K S.2

EB-2007-0681

ONTARIO ENERGY BOARD

In the matter of the *Ontario Energy Board Acct, 1998*;

And in the matter of an Application by Hydro One Networks Inc., for an Order or Orders approving rates for the distribution of electricity.

WITNESS PANEL 4

CROSS EXAMINATION MATERIALS
of
ROGERS CABLE COMMUNICATIONS INC.

July 15,2008

MACLEOD DIXON LLP
Toronto-Dominion Centre
Canadian Pacific Tower
100 Wellington Street West
Suite 500, P.O. Box 128
Toronto, ON M5K 1H1

Ian Mondrow
Telephone : (416) 203-4435
Facsimile: (416) 360-8277
Email: ian.mondrow@macleoddixon.com

Counsel for Rogers Cable Communications Inc.

Macleod Dixon LLP

Ontario Energy Board

Staff Discussion Paper

Rate Design for Recovery of Electricity Distribution Costs

EB-2007-0031

March 31, 2008 (Revised June 6, 2008)

Table of Contents

4 Customer Classifications

It is generally accepted that the principle of fairness discussed in the previous section requires a rate design that results in "like" customers being charged for distribution service on the same basis while "unlike" customers are charged on different bases. Hence, like customers are grouped into customer classes for billing purposes. The "unlike" customers in different classes can then be charged on the basis of different rate designs (different billing determinants and rates) that reflect the differences in the way they cause distribution costs.

By defining customer classes appropriately, the regulator can ensure that there are no inordinate cross-subsidies between the customers in different customer classes. In theory, the rate design for any particular customer class can then be structured to minimize inappropriate intra-class cross-subsidies while embedding cross-subsidies that are deemed to be appropriate.[8]

The traditional rate design that was discussed in section 1.3 was largely consistent with this conceptual approach; however, limitations on metering have resulted in what, in the view of most stakeholders, is an inequity that can be addressed once smart metering has been implemented for all customers. The inequity arises because a significant proportion of distribution costs are capacity-related costs while metering technology has required the variable charge to be based on energy (kWh) rather than demand (kW). When energy (kWh) is the primary billing determinant for a customer class, it follows that high-load-factor customers will subsidize low-load factor customers in that the causal costs of low-load-factor customers will be under-recovered relative to the causal

[8] For example, regulators typically maintain postage stamp rates within defined geographic areas which results in an under-recovery of causal costs for expensive to serve customers and over-recovery of causal costs for inexpensive to serve customers. This approach avoids locational differences in the cost of distribution service when it is deemed to be inappropriate.

costs of higher load factor customers. This intra-class cross-subsidy could be reduced or eliminated by introducing capacity or demand as a billing determinant for the customers classes that currently are billed on the basis of a monthly customer charge and an energy charge (generally, residential and GS<50 kW customers for whom thermal demand and interval meters have not been economic). The introduction of smart metering will facilitate the introduction of a new rate design that addresses this intra-class cross-subsidy.

Furthermore, the reduction or elimination of intra-class cross-subsidies related to load factor differences may have an impact on the appropriate definition of customer classes. To the extent that existing customer class differences have served primarily to distinguish between types of customers that on average have significantly different load factors, the elimination of intra-class cross-subsidies related to load factor differences will remove the rationale for maintaining separate customer classes. This consideration raises that possibility that the distinction between residential and the smaller general service customers will no longer be relevant if demand or capacity is introduced as a billing determinant for all customers.

4.1 Issues Relevant to Establishing Customer Classes

As is noted above, causal costs are determined through a cost allocation study that determines for each customer class:

- customer-related costs that can most directly be recovered through a monthly customer charge;
- demand-related (or capacity-related) costs that can most directly be recovered through a demand (or capacity) charge; and
- energy-related costs that can most directly be recovered through an energy charge.

It is generally accepted that customers should be grouped into classes so that:

- the per-customer costs for customers within a class are similar enough for them to be subject to a standardized per-customer charge;
- the per kW (or kVA) costs for customers within a class are similar enough for them to be subject to a standardized demand or capacity charge; and
- the kWh costs for customers within a class are similar enough for them to be subject to a standardized energy charge.

Hence, separate customer classes are required only when the appropriate per-customer, demand/capacity or energy charges are sufficiently different between identifiable groups of customers to justify different rates. The factors that would justify the establishment of different classes can be identified by asking the following questions:

1. what categories of costs are significantly different for different types of customers; and
2. are the cost differences among types of customers large enough to justify establishing separate customer classes with different rates?

Staff and stakeholders have identified the following factors that give rise to cost differences that may be significant enough to justify the creation of separate classes.

- Differences in customer-related costs related to:
  - service connection;
  - metering; and
  - customer service.
- Differences in demand or capacity related costs related to:
  - power quality both in voltage or harmonic control and firmness of supply.

Where customers are billed on an energy basis for the volumetric rate, there may be significant energy-related distribution costs on a proxy basis that justify establishing separate rate classes.

12 Rate Design for Unmetered Scattered Load

Unmetered scattered load currently comprises one or more separate classes because the absence of a meter necessitates a different approach to rate design than other classes. The primary common characteristic of these loads is that they are individually small loads making it uneconomic to meter them individually. Loads in this category include:

- Street Lighting
- Sentinel Lighting
- Cable facilities

Typically, rates for these facilities consist of a fixed monthly service charge determined on the basis of either per connection, or per customer and a variable distribution rate on an estimated per kW basis.

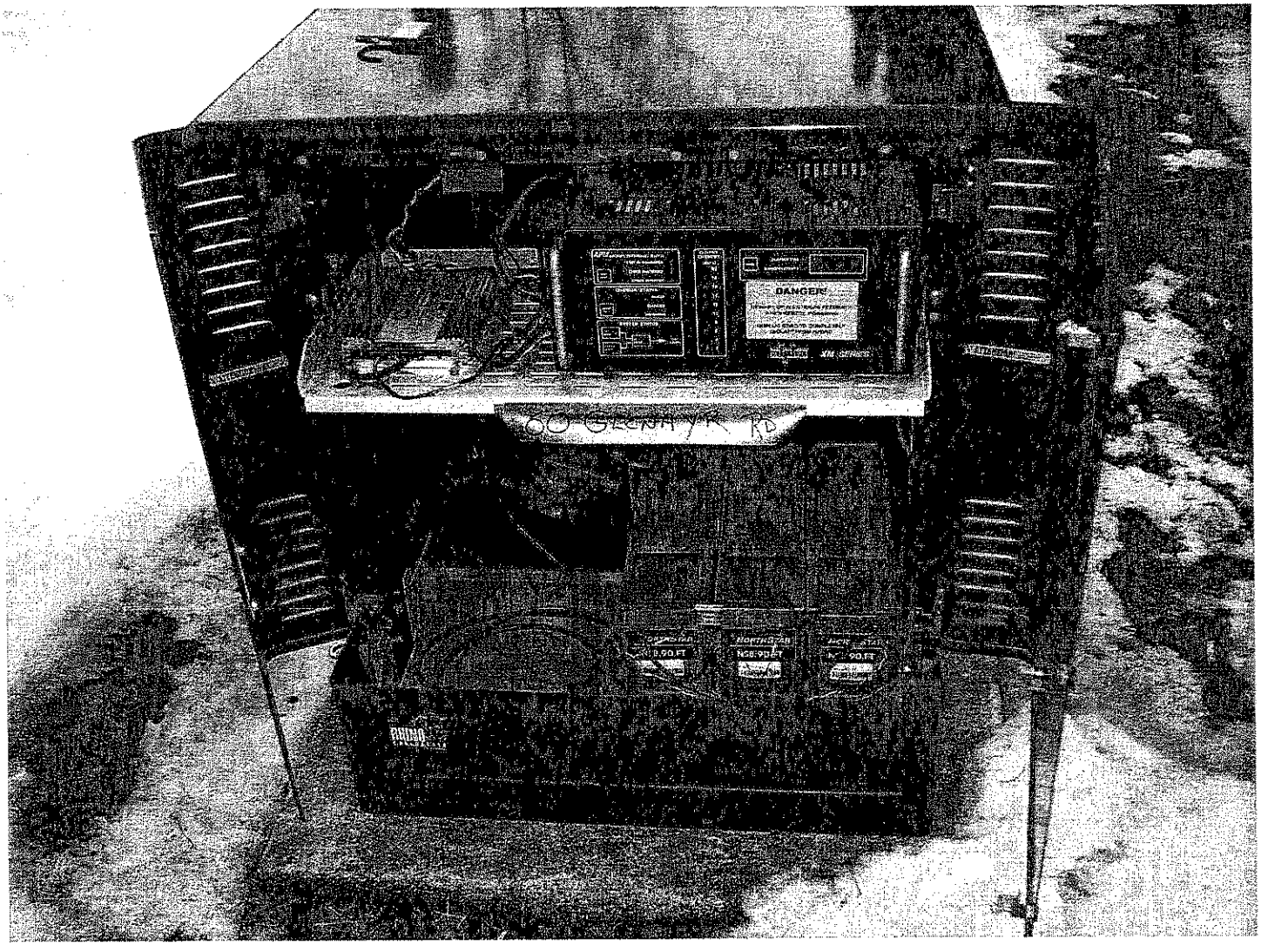
Unmetered scattered loads are typically connected to the secondary facilities of a distributor. That is, they use and are allocated the cost of, sub-transmission, primary and secondary facilities. However, the service connection at each load point does not require the equipment that is needed for either single phase or three phase secondary customers. Further, a number of streetlights located close to each other might have a single connection, which is unlikely to happen with the other unmetered loads.

One of the primary challenges with respect to unmetered scattered load is estimating the unmetered load. This must be done using engineering estimates rather than direct measurement through metering. Since metering is the generally accepted preferred method of establishing the usage of customers, it may be appropriate to allow customers to request and pay for load studies to determine the demand and energy required for their loads. A particular difficulty is determining the amount of diversity benefit for a customer's scattered load when it is unmetered.

