CEN	426,290,496	169,492,357	60,923,412	109,459,903	2,328,757	418,928	482,264	83,184,875
kW from Load Forecast for 2010 Rate Application	CDEM	581,145			296,554	6,475	1,167		276,949
kW, included in CDEM, from customers with line transformer allowance (calculated based on \$ in 2010 Budget)		-							
Optional - kWh, included in CEN, from customers that receive a line transformation allowance on a kWh basis. In most cases this will not be applicable and will be left blank.		-							
KWh excluding KWh from Wholesale Market Participants	CEN EWMP	343,105,621	169,492,357	60,923,412	109,459,903	2,328,757	418,928	482,264	
kWh - 30 year weather normalized amount		426,290,496	169,492,357	60,923,412	109,459,903	2,328,757	418,928	482,264	83,184,875
Distribution Revenue Calculated Based on Est. 2010 Rates(11.5% increase)	CREV	\$12,823,642	\$8,574,801	\$2,083,876	\$1,862,399	\$86,886	\$19,396	\$22,513	\$173,771
Bad Debt 7 Year Historical Average (2002 to 2008)	BDHA	\$41,420	\$31,979	\$7,945	\$1,496	\$0	\$0	\$0	\$0
Average (2002 to 2008)	LPHA	\$59,198	44,777	8,467	5,619	221	-	114	-
Weighting Factor - Services			1.0	2.0	10.0	1.0	1.0	1.0	1.0
Weighting Factor - Billings			1.0	2.0	7.0	1.0	1.0	1.0	1.0

Number of Bills (customer # * 12 mos.)	CNB	260,592	222,408	28,284	1,716	48	7,068	972	96
Number of Connections (Unmetered)	CCON	2,283				1,610	589	84	
Total Number of Customer from Approved EDR, Sheet 7-1, Col H excluding connections	CCA	21,708	18,534	2,357	143	4	589	81	
Bulk Customer Base	CCB	-							
Primary Customer Base	CCP	21,708	18,534	2,357	143	4	589	81	
Line Transformer Customer Base	CCLT	21,678	18,534	2,357	113	4	589	81	
Secondary Customer Base	CCS	20,154	17,589	1,864	27	4	589	81	
Weighted - Services	CWCS	23,870	17,589	3,728	270	1,610	589	84	-
Weighted Meter -Capital	CWMC	2,735,315	1,646,110	689,155	350,050	-	-	-	50,000
Weighted Meter Reading	CWMR	45,397	36,811	4,836	3,302	-	-	-	448
Weighted Bills	CWNB	299,172	222,408	56,568	12,012	48	7,068	972	96
Data Mismatch Analysis									
Revenue with 30 year weather normalized kWh		12,823,642	8,574,801	2,083,876	1,862,399	86,886	19,396	22,513	173,771

Weather Normalized Data from Hydro

	Total	Residential	General Service less than 50 kW	General Service 50 to 4,999 kW	Street Lighting	Sentinel Lighting	Unmetered Scattered Load	Embedded Distributor - Hydro One
kWh - 30 year weather normalized amount	426,290,496	169,492,357	60,923,412	109,459,903	2,328,757	418,928	482,264	83,184,875
		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Bad Debt Data - 2002 to 2008

Year - 2002	38,512	27,028	11,484					
Year - 2003	(16,781)	(224)	(16,557)					
Year - 2004	24,061	19,525	4,536					
Year - 2005	39,132	23,121	16,011					
Year - 2006	291	258	33					
Year - 2007	158,133	121,642	36,241	250				
Year - 2008	46,590	32,501	3,869	10,220				
Seven-year average	41,420	31,979	7,945	1,496	-	-	-	-

Late Payment Data - 2002 to 2008

Year - 2002	88,600	69,668	11,369	7,551	(47)	59	
Year - 2003	47,128	33,978	6,615	6,364	135	36	
Year - 2004	58,216	41,424	8,664	7,424	113	590	
Year - 2005	61,934	46,702	9,127	6,075	7	22	
Year - 2006	47,829	34,936	7,314	4,846	715	17	
Year - 2007	58,356	46,043	8,312	3,610	364	27	
Year - 2008	52,321	40,686	7,868	3,464	259	45	
Seven-year average	59,198	44,777	8,467	5,619	221	-	114



2010 COST ALLOCATION STUDY
HALDIMAND COUNTY HYDRO INC.

EB-2009-0265

Friday, August 28, 2009

Sheet 01 Revenue to Cost Summary Worksheet - First Run 2010 Cost of Service Rate Application

