



1 **Interrogatory**

2  
3 General

4  
5 1. A1/T2/S3

6 Hydro Ottawa is seeking approval of a rate year commencing January 1, 2011. In effect,  
7 its customers will be paying higher rates as of January 1, 2011, three months earlier than  
8 under the current framework. Please explain why this proposal would be fair to  
9 ratepayers? Would Hydro Ottawa be willing to accept a proposal to move to January 1  
10 rates, but deferring implementation to May 1, 2011, thereby minimizing the impact on  
11 ratepayers? If not, why not?

12  
13 **Response**

14  
15 Hydro Ottawa filed its application for rates based on a forecast of its costs and sales  
16 volumes from January to December 2011. The Ontario Energy Board prescribes the  
17 fiscal reporting period for electricity distributors to be the calendar year; therefore, it is  
18 appropriate for cost of service rate applications to be based on costs for the same period  
19 to avoid any duplication in planning processes. Since the costs are forecast for January  
20 to December it is appropriate to have the rates that are designed to recover these costs  
21 effective for the same period, and as such, this approach is fair to ratepayers. Deferring  
22 the implementation of rates until May would create a mismatch between the costs  
23 incurred and the associated revenue earned, and this has the result of affecting a  
24 distributor's rate of return for the mandated fiscal reporting period. For this reason,  
25 Hydro Ottawa does not accept a proposal to defer implementation to May 1, 2011. The  
26 fact that customers have previously benefited from the lag between rates and costs does  
27 not mean that it is unfair in the future for the rates to be set to recover the costs over the  
28 same period.



1 **Interrogatory**

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3 General

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5 2. A1/T7/S1/p.3

6 Please describe all of the activities Energy Ottawa is involved in. Will Energy Ottawa be  
7 the delivery agent for Hydro Ottawa's CDM programs as of January 1, 2011? If so, will  
8 the allocation of costs to Energy Ottawa increase?

9  
10 **Response**

11  
12 Energy Ottawa Inc. ("Energy Ottawa") is a diversified and innovative energy company  
13 that generates green power and offers an extensive range of energy management and  
14 procurement services to a wide range of customers. Energy Ottawa is a wholly-owned  
15 subsidiary of Hydro Ottawa Holding Inc.

16  
17 In addition to owning and operating hydro-electric and landfill gas generators, Energy  
18 Ottawa currently offers energy management, energy procurement, lighting management,  
19 web portal, demand response and green power services.

20  
21 Hydro Ottawa will be assigned mandatory and aggressive targets for conservation and  
22 demand management ("CDM") for the period 2011 to 2014. To achieve these targets,  
23 Hydro Ottawa will be seeking new strategies for implementing programs. This may  
24 include working through Energy Ottawa for the delivery of some programs; however,  
25 these strategies are still in development.



**Interrogatory**

General

A1/T7/S2

The evidence lists a number of positions including CEO, CFO etc. It then states that "strategic leadership is provided by the following positions in Hydro Ottawa Inc. Operational activities related to these functions remain within Hydro Ottawa."

Please explain the difference between strategic leadership and operational activities. For each of the 10 positions listed please indicate where these positions reside, in Hydro Ottawa Holding Inc. or Hydro Ottawa. For each of these positions please indicate the allocation of the salaries between Hydro Ottawa Holding Inc. and Hydro Ottawa.

**Response**

Please see the response to SEC #4 and VECC #6 for a discussion of strategic (executive and senior management) leadership and operational activities.

The following 10 positions reside in Hydro Ottawa Holding Inc and the salary allocations applied to Hydro Ottawa Limited in 2010 are as follows:

	<u><b>Allocation</b></u>
Chief Executive Officer	55%
Chief Financial Officer	69%
Director, Finance	69%
Chief Human Resources Officer	93%
Chief Information Officer	55%
Chief Communications Officer	30%
Chief Stakeholder Relations Officer	30%
Chief Regulatory Affairs and Government Relations Officer	88%
Chief Enterprise Risk Management Officer	80%
General Counsel and Corporate Secretary	63%



**Interrogatory**

**General**

**4. A1/T7/S3/Attachment D**

The SLA between Hydro Ottawa Holding Inc. and Hydro Ottawa Limited has been provided. For each of the services please provide a schedule setting out the total amounts. For example \$650,000 is allocated to Hydro Ottawa for General Counsel and Regulatory Affairs. What is the total amount, prior to the allocation?

**Response**

With reference to Exhibit D1-2-1, Attachment W, the pre-allocation amount for services provided by Hydro Ottawa Holding Inc. to Hydro Ottawa Limited are presented under the Cost for Service column, as follows:

**Table 1 - Shared Services / Corporate Cost Allocation - 2010**

<b>Service Offered</b>	<b>Price for Service</b>	<b>Cost for Service</b>	<b>Percentage Allocation</b>
Legal, Corporate Administration & Regulatory Affairs	644,891	939,472	69%
Finance, Internal Audit & Enterprise Risk Management	2,473,853	3,999,270	62%
Human Resources, Safety & Environment	689,860	741,126	93%
Corporate Communications	271,875	906,251	30%
Management Services	659,521	1,199,130	55%
Non-Allocated Activities	N/A	1,751,548	0%
<b>Total</b>	<b>\$4,740,000</b>	<b>\$9,536,797</b>	<b>50%</b>

The slight variations in the SLA pricing between Attachment W and Attachment D are due to rounding.



**Interrogatory**

**General**

**5. A2/T1/S3/p. 1**

The evidence sets out the main factors contributing to the revenue deficiency. Please provide a more detailed breakdown of the costs within each category.

**Response**

The breakdown of the revenue deficiency/sufficiency provided in Table 1 of Exhibit A2-1-3, replicated below, was determined based on the approved 2008 make up of the revenue requirement, adjusted for the Incentive Regulation Mechanisms in 2009 and 2010 and the Smart Meter (“SM”) adder in 2010. As a result, the impact of each cause on the revenue deficiency is an estimate only.

**Table 1 – Causes of Deficiency**

<b>CAUSE</b>	<b>Impact on Revenue Requirement \$000</b>
Increase in Amortization Expense	\$4,588
Increase in Revenue Offsets	(255)
Increase in OM&A Expenses	4,055
Increase in Return on Capital	6,726
Change in Payment in Lieu of Taxes	(2,072)
Load Growth	(1,330)
<b>TOTAL Deficiency</b>	<b>\$11,711</b>

The following Tables provide a more detailed breakdown of the costs within each category, as appropriate.



1

CAUSE		Impact on Revenue Requirement \$000
Increase in OM&A Expenses		4,055
-decrease in operating considering SM	(817)	
-increase in maintenance	905	
-decrease in billing and collecting	(1,036)	
-increase in community relations	1,782	
-increase in administration and general	3,202	
-increase in taxes other than income taxes	18	

2

CAUSE		Impact on Revenue Requirement \$000
Increase in Return on Capital		6,726
-increase in the Cost of Capital from 6.55% to 7.02%	2,968	
-forecast growth in the year-end NBV of assets between 2008 and 2011 of \$78.6M	3,758	

3

CAUSE		Impact on Revenue Requirement \$000
Change in Payment in Lieu of Taxes		(2,072)
-change in tax rates	(2,768)	
-change in net income	696	

4

5

6

7



1

CAUSE		Impact on Revenue Requirement \$000
Load Growth		(1,330)
-increase in customer numbers	(577)	
-increase in sales	(753)	



**Interrogatory**

**General**

6. What is Hydro Ottawa's current plan as to when it expects to file its next cost of service rate application?

**Response**

Hydro Ottawa Limited ("Hydro Ottawa") has not determined when it will file its next cost of service rate application. As discussed in Exhibit A1-2-2, the decision to embark on the lengthy process of preparing a detailed cost of service application is not taken lightly and is based on the consideration of a number of issues:

- Required level of investment in the Asset Management Strategy and aging infrastructure
- Further Green Energy Act investments
- Progress on the Facilities Strategy
- Details of 4<sup>th</sup> generation incentive regulation mechanism ("IRM")
- Status of workforce planning

In addition, the decision about when to file the next cost of service rate application is dependent on the outcome of this current 2011 Distribution Rate Application.





1 **Interrogatory**

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5 7. The Board is expected to finalize its CDM Code in the Fall of 2010. What impact will  
6 that Code and the requirements contained in it have on Hydro Ottawa's 2011  
7 revenue requirement?

8

9 **Response**

10

11 There are no Conservation and Demand Management (“CDM”) expenses included in  
12 Hydro Ottawa’s 2011 revenue requirement. However, there are allocations to the CDM  
13 program which actually reduce the 2011 revenue requirement.

14

15 Hydro Ottawa does not expect the finalization of the Ontario Energy Board’s  
16 Conservation and Demand Management (“CDM”) Code in the Fall of 2010 to change the  
17 applied for 2011 distribution revenue requirement. At the time of the preparation of the  
18 2011 cost of service application, Hydro Ottawa did have an estimate of what the CDM  
19 targets would be and a general idea of the Code requirements. As a result, Hydro  
20 Ottawa had sufficient information on which to base the allocations for 2011.



1 **Interrogatory**

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3 General

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5 8. Please set out Hydro Ottawa's plans with respect to the Special Purpose Charge.  
6 Has the payment to the Government been made? On what basis is Hydro Ottawa  
7 collecting its allocation from its customers. What is the total amount Hydro Ottawa is  
8 required to remit?

9

10 **Response**

11

12 As directed by the Ontario Energy Board in their letter of April 9, 2010, Hydro Ottawa  
13 submitted the total payment of \$2,930,261 for the Special Purpose Charge to the  
14 Ministry of Finance on July 31, 2010. Hydro Ottawa began to collect this charge from  
15 customers as of May 1, 2010 as part of the Wholesale Market Charge using a rate of  
16 \$0.0003725/kWh, as set out in the regulation.



1 **Interrogatory**

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3 General

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5 9. Please indicate any impacts on the 2010 revenue requirement regarding low-income  
6 programs. Please indicate what the activities and costs have been for Hydro Ottawa  
7 regarding low-income programs for the period 2008-2010. How have these costs  
8 been recovered?  
9

10 **Response**

11  
12 It is presumed that this question intends to refer to the 2011 revenue requirement as  
13 there is no 2010 revenue requirement. As stated in the response to OEB #12a, there is  
14 no specific funding included in the 2011 test year revenue requirement for the LEAP  
15 emergency assistance program. However, the Winter Warmth program is targeted at  
16 low-income customers and the associated \$65,000 is included in the 2011 revenue  
17 requirement.  
18

19 In Hydro Ottawa's 2008 Distribution Rate Application, \$40,000 was approved for the  
20 Winter Warmth program which is targeted at low-income customers. This is the amount  
21 that was included in rates in 2008-2010.



**Interrogatory**

**Rate Base**

**10. B1/T2/S1**

Please provide a schedule setting out the following:

- (i) Distribution Sustainment, Distribution Demand and General Plant budgets for the years 2008-2011 Actual and Board approved (where applicable);
- (ii) Variance analysis to support the variances;
- (iii) Total Capital Expenditures for each year.