Given the nature of unmetered scattered loads, with one customer responsible for many geographically diverse consumption points, costs may be more closely related to the number of accounts than the number of connection points.

Board Staff invites comments on whether a separate unmetered scattered load class should be mandatory and the relative merits of billing for unmetered scattered load on the basis of customers and connections.

Board staff is also interested in submissions on the justification for separate classes for street lighting and sentinel lighting.


DANGER!
BRUNO

Filed: April 4, 2008
EB-2007-0681
Exhibit H
Tab 8
Schedule 3
Page 1 of 1

Rogers Cable INTERROGATORY #3 List 1

Interrogatory

[Reference: Exhibit G1, Tab 2, Schedule 3, page 6, Table 7] For the proposed General Service Energy Billed customers as a class, and for each of the subclasses listed in Table 7, please provide the annual load factor.

Response

Table 7 of Exhibit G1, Tab 2, Schedule 3, page 6, shows the number of customers that are being mapped to the new General Service energy billed class broken down by current customer class. These are not sub classes of the new General Service energy billed class. The number of customers shown are a sub-set of the customers in the current customer classes. Load Factors as requested are shown in the Table below.

Current Customer Class	Load Factor
General Service single-phase energy billed	0.502
General Service three-phase energy billed	0.617
T-Class customers energy billed	0.551
Farm single phase energy billed and no RRRP	0.424
Farm three phase energy billed and no RRRP	0.652
Acquired LDCs General Service customers energy billed	0.660
Unmetered Scattered Load	0.654
Total Proposed General Service Energy Billed	**0.548**

Load F for cable amplifiers is greater than .654

Rogers Cable INTERROGATORY #4 List 1

Interrogatory

[Reference: Exhibit GI, Tab 2, Schedule 3]

(a) Please explain the rationale for maintaining a separate rate class for each of Street Lighting and Sentinel Lighting, while continuing to group Unmetered Scattered Load facilities within a more diverse general service class. In the response please include comment regarding any applicable technical difference between these 3 types of load and the relevance of these differences to the determination of when a separate rate class is and is not appropriate.

(b) Please provide a table that compares the rate that would be payable by a USL customer were they to be included in the Street Lighting class or the Sentinel Lighting class (i.e. one column for each of these classes) with the rate proposed for USL customers under the proposed General Service Energy Billed class. Please include any additional explanation relevant to the probative value of this table.

Response

a. Street Lights and Sentinel Lights have always been separate Rate Classes while the Unmetered Scattered Load has been a sub-class of General Service.

Hydro One Distribution's proposal is to maintain this delineation.

The main technical difference between the Lighting accounts and USL accounts is the more accurate kWh estimate possible for lighting compared to USL. That is, lamp wattage plus ballast and hours of usage. While, there are more diverse technical considerations for the varied USL type of loads like amplifier heating blankets.

b. A full cost allocation model re-run with new rate classes based on these remapped customers would need to be done and cannot be accomplished within the Interrogatory response timelines. Please see Exhibit H, Tab 4, Schedule 10, for an explanation of the effort required to create a new customer class and run the cost allocation model.

Rogers Cable INTERROGATORY #5 List 1

Interrogatory

[Reference: Exhibit Gl, Tab 3, Schedule 1, page 2, Table 1]

(a) Has Hydro One conducted a "Run 2" of the cost allocation study in order to separate Unmetered Scattered Load from the General Service Energy Billed class and compute a separate revenue/cost ratio for USL customers? If so, please provide:
   (i) A table showing the revenue/cost ratios for Unmetered Scattered Load for the legacy customers and each acquired LDC.
   (ii) A printed copy of table 01 from each study.
   (iii) The electronic version of each study.

(b) If no "Run 2" was made using test year data, please provide any studies prepared based on the test year for 2006 rates.

(c) If no "Run 2" has been done for the current or 2006 test year, please perform the analysis on the same year of data used to produce the referenced Table 1, and provide the results in electronic form.

(d) Please explain the nature of any fees charged to, or costs recovered from, Unmetered Scattered Load customers which are not part of the approved rate schedules. Please provide the amounts of each such fee or cost and the total amount of revenue or cost involved. Please explain whether or not any such fees or costs recovered are taken into account in computing the revenue/cost ratio for Unmetered Scattered Load in the Run 2 cost allocation studies, and if not, why not.

Response

a. No, Hydro One Distribution has not done a "Run 2" with a separate Unmetered Scattered Load Class.

b. Please see attached information. This information is from "Run 2" of the Cost Allocation Information Filing using 2006 approved Revenue Requirement data and filed as part of Proceeding RP-2005-0317/EB-2007-0001.

c. A full model re-run with new rate classes based on these remapped customers would need to be done. See Exhibit H, Tab 4, Schedule 10, concerning effort needed to re-run the Cost Allocation Model using different customer classes.

d. There are no other fees or charges above those of the Approved Rate Schedules.

Input 2

Return to I1 Intro

H1N-Dx

2006 Cost Allocation Information Filing
Input Sheet for Selection of Classes, Demand Allocators and Specific Allocators

Run 2: Hydro One Distribution with Customer Class Density Weights

Instructions
Step 1 - Please input your existing classes
Step 2 - If this is your first run, select "First Run" in the drop down menu below
Step 3 - After all classes have been entered, Click the "Update" in cell E41.

*If this is your first run, select "**First Run**" and click on the "**Update**" button.*
Note: You must always do a first run with current selected.

Second Run

		Utility's Class Definition	Current
1	Residential	UR	YES
2	GS <50	R1	YES
3	GS>50-Regular	R2	YES
4	GS> 50-TOU	R3	YES
5	GS >50-Intermediate	R4	YES
6	Large Use >5MW	F1	YES
7	Street Light	F3	YES
8	Sentinel	UG	YES
9	Unmetered Scattered Load	G1	YES
10	Embedded Distributor	G3	YES
11	Back-up/Standby Power	T	YES
12	Rate Class 1	St Lgts	YES
13	Rate class 2	Sentinel Lgts	YES
14	Rate class 3	AcqRes	YES
15	Rate class 4	AcqGS<50	YES
16	Rate class 5	AcqGS>50	YES
17	Rate class 6	AcqLU	YES
18	Rate class 7	LV-Dir+LDC	YES
19	Rate class 8	USL	YES
20	Rate class 9	Standby	YES

After you have set all rate classes

Update

Return to I1 Intro

H1N-Dx

Input Sheet for the Break Out Of Distribution Assets, Contributed Capital and Amortization and Amortization Expenses

Run 2: Hydro One Distribution with Customer Class Density Weights

See Handbook for Detail Instructions

Enter Net Fixed Assets from RP-2005-0020/EB-2005-0378 Exhibit D2, Tab 1, Sch 1	$ 3,423,300,000

BALANCE SHEET ITEMS

RATE BASE AND DISTRIBUTION ASSETS

Account	Description	Break out Functions	BREAK OUT (%)	BREAK OUT ($)	After BO	Contributed Capital - 1995
1565	Conservation and Demand Management	$0		-	-	$0
1805	Land	$84,913,408		($84,913,408)	-	($443,644)
1805-1	Land Station >50 kV		10.00%	$8,491,341	8,491,341	($44,364)
1805-2	Land Station <50 kV		90.00%	$76,422,068	76,422,068	($399,280)
1806	Land Rights	$239,633,171		($239,633,171)	-	($8,619,349)
1806-1	Land Rights Station >50 kV		10.00%	$23,963,317	23,963,317	($861,935)
1806-2	Land Rights Station <50 kV		90.00%	$215,669,854	215,669,854	($7,757,414)
1808	Buildings and Fixtures	$5,131,269		($5,131,269)	-	($80,210)
1808-1	Buildings and Fixtures > 50 kV		50.00%	$2,565,634	2,565,634	($40,105)
1808-2	Buildings and Fixtures < 50 KV		50.00%	$2,565,634	2,565,634	($40,105)
1810	Leasehold Improvements	$0		$0	-	
1810-1	Leasehold Improvements >50 kV		50.00%	$0	-	$0
1810-2	Leasehold Improvements <50 kV		50.00%	$0	-	$0
1815	Transformer Station Equipment - Normally Primary above 50 kV	$93,816,160		($93,816,160)	-	($3,344,188)
1815-1	HVDS - Rural		87.3%	$81,908,019	81,908,019	($2,919,708)
1815-2	HVDS - lo LV Specific		0.6%	$582,467	582,467	($20,763)
1815-3	HVDS - hi LV Specific		2.1%	$1,944,058	1,944,058	($69,298)
1815-4	HVDS - lo LV Shared		5.0%	$4,690,808	4,690,808	($167,209)
1815-5	HVDS - hi LV Shared		5.0%	$4,690,808	4,690,808	($167,209)
1820	Distribution Station Equipment - Normally Primary below 50 kV	$248,721,283		($248,721,283)	-	($674,337)
1820-1	Distribution Station Equipment - Normally Primary below 50 kV (Bulk)		0.00%	$0	-	$0
1820-2	Distribution Station Equipment - Normally Primary below 50 kV Primary)		95.30%	$237,031,383	237,031,383	($674,337)
1820-3	Distribution Station Equipment - Normally Primary below 50 kV (Wholesale Meters)		4.70%	$11,689,900	11,689,900	
1825	Storage Battery Equipment	$0		$0	-	
1825-1	Storage Battery Equipment > 50 kV		50.00%	$0	-	
1825-2	Storage Battery Equipment <50 kV		50.00%	$0	-	
1830	Poles, Towers and Fixtures	$1,743,551,306		($1,743,551,306)	-	($121,681,852)
1830-3	Poles, Towers and Fixtures - Subtransmission Bulk Delivery		10.00%	$261,532,696		($18,252,278)
1830-3A	Bulk-LV Fixtures		3.08%	$8,055,207	8,055,207	($562,170)
1830-3B	Bulk-Retail Fixtures		96.92%	$253,477,489	253,477,489	($17,690,108)
1830-4	Poles, Towers and Fixtures - Primary		70.00%	$1,220,485,914		($85,177,297)
1830-4A	Primary-LV Fixtures		0.81%	$9,885,936	9,885,936	($689,936)
1830-4B	Primary-Retail Fixtures		99.19%	$1,210,599,978	1,210,599,978	($84,487,361)
1830-5	Poles, Towers and Fixtures - Secondary		15.00%	$261,532,696	261,532,696	($18,252,278)
1835	Overhead Conductors and Devices	$1,149,104,830		($1,149,104,830)	-	($83,441,072)
1835-3	Overhead Conductors and Devices - Subtransmission Bulk Delivery		15.00%	$172,365,725		($9,516,161)
1835-3A	Bulk-LV Conductors		3.08%	$5,308,864	5,308,864	($293,098)
1835-3B	Bulk-Retail Conductors		96.92%	$167,056,860	167,056,860	($9,223,063)
1835-4	Overhead Conductors and Devices - Primary		70.00%	$804,373,381		($44,408,751)
1835-4A	Primary-LV Conductors		0.81%	$6,515,424	6,515,424	($359,711)
1835-4B	Primary-Retail Conductors		99.19%	$797,857,957	797,857,957	($44,049,040)
1835-5	Overhead Conductors and Devices - Secondary		15.00%	$172,365,725	172,365,725	($9,516,161)
1840	Underground Conduit	$25,532,863		($25,532,863)	-	($1,089,200)
1840-3	Underground Conduit - Bulk Delivery			$0	-	$0
1840-4	Underground Conduit - Primary		20.00%	$5,106,573	5,106,573	($217,840)
1840-5	Underground Conduit - Secondary		80.00%	$20,426,290	20,426,290	($871,360)
1845	Underground Conductors and Devices	$207,660,508		($207,660,508)	-	($117,571,722)