Class Revenue, Cost Analysis, and Return on Rate Base

Rate Base Assets	Total	1	2	3	7	8	9	10
		Residential	General Service less than 50 kW	General Service 50 to 4,999 kW	Street Lighting	Sentinel Lighting	Unmetered Scattered Load	Embedded Distributor - Hydro One
crev Distribution Revenue (sale)	\$12,823,642	\$8,574,801	\$2,083,876	\$1,862,399	\$86,886	\$19,396	\$22,513	\$173,771
mi Miscellaneous Revenue (mi)	\$1,115,334	\$801,943	\$182,535	\$93,756	\$18,901	\$14,862	\$2,757	\$580
Total Revenue	\$13,938,976	\$9,376,744	\$2,266,411	\$1,956,155	\$105,787	\$34,258	\$25,270	\$174,351
Expenses								
di Distribution Costs (di)	\$3,777,765	\$2,535,334	\$582,955	\$434,463	\$158,245	\$57,892	\$8,875	\$0
cu Customer Related Costs (cu)	\$1,721,482	\$1,259,560	\$317,548	\$105,221	\$1,226	\$25,472	\$3,505	\$8,950
ad General and Administration (ad)	\$2,058,842	\$1,419,477	\$336,718	\$203,010	\$60,516	\$31,177	\$4,635	\$3,308
dep Depreciation and Amortization (dep)	\$2,928,426	\$1,969,098	\$460,365	\$328,762	\$117,751	\$43,078	\$6,593	\$2,778
INPUT PILs (INPUT)	\$740,616	\$497,869	\$117,075	\$82,690	\$29,679	\$10,858	\$1,661	\$783
INT Interest	\$1,273,192	\$855,886	\$201,263	\$142,153	\$51,022	\$18,666	\$2,855	\$1,347
Total Expenses	\$12,500,323	\$8,537,226	\$2,015,924	\$1,296,299	\$418,440	\$187,143	\$28,125	\$17,167
Direct Allocation	\$155,827	\$0	\$0	\$0	\$0	\$0	\$0	\$155,827
NI Allocated Net Income (NI)	\$1,282,827	\$862,364	\$202,786	\$143,229	\$51,408	\$18,807	\$2,877	\$1,357
Revenue Requirement (includes NI)	\$13,938,977	\$9,399,590	\$2,218,710	\$1,439,527	\$469,848	\$205,950	\$31,002	\$174,351
Revenue Requirement Input equals Output								
Rate Base Calculation								
Net Assets								
dp Distribution Plant - Gross	\$50,557,944	\$33,983,621	\$7,978,555	\$5,662,161	\$2,027,046	\$741,572	\$113,480	\$51,508
gp General Plant - Gross	\$8,669,510	\$5,836,466	\$1,368,327	\$957,717	\$350,418	\$128,196	\$19,591	\$8,795
accum dep Accumulated Depreciation	(\$21,841,750)	(\$14,651,377)	(\$3,446,218)	(\$2,489,895)	(\$866,349)	(\$316,944)	(\$48,589)	(\$22,376)
co Capital Contribution	(\$2,790,019)	(\$1,907,646)	(\$433,010)	(\$272,849)	(\$123,121)	(\$45,042)	(\$6,814)	(\$1,537)
Total Net Plant	\$34,595,685	\$23,261,063	\$5,467,654	\$3,857,134	\$1,387,994	\$507,782	\$77,668	\$36,390
Directly Allocated Net Fixed Assets	\$43,868	\$0	\$0	\$0	\$0	\$0	\$0	\$43,868
COP Cost of Power (COP)	\$28,677,930	\$13,807,045	\$4,962,892	\$8,916,731	\$189,703	\$34,126	\$39,286	\$728,147
OM&A Expenses	\$7,558,089	\$5,214,372	\$1,237,221	\$742,693	\$219,988	\$114,541	\$17,015	\$12,258
Directly Allocated Expenses	\$147,328	\$0	\$0	\$0	\$0	\$0	\$0	\$147,328
Subtotal	\$36,383,347	\$19,021,416	\$6,200,113	\$9,659,424	\$409,691	\$148,668	\$56,301	\$887,734
Working Capital	\$5,457,502	\$2,853,212	\$930,017	\$1,448,914	\$61,454	\$22,300	\$8,445	\$133,160
Total Rate Base	\$40,097,055	\$26,114,276	\$6,397,671	\$5,306,048	\$1,449,447	\$530,082	\$86,113	\$213,418
Rate Base Input equals Output								
Equity Component of Rate Base	\$16,038,822	\$10,445,710	\$2,559,069	\$2,122,419	\$579,779	\$212,033	\$34,445	\$85,367
Net Income on Allocated Assets	\$1,282,826	\$839,518	\$250,487	\$659,856	(\$312,653)	(\$152,885)	(\$2,854)	\$1,357
Net Income on Direct Allocation Assets	\$1,883	\$0	\$0	\$0	\$0	\$0	\$0	\$1,883
Net Income	\$1,284,708	\$839,518	\$250,487	\$659,856	(\$312,653)	(\$152,885)	(\$2,854)	\$3,240
RATIOS ANALYSIS								
REVENUE TO EXPENSES %	100.00%	99.76%	102.15%	135.89%	22.52%	16.63%	81.51%	100.00%
EXISTING REVENUE MINUS ALLOCATED COSTS	(\$1)	(\$22,846)	\$47,701	\$516,627	(\$364,061)	(\$171,692)	(\$5,731)	\$0
RETURN ON EQUITY COMPONENT OF RATE BASE	8.01%	8.04%	9.79%	31.09%	-53.93%	-72.10%	-8.29%	3.80%

2010 COST ALLOCATION STUDY
HALDIMAND COUNTY HYDRO INC.

EB-2009-0265

Friday, August 28, 2009

Sheet 02 Monthly Fixed Charge Min. & Max. Worksheet - First Run 2010 Cost of Service Rate Application

Output sheet showing minimum and maximum level for Monthly Fixed Charge

Summary

	1	2	3	7	8	9	10
Summary	Residential	General Service less than 50 kW	General Service 50 to 4,999 kW	Street Lighting	Sentinel Lighting	Unmetered Scattered Load	Embedded Distributor - Hydro One
Customer Unit Cost per month - Avoided Cost	\$4.06	\$9.55	\$55.50	\$0.00	\$2.44	\$1.75	\$144.77
Customer Unit Cost per month - Directly Related	\$6.07	\$13.77	\$81.60	\$0.02	\$3.54	\$2.81	\$191.54
Customer Unit Cost per month - Minimum System with PLCC Adjustment	\$28.02	\$37.41	\$105.91	\$24.25	\$27.95	\$24.58	\$191.77
Fixed Charge per approved 2009 Tariff of Rates & Charges	\$11.01	\$18.07	\$33.65	\$1.51	\$1.71	\$9.03	\$0.00