**Response**

(i)

<b>Capital Expenditures</b>	<b>2008 Board Approved</b>	<b>2008 Actual</b>	<b>2009 Actual</b>	<b>2010 Budget</b>	<b>2011 Budget</b>
Distribution Sustainment	\$37,713	\$34,786	\$38,375	\$44,289	\$45,224
Distribution Demand Gross	33,918	41,280	35,798	29,832	29,378
General Plant	10,165	8,036	7,419	12,818	18,123
CDM	-	268	-	-	-
Green Energy Act	-	-	-	-	2,566
<b>Total Gross</b>	<b>\$81,796</b>	<b>\$84,370</b>	<b>\$81,592</b>	<b>\$86,939</b>	<b>\$95,291</b>

(ii) Variance analyses to support the variances are outlined in Hydro Ottawa Limited filing EB-2010-0133 as follows;

- a. 2008 Board Approved to 2008 Actual variance analyses are contained in B4-2-1 and B4-2-2,
- b. 2008 Actual to 2009 Actual variance analyses are contained in B4-1-1 and B4-1-2,
- c. 2009 Actual to 2010 Budget variance analyses are contained in B4-5-1 and B4-5-2, and
- d. 2010 Budget to 2011 Budget variance analyses are contained in B4-5-1 and B4-5-2.



- 1 (iii) Total Capital Expenditures for each year are included in the response to part (i).
- 2 Capital Expenditures related to Conservation Demand Management (“CDM”) and
- 3 Hydro Ottawa’s Green Energy Act Basic Plan are included in the total capital
- 4 expenditures.



1 **Interrogatory**

2

3 Rate Base

4

5 11. B1/T2/S1/pp.1-4

6 Please provide a schedule setting out the budget amount for each program in Tables 1-  
7 3.

8

9 **Response**

10

11 The table below sets out the 2011 budget amount for each program. Only those  
12 expenditures that exceed the materiality threshold, as shown in Exhibit A3-5-1, are  
13 included in the table. Budget Program expenditures not shown in the table are included  
14 in miscellaneous budget programs.

15

Capital Program	Budget Program	2011 Budget (\$000)
<b><i>Distribution Sustainment</i></b>		
Stations Asset	Stations Transformer Replacement	\$1,119
	Stations Battery Replacement	0 <sup>1</sup>
	Stations Switchgear Replacement	439
	Stations Relay Replacement	combined with Switchgear
	Station Conductor Replacement	0 <sup>1</sup>
	Stations Plant Failure Capital	0 <sup>1</sup>
Stations Capacity	Stations New Capacity	13,834
Stations Enhancement	Station Enhancements	728
Distribution Asset	Cable Replacement Program	2,004
	Pole Replacement	7,097
	Insulator Replacement Program	0 <sup>1</sup>
	Elbow and Insert Replacement	0 <sup>1</sup>
	Splice Replacement Program	0 <sup>1</sup>
	Distribution Transformer Replacement	2,425



	Vault Rehabilitation or Removal	0 <sup>1</sup>
	Civil Rehabilitation Program	596
	Switchgear New and Rehabilitated	0 <sup>1</sup>
	Overhead Equipment New and Rehabilitated	0 <sup>1</sup>
	Plant Failure Capital	2,411
Distribution Enhancement	Vault Space Capital Leasing	0 <sup>1</sup>
	Line Extensions	5,393
	System Voltage Conversion	1,331
	System Reliability	0 <sup>1</sup>
	Distribution Minor Enhancements	0 <sup>1</sup>
Distribution Automation	Distribution Automation	719
Stations Automation	Substation Automation	0 <sup>1</sup>
System Operations Automation	SCADA Upgrades	1,056
	RTU - Additions	0 <sup>1</sup>
Facility Programs - Stations	Facility Programs - Stations	707
Sustainment Miscellaneous	Sustainment Miscellaneous	5,365
<b>Distribution Sustainment Total</b>		<b>\$45,224</b>
<b><i>Distribution Demand</i></b>		
Commercial	New Commercial Development	\$6,078
Damage To Plant	Damage to Plant	892
Infill & Upgrade	Infill Service	3,706
Metering	Metering – Reverification	0
	Wholesale Meter (IESO meter upgrades)	0
	Meters	1,428
	Remote Disconnected Meter	83
	Suite Metering	0
Plant Relocation	Plant Relocation and Upgrade	5,700
Residential	Residential Subdivisions	6,762
Stations Demand Projects	Embedded Generation Projects	64
System Expansion	System Expansion Demand	3,493
	Long Term Load Transfers	1,172
<b>Distribution Demand Total</b>		<b>\$29,378</b>
<b><i>General Plant</i></b>		
	Buildings - Facilities	\$6,260
	CIS Enhancements	3,916
	Electronic Collection Field Activities	0 <sup>2</sup>



	Environmental Sustainability Strategy	875
	Fleet Replacement	1,867
	Furniture & Equipment	0 <sup>2</sup>
	GIS/OMS/CIS/IVR Integration	0 <sup>2</sup>
	GRM System Enhancements	589
	Info Services & Tech	2,387
	ERP / JDE Project	0 <sup>2</sup>
	New PC & Peripheral	245
	Outbound Calling Auto-Dialer	0 <sup>2</sup>
	PC/Peripheral Replacement	0 <sup>2</sup>
	Tools Replacement	701
	Website Enhancements	0 <sup>2</sup>
	Customer Service Strategy	452
Genera Plant Miscellaneous	General Plant Miscellaneous	831
<b>General Plant Total</b>		<b>\$18,123</b>
<b>Green Energy Act Basic Plan</b>		
<b>Green Energy Act Basic Plan Total</b>		<b>\$2,566</b>
<b>Total Capital Expenditures</b>		<b>\$95,291</b>

1

<sup>1</sup> Budgeted expenditures are included in Sustainment Miscellaneous

<sup>2</sup> Budgeted expenditures are included in General Plant Miscellaneous





1 **Interrogatory**

2  
3 Rate Base

4  
5 12. B1/T2/S5/p.17 - Hydro Ottawa has indicated that it intends to proceed with Option  
6 4 as its Facilities Strategy. Please provide an update on the progress on the hiring  
7 of a Project Manager. Does Hydro Ottawa still expect to have \$4 million of in-  
8 service capital additions in place in 2011? If not, what is the current budget? If  
9 lands/buildings are sold how will any gains be dealt with from a regulatory  
10 perspective?

11  
12 **Response**

13  
14 Please see the response to SEC #13j for an update on the progress of hiring a Project  
15 Manager. At this time, Hydro Ottawa still expects to have \$4 million of in-service capital  
16 additions in place in 2011. With regards to how gains or losses will be dealt with, from a  
17 regulatory perspective, please see the response to EP #9e.



1 **Interrogatory**

2

3 Rate Base

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5 13. B1/T2/S5/p.21

6 Please explain, specifically how the \$5.5 million budgeted for Facilities was derived.

7

8 **Response**

9

10 Please see the response to OEB #2b.



1 **Interrogatory**

2  
3 Rate Base

4  
5 14. B1/T2/S6 - Please provide a detailed budget for Hydro Ottawa's Fleet Strategy  
6 Budget for each year 2006 to 2011. Please include Board approved amounts  
7 where applicable and any variance analysis.

8  
9 **Response**

10  
11 Table 1 provides the detailed fleet budget and actual expenditures. Board approved  
12 amounts are shown for 2006 and 2008, the last two cost of service applications.

13  
14 Budget and Actual expenditures are at the equipment class level whereas Board-  
15 approved expenditures are shown as a total.

16  
17 Explanations of the variances between 2006-2009 actuals and 2010, 2011 budgets  
18 amounts can be found in Exhibit B4-1-2, Section 2.5 and B4-5-2, Section 2.5.

19  
20 Board Approved Year 2006

21  
22 In 2006 the variance for the fleet capital expenditures was \$632k. The 2006 approved  
23 expenditures were to replace 29 vehicles and purchase one new full sized truck. In  
24 2006, 33 vehicles were replaced and 6 vehicles were added to the fleet. The initial plan  
25 was changed due to:

- 26
- 27 • changing user needs altered the profile of vehicles to be replaced, and
  - 28 • additional funds were made available to the Fleet Services department to help
  - 29 address the lagging replacement plan as described in Exhibit B1-2-5.
- 30

31 The additional vehicles approved and purchased included;



- 1       • 1 bucket truck - Upgrade to equipment for the 24/7 department
- 2
- 3       • 2 compact pick ups – One for a new Health and Safety inspector and one for
- 4       increased workload in the facilities department, and
- 5       • 3 step/cube vans – One for stations electrician apprentices and two for cable
- 6       jointer apprentices.
- 7

8       Board Approved Year 2008

9

10      In 2008 the variance for the fleet capital expenditures was only \$106k, resulting from

11      minor changes to costs and plans.



1

2

**Table 1 – Fleet Expenditures**

<b>Subsidiary</b>	<b>Actual 2006 \$000</b>	<b>Board Approved 2006 \$000</b>	<b>Actual 2007 \$000</b>	<b>Actual 2008 \$000</b>	<b>Board Approved 2008 \$000</b>	<b>Actual 2009 \$000</b>	<b>Budget 2010 \$000</b>	<b>Budget 2011 \$000</b>
Computer Software	\$50	N/A	\$13	\$5	N/A	\$1	\$0	\$0
Automobiles	55	N/A	21	7	N/A	-	110	0
Trucks less than 3 tonnes	556	N/A	103	284	N/A	90	33	130
Trucks greater than 3 tonnes	2,502	N/A	2,552	1,401	N/A	1,284	1,969	1,697
Power Operated Equipment	55	N/A	394	103	N/A	79	121	40
Tools, Shop & Garage Equipment	4	N/A	0	0	N/A	7	0	0
<b>TOTAL</b>	<b>\$3,222</b>	<b>\$2,590</b>	<b>\$3,083</b>	<b>\$1,799</b>	<b>\$1,693</b>	<b>\$1,461</b>	<b>\$2,232</b>	<b>\$1,867</b>

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1 **Interrogatory**

2  
3 Rate Base

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5 15. B3/T2/S1

6 Did Hydro Ottawa retain an independent consultant to review its lead-lag results? If not,  
7 why not?

8  
9 **Response**

10  
11 Hydro Ottawa did not retain an independent consultant to review its lead-lag results. In  
12 completing the study, Hydro Ottawa was able to review the results for three recent lead-  
13 lag studies filed with the Board: Toronto Hydro-Electric System Limited (EB-2007-0680),  
14 Hydro One Networks (EB-2005-0378, EB-2009-0096) and Enersource Hydro  
15 Mississauga (EB-2007-0706). Each of these studies took a similar approach and Hydro  
16 Ottawa followed a similar structure. Hydro Ottawa has provided a comparison of  
17 lead/lag results in Table 1 below.

18  
19 Hydro Ottawa notes that it is not uncommon for studies to be completed for cost of  
20 service rate applications, and they are often not reviewed by outside consultants. A  
21 decision to use an outside consultant is based on cost considerations, internal expertise  
22 and volume of workload. For example, for Hydro Ottawa's 2008 Electricity Distribution  
23 Rate application (EB-2007-0713), Hydro Ottawa completed its own cost allocation study;  
24 however, for this application, for reasons of workload, an outside consultant was used.