Account	Description	Break out Functions	BREAK OUT (%)	BREAK OUT ($)	After BO	Contributed Capital - 1995
1845-3	Underground Conductors and Devices - Bulk Delivery			$0	-	$0
1845-4	Underground Conductors and Devices - Primary		20.00%	$41,532,102	41,532,102	($23,514,344)
1845-5	Underground Conductors and Devices - Secondary		80.00%	$166,128,406	166,128,406	($94,057,377)
1850	Line Transformers	$1,501,163,815		($1,501,163,815)	-	($81,138,082)
1850-1	TRF-LV		0.3%	$4,503,491	4,503,491	($243,414)
1850-2	TRF-Rural		99.7%	$1,496,660,324	1,496,660,324	($80,894,668)
1855	Services	$0		$0	-	
1860	Meters	$86,581,415		($86,581,415)	-	($4,411,296)
1860-1	Mtr-Single		64%	$55,134,535	55,134,535	($2,809,088)
1860-2	Mtr-Poly		33%	$28,250,878	28,250,878	($1,439,374)
1860-3	Mtr-LV		4%	$3,196,002	3,196,002	($162,835)
1860-4	Mtr-Smart		0%	$0	-	$0
1875	St Lgts+Signal Systems				-	
	Total	$5,385,810,029	$5,385,810,029	from O1		
	I3 sub total	$5,385,810,029	$5,385,810,029	excl 1875		

General Plant		Break out Functions				Contributed Capital - 1995
1905	Land	$3,471,906			3,471,906	($1)
1906	Land Rights	$0			-	
1908	Buildings and Fixtures	$94,310,046			94,310,046	($124,323)
1910	Leasehold Improvements	$7,004,105			7,004,105	($0)
1915	Office Furniture and Equipment	$5,249,271			5,249,271	$0
1920	Computer Equipment - Hardware	$45,642,983			45,642,983	($6,399)
1925	Computer Software	$109,379,309			109,379,309	($2,133)
1930	Transportation Equipment	$120,444,271			120,444,271	$0
1935	Stores Equipment	$16,897,272			16,897,272	$0
1940	Tools, Shop and Garage Equipment	$3,185,729			3,185,729	$0
1945	Measurement and Testing Equipment	$3,285,010			3,285,010	$0
1950	Power Operated Equipment	$66,159,581			66,159,581	$0
1955	Communication Equipment	$20,810,405			20,810,405	($83,530)
1960	Miscellaneous Equipment	$2,096,368			2,096,368	$0
1970	Load Management Controls - Customer Premises	$0			-	
1975	Load Management Controls - Utility Premises	$0			-	
1980	System Supervisory Equipment	$16,906,150			16,906,150	($475,363)
1985	Sentinel Lgts	$16,153,422			16,153,422	($301,371)
1990	Other Tangible Property	$5,692,312			5,692,312	$0
2005	Property Under Capital Leases	$0			-	
2010	Electric Plant Purchased or Sold	$0			-	
	Total	$567,678,044			$567,678,044	($893,121)
	I3 Sub total	$567,678,044		$567,678,044	$567,678,044	
	I3 Directly Allocated	$0		from O1	check	
	Grand Total	$5,953,488,073			$5,953,488,073	($403,488,073)

To be Prorated

1995	Contributed Capital - 1995	($403,488,073)	2403,488,073
2105	Accumulated Depreciation - 2105	($2,120,700,000)	
2120	Accumulated Depreciation - 2120	$0	
	Total	($2,524,188,073)	
	Net Assets	$3,423,300,000.0	**Net Fixed Assets Match EDR**

Amortization Expenses

5705	Amortization Expense - Property, Plant, and Equipment	$169,900,000
5710	Amortization of Limited Term Electric Plant	$0
5715	Amortization of Intangibles and Other Electric Plant	$0
5720	Amortization of Electric Plant Acquisition Adjustments	$0
	Total Amortization Expense	$169,900,000

Return to II Intro

H1N-Dx
Input Sheet for the Break Out Of Distribution Assets, C

See Handbook for Detail Instructions

Enter Net Fixed Assets from RP-2005-0020/EB-2005-0378 Exhibit D2, Tab 1, Sch 1

RATE BASE AND DISTRIBUTION ASSETS						EXPENSE ITEMS 5705
Account	Description	Accumulated Depreciation - 2105 Capital Contribution	Accumulated Depreciation - 2105 Fixed Assets Only	Accumulated Depreciation - 2120	Asset net of Acc Dep and Cont Cap	Amortization Expense - Property, Plant, and Equipment
1565	Conservation and Demand Management	$0	$0		-	$0
1805	Land	($132,567)	($34,506,337)			$191
1805-1	Land Station >50 kV	($13,257)	($3,450,634)		4,983,086	$19
1805-2	Land Station <50 kV	($119,310)	($31,055,703)		44,847,775	$172
1806	Land Rights	($2,023,568)	($58,965,710)			$0
1806-1	Land Rights Station >50 kV	($202,357)	($5,896,571)		17,002,454	$0
1806-2	Land Rights Station <50 kV	($1,821,211)	($53,069,139)		153,022,089	$0
1808	Buildings and Fixtures	($31,474)	($3,361,124)			$3,673,053
1808-1	Buildings and Fixtures > 50 kV	($15,737)	($1,675,561)		834,232	$1,836,526
1808-2	Buildings and Fixtures < 50 KV	($15,737)	($1,675,561)		834,232	$1,836,526
1810	Leasehold Improvements					
1810-1	Leasehold Improvements >50 kV	$0	$0		-	$0
1810-2	Leasehold Improvements <50 kV	$0	$0		-	$0
1815	Transformer Station Equipment - Normally Primary above 50 kV	($1,185,975)	($28,373,691)		32,903,864	$1,995,613
1815-1	HVDS - Rural	($1,035,438)	($24,810,318)		53,142,554	$1,742,309
1815-2	HVDS - lo LV Specific	($7,363)	($222,075)		332,266	$12,390
1815-3	HVDS - hi LV Specific	($24,576)	($503,929)		1,346,256	$41,353
1815-4	HVDS - lo LV Shared	($59,299)	($1,418,685)		3,045,616	$99,781
1815-5	HVDS - hi LV Shared	($59,299)	($1,418,685)		3,045,616	$99,781
1820	Distribution Station Equipment - Normally Primary below 50 kV	($284,912)	($105,076,035)		106,035,284	$4,855,163
1820-1	Distribution Station Equipment - Normally Primary below 50 kV (Bulk)	$0	$0		-	$0
1820-2	Distribution Station Equipment - Normally Primary below 50 kV Primary)	($284,912)	($104,076,035)		131,996,099	$4,855,163
1820-3	Distribution Station Equipment - Normally Primary below 50 kV (Wholesale Meters)		$ (1,000,000)		10,689,300	$1,268,552
1825	Storage Battery Equipment					
1825-1	Storage Battery Equipment > 50 kV				-	
1825-2	Storage Battery Equipment <50 kV				-	
1830	Poles, Towers and Fixtures	($28,283,928)	($569,792,479)			$73,124,321
1830-3	Poles, Towers and Fixtures - Subtransmission Bulk Delivery	($4,242,589)	($85,468,871)		107,963,738	$10,968,648
1830-3A	Bulk-LV Fixtures	($130,672)	($2,632,441)		4,729,524	$337,834
1830-3B	Bulk-Retail Fixtures	($4,111,918)	($82,836,430)		148,809,034	$10,630,814
1830-4	Poles, Towers and Fixtures - Primary	($19,798,750)	($398,854,733)		503,690,779	$51,187,025
1830-4A	Primary-LV Fixtures	($160,370)	($3,230,723)		5,804,907	$414,615
1830-4B	Primary-Retail Fixtures	($19,638,380)	($395,624,009)		710,850,239	$50,772,410
1830-5	Poles, Towers and Fixtures - Secondary	($4,242,589)	($85,468,871)		153,668,968	$10,968,648
1835	Overhead Conductors and Devices	($13,337,829)	($376,385,360)		153,164,361	$8,499,301
1835-3	Overhead Conductors and Devices - Subtransmission Bulk Delivery	($2,000,674)	($56,457,804)		67,974,609	$974,895
1835-3A	Bulk-LV Conductors	($61,621)	($1,738,900)		3,215,246	$30,027
1835-3B	Bulk-Retail Conductors	($1,939,054)	($54,718,904)		101,176,840	$944,868
1835-4	Overhead Conductors and Devices - Primary	($9,336,480)	($263,469,752)		317,214,082	$4,549,511
1835-4A	Primary-LV Conductors	($75,625)	($2,134,105)		3,948,983	$36,851
1835-4B	Primary-Retail Conductors	($9,260,855)	($261,335,647)		483,212,416	$4,512,660
1835-5	Overhead Conductors and Devices - Secondary	($2,000,674)	($56,457,804)		101,391,085	$974,895
1840	Underground Conduit	($457,248)	($8,022,561)		9,369,010	$28,724
1840-3	Underground Conduit - Bulk Delivery	$0	$0		-	$0
1840-4	Underground Conduit - Primary	($91,450)	($1,604,512)		1,152,771	$5,745
1840-5	Underground Conduit - Secondary	($365,799)	($6,418,049)		12,771,092	$22,979
1845	Underground Conductors and Devices	($43,539,416)	$4,604,546		156,506,591	$1,291,406