Information to be Used to Allocate PILs, ROD, ROE and A&G

To be Used to Allocate PILs, ROD, &G		1	2	3	7	8	9	10
		Total	Residential	General Service less than 50 kW	General Service 50 to 4,999 kW	Street Lighting	Sentinel Lighting	Unmetered Scattered Load
General Plant - Gross Assets	\$8,669,510	\$5,836,466	\$1,368,327	\$957,717	\$350,418	\$128,196	\$19,591	\$8,795
General Plant - Accumulated Depreciation	(\$4,009,659)	(\$2,699,373)	(\$632,853)	(\$442,945)	(\$162,069)	(\$59,291)	(\$9,061)	(\$4,068)
General Plant - Net Fixed Assets	\$4,659,851	\$3,137,093	\$735,474	\$514,772	\$188,349	\$68,905	\$10,530	\$4,727
General Plant - Depreciation	\$742,584	\$499,921	\$117,204	\$82,033	\$30,015	\$10,981	\$1,678	\$753
Total Net Fixed Assets Excluding General Plant	\$29,935,834	\$20,123,970	\$4,732,180	\$3,342,363	\$1,199,644	\$438,876	\$67,138	\$31,663
Total Administration and General Expense	\$2,058,842	\$1,419,477	\$336,718	\$203,010	\$60,516	\$31,177	\$4,635	\$3,308
Total O&M	\$5,499,247	\$3,794,894	\$900,503	\$539,683	\$159,472	\$83,365	\$12,380	\$8,955

Scenario 1

Accounts included in Avoided Costs Plus General Administration Allocation

[illegible]

4225	Late Payment Charges	(\$319,125)	(\$241,384)	(\$45,644)	(\$30,292)	(\$1,191)	\$0	(\$614)	\$0	LPHA
	Sub-total	(\$462,278)	(\$347,806)	(\$72,712)	(\$36,039)	(\$1,214)	(\$3,382)	(\$1,079)	(\$46)	
	Operation									
5065	Meter Expense	\$276,493	\$166,393	\$69,662	\$35,384	\$0	\$0	\$0	\$5,054	CWMC
5070	Customer Premises - Operation Labour	\$15,294	\$12,157	\$1,546	\$94	\$1,056	\$386	\$55	\$0	CCA
5075	Customer Premises - Materials and Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	CCA
	Sub-total	\$291,787	\$178,550	\$71,208	\$35,478	\$1,056	\$386	\$55	\$5,054	
	Maintenance									
5175	Maintenance of Meters	\$26,272	\$15,810	\$6,619	\$3,362	\$0	\$0	\$0	\$480	1860
	Billing and Collection									
5310	Meter Reading Expense	\$311,589	\$252,658	\$33,193	\$22,664	\$0	\$0	\$0	\$3,075	CWMR
5315	Customer Billing	\$602,980	\$448,262	\$114,013	\$24,210	\$97	\$14,246	\$1,959	\$193	CWNB
5320	Collecting	\$254,886	\$189,485	\$48,194	\$10,234	\$41	\$6,022	\$828	\$82	CWNB
5325	Collecting- Cash Over and Short	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	CWNB
5330	Collection Charges	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	CWNB
	Sub-total	\$1,169,455	\$890,405	\$195,400	\$57,108	\$138	\$20,267	\$2,787	\$3,350	
	Total Operation, Maintenance and Billing	\$1,487,514	\$1,084,766	\$273,226	\$95,948	\$1,194	\$20,654	\$2,842	\$8,885	
	Amortization Expense - Meters	\$110,781	\$66,668	\$27,911	\$14,177	\$0	\$0	\$0	\$2,025	
	Allocated PILs	\$37,090	\$22,311	\$9,345	\$4,752	\$0	\$0	\$0	\$682	
	Allocated Debt Return	\$63,761	\$38,355	\$16,064	\$8,170	\$0	\$0	\$0	\$1,172	
	Allocated Equity Return	\$64,243	\$38,646	\$16,186	\$8,231	\$0	\$0	\$0	\$1,181	
	Total	\$1,301,111	\$902,940	\$270,020	\$95,239	(\$21)	\$17,272	\$1,764	\$13,897	

Scenario 2

USoA Account #	Accounts	Total	1 Residential	2 General Service less than 50 kW	3 General Service 50 to 4,999 kW	7 Street Lighting	8 Sentinel Lighting	9 Unmetered Scattered Load	10 Embedded Distributor - Hydro One	
1860	<u>Distribution Plant</u> Meters	\$2,817,829	\$1,695,767	\$709,944	\$360,610	\$0	\$0	\$0	\$51,508	CWMC
	<u>Accumulated Amortization</u> Accum. Amortization of Electric Utility Plant - Meters only	(\$1,085,674)	(\$653,358)	(\$273,533)	(\$138,938)	\$0	\$0	\$0	(\$19,846)	
	Meter Net Fixed Assets	\$1,732,155	\$1,042,409	\$436,412	\$221,671	\$0	\$0	\$0	\$31,663	
	Allocated General Plant Net Fixed Assets	\$269,194	\$162,499	\$67,827	\$34,141	\$0	\$0	\$0	\$4,727	
	Meter Net Fixed Assets Including General Plant	\$2,001,349	\$1,204,909	\$504,238	\$255,812	\$0	\$0	\$0	\$36,390	
	<u>Misc Revenue</u>									
4082	Retail Services Revenues	(\$34,956)	(\$25,987)	(\$6,610)	(\$1,404)	(\$6)	(\$826)	(\$114)	(\$11)	CWNB
4084	Service Transaction Requests (STR) Revenues	(\$1,070)	(\$795)	(\$202)	(\$43)	(\$0)	(\$25)	(\$3)	(\$0)	CWNB
4090	Electric Services Incidental to Energy Sales	(\$107,127)	(\$79,639)	(\$20,256)	(\$4,301)	(\$17)	(\$2,531)	(\$348)	(\$34)	CWNB
4220	Other Electric Revenues	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NFA
4225	Late Payment Charges	(\$319,125)	(\$241,384)	(\$45,644)	(\$30,292)	(\$1,191)	\$0	(\$614)	\$0	LPFA
	Sub-total	(\$462,278)	(\$347,806)	(\$72,712)	(\$36,039)	(\$1,214)	(\$3,382)	(\$1,079)	(\$46)	
	<u>Operation</u>									
5065	Meter Expense	\$276,493	\$166,393	\$69,662	\$35,384	\$0	\$0	\$0	\$5,054	CWMC
5070	Customer Premises - Operation Labour	\$15,294	\$12,157	\$1,546	\$94	\$1,056	\$386	\$55	\$0	CCA
5075	Customer Premises - Materials and Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	CCA
	Sub-total	\$291,787	\$178,550	\$71,208	\$35,478	\$1,056	\$386	\$55	\$5,054	