1

**Table 1 Comparison of Lead / Lag Results**

Expense Item Description	Hydro Ottawa (2008 2009)			Toronto Hydro (Note 1)			Enersource (2007) (Note 2)			Hydro One (2009) (Note 3)		
	Revenue Lag (Days)	Expense Lead (Days)	Working Capital Requirement	Revenue Lag (Days)	Expense Lead (Days)	Working Capital Requirement	Revenue Lag (Days)	Expense Lead (Days)	Working Capital Requirement	Revenue Lag (Days)	Expense Lead (Days)	Working Capital Requirement
			\$ millions			\$ millions			\$ millions			\$ millions
Cost of Power	75.1	33.7	64.2	71.5	32.6	204.7	confidential	32.7	confidential	70.0	32.7	203.9
OM&A Expenses	75.1	10.6	9.5	71.5	19.9	30.2	confidential	9.7	confidential	70.0	22.9	78.2
Interest on Long Term Debts	75.1	45.6	1.2	71.5	43.2	5.6	confidential	32.0	confidential	70.0	52.9	7.7
PILs	75.1	14.6	2.3	71.5	38.0	2.4	confidential	15.1	confidential	70.0	16.5	5.8
Debt Retirement Charges	75.1	33.0	6.1	71.5	33.2	18.9	confidential	32.6	confidential			
Other									confidential	70.0	31.6	5.5
Sub-Total			83.1			261.8			confidential			301.2
GST			1.6			7.8			confidential			8.2
TOTAL (Including GST)			84.7			269.6			confidential			309.3
Working Capital as %			13.7%			12.5%			13.5%			11.9%
Adjustment for HST			2.5									
New Total with HST			87.2									
New Working Capital %			14.1%									

2

Retail Revenue Lag	Hydro Ottawa (Average 2008 2009)	Toronto Hydro (Note 1)	Enersource (2007) (Note 2)	Hydro One (2009) (Note 3)
Service Lag (Note 4)	30.3	27.1	28.7	21.0
Billing Lag (Note 5)	18.3	16.2	11.9	19.1
Collection Lag	25.3	27.1	28.1	32.1
Payment Processing Lag	1.1	1.4	confidential	
Total	75.0	71.8		72.2

Note 1: EB-2007-0680 Exhibit D1 Tab 15 Schedule 1  
Note 2: EB-2007-0706 Filed September 18, 2009  
Note 3: EB-2009-0096 Exhibit D1-1-4 Attachment 1  
Note 4: Hydro One bills monthly. Hydro Ottawa bills bi-monthly for residential and small commercial customers.  
Note 5: Enersource indicates that billing proceeds within 5 days for fixed price customers. Hydro Ottawa waits for hourly pricing to determine settlement amounts.



1 **Interrogatory**

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3 Rate Base

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5 16. B4/T4/S1

6 Please provide a schedule in the same format as Table 1 - 2011 Capital Expenditures  
7 which includes 2006 to 2010. Please include Board approved where applicable.

8

9 **Response**

10

11 Please see Table 1 below.





1

**Table 1 – 2006 – 2011 Capital Expenditures**

<b>Groupings</b>	<b>2006 Board Approved \$000</b>	<b>2006 Actual \$000</b>	<b>2007 Actual \$000</b>	<b>2008 Board Approved \$000</b>	<b>2008 Actual \$000</b>	<b>2009 Actual \$000</b>	<b>2010 Budget \$000</b>	<b>2011 Budget \$000</b>
Land & Buildings	\$1,146	\$1,994	\$3,264	\$3,504	\$2,340	\$5,726	\$1,572	9,334
TS Primary Above 50 kV	6,948	4,669	9,357	13,479	8,836	10,071	14,944	12,182
DS	2,935	2,370	3,576	4,422	7,403	6,444	8,061	3,386
Poles and Wires	24,348	31,276	32,311	24,264	24,414	25,405	27,721	34,643
Transformers	8,918	11,303	11,303	6,807	7,479	8,431	7,950	8,963
Services and Meters	25,630	24,901	20,986	18,066	23,788	16,100	13,042	11,894
General Plant	3,699	2,708	2,031	2,103	1,673	1,366	1,642	1,155
Equipment	4,312	5,366	4,339	3,002	3,015	2,243	3,686	4,052
IT Assets	8,175	8,391	9,390	5,060	4,382	4,827	7,002	7,520
Other Distribution Assets	3,767	2,359	510	1,089	1,041	979	1,316	2,161
CDM Expenditures & Recoveries <sup>1</sup>	1,420	0	0	0	0	0	0	0
<b>Gross TOTAL</b>	<b>\$91,298</b>	<b>\$95,337</b>	<b>\$97,067</b>	<b>\$81,796</b>	<b>\$84,370</b>	<b>\$81,592</b>	<b>\$86,936</b>	<b>\$95,291</b>
Contributed Capital	(\$6,782) <sup>2</sup>	(\$20,029)	(\$25,320)	(\$15,345)	(\$21,237)	(\$20,911)	(\$16,746)	(\$16,570)
<b>Net TOTAL</b>	<b>\$84,516</b>	<b>\$75,308</b>	<b>\$71,747</b>	<b>\$66,451</b>	<b>\$63,133</b>	<b>\$60,681</b>	<b>\$70,190</b>	<b>\$78,721</b>

2

3

<sup>1</sup> Actual CDM expenditures are accounted for within the appropriate equipment groupings.

<sup>2</sup> 2006 Approved Contributed Capital includes accumulated depreciation on contributed capital.



**Interrogatory**

**Information Technology**

**17. B1/T2/S4**

For each year 2006-2011 please provide a detailed budget for Hydro Ottawa's Information Technology expenditures. Where applicable please provide Board approved levels and any variance analysis.

**Response**

Table 1 includes those budget programs related to the Information Technology Strategy.

**Table 1 – Information Technology Expenditures**

	<b>2006 Approved \$000</b>	<b>Actual 2006 \$000</b>	<b>Actual 2007 \$000</b>	<b>2008 Approved \$000</b>	<b>Actual 2008 \$000</b>	<b>Actual 2009 \$000</b>	<b>Budget 2010 \$000</b>	<b>Budget 2011 \$000</b>
LDC EBS / JDE Project	\$72	\$52	\$0	\$0	\$0	\$765	\$1,130	\$0
PC/Peripheral Replacement	Note 1	211	249	218	211	172	220	199
New PC & Peripheral	Note 1	297	253	370	623	270	758	245
Info Serv & Tech	Note 1	559	862	719	788	276	1,697	2,387
Website Enhancements	Note 1	23	38	392	69	147	312	283
Electronic Collection Field Ac	Note 1	0	0	0	0	0	43	36
Outbound Calling Auto-Dialer	Note 1	0	0	0	0	0	55	5
GIS/OMS/CIS/IVR Integration	Note 1	0	0	92	180	190	493	113
<b>TOTAL</b>	Note 1	<b>\$1,141</b>	<b>\$1,402</b>	<b>\$1,791</b>	<b>\$1,871</b>	<b>\$1,820</b>	<b>\$4,708</b>	<b>\$3,268</b>

Note 1:

Hydro Ottawa's 2006 Electricity Distribution Rate Application, EB-2005-0381, outlined IT Asset capital additions by Ontario Energy Board ("Board") grouping (EB-2005-0381, Table 4.8), rather than outlining expenditures on individual Information Technology Budget Programs. The total Board approved capital additions for IT Assets in 2006, which included the Customer Information System ("CIS") and Geographic Information System ("GIS") not included in Table 1 of this response, was \$11.145M.



1 **Interrogatory**

2

3 Information Technology

4

5 18. B1/T2/S7 - What is the revenue requirement impact in 2011, if any, of Hydro  
6 Ottawa's decision to pursue a CIS transition project?

7

8 **Response**

9

10 As stated in Exhibit B1-2-7 Section 5, capital expenditures on the Customer Information  
11 System ("CIS") transition project are planned for the 2011 Test Year; however, these are  
12 included in construction-in-progress and therefore are not part of the 2011 rate base and  
13 have no impact on revenue requirement in 2011.



1 **Interrogatory**

2

3 Operating Revenue

4

5 19. C1/T1/S1 - Please provide an updated system energy forecast for 2010 and  
6 2011.

7

8 **Response**

9

10 The system energy forecasts as shown in Tables 3, 4, and 7 of Exhibit C1-1-1 have  
11 been updated with actuals to July 2010 and the August 24, 2010 Conference Board of  
12 Canada updated economic information. The results are shown in the Table below.



1

2

**Table 1 – Updated System Forecast**

<b>kWh</b>	<b>Table 3 and 4 before adjustment for CDM as per Application</b>	<b>%</b>	<b>Updated System Forecast<sup>1</sup> before adjustment for CDM</b>	<b>%</b>	<b>Table 7 After adjustment for CDM as per Application</b>	<b>%</b>	<b>Updated System Forecast<sup>2</sup> after adjustment for CDM</b>	<b>%</b>
2009	7,868,901		7,868,901		7,868,901		7,868,901	
2010	7,891,173	0.28	7,932,918	0.81	7,844,173	-0.31	7,913,335	0.57
2011	7,955,582	0.82	7,987,256	0.69	7,833,602	-0.13	7,865,276	-0.61
<b>kW</b>	1,402		1,402		1,402		1,402	
2010	1,426	1.66	1,454	3.71	1,414	0.86	1,449	3.35
2011	1,434	0.60	1,439	-1.03	1,400	-1.0	1,405	-3.04

3

<sup>1</sup> The 2010 System Forecast includes actual purchases to the end of July 2010 adjusted for normal weather and forecast for August to December.

<sup>2</sup> The 2010 forecast of the adjustment for CDM is 5/12ths of the original forecast.



**Interrogatory**

**Operating Revenue**

**20. C2/T1/S1**

For each of the Other Revenue categories please explain how the forecast is derived.  
Please explain how, if at all the way in which these forecasts have changed since Hydro  
Ottawa's last cost of service rate proceeding.

**Response**

The 2011 rate application separates Other Revenue into five (5) main categories:  
Specific Service Charges, Late Payment Charges, Standard Supply Service  
Administration Charge, Other Distribution Revenue and Other Income and Deductions.

The key factors which influence Other Revenue forecasting are a combination of  
historical trends, anticipated customer growth and activity, business initiatives, economic  
and industry trends and changes in service charges. Often, several factors must be  
assessed for a specific revenue category; however, the relative weightings may differ.

Following are the key factors that are considered in each category:

Other Revenue Category	Forecasting Method
Specific Service Charges	Historical trends, changes in service charge amounts, forecasted customer demand for services and changes in service offerings are factored into the forecast
Late Payment Charges	Historical trends, economic trends, customer payment behaviour and payment options are factored into the forecast
SSS Administration Charge	Historical trends and projections of retailer market share are factored into the forecast
Other Distribution Revenue	Historical trends, anticipated plant leases, anticipated service level agreements with Affiliates, third-party contracts, customer service requests and property disposals are factored into the forecast
Other Income and Deductions	Interest rate trends and projected cash balances are factored into the forecast



- 1 This forecasting methodology has not changed since Hydro Ottawa's last cost of service
- 2 rate proceeding in 2008.



**Interrogatory**

**Operating Revenue**

21. **C2/T2/S1/p.3**

Please recast Table 2 to include Board approved amounts for 2008.

**Response**

Please see the following table.

**Table 1 - 2008 Board Approved and Actual Net Revenues**

<b>Affiliate</b>	<b>Activity</b>	<b>Approved Revenue</b>	<b>Actual Revenue</b>	<b>Pricing</b>
Energy Ottawa	Facilities, Human Resources and IT Services (SLA)	\$63,007	\$127,801	IT Technical Support is market-based. IT Business Application Support is cost-based. HR Services are cost-based. Facility Services relate to property taxes at two generating stations allocated based on cost.
	Mechanical services for generating plant	Not Budgeted	\$74,001	Mechanical services for the generating plant were based on \$60/hour for regular hours and \$120/hour for overtime for the mechanic. Control room monitoring services were based on \$60/hour.
	Metering and Meter Data Services	\$100,296	\$100,128	Metering and Meter Data Services were based on market pricing.
Holding Company	Facilities, Human Resources and IT Services (SLA)	\$260,121	\$276,073	IT Technical Support is market-based. IT Network, Equipment and Business Application Support are cost-based.  HR Services, Facility furniture rentals and special projects are cost-based. Office space is based on market pricing obtained through a consultant.