Account	Description	Accumulated Depreciation - 2105 Capital Contribution	Accumulated Depreciation - 2105 Fixed Assets Only	Accumulated Depreciation - 2120	Asset net of Acc Dep and Cont Cap	Amortization Expense - Property, Plant, and Equipment
1845-3	Underground Conductors and Devices - Bulk Delivery	$0	$0		-	$0
1845-4	Underground Conductors and Devices - Primary	($8,707,883)	$920,909		10,230,783	$258,281
1845-5	Underground Conductors and Devices - Secondary	($34,831,532)	$3,683,637		40,923,133	$1,033,125
1850	Line Transformers	($12,113,587)	($416,176,056)		511,427,725	$46,368,765
1850-1	TRF-LV	($36,341)	($1,254,528)		2,969,208	$139,106
1850-2	TRF-Rural	($12,077,246)	($416,921,528)		986,766,881	$46,229,659
1855	Services				-	
1860	Meters	($2,524,024)	($74,487,706)		81,423,027	$7,151,566
1860-1	Mtr-Single	($1,607,284)	($47,433,332)		3,284,832	$4,554,075
1860-2	Mtr-Poly	($823,571)	($24,304,790)		1,683,144	$2,333,603
1860-3	Mtr-LV	($93,170)	($2,749,584)		190,413	$263,988
1860-4	Mtr-Smart	$0	$0		-	$0
1875	St Lgts+Signal Systems					
	Total			$0		
	I3 sub total					

General Plant		Accumulated Depreciation - 2105 Capital Contribution	Accumulated Depreciation - 2105 Fixed Assets Only	Accumulated Depreciation - 2120	Net Asset	5705 Amortization Expense - Property, Plant, and Equipment
1905	Land	$0	($22,951)		$ 3,448,954	$0
1906	Land Rights				$ -	
1908	Buildings and Fixtures	($18,916)	($40,072,277)		$ 54,094,529	$1,502,629
1910	Leasehold Improvements	($0)	($3,456,292)		$ 3,547,813	$141,462
1915	Office Furniture and Equipment	$0	($5,128,240)		$ 101,091	$472,516
1920	Computer Equipment - Hardware	($2,088)	($40,814,494)		$ 4,819,902	$6,104,713
1925	Computer Software	($747)	($100,295,023)		$ 39,081,406	$8,173,971
1930	Transportation Equipment	$0	($48,301,398)		$ 72,142,673	$3,061,908
1935	Stores Equipment	$0	($20,389,340)		$ 4,492,068	$812,747
1940	Tools, Shop and Garage Equipment	$0	($3,536,750)		-$ 351,027	$130,848
1945	Measurement and Testing Equipment	$0	($1,796,119)		$ 1,489,900	$594,327
1950	Power Operated Equipment	$0	($52,104,026)		$ 16,056,565	$0
1955	Communication Equipment	($16,375)	($16,453,068)		$ 4,287,432	$933,029
1960	Miscellaneous Equipment	$0	($1,318,888)		$ 777,480	$693,630
1970	Load Management Controls - Customer Premises				$ -	
1975	Load Management Controls - Utility Premises				$ -	
1980	System Supervisory Equipment	($107,724)	($3,664,178)		$ 12,758,884	$926,557
1985	Sentinel Lgts	($151,782)	($9,744,193)			$104,987
1990	Other Tangible Property	$0	($2,959,095)		$ 3,723,217	$0
2005	Property Under Capital Leases				$ -	
2010	Electric Plant Purchased or Sold				$ -	
	Total	($297,531)	($340,965,334)	$0	$210,475,883	$23,643,344
	I3 Sub total					
	I3 Directly Allocated					
	Grand Total	($104,212,160)	($2,022,487,846)	$0	$3,417,343,924	$169,900,000.00

To be Prorated

1995	Contributed Capital - 1995	Balanced			
2105	Accumulated Depreciation - 2105		$2,126,700,000	Balanced	
2120	Accumulated Depreciation - 2120			$0	Balanced
	Total				

Net Assets

Amortization Expenses

5705	Amortization Expense - Property, Plant, and Equipment	
5710	Amortization of Limited Term Electric Plant	
5715	Amortization of Intangibles and Other Electric Plant	
5720	Amortization of Electric Plant Acquisition Adjustments	
	Total Amortization Expense	

Return to I1 Intro

H1N-Dx
Input Sheet for the Break Out Of Distribution Assets, C.

See Handbook for Detail Instructions

Enter Net Fixed Assets from RP-2005-0020/EB-2005-0378 Exhibit D2, Tab 1, Sch 1

RATE BASE AND DISTRIBUTION ASSETS		5710	5715	5720
Account	Description	Amortization of Limited Term Electric Plant	Amortization of Intangibles and Other Electric Plant	Amortization of Electric Plant Acquisition Adjustments
1565	Conservation and Demand Management			
1805	Land			
1805-1	Land Station >50 kV			
1805-2	Land Station <50 kV			
1806	Land Rights			
1806-1	Land Rights Station >50 kV			
1806-2	Land Rights Station <50 kV			
1808	Buildings and Fixtures			
1808-1	Buildings and Fixtures > 50 kV			
1808-2	Buildings and Fixtures < 50 KV			
1810	Leasehold Improvements			
1810-1	Leasehold Improvements >50 kV			
1810-2	Leasehold Improvements <50 kV			
1815	Transformer Station Equipment - Normally Primary above 50 kV			
1815-1	HVDS - Rural			
1815-2	HVDS - lo LV Specific			
1815-3	HVDS - hi LV Specific			
1815-4	HVDS - lo LV Shared			
1815-5	HVDS - hi LV Shared			
1820	Distribution Station Equipment - Normally Primary below 50 kV			
1820-1	Distribution Station Equipment - Normally Primary below 50 kV (Bulk)			
1820-2	Distribution Station Equipment - Normally Primary below 50 kV Primary)			
1820-3	Distribution Station Equipment - Normally Primary below 50 kV (Wholesale Meters)			
1825	Storage Battery Equipment			
1825-1	Storage Battery Equipment > 50 kV			
1825-2	Storage Battery Equipment <50 kV			
1830	Poles, Towers and Fixtures			
1830-3	Poles, Towers and Fixtures - Subtransmission Bulk Delivery			
1830-3A	Bulk-LV Fixtures			
1830-3B	Bulk-Retail Fixtures			
1830-4	Poles, Towers and Fixtures - Primary			
1830-4A	Primary-LV Fixtures			
1830-4B	Primary-Retail Fixtures			
1830-5	Poles, Towers and Fixtures - Secondary			
1835	Overhead Conductors and Devices			
1835-3	Overhead Conductors and Devices - Subtransmission Bulk Delivery			
1835-3A	Bulk-LV Conductors			
1835-3B	Bulk-Retail Conductors			
1835-4	Overhead Conductors and Devices - Primary			
1835-4A	Primary-LV Conductors			
1835-4B	Primary-Retail Conductors			
1835-5	Overhead Conductors and Devices - Secondary			
1840	Underground Conduit			
1840-3	Underground Conduit - Bulk Delivery			
1840-4	Underground Conduit - Primary			
1840-5	Underground Conduit - Secondary			
1845	Underground Conductors and Devices			

Account	Description	Amortization of Limited Term Electric Plant	Amortization of Intangibles and Other Electric Plant	Amortization of Electric Plant Acquisition Adjustments
1845-3	Underground Conductors and Devices - Bulk Delivery			
1845-4	Underground Conductors and Devices - Primary			
1845-5	Underground Conductors and Devices - Secondary			
1850	Line Transformers			
1850-1	TRF-LV			
1850-2	TRF-Rural			
1855	Services			
1860	Meters			
1860-1	Mtr-Single			
1860-2	Mtr-Poly			
1860-3	Mtr-LV			
1860-4	Mtr-Smart			
1875	St Lgts+Signal Systems			
	Total	$0	$0	$0
	I3 sub total			

General Plant		5710 Amortization of Limited Term Electric Plant	5715 Amortization of Intangibles and Other Electric Plant	5720 Amortization of Electric Plant Acquisition Adjustments
1905	Land			
1906	Land Rights			
1908	Buildings and Fixtures			
1910	Leasehold Improvements			
1915	Office Furniture and Equipment			
1920	Computer Equipment - Hardware			
1925	Computer Software			
1930	Transportation Equipment			
1935	Stores Equipment			
1940	Tools, Shop and Garage Equipment			
1945	Measurement and Testing Equipment			
1950	Power Operated Equipment			
1955	Communication Equipment			
1960	Miscellaneous Equipment			
1970	Load Management Controls - Customer Premises			
1975	Load Management Controls - Utility Premises			
1980	System Supervisory Equipment			
1985	Sentinel Lgts			
1990	Other Tangible Property			
2005	Property Under Capital Leases			
2010	Electric Plant Purchased or Sold			
	Total	$0	$0	$0
	I3 Sub total			
	I3 Directly Allocated			
	Grand Total	$0	$0	$0