Maintenance

5175	Maintenance of Meters	\$26,272	\$15,810	\$6,619	\$3,362	\$0	\$0	\$0	\$480	1860
	Billing and Collection									
5310	Meter Reading Expense	\$311,589	\$252,658	\$33,193	\$22,664	\$0	\$0	\$0	\$3,075	CWMR
5315	Customer Billing	\$602,980	\$448,262	\$114,013	\$24,210	\$97	\$14,246	\$1,959	\$193	CWNB
5320	Collecting	\$254,886	\$189,485	\$48,194	\$10,234	\$41	\$6,022	\$828	\$82	CWNB
5325	Collecting- Cash Over and Short	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	CWNB
5330	Collection Charges	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	CWNB
	Sub-total	\$1,169,455	\$890,405	\$195,400	\$57,108	\$138	\$20,267	\$2,787	\$3,350	
	Total Operation, Maintenance and Billing	\$1,487,514	\$1,084,766	\$273,226	\$95,948	\$1,194	\$20,654	\$2,842	\$8,885	
	Amortization Expense - Meters	\$110,781	\$66,668	\$27,911	\$14,177	\$0	\$0	\$0	\$2,025	
	Amortization Expense - General Plant assigned to Meters	\$42,898	\$25,896	\$10,809	\$5,441	\$0	\$0	\$0	\$753	
	Admin and General	\$556,539	\$405,756	\$102,166	\$36,092	\$453	\$7,724	\$1,064	\$3,284	
	Allocated PILs	\$42,854	\$25,789	\$10,797	\$5,484	\$0	\$0	\$0	\$783	
	Allocated Debt Return	\$73,670	\$44,334	\$18,561	\$9,428	\$0	\$0	\$0	\$1,347	
	Allocated Equity Return	\$74,227	\$44,670	\$18,701	\$9,499	\$0	\$0	\$0	\$1,357	
	Total	\$1,926,205	\$1,350,073	\$389,459	\$140,029	\$432	\$24,996	\$2,828	\$18,388	

Scenario 3

Minimum System Customer Costs Adjusted for PLCC - High Limit Fixed Customer Charge

USoA Account #	Accounts	Total	1	2	3	7	8	9	10	
			Residential	General Service less than 50 kW	General Service 50 to 4,999 kW	Street Lighting	Sentinel Lighting	Unmetered Scattered Load	Embedded Distributor - Hydro One	
	Distribution Plant									
1565	Conservation and Demand Management									CDMPP
	Expenditures and Recoveries	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
1830	Poles, Towers and Fixtures	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	#N/A
	Poles, Towers and Fixtures - Subtransmission Bulk									BCP
1830-3	Delivery	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
1830-4	Poles, Towers and Fixtures - Primary	\$9,641,289	\$7,663,578	\$974,590	\$59,129	\$665,715	\$243,544	\$34,733	\$0	PNCP
1830-5	Poles, Towers and Fixtures - Secondary	\$615,401	\$497,372	\$52,709	\$763	\$45,527	\$16,655	\$2,375	\$0	SNCP
1835	Overhead Conductors and Devices	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	#N/A
	Overhead Conductors and Devices - Subtransmission									BCP
1835-3	Bulk Delivery	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
1835-4	Overhead Conductors and Devices - Primary	\$4,982,514	\$3,960,455	\$503,658	\$30,557	\$344,034	\$125,861	\$17,950	\$0	PNCP
1835-5	Overhead Conductors and Devices - Secondary	\$615,816	\$497,707	\$52,745	\$764	\$45,557	\$16,667	\$2,377	\$0	SNCP
1840	Underground Conduit	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	#N/A
1840-3	Underground Conduit - Bulk Delivery	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	BCP
1840-4	Underground Conduit - Primary	\$403,274	\$320,551	\$40,765	\$2,473	\$27,845	\$10,187	\$1,453	\$0	PNCP
1840-5	Underground Conduit - Secondary	\$71,166	\$57,517	\$6,095	\$88	\$5,265	\$1,926	\$275	\$0	SNCP
1845	Underground Conductors and Devices	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	#N/A
										BCP
1845-3	Underground Conductors and Devices - Bulk Delivery	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
1845-4	Underground Conductors and Devices - Primary	\$3,473,986	\$2,761,370	\$351,168	\$21,305	\$239,873	\$87,755	\$12,515	\$0	PNCP
										SNCP
1845-5	Underground Conductors and Devices - Secondary	\$613,056	\$495,476	\$52,508	\$761	\$45,353	\$16,592	\$2,366	\$0	
1850	Line Transformers	\$6,419,999	\$5,109,643	\$649,802	\$31,153	\$443,861	\$162,382	\$23,158	\$0	LTNCP
1855	Services	\$2,431,707	\$1,791,843	\$379,782	\$27,506	\$164,015	\$60,003	\$8,557	\$0	CWCS
1860	Meters	\$2,817,829	\$1,695,767	\$709,944	\$360,610	\$0	\$0	\$0	\$51,508	CWMC
	Sub-total	\$32,086,039	\$24,851,278	\$3,773,767	\$535,109	\$2,027,046	\$741,572	\$105,759	\$51,508	
	Accumulated Amortization									
	Accum. Amortization of Electric Utility Plant -Line									
	Transformers, Services and Meters	(\$13,028,832)	(\$10,106,681)	(\$1,519,209)	(\$209,830)	(\$827,402)	(\$302,695)	(\$43,169)	(\$19,846)	
	Customer Related Net Fixed Assets	\$19,057,207	\$14,744,597	\$2,254,557	\$325,279	\$1,199,644	\$438,876	\$62,590	\$31,663	
	Allocated General Plant Net Fixed Assets	\$2,970,810	\$2,298,511	\$350,403	\$50,098	\$188,349	\$68,905	\$9,817	\$4,727	
	Customer Related NFA Including General Plant	\$22,028,017	\$17,043,108	\$2,604,960	\$375,377	\$1,387,994	\$507,782	\$72,407	\$36,390	