<b>Affiliate</b>	<b>Activity</b>	<b>Approved Revenue</b>	<b>Actual Revenue</b>	<b>Pricing</b>
Telecom Ottawa	Facilities, Human Resources, Supply Chain and IT Services (SLA)- January to April for actuals	\$254,473	\$133,015	IT Technical Support is market-based. IT VPN and Business Application Support are cost based.  HR Services, Supply chain, Facility utilities and special projects are cost-based. Office space is leased for 5 years, based on market pricing.
	Pole Attachments and Duct Rental – January to April for actuals	\$964,457	\$283,067	For pole attachments, the Ontario Energy Board (the “Board”) approved rate of \$22.35 per pole per month is applied. For duct rental, the current price is \$6 per metre for standard duct and \$12 per meter for critical crossings.
	Mapping	\$7,000	\$0	
<b>Total</b>		<b>\$1,649,354</b>	<b>\$994,085</b>	



1 **Interrogatory**

2  
3 OM&A

4  
5 22. D1/T1/S1/p.3 - Hydro Ottawa is forecasting customer growth at 1.3%. Please  
6 explain how that forecast was derived. Please provide the forecast of suite  
7 metering customers for 2011.

8  
9 **Response**

10  
11 As shown in Table 11 of Exhibit C1-1-1, the forecasted customer growth from 2010 to  
12 2011 is 1.3%. As explained in Section 5.2 of the same Exhibit, this forecast is derived  
13 using individual regression models for each class. The models typically use one  
14 independent variable to explain the change in customer numbers. For example, the  
15 forecast of Residential customers is a function of the population forecasted for the  
16 Ottawa region and the forecast of Commercial customers is a function of total  
17 employment or non manufacturing employment in Ottawa. The customer forecast  
18 models used for each customer class are provided in the response to EP #18k.

19  
20 No suite metering customers has been included in the 2011 forecast of customer  
21 numbers, except those that carry over from the 2010 pilot project.



**Interrogatory**

**OM&A**

23. D3/T1/S1/p.1

Please recast Table 1 to include 2009-2011.

**Response**

Please see the following table.

**Table 1 – 2008-2011 OM&A**

	US of A	2008 Actual	2008 Board Approved	2009 Actual	2010 Budget	2011 Budget
<b>Operation</b>		<b>\$11,752,560</b>	<b>\$13,062,448</b>	<b>\$11,364,065</b>	<b>\$14,996,358</b>	<b>\$15,269,439</b>
Load Dispatching	5010	2,978,011	2,011,117	3,177,345	2,250,971	2,290,007
Station Buildings and Fixtures	5012	599,061	732,357	623,465	677,407	690,955
Trans. Station Equip. - Labour	5014	78,285	116,603	98,211	100,377	102,177
Trans. Station Equip. - Expenses	5015	12,480	27,448	43,680	21,471	21,804
Distribution Station Equipment - Labour	5016	251,317	243,378	269,275	325,494	330,426



	US of A	2008 Actual	2008 Board Approved	2009 Actual	2010 Budget	2011 Budget
Distribution Station Equipment - Expenses	5017	28,070	69,984	108,428	186,803	187,470
Overhead Distribution Lines and Feeders - Labour	5020	733,746	776,621	743,584	820,895	829,978
Overhead Distribution Lines and Feeders - Expenses	5025	2,016,977	2,621,470	1,668,647	2,382,482	2,430,131
Overhead Distribution Transformers - Operation	5035	9,611	1,072,084	12,295	2,090	2,131
Underground Distribution Lines - Labour	5040	544,634	356,363	806,140	778,195	787,810
Underground Distribution Lines - Expenses	5045	1,314,610	1,281,495	1,491,329	1,706,187	1,740,310
Underground Distribution Trans - Operation	5055	14,164	47,871	33,366	18,831	19,208
Meter Expense	5065	1,174,985	2,101,464	1,588,162	3,619,926	3,352,547
Miscellaneous Distribution Expense	5085	1,996,609	1,604,193	700,138	2,105,230	2,484,483
<b>Maintenance</b>		<b>\$5,183,949</b>	<b>\$5,111,153</b>	<b>\$5,171,079</b>	<b>\$6,006,658</b>	<b>\$6,086,041</b>
Maintenance of Transformer Stations Equipment	5112	93,206	116,205	336,148	342,029	344,063
Maintenance of Distribution Stations Equipment	5114	1,234,750	761,773	1,049,989	1,275,876	1,287,135
Maintenance of Poles, Towers a Fixtures	5120	207,011	75,824	300,728	345,812	348,779



	US of A	2008 Actual	2008 Board Approved	2009 Actual	2010 Budget	2011 Budget
Maintenance of Overhead Conductors and Devices	5125	954,977	861,632	738,310	744,378	754,245
Maintenance of Overhead Services	5130	430,113	301,708	502,993	786,179	801,575
Maintenance of Underground Conduit	5145	66,769	114,200	174,315	172,096	171,830
Maintenance of Underground Conductors and Devices	5150	779,433	1,263,011	713,449	723,277	732,898
Maintenance of Underground Services	5155	336,843	361,073	327,659	441,781	449,782
Maintenance of Line Transformers	5160	598,240	467,410	451,095	497,373	506,000
Maintenance of Meters	5175	482,607	788,317	576,393	677,858	689,734
<b>Billing and Collecting</b>		<b>\$10,365,089</b>	<b>\$11,716,819</b>	<b>\$10,233,636</b>	<b>\$10,579,743</b>	<b>\$10,840,730</b>
Meter Reading Expense	5310	708,787	1,000,000	497,472	285,502	291,212
Customer Billing	5315	6,384,603	6,805,651	6,454,518	6,947,188	7,073,022
Collecting	5320	1,823,584	1,911,160	1,766,044	1,844,053	1,943,436
Collections Charges	5330	14	-	(709)	-	-
Bad Debt Expenses	5335	1,448,101	2,000,008	1,516,311	1,503,000	1,533,060



	US of A	2008 Actual	2008 Board Approved	2009 Actual	2010 Budget	2011 Budget
<b>Community Relations</b>		<b>\$4,588,888</b>	<b>\$4,759,852</b>	<b>\$4,594,942</b>	<b>\$5,459,667</b>	<b>\$6,607,061</b>
Community Relations - Sundry	5410	4,388,497	4,515,270	4,470,513	5,265,624	5,905,497
Energy Conservation (GEA)	5415	-	-	-	-	501,641
Demonstration and Selling Expenses	5510	200,391	244,582	124,429	194,043	199,923
<b>Administrative and General</b>		<b>\$19,738,418</b>	<b>\$20,679,521</b>	<b>\$20,670,993</b>	<b>\$22,601,943</b>	<b>\$24,163,018</b>
Executive Salaries and Expenses	5605	2,672,170	2,537,200	2,699,842	2,348,838	2,230,022
Management Salaries and Expenses	5610	5,244,002	4,968,391	5,206,365	5,320,045	5,804,604
General Administrative Salaries and Expenses	5615	2,503,658	2,556,915	2,452,624	1,895,154	2,679,969
Office Supplies and Expenses	5620	3,439,394	3,749,097	3,356,987	3,935,367	4,061,460
Administrative Expense Transferred - Credit	5625	(4,470,835)	(3,783,390)	(2,445,112)	(2,347,722)	(1,931,338)
Outside Services Employed	5630	496,031	724,598	201,012	655,900	569,018
Insurance Expenses	5635	321,100	325,692	338,543	764,618	780,070
Injuries and Damages	5640	746,130	672,575	628,598	614,591	626,883
Employee Pensions and Benefits	5645	594,981	600,000	605,814	700,000	728,000



	US of A	2008 Actual	2008 Board Approved	2009 Actual	2010 Budget	2011 Budget
Regulatory Expenses	5655	1,116,045	1,223,250	1,127,054	1,397,800	1,419,756
General Advertising Expenses	5660	-	-	3,843	-	-
Miscellaneous General Expenses	5665	2,230,717	2,718,637	2,166,054	2,613,370	2,517,516
Maintenance of General Plant	5675	4,731,062	4,346,556	4,266,187	4,653,483	4,625,549
Charitable Contributions	6205	113,963	40,000	63,182	50,500	51,510
<b>Sub Total</b>		<b>\$51,628,904</b>	<b>\$55,329,793</b>	<b>\$52,034,715</b>	<b>\$59,644,370</b>	<b>\$62,966,289</b>
Taxes Other Than Income Taxes	6105	1,741,965	1,758,250	1,793,952	1,761,997	1,800,217
<b>Total OM&amp;A Expenses</b>		<b>\$53,370,869</b>	<b>\$57,088,043</b>	<b>\$53,828,667</b>	<b>\$61,406,367</b>	<b>\$64,766,506</b>



**Interrogatory**

**OM&A**

24. D3/T1/S1/p.1 - For each of the categories under Community Relations and Administrative and General please provide a detailed description of each activity.

**Response**

Hydro Ottawa makes every effort to follow the main categories and accounting guidelines as stated in the *Uniform System of Accounts* ("USoA") in the Board's *Accounting Procedures Handbook* ("APH") with the following qualifications.

**Community Relations**

Community Relations Sundry, account 5410 includes all employees that interface directly with external customers to provide information and/or resolve issues with respect to energy consumption and Hydro Ottawa services. This includes employees that deal with customer escalations, written inquiries and other customer contacts. The cost for Hydro Ottawa's external Call Centre is also included in this account.

Demonstration and Selling Expenses, account 5510 includes cost associated with the management of Hydro Ottawa's key accounts. Key accounts are generally large commercial customers including large retailers, hospitals, school boards and government agencies.

**Administration and General**

Administration and General includes labour and expenses that provide support functions to the other four business categories. They include functions such as human resources, finance, regulatory compliance and information technologies. Accounts 5605, 5610 and





1 5615 include salaries and expenses for employees while account 5620 is for office  
2 supplies. Account 5625, Administrative Expense Transferred includes Corporate Costs  
3 transferred from affiliates and any allocations to capital and maintenance for staff that  
4 contribute to those programs. Account 5630, Outside Services employed includes costs  
5 for services such as year-end audits, financial planning advise or any other outside  
6 service that is required from time-to-time.

7  
8 Other items included in Administrative and General are insurance and liability costs and  
9 costs for employee benefits, accounts 5635, 5640 and 5645. Expenses related to  
10 regulatory compliance which includes staff salaries for Regulatory Affairs and expenses  
11 incurred for rate applications and other regulatory requirements.

12  
13 Miscellaneous General Expenses, account 5665 covers all costs associated with  
14 warehousing, supply chain management and material procurement.

15  
16 Maintenance of General Plant, account 5675 captures costs associated with maintaining  
17 office buildings not directly used for electrical distribution.

18  
19 Charitable donations are captured in account 6205 and include contributions to  
20 charitable agencies for the purpose of matching employee donations and providing  
21 donations to various agencies for employee bereavement.



## Interrogatory

### OM&A

#### 25. D3/T1/S1/p.3

Please provide a detailed budget for Regulatory Expenses - 2008-2011. Please include all internal and external costs, and all assumptions used to derive each component of the budget. For the 2011 costs please indicate how these costs are to be recovered.

## Response

The table below shows the total costs of Hydro Ottawa's Regulatory Affairs department for the period 2007 to 2011. As noted in Exhibit D1-1-2, not all of these costs were mapped to Account 5655 Regulatory Expenses of the Uniform System of Accounts. In particular, office and compensation costs for the regulatory staff were mapped to Administration costs.