To be Prorated

1995	Contributed Capital - 1995
2105	Accumulated Depreciation - 2105
2120	Accumulated Depreciation - 2120

Total

Net Assets

Amortization Expenses

5705	Amortization Expense - Property, Plant, and Equipment	Balanced			
5710	Amortization of Limited Term Electric Plant	$0	Balanced		
5715	Amortization of Intangibles and Other Electric Plant		$0	Balanced	
5720	Amortization of Electric Plant Acquisition Adjustments			$0	Balanced

Total Amortization Expense

H1N-Dx

Output Sheet Showing Revenue to Cost Summary by Major Groupings by Class

Run 2: Hydro One Distribution with Customer Class Density Weights

Class Revenue and Cost Analysis and Return on Rate Base

Rate Base Assets		Total	1 UR	2 R1	3 R2	4 R3	5 R4	6 F1
crev	Distribution Revenue (sale)	$925,000,000	$27,100,000	$153,560,000	$259,790,000	$24,850,000	$42,070,000	$107,910,000
mi	Miscellaneous Revenue (mi) -- *allocated by CWNB+LPHA*	$40,200,000	$2,444,565	$9,837,705	$9,524,275	$882,418	$1,102,654	$3,163,823
	Total Revenue	$965,200,000	$29,544,565	$163,397,705	$269,314,275	$25,732,418	$43,172,654	$111,073,823
	Expenses							
di	Distribution Costs (di)	$234,372,509	$3,389,164	$59,560,579	$99,645,128	$4,002,438	$7,190,257	$22,116,250
cu	Customer Related Costs (cu)	$109,295,585	$6,365,130	$26,344,583	$29,333,295	$2,938,332	$3,950,699	$9,674,039
ad	General and Administration (ad)	$103,626,754	$2,881,856	$26,034,929	$39,027,289	$2,065,411	$3,323,988	$9,556,896
dep	Depreciation and Amortization (dep)	$169,900,000	$2,918,423	$46,163,706	$67,670,026	$2,667,053	$4,544,219	$14,722,962
INPUT	PILs (INPUT)	$79,800,000	$1,402,331	$21,847,908	$31,911,303	$1,206,494	$2,069,719	$7,039,066
INT	Interest	$132,200,000	$2,323,160	$36,194,154	$52,865,592	$1,998,728	$3,428,782	$11,661,210
	Total Expenses	$829,194,849	$19,280,062	$216,135,859	$320,452,632	$14,878,457	$24,507,643	$74,772,426
	Direct Allocation	$7,605,151	$14,190	$124,959	$214,266	$10,097	$16,208	$60,426
NI	Allocated Net Income (NI)	$128,400,000	$2,256,382	$35,153,778	$61,346,006	$1,941,276	$3,330,224	$11,326,017
	Revenue Requirement (includes NI)	$965,200,000	$21,550,635	$251,414,596	$372,012,905	$16,829,830	$27,854,076	$86,158,868
			Revenue Requirement Input equals Output					
	Rate Base Calculation							
	Net Assets							
dp	Distribution Plant - Gross	$5,385,810,029	$101,852,610	$1,459,803,883	$2,128,758,298	$87,849,658	$145,662,108	$465,029,279
gp	General Plant - Gross	$567,678,044	$10,465,932	$151,365,133	$219,417,066	$8,936,357	$14,885,331	$47,187,058
accum dep	Accumulated Depreciation	($2,126,700,000)	($39,818,765)	($562,629,923)	($838,225,779)	($34,881,832)	($57,433,526)	($185,341,358)
co	Capital Contribution	($403,488,073)	($12,151,205)	($112,787,332)	($163,818,712)	($10,009,190)	($14,258,913)	($25,993,044)
	Total Net Plant	$3,423,300,000	$60,348,577	$935,751,762	$1,346,132,874	$51,894,893	$88,855,001	$300,881,934
	Directly Allocated Net Fixed Assets	$0	$0	$0	$0	$0	$0	$0
COP	Cost of Power (COP)	$1,863,400,000	$59,976,896	$289,217,776	$300,885,645	$26,077,432	$29,262,472	$153,695,973
	OM&A Expenses	$447,294,849	$12,636,149	$111,930,091	$168,005,711	$9,006,181	$14,464,924	$41,349,187
	USoA 6645 Adjustment of $23.6M	($23,600,000)	($669,036)	($5,898,499)	($8,857,065)	($476,629)	($765,060)	($2,183,068)
	USoA 5112/5114 Adjustment of $8.2M	($8,200,000)	($226,385)	($1,265,810)	($1,361,804)	($93,125)	($97,927)	($781,316)
	Directly Allocated Expenses	$7,605,151	$14,190	$124,959	$214,266	$10,097	$16,208	$60,426
	Subtotal	$2,286,500,000	$71,731,014	$394,108,517	$458,886,753	$34,523,957	$42,880,617	$192,141,202
	Working Capital [11.6% not 15%]	$266,599,840	$8,332,275	$45,779,645	$53,304,285	$4,010,303	$4,981,012	$22,319,122
	USoA 1330: Supplies Inventory -- based on O&M	$22,900,000	$649,968	$5,723,543	$8,594,356	$462,492	$742,367	$2,118,316
	Total Rate Base (per Exhibit D2-1-1)	$3,711,799,840	$69,330,820	$987,254,951	$1,428,031,515	$56,367,688	$94,578,380	$325,319,372
			Rate Base Input equals Output					
	Equity Component of Rate Base	$1,484,719,936	$27,732,328	$394,901,980	$571,212,606	$22,547,075	$37,831,352	$130,127,749
	Net Income	$128,400,000	$10,250,312	($52,863,113)	($61,352,623)	$10,843,864	$18,648,803	$36,240,972
	RATIOS ANALYSIS							
	REVENUE TO EXPENSES %	100.00%	137.09%	64.99%	72.39%	152.90%	155.00%	128.92%
	EXISTING REVENUE MINUS ALLOCATED COSTS	$0	$7,993,930	($88,016,891)	($102,698,630)	$8,902,587	$15,318,579	$24,914,955
	RETURN ON EQUITY COMPONENT OF RATE BASE	8.65%	36.96%	-13.39%	-8.99%	48.09%	49.29%	27.85%
	Net Income	$128,400,000	$10,250,312	($52,863,113)	($61,352,623)	$10,843,864	$18,648,803	$36,240,972
	Common Equity Component	$120,250,000	$9,599,689	($49,507,705)	($48,093,091)	$10,155,565	$17,465,098	$33,940,629
	Preferred Component	$8,150,000	$650,623	($3,355,408)	($3,259,532)	$688,298	$1,183,705	$2,300,342
	Equity Component of Rate Base: Common @ 36%	$1,336,247,942	$24,959,095	$355,411,782	$514,091,345	$20,292,368	$34,048,217	$117,114,974
	Equity Component of Rate Base: Preferred @ 4%	$148,471,994	$2,773,233	$39,490,198	$57,121,261	$2,254,708	$3,783,135	$13,012,775
	RETURN ON Common EQUITY COMPONENT OF RATE BASE	9.0%	38.5%	-13.9%	-9.4%	50.0%	51.3%	29.8%
	RETURN ON Preferred EQUITY COMPONENT OF RATE BASE	5.5%	23.5%	-8.5%	-5.7%	30.5%	31.3%	17.7%
	RETURN ON Composite EQUITY COMPONENT OF RATE BAS	8.6%	37.0%	-13.4%	-9.0%	48.1%	49.3%	27.9%
	$40.2M External Revenues Unique Allocation	$40,200,000	$ 2,454,498	$ 10,212,262	$ 10,898,478	$ 657,579	$ 1,150,971	$ 2,338,403
Dir	Sentinel Lgts	$3,600,000						
LPHA	Late Payments	$13,500,000	577,627	2,939,984	3,298,934	344,952	475,840	1,117,365
Connects	Account Set Up	$4,200,000	637,304	1,665,565	1,122,372	19,531	104,880	-
Connects	Collections	$700,000	106,217	280,328	187,062	3,255	17,480	-
Connects	New Connects + Upgrades	$5,000,000	758,695	2,006,625	1,336,157	23,251	124,857	-
O&M	Other - Mainly Joint Use	$12,800,000	$ 363,301	$ 3,199,186	$ 4,803,832	$ 258,511	$ 414,948	$ 1,184,037
O&M	Internal Transfer with Telecom	$400,000	$ 11,353	$ 99,975	$ 150,120	$ 8,078	$ 12,967	$ 37,001
	Allocated Costs based on Alloc External Revenues	$965,200,000	$21,560,567	$251,789,152	$373,387,197	$16,604,991	$27,902,393	$85,333,448
	CREV + Unique Allocation of Misc External Revenues	$965,200,000	$29,554,498	$163,772,262	$270,688,478	$25,567,579	$43,220,971	$110,248,403
	Rev to Cost Ratio -- External Rev CWNB Allocation		1.371	0.650	0.724	1.529	1.550	1.289
	Rev to Cost Ratio -- External Rev Unique Allocation	1.00	1.371	0.650	0.725	1.536	1.549	1.292