	Misc Revenue									
4082	Retail Services Revenues	(\$34,956)	(\$25,987)	(\$6,610)	(\$1,404)	(\$6)	(\$826)	(\$114)	(\$11)	CWNB
4084	Service Transaction Requests (STR) Revenues	(\$1,070)	(\$795)	(\$202)	(\$43)	(\$0)	(\$25)	(\$3)	(\$0)	CWNB
4090	Electric Services Incidental to Energy Sales	(\$107,127)	(\$79,639)	(\$20,256)	(\$4,301)	(\$17)	(\$2,531)	(\$348)	(\$34)	CWNB
4220	Other Electric Revenues	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	NFA
4225	Late Payment Charges	(\$319,125)	(\$241,384)	(\$45,644)	(\$30,292)	(\$1,191)	\$0	(\$614)	\$0	LPHA
4235	Miscellaneous Service Revenues	(\$212,558)	(\$158,018)	(\$40,191)	(\$8,534)	(\$34)	(\$5,022)	(\$691)	(\$68)	CWNB
	Sub-total	(\$674,836)	(\$505,824)	(\$112,903)	(\$44,574)	(\$1,248)	(\$8,404)	(\$1,769)	(\$114)	
	Operating and Maintenance									
5005	Operation Supervision and Engineering	\$299,142	\$236,666	\$31,314	\$1,784	\$20,718	\$7,579	\$1,081	\$0	1815-1855
5010	Load Dispatching	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	1815-1855
5020	Overhead Distribution Lines and Feeders - Operation Labour	\$71,790	\$57,138	\$7,171	\$413	\$4,984	\$1,824	\$260	\$0	1830 & 1835
5025	Overhead Distribution Lines & Feeders - Operation Supplies and Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	1830 & 1835
5035	Overhead Distribution Transformers- Operation	\$133,177	\$105,995	\$13,480	\$646	\$9,207	\$3,368	\$480	\$0	1850
5040	Underground Distribution Lines and Feeders - Operation Labour	\$35,165	\$28,022	\$3,473	\$190	\$2,454	\$898	\$128	\$0	1840 & 1845
5045	Underground Distribution Lines & Feeders - Operation Supplies & Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	1840 & 1845
5055	Underground Distribution Transformers - Operation	\$9,418	\$7,495	\$953	\$46	\$651	\$238	\$34	\$0	1850
5065	Meter Expense	\$276,493	\$166,393	\$69,662	\$35,384	\$0	\$0	\$0	\$5,054	CWMC
5070	Customer Premises - Operation Labour	\$15,294	\$12,157	\$1,546	\$94	\$1,056	\$386	\$55	\$0	CCA
5075	Customer Premises - Materials and Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	CCA
5085	Miscellaneous Distribution Expense	\$33,388	\$26,415	\$3,495	\$199	\$2,312	\$846	\$121	\$0	1815-1855
5090	Underground Distribution Lines and Feeders - Rental Paid	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	1840 & 1845
5095	Overhead Distribution Lines and Feeders - Rental Paid	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	1830 & 1835
5096	Other Rent	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	O&M
5105	Maintenance Supervision and Engineering	\$78,907	\$62,428	\$8,260	\$470	\$5,465	\$1,999	\$285	\$0	1815-1855
5120	Maintenance of Poles, Towers and Fixtures	\$363,361	\$289,115	\$36,394	\$2,122	\$25,197	\$9,218	\$1,315	\$0	1830
5125	Maintenance of Overhead Conductors and Devices	\$538,978	\$429,209	\$53,568	\$3,015	\$37,508	\$13,722	\$1,957	\$0	1835
5130	Maintenance of Overhead Services	\$158,103	\$116,501	\$24,692	\$1,788	\$10,664	\$3,901	\$556	\$0	1855
5135	Overhead Distribution Lines and Feeders - Right of Way	\$332,923	\$264,975	\$33,254	\$1,915	\$23,115	\$8,456	\$1,206	\$0	1830 & 1835
5145	Maintenance of Underground Conduit	\$6,412	\$5,110	\$633	\$35	\$447	\$164	\$23	\$0	1840
5150	Maintenance of Underground Conductors and Devices	\$19,925	\$15,878	\$1,968	\$108	\$1,391	\$509	\$73	\$0	1845
5155	Maintenance of Underground Services	\$111,495	\$82,157	\$17,413	\$1,261	\$7,520	\$2,751	\$392	\$0	1855
5160	Maintenance of Line Transformers	\$95,622	\$76,105	\$9,678	\$464	\$6,611	\$2,419	\$345	\$0	1850
5175	Maintenance of Meters	\$26,272	\$15,810	\$6,619	\$3,362	\$0	\$0	\$0	\$480	1860
	Sub-total	\$2,605,864	\$1,997,568	\$323,574	\$53,296	\$159,301	\$58,279	\$8,311	\$5,534	
	Billing and Collection									
5305	Supervision	\$144,980	\$107,780	\$27,413	\$5,821	\$23	\$3,425	\$471	\$47	CWNB
5310	Meter Reading Expense	\$311,589	\$252,658	\$33,193	\$22,664	\$0	\$0	\$0	\$3,075	CWNR
5315	Customer Billing	\$602,980	\$448,262	\$114,013	\$24,210	\$97	\$14,246	\$1,959	\$193	CWNB
5320	Collecting	\$254,886	\$189,485	\$48,194	\$10,234	\$41	\$6,022	\$828	\$82	CWNB
5325	Collecting- Cash Over and Short	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	CWNB
5330	Collection Charges	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	CWNB
5335	Bad Debt Expense	\$30,000	\$23,162	\$5,755	\$1,083	\$0	\$0	\$0	\$0	BDHA
5340	Miscellaneous Customer Accounts Expenses	\$58,988	\$43,852	\$11,154	\$2,368	\$9	\$1,394	\$192	\$19	CWNB
	Sub-total	\$1,403,423	\$1,065,200	\$239,721	\$66,381	\$170	\$25,086	\$3,450	\$3,416	
	Sub Total Operating, Maintenance and Billing	\$4,009,287	\$3,062,768	\$563,295	\$119,677	\$159,472	\$83,365	\$11,761	\$8,950	
	Amortization Expense - Customer Related	\$1,376,932	\$1,069,609	\$159,254	\$21,634	\$87,736	\$32,097	\$4,578	\$2,025	
	Amortization Expense - General Plant assigned to Meters	\$473,422	\$366,286	\$55,839	\$7,983	\$30,015	\$10,981	\$1,564	\$753	
	Admin and General	\$1,500,678	\$1,145,626	\$210,629	\$45,018	\$60,516	\$31,177	\$4,403	\$3,308	
	Allocated PILs	\$471,478	\$364,783	\$55,778	\$8,047	\$29,679	\$10,858	\$1,548	\$783	