Cost Category	2007 \$	2008 \$	2009 \$	2010 \$	2011 \$
OEB annual assessment	\$658,372	\$761,852	\$857,658 <sup>1</sup>	\$941,700	\$956,716
Compensation including benefits <sup>2</sup>	602,281	641,426	645,851	650,227	676,236
Administration (travel, training, office support, telephones, etc.) <sup>3</sup>	65,011	70,773	72,881	69,691	64,194
Legal	174,772	129,774	43,863	136,100	138,000
Consulting	2,618	27,996	3,223	40,000	40,640
Other Agency Fees (e.g. ESA)	114,484	90,934	119,293	125,000	127,000
Other costs (e.g. notice publication)	7,850			5,000	5,100
Intervenor/ Proceeding Assessed Costs <sup>4</sup>	63,305	105,489	103,017	150,000	152,300
Total	\$1,688,693	\$1,828,244	\$1,845,786	\$2,117,718	\$2,160,185

<sup>1</sup> Note that in Table 3 of Exhibit D1-1-2, a transposition error from a spreadsheet to the exhibit resulted in a misstatement of the OEB Assessments for 2009. The correct number is now shown. The total costs in Table 3 were correct.

<sup>2</sup> Compensation includes an allocation from Hydro Ottawa Holding Inc related to the Chief Regulatory Officer function.

<sup>3</sup> Administration includes a corporate allocation for administrative support services.

<sup>4</sup> These include all costs assessed by the Ontario Energy Board ("the Board") including intervenor costs and other Board costs for proceedings.



1 Not included in the above table are the costs for other Hydro Ottawa staff that work on  
2 regulatory matters, such as rate applications, unless they are seconded on a full-time  
3 basis to the department. For 2011, the budget was established on the same number of  
4 staff in the regulatory department with typical annual compensation increases.

5  
6 As noted in CCC #6, Hydro Ottawa has identified the need to file cost of service  
7 applications on a more frequent basis. The frequency of rate applications must consider  
8 changes in the legislative and business environment, specific conditions within Hydro  
9 Ottawa's service area, the regulatory processes under which rates are set and the  
10 impact on internal resources.

11  
12 The decrease in legal costs in 2009 was the result of a three year period between cost of  
13 service rate applications. While the mechanism for the fourth generation of incentive  
14 regulation is not yet known, and will be a factor in the frequency of cost of service rate  
15 applications, Hydro Ottawa anticipates filing cost of service at a minimum of every other  
16 year. In years without a major rate application, it is expected that a number of studies  
17 and analyses will be completed in preparation, typically using legal and consulting  
18 support. Please see the response to EP #22 for further discussion of the smoothing of  
19 costs between 2010 and 2011.



1 **Interrogatory**

3 OM&A

4 26. D3/T1/S4/p.1

5 The 2011 budget has an amount of \$2.484 million for “Miscellaneous Distribution  
6 Expense”. What is included in this area? Please provide a detailed breakdown of this  
7 budget.

9 **Response**

11 The following description is quoted from the Ontario Energy Board’s “Accounting  
12 Procedures Handbook for Electrical Distribution Utilities – Revised July 31, 2007”

14 **“5085 Miscellaneous Distribution Expenses**

16 This account shall include the cost of labour, materials used and expenses incurred in  
17 distribution system operation not provided for elsewhere.

19 Example items

21 Labour:

- 22 1. General records of physical characteristics of lines and substations, such as
- 23 capacities, etc.
- 24 2. Ground resistance records.
- 25 3. Joint pole maps and records.
- 26 4. Distribution system voltage and load records.
- 27 5. Preparing maps and prints.
- 28 6. Service interruption and trouble records.
- 29 7. General clerical and stenographic work except that chargeable to account 5065,
- 30 Meter expenses.



1 Material and Expenses:

- 2 1. Operating records covering poles, transformers, manholes, cables, and other  
3 distribution facilities. Exclude meter records chargeable to account 5065, Meter  
4 Expenses and station records chargeable to account 5012, Station Building and  
5 Fixtures Expenses.
- 6 2. Janitorial work at distribution office buildings including snow removal, cutting grass,  
7 etc.
- 8 3. Communication service.
- 9 4. Building service expenses.
- 10 5. Miscellaneous office supplies and expenses, printing, and stationery, maps and  
11 records and first-aid supplies.
- 12 6. Research, development, and demonstration expenses.”

13  
14 Account 5085, Miscellaneous Distribution Expense is budgeted using a cost recovery  
15 method. All salaries and expenses associated with the operation of the distribution  
16 system are initially placed in account 5085. This account is subsequently reduced by  
17 allocating costs to capital work orders, maintenance work orders and work performed for  
18 outside entities. What remains in this account are expenses that were not specifically  
19 allocated. The amount of allocations are directly related to budgeted capital and  
20 maintenance expenditures as well as historical work for others expenses.

21  
22 What remains in this account are items such as the maintenance of asset records,  
23 general administrative salaries for record keeping and expenses for operational facilities  
24 such as snow removal, lawn maintenance and minor repairs.



1 **Interrogatory**

3 OM&A

5 27. D3/T1/S4/p.1

6 Please explain the significant increase in General Administrative Salaries and Expenses  
7 and Management Salaries and Expenses relative to 2010.

9 **Response**

11 General Administrative Salaries and Expenses, account 5615, is budgeted to increase  
12 by \$784,814. Of this amount, \$169,414 is a result of the addition of one new position  
13 and annual rate increases and progressions. The majority of the increase, \$567,570,  
14 was due to a reallocation of expenses from account 5605, Executive Salaries and  
15 Expenses which was budgeted for in the wrong account.

17 Management Salaries and Expenses, account 5610, is budgeted to increase by  
18 \$484,559. Of this amount, \$260,000 is a result of the addition two new positions and  
19 two salary overlaps for retiring employees. The two new positions are a Security Analyst  
20 in Information Technology and an Environment Officer in Human Resources. Annual  
21 wage increases and progressions result in an increase of \$183,000 while the remaining  
22 \$41,000 is due to annual increases in expenses.



1 **Interrogatory**

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3 OM&A

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5 28. D3/T1/S4/p.1

6 Please identify, for each year the number of vacancies, in each employee category.

7

8 **Response**

9

10 It is assumed that this question refers to Exhibit D4-1-1 as D3-1-4 does not include  
11 employee categories. Hydro Ottawa did not record the vacancies in this manner in  
12 2008, however as of December 2009 there were 23 vacancies with a breakout of 5  
13 Management, and 18 Unionized positions. Hydro Ottawa does not budget for vacancies  
14 by employee category however it does account for the cost saving due to vacancies by  
15 means of a vacancy allowance that is applied against compensation as a whole.



1 **Interrogatory**

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3 OM&A

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5 29. D4/T1/S1/p.7

6 Please explain how Hydro Ottawa forecasts annual overtime costs.

7

8 **Response**

9

10 Hydro Ottawa's annual overtime costs are budgeted based on historical data in  
11 consultation with divisional Directors and Managers. Factors that influence overtime  
12 include storm activity, project workload scheduling to minimize customer disruptions and  
13 ability to work on roadways during peak traffic hours.





1 **Interrogatory**

2

3 **OM&A**

4

5 30. D4/T1/S1 - Please provide the missing information for 2010 and 2011

6

7 **Response**

8

9 In a letter sent to the Ontario Energy Board on August 11, 2010, Hydro Ottawa Limited  
10 withdrew the request for confidentiality related to the 2010 and 2011 data in Exhibit D4-  
11 1-1 Attachment Y. At that time non-redacted copies of the Exhibit and Attachment were  
12 attached and provided to all intervenors, however for completeness the nonconfidential  
13 version of the Exhibit and Attachment are included as Attachment 1 to this interrogatory.



## **EMPLOYEE COMPENSATION BREAKDOWN**

### **1.0 HEAD COUNT**

Table 1 summarizes Hydro Ottawa Limited's ("Hydro Ottawa") head count for 2008 Board Approved, 2008 and 2009 Actual, 2010 and 2011 Budget. Head count is defined as the total number of full-time, part-time (prorated) and temporary employees working at Hydro Ottawa on December 31<sup>st</sup> of each year. Hydro Ottawa has completed Appendix 2-L, Employee Compensation Breakdown, (Attachment Y), as required by the Update to Chapter 2 of the Filing Requirements for Transmission and Distribution Applications, May 27, 2009. For the purposes of Attachment Y, Hydro Ottawa has used Full Time Equivalents ("FTE") for actuals and head count for budgets. FTE is a calculated value derived from the total hours worked each year in a group divided by the normal hours of work each year by a single employee in that group. Table 1 shows head count at year-end for all years.

Temporary employees are used to staff projects, back fill for staff seconded to projects or replace employees on leave. Including temporary employees in the count provides a better indication of resource requirements each year and therefore the numbers in Table 1 include temporary employees.

As of December 31, 2009 Hydro Ottawa's head count was 560 employees.

**Table 1 – Head Count<sup>1</sup>**

	<b>2008 Approved</b>	<b>2008 Actual</b>	<b>2009 Actual</b>	<b>2010 Budget</b>	<b>2011 Budget</b>
Executive	7	7	6	6	6
Management	94	105	104	105	109
Non-unionized	49	48	39	36	38
Unionized	420	414	411	422	439
<b>Total</b>	<b>570</b>	<b>574</b>	<b>560</b>	<b>569</b>	<b>592</b>

<sup>1</sup> Hydro Ottawa files head count numbers with the Ontario Energy Board (the "Board") as part of the reporting and record-keeping requirements on an annual basis. In these filings, Hydro Ottawa has not included temporary employees.



## 1.1 Executive

Executive staff includes the Chief Operating Officer (“COO”) and Directors. The positions currently included within the executive/senior management group are listed in Exhibit A1-7-2. No further changes are expected for 2010 and 2011.

## 1.2 Management

The Management group includes managers, supervisors and professional engineers within Hydro Ottawa. Increases in this category are due to the addition of professional engineers to support the *Green Energy Green Economy Act* (“GEA”) in the areas of renewable generation and distribution system analysis as well as providing for an overlap period for retiring managers and supervisors. The positions planned for hiring in 2010 and 2011 include:

- Manager, Human Resources - Overlap for a retiring employee.
- Supervisor, Information Systems & Technology - Overlap for a retiring employee.
- 4 Supervisors, Construction and Maintenance - Overlap for retiring employees.
- Supervisor, CIS Technical Support - Overlap for a retiring employee.
- Renewable Generation Engineer – This position will be responsible for interfacing with potential generators wanting to connect to Hydro Ottawa’s distribution grid.

## 1.3 Non-unionized Positions

Included in the non-union group is the professional staff at Hydro Ottawa including engineers-in-training, budget officers, executive assistants, et cetera.

Additional staff planned for 2010 and 2011 include:

- Distribution Engineer – These two Engineers-in-Training will be involved in analysis of the distribution system related to GEA and Smart Grid technologies.



- Environmental Officer – This employee will be directly involved in Hydro Ottawa’s Environmental Sustainability Strategy.

## **1.4 Unionized Positions**

The unionized workforce is represented by the International Brotherhood of Electrical Workers (“IBEW”). The represented employees include both tradespersons and administrative/clerical staff, sometimes referred to as “inside” and “outside” staff.

### **1.4.1 Workforce Planning**

The majority of the increase in staff is related to the demographic challenges facing Hydro Ottawa as discussed in Exhibit D1-5-1. This is described as workforce planning.