Output Sheet Showing Revenue to Cost Summary by Major C

Run 2: Hydro One Distribution with Customer Class

Class Revenue and Cost Analysis and Return on Rate Base

	7	8	9	10	11	12	13	14
	F3	UG	G1	G3	T	St Lgts	Sentinel Lgts	AcqRes
Distribution Revenue (sale)	$7,799,000	$16,035,310	$64,681,428	$90,210,789	$26,808,573	$4,652,565	$917,435	$37,290,000
Miscellaneous Revenue (mi) -- *allocated by CWNB+LPHA*	$270,809	$451,285	$3,588,959	$3,337,063	$369,289	$162,565	$75,575	$3,061,354
Total Revenue	**$8,069,808**	**$16,486,595**	**$68,270,387**	**$93,547,852**	**$27,177,862**	**$4,815,131**	**$993,009**	**$40,351,354**
Expenses								
Distribution Costs (di)	$232,689	$1,090,329	$8,318,968	$8,333,461	$353,371	$299,978	$548,622	$8,309,022
Customer Related Costs (cu)	$451,840	$947,467	$6,979,915	$5,120,863	$432,175	$212,565	$464,520	$12,505,555
General and Administration (ad)	$202,193	$612,171	$4,557,433	$4,083,485	$239,769	$153,278	$293,351	$6,204,340
Depreciation and Amortization (dep)	$236,419	$954,755	$5,694,077	$7,842,363	$842,393	$179,661	$323,252	$7,837,991
PILs (INPUT)	$100,309	$435,926	$2,746,770	$3,519,767	$224,598	$101,693	$103,793	$3,782,892
Interest	$166,177	$722,173	$4,550,413	$5,830,993	$372,078	$168,469	$171,948	$6,266,897
Total Expenses	**$1,389,626**	**$4,762,820**	**$32,847,576**	**$34,730,952**	**$2,464,384**	**$1,115,645**	**$1,895,485**	**$44,906,697**
Direct Allocation	**$79,554**	**$189,472**	**$50,095**	**$1,328,477**	**$1,083,718**	**$746**	**$1,258,908**	**$30,281**
Allocated Net Income (NI)	$161,400	$701,414	$4,419,614	$5,663,385	$361,383	$163,627	$167,005	$6,086,759
Revenue Requirement (includes NI)	$1,630,580	$5,653,706	$37,317,285	$41,722,813	$3,909,486	$1,280,017	$3,321,398	$51,023,736
Rate Base Calculation								
Net Assets								
Distribution Plant - Gross	$7,449,801	$33,270,636	$191,272,317	$242,326,596	$17,945,547	$6,716,067	$6,978,023	$262,417,472
General Plant - Gross	$650,198	$3,194,203	$19,592,272	$23,622,507	$1,513,207	$676,833	$16,857,489	$27,288,541
Accumulated Depreciation	($3,595,935)	($14,337,900)	($75,144,676)	($102,310,875)	($8,976,441)	($2,704,331)	($12,700,843)	($106,672,376)
Capital Contribution	($224,872)	($3,389,668)	($17,860,444)	($13,176,802)	($873,072)	($343,592)	($726,643)	($25,599,131)
Total Net Plant	**$4,279,192**	**$18,737,242**	**$117,859,469**	**$150,461,426**	**$9,603,242**	**$4,344,977**	**$10,395,826**	**$162,434,505**
Directly Allocated Net Fixed Assets	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Cost of Power (COP)	$17,854,312	$47,411,952	$97,541,825	$214,442,275	$97,192,686	$9,188,807	$1,811,931	$112,354,981
OM&A Expenses	$886,722	$2,649,966	$19,856,316	$17,537,809	$1,025,315	$665,821	$1,296,493	$27,018,917
USoA 5645 Adjustment of $23.6M	($47,007)	($139,937)	($1,050,598)	($923,921)	($53,844)	($35,197)	($68,687)	($1,429,556)
USoA 5112/5114 Adjustment of $8.2M	($63,902)	($172,063)	($398,812)	($770,713)	($30,235)	($57,918)	($421)	($406,841)
Directly Allocated Expenses	$79,554	$189,472	$50,095	$1,328,477	$1,083,718	$746	$1,258,908	$30,281
Subtotal	$18,709,679	$49,939,390	$115,998,836	$231,613,927	$99,217,540	$9,762,258	$4,298,023	$137,567,982
Working Capital [11.6% not 15%]	**$2,173,316**	**$5,800,960**	**$13,474,425**	**$26,904,274**	**$11,525,109**	**$1,133,984**	**$499,258**	**$15,972,927**
USoA 1330: Supplies Inventory -- based on O&M	$46,613	$135,787	$1,019,427	$896,516	$52,344	$34,153	$66,843	$1,366,960
Total Rate Base [per Exhibit D2-1-1]	**$6,498,122**	**$24,673,988**	**$132,353,320**	**$178,262,216**	**$21,180,696**	**$5,513,113**	**$10,961,928**	**$179,794,392**
Equity Component of Rate Base	$2,599,249	$9,869,595	$52,941,328	$71,304,886	$8,472,278	$2,205,245	$4,384,771	$71,917,757
Net Income	**$6,600,629**	**$11,534,303**	**$35,372,716**	**$57,488,423**	**$23,629,759**	**$3,698,741**	($2,161,384)	($4,585,623)
RATIOS ANALYSIS								
REVENUE TO EXPENSES %	404.80%	291.61%	182.95%	224.21%	695.18%	376.18%	29.90%	79.08%
EXISTING REVENUE MINUS ALLOCATED COSTS	$6,439,229	$10,832,889	$30,953,101	$51,825,039	$23,268,376	$3,535,114	($2,328,389)	($10,672,382)
RETURN ON EQUITY COMPONENT OF RATE BASE	253.94%	116.87%	66.81%	80.62%	278.91%	167.72%	-49.29%	-6.36%
Net Income	$6,600,629	$11,534,303	$35,372,716	$57,488,423	$23,629,759	$3,698,741	($2,161,384)	($4,585,623)
Common Equity Component	$6,181,663	$10,802,181	$33,127,485	$53,839,431	$22,129,895	$3,463,968	($2,024,193)	($4,294,556)
Preferred Component	$418,965	$732,123	$2,245,231	$3,648,993	$1,499,864	$234,772	($137,191)	($291,066)
Equity Component of Rate Base: Common @ 36%	$2,339,324	$8,882,636	$47,647,195	$64,174,398	$7,625,050	$1,984,721	$3,946,294	$64,725,981
Equity Component of Rate Base: Preferred @ 4%	$259,925	$986,960	$5,294,133	$7,130,489	$847,228	$220,525	$438,477	$7,191,776
RETURN ON Common EQUITY COMPONENT OF RATE BASE	264.3%	121.6%	89.5%	83.9%	290.2%	174.5%	-51.3%	-6.6%
RETURN ON Preferred EQUITY COMPONENT OF RATE BASE	161.2%	74.2%	42.4%	51.2%	177.0%	106.5%	-31.3%	-4.0%
RETURN ON Composite EQUITY COMPONENT OF RATE BAS	253.9%	116.9%	66.8%	80.6%	278.9%	167.7%	-49.3%	-6.4%
$40.2M External Revenues Unique Allocation	$ 100,599	$ 280,817	$ 1,543,157	$ 1,707,828	$ 344,087	$ 55,421	$ 3,645,576	$ 3,340,782
Sentinel Lgts							$3,600,000	
Late Payments	74,307	177,502	821,841	1,010,062	312,023	35,734	7,046	1,426,947
Account Set Up	-	2,140	56,721	76,787	803	-	-	472,761
Collections	-	357	9,453	12,798	134	-	-	78,793
New Connects + Upgrades	-	2,548	67,525	91,413	956	-	-	562,311
Other - Mainly Joint Use	$ 25,495	$ 75,896	$ 569,811	$ 501,109	$ 29,258	$ 19,090	$ 37,362	$ 775,244
Internal Transfer with Telecom	$ 797	$ 2,372	$ 17,807	$ 15,660	$ 914	$ 597	$ 1,168	$ 24,226
Allocated Costs based on Alloc External Revenues	$1,460,370	$5,463,239	$35,271,484	$40,093,579	$3,884,284	$1,172,872	$6,891,400	$51,303,164
CREV + Unique Allocation of Misc External Revenues	$7,899,599	$16,296,128	$66,224,585	$91,918,818	$27,152,660	$4,707,986	$4,563,011	$40,630,782
Rev to Cost Ratio -- External Rev CWNB Allocation	4.949	2.916	1.829	2.242	6.952	3.762	0.299	0.791
Rev to Cost Ratio -- External Rev Unique Allocation	5.409	2.983	1.878	2.293	6.990	4.014	0.662	0.792