Allocated Debt Return	\$810,516	\$627,098	\$95,888	\$13,834	\$51,022	\$18,666	\$2,662	\$1,347
Allocated Equity Return	\$816,650	\$631,844	\$96,614	\$13,939	\$51,408	\$18,807	\$2,682	\$1,357
PLCC Adjustment for Line Transformer	\$122,806	\$107,936	\$13,723	\$658	\$0	\$0	\$489	\$0
PLCC Adjustment for Primary Costs	\$405,319	\$355,711	\$45,245	\$2,750	\$0	\$0	\$1,613	\$0
PLCC Adjustment for Secondary Costs	\$74,612	\$66,381	\$7,261	\$416	\$0	\$0	\$555	\$0
Total	\$8,181,389	\$6,232,162	\$1,058,165	\$181,735	\$468,600	\$197,546	\$24,772	\$18,410

Below: Grouping to avoid disclosure

Scenario 1

Accounts included in Avoided Costs Plus General Administration Allocation

Accounts	Total	Residential	General Service less than 50 kW	General Service 50 to 4,999 kW	Street Lighting	Sentinel Lighting	Unmetered Scattered Load	Embedded Distributor - Hydro One
<u>Distribution Plant</u>								
CWMC	\$ 2,817,829	\$ 1,695,767	\$ 709,944	\$ 360,610	\$ -	\$ -	\$ -	\$ 51,508
<u>Accumulated Amortization</u>								
Accum. Amortization of Electric Utility Plant - Meters only	\$ (1,085,674)	\$ (653,358)	\$ (273,533)	\$ (138,938)	\$ -	\$ -	\$ -	\$ (19,846)
Meter Net Fixed Assets	\$ 1,732,155	\$ 1,042,409	\$ 436,412	\$ 221,671	\$ -	\$ -	\$ -	\$ 31,663
<u>Misc Revenue</u>								
CWNB	\$ (143,153)	\$ (106,422)	\$ (27,068)	\$ (5,748)	\$ (23)	\$ (3,382)	\$ (465)	\$ (46)
NFA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LPHA	\$ (319,125)	\$ (241,384)	\$ (45,644)	\$ (30,292)	\$ (1,191)	\$ -	\$ (614)	\$ -
Sub-total	\$ (462,278)	\$ (347,806)	\$ (72,712)	\$ (36,039)	\$ (1,214)	\$ (3,382)	\$ (1,079)	\$ (46)
<u>Operation</u>								
CWMC	\$ 276,493	\$ 166,393	\$ 69,662	\$ 35,384	\$ -	\$ -	\$ -	\$ 5,054
CCA	\$ 15,294	\$ 12,157	\$ 1,546	\$ 94	\$ 1,056	\$ 386	\$ 55	\$ -
Sub-total	\$ 291,787	\$ 178,550	\$ 71,208	\$ 35,478	\$ 1,056	\$ 386	\$ 55	\$ 5,054
<u>Maintenance</u>								
1860	\$ 26,272	\$ 15,810	\$ 6,619	\$ 3,362	\$ -	\$ -	\$ -	\$ 480
<u>Billing and Collection</u>								
CWMR	\$ 311,589	\$ 252,658	\$ 33,193	\$ 22,664	\$ -	\$ -	\$ -	\$ 3,075
CWNB	\$ 857,866	\$ 637,748	\$ 162,207	\$ 34,444	\$ 138	\$ 20,267	\$ 2,787	\$ 275
Sub-total	\$ 1,169,455	\$ 890,405	\$ 195,400	\$ 57,108	\$ 138	\$ 20,267	\$ 2,787	\$ 3,350
Total Operation, Maintenance and Billing	\$ 1,487,514	\$ 1,084,766	\$ 273,226	\$ 95,948	\$ 1,194	\$ 20,654	\$ 2,842	\$ 8,885
Amortization Expense - Meters	\$ 110,781	\$ 66,668	\$ 27,911	\$ 14,177	\$ -	\$ -	\$ -	\$ 2,025
Allocated PILs	\$ 37,090	\$ 22,311	\$ 9,345	\$ 4,752	\$ -	\$ -	\$ -	\$ 682
Allocated Debt Return	\$ 63,761	\$ 38,355	\$ 16,064	\$ 8,170	\$ -	\$ -	\$ -	\$ 1,172
Allocated Equity Return	\$ 64,243	\$ 38,646	\$ 16,186	\$ 8,231	\$ -	\$ -	\$ -	\$ 1,181
Total	\$ 1,301,111	\$ 902,940	\$ 270,020	\$ 95,239	\$ (21)	\$ 17,272	\$ 1,764	\$ 13,897