The positions planned for hiring in 2010 and 2011 include:

PLM Apprentices	14
Meter Technician Apprentices	4
Technical Specialist	2
Stations Coordinator	1
Inspector	1
Metering Field Representative	1
IT System Support	2
Customer Contact Agent	2
Customer Communications Officer	1
CIS Technical Support Analyst	1
Total	29

## **2.0 TOTAL COMPENSATION**

Table 2 summarizes the total compensation in the categories tracked by Hydro Ottawa’s financial system. As can be seen, the 2011 total compensation is \$8.2M higher than the



1 actual compensation for 2009. For 2010 and 2011, compensation increases are based  
 2 on the new positions as discussed previously, annual increases in base pay for existing  
 3 staff and increasing costs for benefits programs. Union overtime is affected by the  
 4 number and type of power outages in the year, typically affected by weather.

5

6

**Table 2 – Total Compensation<sup>1</sup>**

	<b>2008 Approved \$</b>	<b>2008 Actual \$</b>	<b>2009 Actual \$</b>	<b>2010 Budget \$</b>	<b>2011 Budget \$</b>
Executive/Management/Non-union	14,113,613	13,365,512	13,247,661	13,804,918	14,732,115
Unionized	25,717,292	24,242,591	25,879,165	28,038,153	30,184,842
Union Overtime	2,138,095	1,600,356	1,841,437	2,266,947	2,418,496
Benefits <sup>2</sup>	9,807,913	8,062,261	8,625,570	9,655,431	10,455,182
<b>Total Annual Compensation<sup>3</sup></b>	<b>\$51,776,913</b>	<b>\$47,270,720</b>	<b>\$49,593,833</b>	<b>\$53,765,449</b>	<b>\$57,790,635</b>

7

## 8 **2.1 Compensation Increase for Workforce Planning**

9

10 For 2010 and 2011, workforce planning represents \$3.0M of the total \$8.2M increase in  
 11 compensation from the 2009 actuals.

12

## 13 **2.2 Annual Increases to Base Pay**

14

15 In 2007, a new three-year collective agreement was signed with the IBEW. This  
 16 agreement included a 3% wage increase in 2007 and 3.25% for 2008 and 2009. The

<sup>1</sup> Total compensation in this table does not include staff dedicated to CDM activities, Board of Directors and students.

<sup>2</sup> Benefits include OMERS, WSIB, CPP, EI, EHT, Employee Insured Benefits plus miscellaneous benefits. Hydro Ottawa budgeted benefits also include Future Employee Benefits, Safety Clothing Equipment, and Employee Assistance Plan which do not flow directly through compensation therefore are not in actuals.

<sup>3</sup> Total Annual Compensation does not match that shown on Attachment Y as the above does not include items such as Future Employee Benefits, Safety Clothing Equipment, Employee Assistance Plan and temporary services which are included in Attachment Y.



1 agreement also included some enhancements to the benefit plan for unionized staff.  
2 Adjustments for 2011 are estimated from settlements that have occurred in Ontario, both  
3 within and outside of the industry and in the Ottawa area, and in consideration of the  
4 Ontario and Ottawa Consumer Price Index.

5  
6 The collective agreement sets out the grade progression for each new unionized  
7 employee until they reach the maximum grade for that position. In the past, these  
8 progressions have been less material because the majority of employees had already  
9 reached the maximum. However, as more apprentices are hired and the average years  
10 of service for the workforce decreases, there will be a period of time in which there will  
11 be greater wage increases related to progression up the scale.

12  
13 In total the increases to base are expected to be approximately \$1.5M in both 2010 and  
14 2011.

### 15 16 **2.3 Other Factors Affecting Compensation**

17  
18 Other factors in the total compensation for the company are overtime for unionized staff,  
19 benefits, and the incentive plan for executive, management and non-unionized staff<sup>1</sup>.

20  
21 A significant increase in benefits is budgeted for in 2010 as Hydro Ottawa's benefit  
22 providers raise rates due to increased usage by members. This increased usage is a  
23 result of the aging demographic of Hydro Ottawa's workforce.

24  
25 Executive and management staff has a portion of their compensation that is fixed and a  
26 portion that is variable based on achievement of company and individual objectives.  
27 Incentive pay currently can range from a factor of 0 to 1.5 for the variable portion of the  
28 pay, depending on performance. The forecast for 2010 and 2011 is based on a factor of  
29 1.0.

30  

---

<sup>1</sup> Non-unionized and some management staff are no longer part of the incentive plan.



### 3.0 AVERAGE ANNUAL BASE WAGE

Table 3 summarizes the average base wage by employee group for 2008 through to 2011.

**Table 3 – Average Annual Base Wage**

	<b>2008 Approved \$</b>	<b>2008 Actual \$</b>	<b>2009 Actual \$</b>	<b>2010 Budget \$</b>	<b>2011 Budget \$</b>
Executive / senior management	\$132,561	\$131,950	\$134,281	\$139,140	\$144,706
Management	82,633	92,094	92,499	94,427	97,215
Non-unionized	70,938	72,401	70,684	73,398	76,659
Unionized	59,750	62,447	64,355	65,679	67,825

The average change in base wages is affected by both the new positions included in the group and the average pay increases. For instance, the increase in the average annual base wage is affected by the number of new staff planned to be hired at entry level wages.

### 4.0 AVERAGE ANNUAL OVERTIME

Table 4 summarizes the average overtime paid per employee.



**Table 4 – Average Annual Overtime**

	<b>2008 Approved \$</b>	<b>2008 Actual \$</b>	<b>2009 Actual \$</b>	<b>2010 Budget \$</b>	<b>2011 Budget \$</b>
Unionized	\$5,209	\$5,295	\$6,605	\$5,682	\$5,828

For non-unionized and management staff, overtime is not applicable except in highly unusual and extenuating circumstances. No amounts are forecast for 2010 or 2011.

## **5.0 AVERAGE ANNUAL INCENTIVE PAY**

Table 5 summarizes the average annual incentive (variable) pay for executive, management and non-unionized staff.

**Table 5 – Average Annual Incentive Pay**

	<b>2008 Approved \$</b>	<b>2008 Actual \$</b>	<b>2009 Actual \$</b>	<b>2010 Budget \$</b>	<b>2011 Budget \$</b>
Executive / senior management	\$30,934	\$34,692	\$37,676	\$32,849	\$34,163
Management	11,481	5,970	11,757	10,789	11,221
Non-unionized	7,157	3,245	0	0	0

As noted previously, Hydro Ottawa forecasts incentive pay in 2010 and 2011 on an average performance factor of 1.0. In 2007, the company adopted a new compensation plan which moved a portion or all of the compensation from the incentive plan for non-unionized and some management employees to base wages. The transition to this new plan occurred in 2007 and 2008 resulting in the decrease shown for the incentive pay in 2008, and the full elimination in subsequent years.





## 6.0 AVERAGE ANNUAL BENEFITS

Table 6 summarizes the average annual benefit costs by employee group.

**Table 6 – Average Annual Benefits**

	<b>2008 Approved \$</b>	<b>2008 Actual \$</b>	<b>2009 Actual \$</b>	<b>2010 Budget \$</b>	<b>2011 Budget \$</b>
Executive / senior management	\$27,924	\$29,651	\$29,549	\$31,404	\$32,660
Management	19,208	17,891	18,186	20,725	21,410
Non-unionized	14,200	9,871	10,754	16,631	17,333
Unionized	13,816	12,899	14,017	15,858	16,553

## 7.0 PENSION COSTS

Pensions are provided to Hydro Ottawa employees through the Ontario Municipal Employees Retirement System (“OMERS”). Table 7 summarizes the actual and expected employer contributions to OMERS based on employee payroll.

**Table 7 – OMERS Payments**

	<b>2008 Approved \$</b>	<b>2008 Actual \$</b>	<b>2009 Actual \$</b>	<b>2010 Budget \$</b>	<b>2011 Budget \$</b>
Pension Premiums	\$2,966,832	\$2,831,191	\$2,868,790	\$3,132,871	\$3,383,373

Employer pension contributions are lower in 2009 due to the lower than expected total compensation. Pension contributions are expected to increase for 2010 and 2011 with the additional staff and actual and anticipated increases in OMERS contributions.



1    **8.0    POST RETIREMENT BENEFITS**

2

3    No material changes are expected for post-retirement benefits as summarized in Table 8  
4    that follows. Post retirement benefits are for life insurance and a small retiring allowance  
5    for eligible employees.

6

7

**Table 8 – Post Retirement Benefits**

	<b>2008 Approved \$</b>	<b>2008 Actual \$</b>	<b>2009 Actual \$</b>	<b>2010 Budget \$</b>	<b>2011 Budget \$</b>
Post Retirement Benefits	\$600,000	\$596,784	\$502,798	\$700,000	\$728,000

8



## Attachment Y - Employee Compensation Breakdown

Hydro Ottawa Limited  
EB-2010-0133  
Exhibit D4  
Tab 1  
Schedule 1  
Attachment Y  
Filed: 2010-06-14  
Page 1 of 1

	Last Rebasing Year 2008	Historical Year 2009	Bridge Year 2010	Test Year 2011
<b>Number of Employees (FTEs including Part-Time)</b>				
Executive	6	6	6	6
Management	96	101	105	109
Non-Union	39	37	36	38
Union	388	402	422	439
Total	529	547	569	592
<b>Number of Part-Time Employees</b>				
Executive	0	0	0	0
Management	1	0	1	3
Non-Union	5	3	1	1
Union	4	4	4	4
Total	10	7	6	8
<b>Total Salary and Wages (\$)</b>				
Executive	791,698	805,687	834,842	868,235
Management	8,862,186	9,370,149	9,914,843	10,596,437
Non-Union	2,787,422	2,622,382	2,642,339	2,913,032
Union	24,242,591	25,879,165	27,962,553	30,031,218
Total	36,683,897	38,677,382	41,354,577	44,408,922
<b>Total Benefits (\$)</b>				
Executive	177,908	188,093	188,421	195,958
Management	1,803,966	1,945,918	2,176,086	2,333,684
Non-Union	572,534	559,210	598,734	658,658
Union	5,507,852	5,943,148	6,692,190	7,266,882
Total	8,062,261	8,636,370	9,655,431	10,455,182
<b>Total Compensation (Salary, Wages, &amp; Benefits) (\$)</b>				
Executive	969,607	993,780	1,023,263	1,064,193
Management	10,666,152	11,316,067	12,090,929	12,930,121
Non-Union	3,359,956	3,181,592	3,241,073	3,571,690
Union	29,750,444	31,822,313	34,654,743	37,298,100
Total	44,746,158	47,313,752	51,010,008	54,864,104
<b>Compensation - Average Yearly Base Wages (\$)</b>				
Executive	131,950	134,281	139,140	144,706
Management	92,094	92,499	94,427	97,215
Non-Union	72,401	70,684	73,398	76,659
Union	62,447	64,355	65,679	67,825
Total	70,392	70,769	72,506	74,583
<b>Compensation - Average Yearly Overtime (\$)</b>				
Executive	0	0	0	0
Management	0	0	0	0
Non-Union	0	0	0	0
Union	5,295	6,605	5,682	5,828
Total	5,295	6,605	5,682	5,828
<b>Compensation - Average Yearly Incentive Pay (\$)</b>				
Executive	34,692	37,676	32,849	34,163
Management	5,970	11,757	10,789	11,221
Non-Union	3,245	0	0	0
Union	0	0	0	0
Total	6,949	17,978	16,084	16,727
<b>Compensation - Average Yearly Benefits (\$)</b>				
Executive	29,651	29,549	31,404	32,660
Management	17,891	18,186	20,725	21,410
Non-Union	9,871	10,754	16,631	17,333
Union	12,899	14,017	15,858	16,553
Total	13,619	14,620	16,969	17,661
<b>Total Compensation (\$)</b>	49,538,906	51,881,632	54,499,459	59,091,992
<b>Total Compensation Charged to OM&amp;A (\$)</b>	35,756,345	36,302,775	39,775,111	43,846,194
<b>Total Compensation Capitalized (\$)</b>	14,805,466	16,139,120	16,000,565	16,573,063



**Interrogatory**

**Deferral and Variance Accounts**

31. I1/T1/S2/p.2

Hydro Ottawa is seeking recovery of \$514,282 for Incremental IFRS costs. Please provide a detailed breakdown of these costs. Are further costs expected? If, so please indicate what those costs are and how they will be recovered.