Output Sheet Showing Revenue to Cost Summary by Major C

Run 2: Hydro One Distribution with Customer Class

Class Revenue and Cost Analysis and Return on Rate Base

	15	16	17	18	19	20
	AcqGS<50	AcqGS>50	AcqLU	LV-Dir+LDC	USL	Standby
Distribution Revenue (sale)	$8,406,302	$22,277,654	$2,460,000	$25,162,980	$1,936,870	$1,061,093
Miscellaneous Revenue (mi) -- *allocated by CWNB+LPHA*	$782,521	$669,953	$22,912	$185,539	$255,600	$11,137
Total Revenue	**$9,188,823**	**$22,947,607**	**$2,482,912**	**$25,348,519**	**$2,192,470**	**$1,092,230**
Expenses						
Distribution Costs (di)	$1,582,461	$1,828,694	$39,342	$7,103,737	$155,305	$282,715
Customer Related Costs (cu)	$1,986,053	$964,445	$37,203	$238,436	$350,265	$6,208
General and Administration (ad)	$1,058,233	$859,859	$23,540	$2,211,428	$148,192	$87,132
Depreciation and Amortization (dep)	$1,074,722	$1,712,364	$108,466	$4,152,836	$114,668	$139,624
PILs (INPUT)	$567,869	$905,964	$24,435	$1,692,045	$57,047	$60,071
Interest	$940,755	$1,500,857	$40,480	$2,803,112	$94,507	$99,515
Total Expenses	**$7,210,092**	**$7,772,183**	**$273,463**	**$18,201,596**	**$919,984**	**$677,265**
Direct Allocation	**$5,191**	**$962,538**	**$32,215**	**$2,142,652**	**$735**	**$423**
Allocated Net Income (NI)	$913,713	$1,457,716	$39,316	$2,722,539	$91,791	$96,655
Revenue Requirement (includes NI)	$8,128,997	$10,192,437	$344,994	$23,066,786	$1,012,510	$774,343
Rate Base Calculation						
Net Assets						
Distribution Plant - Gross	$41,377,995	$62,036,567	$2,096,242	$115,147,415	$3,783,581	$4,056,031
General Plant - Gross	$4,244,307	$5,990,045	$163,160	$10,852,767	$394,650	$360,990
Accumulated Depreciation	($16,221,056)	($26,532,274)	($1,129,160)	($50,820,715)	($1,424,408)	($1,797,823)
Capital Contribution	($4,060,958)	($2,601,044)	($38,032)	($3,040,715)	($290,669)	($279,789)
Total Net Plant	**$24,440,282**	**$38,893,294**	**$1,044,209**	**$72,138,753**	**$2,443,134**	**$2,559,409**
Directly Allocated Net Fixed Assets	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Cost of Power (COP)	$45,593,602	$124,196,137	$14,263,050	$222,432,248	$0	$0
OM&A Expenses	$4,626,747	$3,652,998	$100,084	$9,553,602	$663,762	$378,055
USoA 5645 Adjustment of $23.6M	($246,053)	($191,807)	($5,256)	($804,194)	($34,718)	($19,978)
USoA 5112/5114 Adjustment of $8.2M	($196,778)	($435,905)	($7,034)	($1,690,732)	($5,372)	($76,909)
Directly Allocated Expenses	$5,191	$962,538	$32,215	$2,142,652	$735	$423
Subtotal	$49,783,709	$128,183,961	$14,383,058	$231,933,576	$614,408	$281,591
Working Capital [11.6% not 15%]	**$6,782,576**	**$14,889,849**	**$1,670,736**	**$26,941,404**	**$71,370**	**$32,710**
USoA 1330: Supplies Inventory -- based on O&M	$237,785	$186,118	$5,100	$489,239	$33,688	$19,385
Total Rate Base [per Exhibit D2-1-1]	**$30,460,942**	**$53,769,261**	**$2,720,046**	**$99,569,396**	**$2,548,192**	**$2,611,504**
Equity Component of Rate Base	**$12,184,377**	**$21,507,704**	**$1,088,018**	**$39,827,758**	**$1,019,277**	**$1,044,601**
Net Income	**$1,973,540**	**$14,212,886**	**$2,177,233**	**$5,004,272**	**$1,271,750**	**$414,541**
RATIOS ANALYSIS						
REVENUE TO EXPENSES %	113.04%	225.14%	719.70%	109.69%	216.54%	141.05%
EXISTING REVENUE MINUS ALLOCATED COSTS	$1,059,926	$12,755,170	$2,137,917	$2,281,733	$1,179,960	$317,887
RETURN ON EQUITY COMPONENT OF RATE BASE	16.20%	66.08%	200.11%	12.56%	124.77%	39.68%
Net Income	$1,973,540	$14,212,886	$2,177,233	$5,004,272	$1,271,750	$414,541
Common Equity Component	$1,848,272	$13,310,744	$2,039,037	$4,686,633	$1,191,028	$388,229
Preferred Component	$125,268	$902,142	$138,197	$317,639	$80,722	$26,312
Equity Component of Rate Base: Common @ 36%	$10,965,939	$19,356,934	$979,216	$35,844,982	$917,349	$940,141
Equity Component of Rate Base: Preferred @ 4%	$1,218,438	$2,150,770	$108,802	$3,982,776	$101,928	$104,460
RETURN ON Common EQUITY COMPONENT OF RATE BASE	16.9%	68.8%	208.2%	13.1%	129.8%	41.3%
RETURN ON Preferred EQUITY COMPONENT OF RATE BASE	10.3%	41.9%	127.0%	8.0%	79.2%	25.2%
RETURN ON Composite EQUITY COMPONENT OF RATE BAS	16.2%	66.1%	200.1%	12.6%	124.8%	39.7%
$40.2M External Revenues Unique Allocation	$ 521,258	$ 449,215	$ 23,440	$ 431,623	$ 45,115	$ 18,890
Sentinel Lgts						
Late Payments	344,337	331,969	20,500	149,617	25,697	7,716
Account Set Up	16,909	4,227	-	-	-	-
Collections	2,818	705	-	-	-	-
New Connects + Upgrades	20,130	5,032	-	-	-	-
Other - Mainly Joint Use	$ 132,910	$ 104,031	$ 2,851	$ 273,461	$ 18,830	$ 10,836
Internal Transfer with Telecom	$ 4,153	$ 3,251	$ 89	$ 8,546	$ 588	$ 339
Allocated Costs based on Alloc External Revenues	$7,867,734	$9,971,699	$345,523	$23,312,871	$802,026	$782,096
CREV + Unique Allocation of Misc External Revenues	$8,927,561	$22,726,870	$2,483,440	$25,594,604	$1,981,985	$1,899,983
Rev to Cost Ratio -- External Rev CWNB Allocation	1.130	2.251	7.197	1.099	2.165	1.411
Rev to Cost Ratio -- External Rev Unique Allocation	1.135	2.279	7.197	1.099	2.471	1.408

UNMETERED SCATTERED LOAD FIXED SERVICE CHARGE

This exhibit explains the development of a fixed service charge credit for unmetered scattered load customers based on the results of the Cost Allocation Study.

1.0 INTRODUCTION

Currently, Hydro One Distribution Legacy General Service class rate schedules include a separate and lower fixed service charge that is applicable to unmetered scattered load connections.

In 2006 Hydro One Distribution established a fixed service charge applicable to unmetered scattered load (USL) customers within the Acquired LDC General Service customers. The charge was set at half of the fixed service charge applicable to the corresponding Acquired General Service customer class. This was consistent with the 2006 EDR Handbook guidelines.

2.0 PROPOSAL

Hydro One has completed a Cost Allocation Study which enables a proper fixed charge credit to be established for USL customers. This credit reflects the nature of USL customers, that is, no meter or meter reading costs should be recovered from USL customers.

The fixed service charge credit will be applied to the proposed General Service energy billed fixed service charge for Legacy and Acquired customers.

3.0 CALCULATIONS

The following table illustrates the development of the fixed service charge for unmetered scattered load based on the results of the Cost Allocation Study.

Table 1
General Service Energy Billed Fixed Service charge

	Fixed Service charge ($/customer/month)
Fixed charge as per Cost Allocation Study	30.97
Credit for USL customers (Sheet O3.5 USL Metering Credit)	6.86
Net Fixed Charge for USL customers	24.11

The number of unmetered scattered load connections and the revenue shortfall are shown in Table 2 below, based on the unmetered service charge credit in Table 1 above.

Table 2
General Service number of 2006 Unmetered connections and revenue shortfall

	Number of Unmetered connections in 2006	Revenue shortfall ($)
General Service	4,917	404,767

This revenue shortfall is re-allocated to the General Service energy billed customer class when determining Distribution fixed charges to ensure that Hydro One recovers the Revenue Requirement allocated to the General Service energy billed group.

Metering Unit Cost

ALLOCATION BY RATE CLASSIFICATION

Description	GSe
Depreciation on Acct 1860 Metering	$1,155,178
Depreciation on General Plant Assigned to Metering	$217,229
Acct 5065 - Meter expense	$709,625
Acct 5070 & 5075 - Customer Premises	$1,443,925
Acct 5175 - Meter Maintenance	$143,136
Acct 5310 - Meter Reading	$1,630,202
Admin and General Assigned to Metering	$1,262,096
PILs on Metering	$203,531
Debt Return on Metering	$603,280
Equity Return on Metering	$615,061
Total	$7,983,264
Number of Customers	97,005
Metering Unit Cost ($/Customer/Month)	$6.86
General Plant - Gross Assets	$75,974,676
General Plant - Accumulated Depreciation	($41,406,864)
General Plant - Net Fixed Assets	$34,567,813
General Plant - Depreciation	$5,623,567
Total Net Fixed Assets Excluding General Plant	$394,728,573
Total Administration and General Expense	$12,800,842
Total O&M	$39,828,568
Metering Rate Base	
Acct 1860 - Metering - Gross Assets	$13,404,195
Metering - Accumulated Depreciation	$1,843,521
Metering - Net Fixed Assets	$15,247,715
General Plant Assigned to Metering - NFA	$1,335,298
Metering Net Fixed Assets Including General Plant	$16,583,013

Rogers Cable INTERROGATORY #2 List 1

Interrogatory

[Reference: Exhibit G1, Tab 2, Schedule 3, page 6, Table 7]

(a) Please explain the rationale for grouping all Unmetered Scattered Load (USL) customers with the low density General Service Energy Billed customers, regardless oftheir location (i.e. in high or low density areas).

(b) Please indicate how many of the 4,917 USL customers proposed to be included in the General Service Energy Billed class are actually located in areas in which customers meet the Urban Density Criteria. For the identified USL customers, please provide estimated aggregate consumption for the test year and as billed consumption for 2007.

(c) Please provide a table that compares the rate that would be payable by a USL customer were they to be included in the Urban General Service Energy Billed class (i.e. classified with customers meeting the Urban Density Criteria) with the rate proposed for USL customers under the proposed General Service Energy Billed class.

Response

Ref: G1-2-3 pg 6 Table 7

a. Currently three-quarters of the Unmetered Scattered Load [USL] customers are located within the G1 rate class and another 10% from the non-urban mapped Acquireds for a total of 85% being non-urban general service.

   Since about 85% of the USL customers are currently located within the non-urban General Service, the new USL class was composed by grouping all USL customers to the non-urban General Service rate class.

b. 392 of the 4,917 USL are in Urban Density class. Based on 2006 billing data, the billed amount was 2.64 GWh

c. A full model re-run with new rate classes based on these remapped customers would need to be done and cannot be accomplished within the Interrogatory response timelines. Please see Exhibit H, Tab 4, Schedule 10 for the effort required to create a new customer class and run the cost allocation model. The USL load is minimal compared to the load in the Urban General Service energy class. so the results are not expected to be different for the Urban General Service

energy class including or excluding the USL load that might be classified as Urban.