Scenario 2

Accounts included in Directly Related Customer Costs Plus General Administration Allocation

Accounts	Total	Residential	General Service less than 50 kW	General Service 50 to 4,999 kW	Street Lighting	Sentinel Lighting	Unmetered Scattered Load	Embedded Distributor - Hydro One
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<u>Distribution Plant</u>									
CWMC	\$	2,817,829	\$	1,695,767	\$	709,944	\$	360,610	\$ - \$ - \$ - \$ 51,508
<u>Accumulated Amortization</u>									
Accum. Amortization of Electric Utility Plant - Meters only	\$	(1,085,674)	\$	(653,358)	\$	(273,533)	\$	(138,938)	\$ - \$ - \$ - \$ (19,846)
Meter Net Fixed Assets	\$	1,732,155	\$	1,042,409	\$	436,412	\$	221,671	\$ - \$ - \$ - \$ 31,663
Allocated General Plant Net Fixed Assets	\$	269,194	\$	162,499	\$	67,827	\$	34,141	\$ - \$ - \$ - \$ 4,727
Meter Net Fixed Assets Including General Plant	\$	2,001,349	\$	1,204,909	\$	504,238	\$	255,812	\$ - \$ - \$ - \$ 36,390
<u>Misc Revenue</u>									
CWNB	\$	(143,153)	\$	(106,422)	\$	(27,068)	\$	(5,748)	\$ (23) \$ (3,382) \$ (465) \$ (46)
NFA	\$	-	\$	-	\$	-	\$	-	\$ - \$ - \$ - \$ -
LPHA	\$	(319,125)	\$	(241,384)	\$	(45,644)	\$	(30,292)	\$ (1,191) \$ - \$ (614) \$ -
Sub-total	\$	(462,278)	\$	(347,806)	\$	(72,712)	\$	(36,039)	\$ (1,214) \$ (3,382) \$ (1,079) \$ (46)
<u>Operation</u>									
CWMC	\$	276,493	\$	166,393	\$	69,662	\$	35,384	\$ - \$ - \$ - \$ 5,054
CCA	\$	15,294	\$	12,157	\$	1,546	\$	94	\$ 1,056 \$ 386 \$ 55 \$ -
Sub-total	\$	291,787	\$	178,550	\$	71,208	\$	35,478	\$ 1,056 \$ 386 \$ 55 \$ 5,054
<u>Maintenance</u>									
1860	\$	26,272	\$	15,810	\$	6,619	\$	3,362	\$ - \$ - \$ - \$ 480
<u>Billing and Collection</u>									
CWMR	\$	311,589	\$	252,658	\$	33,193	\$	22,664	\$ - \$ - \$ - \$ 3,075
CWNB	\$	857,866	\$	637,748	\$	162,207	\$	34,444	\$ 138 \$ 20,267 \$ 2,787 \$ 275
Sub-total	\$	1,169,455	\$	890,405	\$	195,400	\$	57,108	\$ 138 \$ 20,267 \$ 2,787 \$ 3,350
Total Operation, Maintenance and Billing	\$	1,487,514	\$	1,084,766	\$	273,226	\$	95,948	\$ 1,194 \$ 20,654 \$ 2,842 \$ 8,885
Amortization Expense - Meters	\$	110,781	\$	66,668	\$	27,911	\$	14,177	\$ - \$ - \$ - \$ 2,025
Amortization Expense - General Plant assigned to Meters	\$	42,898	\$	25,896	\$	10,809	\$	5,441	\$ - \$ - \$ - \$ 753
Admin and General	\$	556,539	\$	405,756	\$	102,166	\$	36,092	\$ 453 \$ 7,724 \$ 1,064 \$ 3,284
Allocated PILs	\$	42,854	\$	25,789	\$	10,797	\$	5,484	\$ - \$ - \$ - \$ 783
Allocated Debt Return	\$	73,670	\$	44,334	\$	18,561	\$	9,428	\$ - \$ - \$ - \$ 1,347
Allocated Equity Return	\$	74,227	\$	44,670	\$	18,701	\$	9,499	\$ - \$ - \$ - \$ 1,357
Total	\$	1,926,205	\$	1,350,073	\$	389,459	\$	140,029	\$ 432 \$ 24,996 \$ 2,828 \$ 18,388

Scenario 3

Minimum System Customer Costs Adjusted for PLCC - High Limit Fixed Customer Charge

USoA Account #	Accounts	Total	Residential	General Service less than 50 kW	General Service 50 to 4,999 kW	Street Lighting	Sentinel Lighting	Unmetered Scattered Load	Embedded Distributor - Hydro One
<u>Distribution Plant</u>									
CDMPP	\$	-	\$	-	\$	-	\$	-	\$ -
Poles, Towers and Fixtures	\$	-	\$	-	\$	-	\$	-	\$ -
BCP	\$	-	\$	-	\$	-	\$	-	\$ -
PNCP	\$	18,501,064	\$	14,705,953	\$	1,870,181	\$	113,465	\$ 1,277,468 \$ 467,347 \$ 66,650 \$ -
SNCP	\$	1,915,440	\$	1,548,071	\$	164,057	\$	2,376	\$ 141,702 \$ 51,840 \$ 7,393 \$ -
Overhead Conductors and Devices	\$	-	\$	-	\$	-	\$	-	\$ -
LTNCP	\$	6,419,999	\$	5,109,643	\$	649,802	\$	31,153	\$ 443,861 \$ 162,382 \$ 23,158 \$ -
CWCS	\$	2,431,707	\$	1,791,843	\$	379,782	\$	27,506	\$ 164,015 \$ 60,003 \$ 8,557 \$ -
CWMC	\$	2,817,829	\$	1,695,767	\$	709,944	\$	360,610	\$ - \$ - \$ - \$ 51,508
Sub-total	\$	32,086,039	\$	24,851,278	\$	3,773,767	\$	535,109	\$ 2,027,046 \$ 741,572 \$ 105,759 \$ 51,508
<u>Accumulated Amortization</u>									
Accum. Amortization of Electric Utility Plant -Line Transformers, Services and Meters	\$	(13,028,832)	\$	(10,106,681)	\$	(1,519,209)	\$	(209,830)	\$ (827,402) \$ (302,695) \$ (43,169) \$ (19,846)
Customer Related Net Fixed Assets	\$	19,057,207	\$	14,744,597	\$	2,254,557	\$	325,279	\$ 1,199,644 \$ 438,876 \$ 62,590 \$ 31,663
Allocated General Plant Net Fixed Assets	\$	2,970,810	\$	2,298,511	\$	350,403	\$	50,098	\$ 188,349 \$ 68,905 \$ 9,817 \$ 4,727