**Response**

The following table shows the breakdown of Hydro Ottawa's actual costs for 2009 and budgeted costs for 2010.

**Table 1 - Costs for Implementation of International Financial Reporting Standards**

	<b>2009 Actual</b>	<b>2010 Budget</b>	<b>Total</b>
Accounting Consultant <sup>1</sup>	\$487,259	\$225,000	\$712,259
Compensation <sup>2</sup>	23,991	284,003	178,957
Administration <sup>3</sup>	<u>0</u>	<u>0</u>	<u>0</u>
Total operating costs	511,250	509,003	1,020,253
Interest			
Interest 2009	220		220
Forecast Interest in 2010 on 2009 Balance	0	2,812	2,812
Forecast Interest for 2010 Spending	<u>0</u>	<u>9,648</u>	<u>9,648</u>
Total Interest	220	12,460	12,679
<b>Total</b>	<b>\$511,470</b>	<b>\$521,463</b>	<b>\$1,032,932</b>

<sup>1</sup> Ernst and Young

<sup>2</sup> Includes only incremental staff time.

<sup>3</sup> Hydro Ottawa did not include any non-compensation administrative costs in the 2010 budget but note that as of the end of June 2010, \$3,125 had been spent and recorded in the IFRS deferral account for travel in relation to IFRS. Some additional amounts may be spent by year-end.



1 The Canadian Accounting Standards Board (“AcSB”) has issued an exposure draft that  
2 would provide a two year extension on the implementation of IFRS. For this reason, it is  
3 expected that the IFRS implementation date will not be January 1, 2011 as planned.  
4 Therefore, Hydro Ottawa may experience further costs in 2011 and 2012. To the extent  
5 that any additional costs are incremental to the cost of service reflected in rates, Hydro  
6 Ottawa would anticipate continuing to record these costs in Account 1508. Recovery of  
7 these costs would be in accordance with the Report of the Board on Electricity  
8 Distributors’ Deferral and Variance Account Review Initiative (“EDDVAR Report”). As  
9 part of this application, Hydro Ottawa is seeking recovery for the 2009 audited balance in  
10 Account 1508 of \$511,470 plus interest to December 31, 2010 of \$2,812, for a total of  
11 \$514,282

12  
13 Hydro Ottawa notes that it has only included incremental staff costs in the deferral  
14 account. Hydro Ottawa has undertaken a major project with extensive involvement from  
15 numerous staff from Hydro Ottawa’s finance, regulatory, procurement and asset  
16 departments. This time has only been included where the position was new or  
17 incremental specifically for the purposes of the IFRS project.

18  
19 In order to implement IFRS, Hydro Ottawa will implement a new version of its  
20 JDEdwards financial system. The capital costs of this upgrade have not been included  
21 in Account 1508.



## Interrogatory

### Smart Meters

#### 32. I1/T1/S1

Please provide HON's actual cost per residential customer for its entire smart meter program. Please include both capital and OM&A costs. In addition, please indicate what the expected cost is to be once the entire program has been rolled out.

## Response

Table 1 below provides a summary of the costs of Hydro Ottawa's Smart Meter program.

**Table 1 – Capital and OM&A Smart Meter Costs**

	<b>Total as at Dec 31, 2009</b>	<b>2010 Budget</b>	<b>Total as at Dec 31, 2010</b>
<b>Residential and General Service &lt; 50 kW</b>			
<u>Capital</u>			
Residential	\$37,931,565	\$1,128,682	\$39,060,247
General Service < 50 kW	6,826,741	745,915	7,572,656
Collectors	1,026,569	399,518	1,426,087
Work Force Management	847,709		847,709
MDM/R Integration	<u>1,554,645</u>	<u>2,155,615</u>	<u>3,710,260</u>
Total Capital	48,187,229	4,429,729	52,616,959
<u>OM&amp;A</u>	<u>2,448,532</u>	<u>2,845,707</u>	<u>5,294,239</u>
<b>Total Capital &amp; OM&amp;A</b>	<b>50,635,762</b>	<b>7,275,437</b>	<b>57,911,198</b>
<u># of Customers</u>			
Residential	269,288		273,892
G.S. < 50kW	<u>23,338</u>		<u>23,504</u>
Total # of Customers	292,626		297,396
<b>Total Cost Capital &amp; OM&amp;A per Customer</b>	<b><u>173</u></b>		<b><u>195</u></b>
<b>Demand Customers</b>			
Capital Additions	1,310,732	445,783	1,756,515
# customers	2,682		<u>3,339</u>
Cost per Demand Customer	<u>489</u>		<u>526</u>



1 While Hydro Ottawa has tracked the capital expenditures for the deployment of Smart  
2 Meters segregated between the residential and general service < 50 kW classes, none  
3 of the other common costs of the project are by class of customer. For this reason,  
4 Hydro Ottawa has provided the total capital and operations, maintenance and  
5 administration (“OM&A”) costs for the residential and general service < 50 kW classes  
6 combined. Costs related to demand customers, which are not settled through the  
7 provincial meter data management and repository (“MDM/R”), are shown separately.

8  
9 By the end of 2010, Hydro Ottawa expects to have finalized all of the known major  
10 elements for the Smart Meter program. The first customers moved to time of use  
11 (“TOU”) rates in the Spring of 2010 and, with the current planned schedule, all  
12 customers will be on TOU rates by June 2011. It should be noted that the Ontario  
13 Energy Board has recently established mandatory dates for TOU rates, and for Hydro  
14 Ottawa this is June 2011. So the program must be complete by then or be in non-  
15 compliance.

16  
17 In the Fall of 2010, Hydro Ottawa will begin to transfer the responsibility for the Smart  
18 Meter program and the implementation of TOU rates to the operational departments, and  
19 the existing project team will be disbanded. Therefore, Table 1 above provides the total  
20 costs for Hydro Ottawa’s Smart Meter project. Any costs in 2011 and beyond are  
21 considered part of ongoing operations for metering and billing.

22  
23 There are two items not included in the above table. The first are any costs related to  
24 solutions that may need to be implemented to ensure the compliance of the provincial  
25 meter data management and repository (“MDM/R”) with Measurement Canada  
26 requirements. Hydro Ottawa anticipates that this solution will be predominately  
27 addressed at the provincial level, but there may be requirements to reconfigure aspects  
28 of the company’s customer information system (“CIS”). This has not been included  
29 because the provincial solution is still in development, so any costs are not yet known.  
30 Second are the costs associated with the latest requirement of the Independent  
31 Electricity System Operator to frame all metering data in midnight to midnight blocks.



- 1 This latest request is a fundamental change to Hydro Ottawa's designed solution and will
- 2 require further investments to be compliant with the new requirements. Hydro Ottawa's
- 3 technical team is evaluating the solution with the expectation that any necessary
- 4 changes will be complete by the year end 2010.





## Interrogatory

### Smart Meters

33. I2/T1/S1/p.7 - For each of the OM&A categories on Table 4 please provide a detailed description of each component and a detailed budget for each component for 2009 and 2010.

## Response

Table 1 below shows a more detailed breakdown of the OM&A costs for 2009 and 2010 for the Smart Meter program.

**Table 1 – Smart Meter OM&A Costs 2009 and 2010**

Category	2009 Actual	2010 Budget
Labour and benefits (O&M)	\$251,255	\$732,686
Outside Services (O&M)		
Work on customer equipment	82,454	100,000
Consulting for MDM/R Integration	111,000	
Communications to gain access to inside meters		30,000
Incremental call centre costs due to roll-out of TOU		250,000
Training / Change Management Cost (Administration)	97,127	461,000
Miscellaneous Administration (Administration)		
Paper and Printing for TOU (Welcome Packages)	36,748	50,000
Travel	6,293	4,375
Miscellaneous	2,649	840
Telephony / Data Communications (O&M)	356,565	410,000
Customer Communications (Administration)	4,893	214,000
IT maintenance contracts/software (Administration)	180,787	592,806
<b>Total</b>	<b>\$ 1,129,772</b>	<b>\$2,845,707</b>

### Labour and Benefits

Labour costs were incurred for the incremental meter deployment costs and the development, testing and implementation of the time-of-use ("TOU") / MDM/R systems



1 and interfaces. For 2009, as most systems were still under development, a significant  
2 portion of the labour cost was allocated to capital. For 2010, as most systems were  
3 migrated from development into production in early 2010, almost all of the labour costs  
4 remain within OM&A. Only incremental labour costs (positions back filled) were charged  
5 to the Smart Meter program.

6  
7 Outside Services

8 Hydro Ottawa records the cost of repairs to customer equipment resulting from the  
9 installation of Smart Meters as part of the Outside Services cost category because the  
10 work is completed by outside contractors. Hydro Ottawa budgeted the costs for 2010  
11 based on typical spending in the prior years. Actual experience is trending a little lower in  
12 2010 because the mass deployment of meters is 99% complete and this is reflected in  
13 the costs recorded in the Smart Meter variance accounts. The Outside Services category  
14 also includes the costs of an external consultant hired to work on the integration of  
15 Hydro Ottawa's systems to the MDM/R in 2009. For 2010, Hydro Ottawa has budgeted  
16 for targeted communications to gain access to residential inside meters.

17  
18 Hydro Ottawa has outsourced its call centre function to IBM. The cost of this service is  
19 affected by the volume of activity. Hydro Ottawa anticipates a significant increase in call  
20 volumes as TOU is rolled out to customers, and the 2010 budget has been adjusted  
21 accordingly.

22  
23 Training / Change Management

24 Early in 2010, Hydro Ottawa formed a change management team to manage the  
25 significant business changes associated with the transition to TOU. This dedicated team  
26 focused on validating and documenting all business process changes, evaluated  
27 business impacts and skill gaps, developed extensive training material and delivered  
28 training to over 200 employees. Also included in the change management program is  
29 internal communications, including the development of communication material to assist  
30 field staff when questioned by customers about Smart Meters and TOU. The team led



1 regular stakeholder meetings to communicate progress and keep the various operational  
2 areas informed and engaged in the TOU initiative.

3  
4 Miscellaneous Administration

5 While there are modest administrative costs for the Hydro Ottawa staff working on the  
6 project, the most significant component of this cost category was the production of the  
7 welcome packages that are sent to all customers in advance of moving to TOU rates.

8  
9 Telephony / Data Communications

10 Most of the telephony costs are related to charges from Bell Canada for dedicated land  
11 lines to interrogate Hydro Ottawa's data collectors. Some of the costs are associated  
12 with wireless technology and it is Hydro Ottawa's intent to migrate the majority of the  
13 collectors from land based technology to wireless in late 2010 or early 2011.

14  
15 Customer Communications

16 Originally, Hydro Ottawa's communication budget was relatively modest, but it was  
17 subsequently realized that an enhanced communications program would be required to  
18 inform and engage customers and stakeholders on the changes. Hydro Ottawa has  
19 since prepared and is implementing a comprehensive communications plan for  
20 customers and stakeholders in 2010. This is a critical component of the success of the  
21 program and includes advertisements in local newspapers and presentations to  
22 community associations, business groups, seniors groups, etc. Also included in the  
23 communications initiative is a series of TOU articles in customer newsletters,  
24 enhancements to Hydro Ottawa's web site, a TOU video and welcome packages to be  
25 sent out to all eligible customers as they first migrate on to the TOU transition path.