The USL Meter Credit from the Cost Model Output sheet O3.5 USL Metering Credit for Urban General Service energy billed class is $6.65 and is comparable to the GSe USL Metering credit of $6.86.

The Table below shows the rates for USL in the General Service energy bill class and in the Urban General Service energy bill class.

	O3.5 USL Credit	Service Charge	Net Service Chg	Base ¢/kWh
GSe	$6.86	$30.97	$24.11	3.39
UGe	$6.65	$12.33	$5.68	2.09

EB-2007-0681
Ex. _____

Hydro One USL Rate Proposal
Revenue to Cost Ratio Calculations by Rogers Cable

	2006*	2008**
Distribution Revenue	$1,936,870	$2,350,079
Misc. Revenue	$255,600	$255,600
Total Revenues	$2,192,470	$2,605,679
Costs	$1,012,510	$1,113,761
R/C	2.17	2.34

* For 2006: Data from Ex.H/T8/S5/Attach. P. 10

** For 2008: Distribution revenue derived from applying proposed USL rates from Ex.G2/T5/S5 to USL connections and 2008 consumption provided in Ex.H/T8/S1.

Misc. Revenues assumed the same as 2006.

Costs escalated from 2006 in proportion to increase in total 2008 distribution revenue requirement applied for (10%).

Filed: December 18, 2007
EB-2007-0681
Exhibit G1
Tab 3
Schedule 1
Page 1 of 5

COST ALLOCATION OF REVENUE REQUIREMENT

This exhibit presents an overview of the process to allocate Hydro One Distribution related revenue requirement costs to Legacy, Acquired, and Sub-Transmission customer groups (including current Embedded LV customers).

1.0 INTRODUCTION

The 2008 revenue requirement of $1,067 million for Hydro One Distribution was derived in Exhibit E1, Tab 1, Schedule 1, and is attributed to the Retail, (Legacy and Acquired), and Sub-Transmission customers.

This revenue requirement is allocated to the proposed customer groups using the Cost Allocation methodology issued by the OEB on September 29, 2006 in the RP-2005-0317 proceeding. Hydro One modified the OEB methodology to reflect its unique circumstances related to the provision of an LV system and a very large number of rates. The modifications are detailed in Exhibit G2, Tab 1, Schedule 1, and are similar to the modifications applied in Hydro One's Cost Allocation Information Filing of January 15, 2007 as part of Proceeding RP-2007-0001.

2.0 APPORTIONMENT OF REVENUE REQUIREMENT

Hydro One used the OEB Cost Allocation Methodology to allocate the proposed $1,067 million revenue requirement to customer classes. The allocated revenue requirement was compared to the revenues that would be collected from customers at adjusted 2007 Distribution rates. The adjustment consisted of increasing the 2007 approved rates proportionally to recover the 2008 Revenue Requirement of $1,067 million. Revenue to cost ratios were then calculated. Revenue to cost ratios above 1 mean that the customer class is over-contributing and revenue to cost ratios below 1 mean that the customer class

is under-contributing. The results of the cost allocation study are summarized in the Table below.

Table 1
Hydro One Cost Allocation Study Results

	UR	R1	R2	Seasonal	UGSe	UGSd	GS e	GS d	ST	DG	Street Light	Sent. Light	Total
Rev Req $M	66.0	240.2	390.3	83.6	9.3	16.8	111.1	105.4	27.4	0.4	8.1	8.0	1,066.6
Revenue at current rates $M	57.7	197.1	404.6	77.0	12.1	16.0	119.6	107.9	64.2	0.6	4.9	4.9	1,066.6
Rev/cost ratio	**0.87**	**0.82**	**1.04**	**0.92**	**1.29**	**0.95**	**1.08**	**1.02**	**2.35**	**1.63**	**0.60**	**0.62**	**1.00**

More details on the results of the cost allocation study can be found in Exhibit G2, Tab 1, Schedule 1.

3.0 TARGET REVENUE TO COST RATIO

Hydro One is proposing to use the revenue to cost ratio ranges recommended in the Board's report issued November 28, 2007 under proceeding EB-2007-0667, "Application of Cost Allocation for Electricity Distributors". The Board recommended revenue to cost ratios range from 0.7 for street lights to 1.8 for large commercial customers. Given that this is the first time that the OEB's cost allocation methodology is being used as a basis for determining distribution rates, the wider range of revenue to cost ratios proposed by the Board will reduce the potential bill impacts on customers whose distribution rates have to increase to closer reflect cost causality. The proposed range of revenue to cost ratios will result in those customer classes with a revenue to cost ratio above 1 continuing to cross-subsidize those customer classes with a revenue to cost ratio below 1.

Hydro One is proposing the following revenue to cost ratios for the various new proposed customer classes.

For the R2 Residential, General Service energy billed, and General Service demand billed customer classes, the current revenue to cost ratio is proposed to be maintained:

For the Distributed Generation customer class, the revenue to cost ratio is proposed to be set at 1.0 rather than the current 1.63 in support of Government policy to promote Distributed Generation in Ontario.

For Street Light and Sentinel Light classes it is proposed to increase the revenue to cost ratio from about 0.6 to 0.7. This is the lower end of the revenue to cost ratio proposed by the Board for this class of customers.

For the Urban General Service energy billed class it is proposed to reduce the revenue to cost ratio from 1.29 to 1.2. This is the higher end of the revenue to cost ratio proposed by the Board for small commercial customers.

For the Sub-Transmission class it is proposed to reduce the revenue to cost ratio from 2.35 to 1.15. This is the higher end of the revenue to cost ratio proposed by the Board for large users.

In order to recover almost all of the 2008 Revenue Requirement based on the revenue to cost ratios described above, the revenue to cost ratio for Urban Residential, R1 Residential, Seasonal Residential and Urban General Service demand billed customer classes will have to increase. The revenue to cost ratios for the Urban Residential, Seasonal Residential, and Urban General Service demand billed customer classes are proposed to be set to 1.0. For the R1 Residential customer class, the proposed revenue to

cost ratio is 0.88, which results in bill impacts that are considered to be the maximum that Acquired residential customers being harmonized to this customer class can sustain.

The proposed revenue to cost ratios result in Hydro One not being able to fully recover its 2008 proposed Revenue Requirement. The shortfall is estimated to be $2.5 million per year, which is the difference in the total proposed revenue requirement shown in Table 2 as compared to Table 1. Hydro One proposes to establish a variance account, as described in Exhibit F1, Tab 3, Schedule 1 to record this revenue shortfall for recovery at a future date from all customers.

Table 2
Proposed Revenue/Cost Ratio by Customer Class

	UR	R1	R2	Seasonal	UGSe	UGSd	GS e	GS d	ST	DG	Street Light	Sent. Light	Total
Proposed Revenue Requirement $M	66.0	211.4	404.6	83.6	11.2	16.8	119.6	107.9	31.5	0.4	5.7	5.6	1,066
Proposed revenue to cost ratio	**1.0**	**0.88**	1.04	**1.0**	**1.2**	**1.0**	1.08	1.02	**1.15**	**1.00**	**0.7**	**0.7**	1.0

*Revenue to cost ratios in bold show the proposed change

4.0 REVENUE TO COST RATIO EQUAL TO ONE

In response to feedback received during the stakeholdering process, Hydro One explored the impact of moving all customer classes to a revenue to cost ratio of 1. Table 3 shows the average impacts that would result from making this change. As shown in Table 3, the resulting average total bill impacts under a revenue to cost ratio of 1 is generally greater and could be as much as three times the impact under the proposed revenue to cost ratios. As a result, using a revenue to cost ratio of 1 for all customer classes would result in either unacceptable bill impacts or the need for an excessively long impact mitigation period.

Table 3
Impact to Customer Classes of Revenue/Cost Ratios

	Proposed R/C	Average impact %	R/C = 1	Average impact %
UR	1.0	3.4	1	3.4
R1	0.88	3.0	1	8.3
R2	1.04	1.0	1	(0.8)
Seasonal	1.0	9.7	1	9.7
UGe	1..2	(2.3)	1	(6.3)
UGd	1.0	0.3	1	0.3
GSe	1.08	0.5	1	(2.2)
GSd	1.02	(2.1)	1	(2.7)
DG	1	(29.0)	1	(29.0)
Street Light	0.7	5.0	1	21.7
Sentinel Light	0.7	25.0	1	118.1
ST	1.15	(4.7)	1	(5.0)

EB-2007-0681
Ex. _____

Hydro One USL Rate Proposal
Urban vs. non-urban classification comparison.

	GSe	UGe	Annual Difference
Net SC @$24.11/mo x 392 connections	113413.44	26718.72	86694.72
Total energy charge @2.64 Gwh/year	$89,496	$55,176	$34,320
Totals	$202,909	$81,895	$121,015

EB-2007-0681
Ex. _____

Hydro One USL Rate Proposal
Revenue to Cost Ratio Calculations by Rogers Cable

	2006*	2008**
Distribution Revenue	$1,936,870	$2,350,079
Misc. Revenue	$255,600	$255,600
Total Revenues	$2,192,470	$2,605,679
Costs	$1,012,510	$1,113,761
R/C	2.17	2.34

Revenue implications of alternative 2008 revenue to cost ratios:			
Calculated revenues	$2,416,861	$1,336,513	$1,202,862
Revenue decrease (from forecast)	$188,818	$1,269,166	$1,402,817
Costs constant (as derived)	$1,113,761	$1,113,761	$1,113,761
Assumed R/C ratio	2.17	1.2	1.08

* For 2006: Data from Ex.H/T8/S5/Attach. P. 10

** For 2008: Distribution revenue derived from applying proposed USL rates from Ex.G2/T5/S5 to USL connections and 2008 consumption provided in Ex/H/T8/s1.

Misc. Revenues assumed the same as 2006.

Costs escalated from 2006 in proportion to increase in total 2008 distribution revenue requirement applied for (10%).