Customer Related NFA Including General Plant	\$	22,028,017	\$	17,043,108	\$	2,604,960	\$	375,377	\$	1,387,994	\$	507,782	\$	72,407	\$	36,390
Misc Revenue																
CWNB	\$	(355,711)	\$	(264,440)	\$	(67,258)	\$	(14,282)	\$	(57)	\$	(8,404)	\$	(1,156)	\$	(114)
NFA	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
LPHA	\$	(319,125)	\$	(241,384)	\$	(45,644)	\$	(30,292)	\$	(1,191)	\$	-	\$	(614)	\$	-
Sub-total	\$	(674,836)	\$	(505,824)	\$	(112,903)	\$	(44,574)	\$	(1,248)	\$	(8,404)	\$	(1,769)	\$	(114)
Operating and Maintenance																
1815-1855	\$	411,437	\$	325,508	\$	43,070	\$	2,453	\$	28,495	\$	10,425	\$	1,487	\$	-
1830 & 1835	\$	404,713	\$	322,113	\$	40,425	\$	2,328	\$	28,100	\$	10,280	\$	1,466	\$	-
1850	\$	238,216	\$	189,595	\$	24,111	\$	1,156	\$	16,470	\$	6,025	\$	859	\$	-
1840 & 1845	\$	35,165	\$	28,022	\$	3,473	\$	190	\$	2,454	\$	898	\$	128	\$	-
CWMC	\$	276,493	\$	166,393	\$	69,662	\$	35,384	\$	-	\$	-	\$	-	\$	5,054
CCA	\$	15,294	\$	12,157	\$	1,546	\$	94	\$	1,056	\$	386	\$	55	\$	-
O&M	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
1830	\$	363,361	\$	289,115	\$	36,394	\$	2,122	\$	25,197	\$	9,218	\$	1,315	\$	-
1835	\$	538,978	\$	429,209	\$	53,568	\$	3,015	\$	37,508	\$	13,722	\$	1,957	\$	-
1855	\$	269,598	\$	198,658	\$	42,106	\$	3,049	\$	18,184	\$	6,652	\$	949	\$	-
1840	\$	6,412	\$	5,110	\$	633	\$	35	\$	447	\$	164	\$	23	\$	-
1845	\$	19,925	\$	15,878	\$	1,968	\$	108	\$	1,391	\$	509	\$	73	\$	-
1860	\$	26,272	\$	15,810	\$	6,619	\$	3,362	\$	-	\$	-	\$	-	\$	480
Sub-total	\$	2,605,864	\$	1,997,568	\$	323,574	\$	53,296	\$	159,301	\$	58,279	\$	8,311	\$	5,534
Billing and Collection																
CWNB	\$	1,061,834	\$	789,380	\$	200,774	\$	42,634	\$	170	\$	25,086	\$	3,450	\$	341
CWMR	\$	311,589	\$	252,658	\$	33,193	\$	22,664	\$	-	\$	-	\$	-	\$	3,075
BDHA	\$	30,000	\$	23,162	\$	5,755	\$	1,083	\$	-	\$	-	\$	-	\$	-
Sub-total	\$	1,403,423	\$	1,065,200	\$	239,721	\$	66,381	\$	170	\$	25,086	\$	3,450	\$	3,416
Sub Total Operating, Maintenance and Billing	\$	4,009,287	\$	3,062,768	\$	563,295	\$	119,677	\$	159,472	\$	83,365	\$	11,761	\$	8,950
Amortization Expense - Customer Related	\$	1,376,932	\$	1,069,609	\$	159,254	\$	21,634	\$	87,736	\$	32,097	\$	4,578	\$	2,025
Amortization Expense - General Plant assigned to Meters	\$	473,422	\$	366,286	\$	55,839	\$	7,983	\$	30,015	\$	10,981	\$	1,564	\$	753
Admin and General	\$	1,500,678	\$	1,145,626	\$	210,629	\$	45,018	\$	60,516	\$	31,177	\$	4,403	\$	3,308
Allocated PILs	\$	471,478	\$	364,783	\$	55,778	\$	8,047	\$	29,679	\$	10,858	\$	1,548	\$	783
Allocated Debt Return	\$	810,516	\$	627,098	\$	95,888	\$	13,834	\$	51,022	\$	18,666	\$	2,662	\$	1,347
Allocated Equity Return	\$	816,650	\$	631,844	\$	96,614	\$	13,939	\$	51,408	\$	18,807	\$	2,682	\$	1,357
PLCC Adjustment for Line Transformer	\$	122,806	\$	107,936	\$	13,723	\$	658	\$	-	\$	-	\$	489	\$	-
PLCC Adjustment for Primary Costs	\$	405,319	\$	355,711	\$	45,245	\$	2,750	\$	-	\$	-	\$	1,613	\$	-
PLCC Adjustment for Secondary Costs	\$	74,612	\$	66,381	\$	7,261	\$	416	\$	-	\$	-	\$	555	\$	-
Total	\$	8,181,389	\$	6,232,162	\$	1,058,165	\$	181,735	\$	468,600	\$	197,546	\$	24,772	\$	18,410