26  
27 IT Maintenance contracts / Software

28 To implement TOU rates, Hydro Ottawa needed to make significant changes to systems,  
29 notably the customer information system ("CIS"), the Lodestar wholesale and retail  
30 settlement system and the Elster Metering Automation Server ("MAS") system. The  
31 changes increased the functionality and the complexity of the systems to be supported.



- 1 As a result, there are incremental on-going support costs for the support of the CIS by
- 2 IBM, and support of Lodestar by Oracle and MAS by Elster.
- 3
- 4 Furthermore, since the TOU systems are all “mission critical” to cash flow and customer
- 5 service outcomes, Hydro Ottawa is incurring incremental ongoing costs associated with
- 6 implementing business continuity, system redundancy and disaster recovery strategies
- 7 for the failure of any system or sub system associated with the TOU components.



## Interrogatory

### Smart Meters

34. I2/T1/S1/p.3

HON is seeking recovery of \$2.073 million in capital additions for integration to the provincial MDM/R that occurred in prior years. Please explain the nature of these expenditures and a further breakdown of the cost components.

## Response

Table 1 below shows the total capital expenditures recorded in the project related to the development costs for Hydro Ottawa's systems for the Smart Meter/Time of Use project.

**Table 1 – Capital Expenditures for Systems Costs**

Capital Expenditure Category	2007	2008	2009	2010 Budget	Total
Labour	82,543	-	171,592	-	254,135
Material	261,831	168,070	194,631	-	624,532
Computer Hardware	49,250	4,718	142,259	-	196,227
Computer Software	212,581	163,352	52,372	-	428,305
Outside Services	812,344	587,149	864,722	-	2,264,215
Burdens	<u>119,725</u>	<u>67,410</u>	<u>119,318</u>		<u>306,453</u>
<b>Total Capital Expenditures</b>	<b><u>\$1,276,443</u></b>	<b><u>\$822,629</u></b>	<b><u>\$1,350,263</u></b>	<b><u>\$ -</u></b>	<b><u>\$3,449,335</u></b>
Transfer to Fixed Assets	\$426,273	\$948,450		\$2,073,489	\$3,448,212
Contributed Capital <sup>1</sup>	1,123				\$1,123
Remaining Balance to Capitalize	\$849,047	\$723,226	\$2,073,489	\$ -	

<sup>1</sup> This is a small contribution from the Independent Electricity System Operation to recover certain software costs.



1 This includes costs to upgrade the Customer Information System (“CIS”) to be ready for  
2 time of use rates, work on Hydro Ottawa’s Advanced Metering Infrastructure  
3 management tool (“AMI MT”) that converts metering data to the format required by the  
4 provincial meter data management and repository (“MDM/R”), an operational data  
5 integrator (“ODI”) for managing all of the meter readings and a storage area network  
6 (“SAN”) for data storage and transport.

7  
8 At the end of each year, Hydro Ottawa assesses the nature of the capital expenditures  
9 to determine if the costs will remain in construction in progress (“CIP”) or be transferred  
10 to fixed assets. The main factor in determining when system expenditures are capitalized  
11 is their operational readiness, i.e. the extent to which the systems have been migrated  
12 and released into production. In 2007, Hydro Ottawa transferred the costs related to the  
13 Elster MAS system to fixed assets. At the end of 2008, it was determined that two thirds  
14 of the capital costs incurred to date were related to development work and systems that  
15 were in production. Accordingly, 67% of the overall project expenditures were  
16 capitalized at that time. At the end of 2009, it was assessed that the remaining portion  
17 of the project could not be capitalized because the system was still in testing mode i.e.  
18 not yet operational.

19  
20 In 2010, Hydro Ottawa completed the final integration of systems with the provincial  
21 MDM/R and therefore capitalized the remaining portion of the project of \$2,073,489. This  
22 results in capital additions in 2010 resulting from capital expenditures in prior years.



1 **Interrogatory**

2  
3 Suite Meters

4  
5 35. I2/T1/S1

6 Please describe Hydro Ottawa's plans regarding suite metering for 2010 and 2011.

7 Please provide all costs and explain how those costs are to be recovered.

8  
9 **Response**

10  
11 Hydro Ottawa recognizes that there can be significant conservation benefits when each  
12 unit within a multi-unit residential building has its own metering and occupants are  
13 responsible for their own energy consumption. As a result, Hydro Ottawa has developed  
14 a pilot project for offering suite metering for new construction and, with certain  
15 conditions, on a retrofit basis.

16  
17 Upon issuing a competitive tender, Hydro Ottawa selected Triacta in 2009 as its vendor  
18 for suite metering technology. While Hydro Ottawa wanted to begin the roll out of the  
19 program as soon as possible, it was recognized that resources to work on the project  
20 were limited within the company as a result of the Smart Meter /Time of Use projects that  
21 involve the same metering and billing resources. For this reason, Hydro Ottawa entered  
22 into a service level agreement with Energy Ottawa to provide vendor, customer and  
23 project management services for the company during this pilot phase.

24  
25 For 2010, recognizing all of the other company priorities and to allow an opportunity to  
26 assess results, Hydro Ottawa adopted a modest deployment target of 500 units<sup>1</sup>. Hydro  
27 Ottawa has been in discussion with potential condo boards and although there a no  
28 formal commitments to proceed yet, discussions are on-going so that Hydro Ottawa is  
29 expecting to be on target, or slightly below target, by year-end.

30  

---

<sup>1</sup> Initially forecasts were for 750 units, but the target was subsequently reduced.



1 The target market for this offering is primarily condominium associations, developers and  
2 community housing boards. Existing apartment buildings will also be considered if they  
3 are undergoing a major retrofit and, as a result, have no existing tenants.

4  
5 Hydro Ottawa has estimated that its costs per meter will be approximately \$500, but this  
6 will vary from location to location. Hydro Ottawa assesses each location on a case by  
7 case basis to determine if it is an appropriate candidate for conversion to suite metering.  
8 Locations that are cost prohibitive would not be eligible for conversion, unless the  
9 customer is willing to pay the additional amount.

10  
11 Hydro Ottawa has not included any costs for the suite metering program in 2011. The  
12 results from the program in 2010 will be evaluated before determining the plans for any  
13 program in subsequent years. If Hydro Ottawa does determine that it will continue the  
14 program in 2011, any costs will be borne by the company.





1 **Interrogatory**

2  
3 Green Energy Plan

4  
5 36. B1/T2/S3 - Please describe, in detail, the relief Hydro Ottawa is seeking with  
6 respect to its Green Energy Plan. What does Hydro Ottawa see as its obligations  
7 arising out of the OEB's filing guidelines?

8  
9 **Response**

10  
11 Hydro Ottawa is seeking approval from the Ontario Energy Board that the Green Energy  
12 Act Basic Plan filed with this application meets the requirements under the deemed  
13 licence condition provided for in paragraph 2 of section 70(2.1) of the *Ontario Energy*  
14 *Board Act, 1998*. In addition, Hydro Ottawa is seeking an Order approving proposed  
15 rates for the 2011 rate year which are based on a revenue requirement that includes the  
16 operating expenses, the return on capital, amortization and PILs for the 2011 projects  
17 outlined in the Green Energy Basic Plan.

18  
19 Hydro Ottawa sees its obligations under the Ontario Energy Board Filing Requirements:  
20 Distribution System Plans – Filing under Deemed Conditions of Licence (EB-2009-0397)  
21 (the “Filing Guidelines”) issued March 25, 2009 as follows:

- 22  
23 • the obligation to file a distribution system plan pertaining to the connection of  
24 renewable generation facilities, in the manner and time prescribed in the filing  
25 guidelines.



1 **Interrogatory**

2  
3 Green Energy Plan

4  
5 37. B1/T2/S3/p.1,12

6 The evidence states that Hydro Ottawa has included systemic work that will be required  
7 to ensure the interconnection of renewable generation and other distributed resources  
8 that do not increase risks or constraints on the system. In addition, Hydro Ottawa has  
9 identified a range of projects that it believes should be undertaken in anticipation of the  
10 interconnection requests to ensure that it is able to respond to requests in a timely and  
11 cost efficient manner. What evidence does Hydro Ottawa have regarding actual  
12 renewable projects that will be developed in its service area?

13  
14 **Response**

15  
16 Evidence regarding renewable generation projects that will be developed in Hydro  
17 Ottawa Limited's ("Hydro Ottawa") service territory includes the filing of contracts for the  
18 Feed in Tariff ("FIT") with the Ontario Power Authority ("OPA"). Each project that has  
19 filed for a contract within Hydro Ottawa's service territory is listed on the OPA's FAME  
20 database. The database provides detailed project information for all applicants within  
21 the Hydro Ottawa service territory who file for a FIT contract as well as the current  
22 project status of each potential generator. Please see Attachment 1, which lists the  
23 applications currently filed with the OPA for development within the Hydro Ottawa  
24 service territory.

25  
26 Approximately 13 of the attached applications are currently undergoing a Connection  
27 Impact Assessment ("CIA") with Hydro Ottawa. If the CIA does not raise any large  
28 issues, Hydro Ottawa is confident that the projects will continue with construction and  
29 connection to the distribution system.



# Attachment 1

Hydro Ottawa Limited  
EB-2010-0133  
Filed: 2010-09-09  
Tab B – CCC Interrogatory Responses  
Interrogatory #37  
Attachment 1  
Page 1 of 2

Number	Connection Point	OPA Application Status	Application Region	Project Source	Nameplate Capacity	Proj Cap Alloc Exempt	Single Phase or Triple Phase (Dx)	Connection Feeder (Dx)	Connection Voltage (Dx)	Dx expansion required for economic connection (Dx)	Connected to Feeder or TS (Dx)
1	SLATER TS	APPROVED-FAIL	East	projwater	5600	n	iesodxldcgenerathree		13.2	n	iesodxtx
2	HINCHEY TS	APPROVED-FAIL	East	projwater	5600	n	iesodxldcgenerathree		13.2	n	iesodxtx
3	SLATER TS	APPROVED-FAIL	East	projwater	5600	n	iesodxldcgenerathree		13.2	n	iesodxtx
4	SLATER TS	APPROVED-FAIL	East	projwater	5600	n	iesodxldcgenerathree		13.2	n	iesodxtx
5	LISGAR TS	APPROVED-FAIL	East	projwater	5600	n	iesodxldcgenerathree		13.2	n	iesodxtx
6	LIMEBANK MTS	APPROVED-FAIL	East	projsolarpvgroundmo	10000	n	iesodxldcgenerathree	Limebank MS - 7F2 Feeder	27.6	n	iesodxfeeder
7	NEPEAN TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	250	y	iesodxldcgenerathree		8.32	n	iesodxtx
8	ALBION TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	250	y	iesodxldcgenerathree		13.2	n	iesodxtx
9	OVERBROOK TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	250	y	iesodxldcgenerathree		4.16	n	iesodxtx
10	CARLING TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	100	y	iesodxldcgenerathree		13.2	n	iesodxtx
11	CARLING TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	100	y	iesodxldcgenerathree	301/tm11	13.2	n	iesodxfeeder
12	KANATA MTS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	500	y	iesodxldcgenerathree	624f1	27.6	n	iesodxfeeder
13	RUSSELL TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	250	y	iesodxldcgenerathree	TB07	13.2	n	iesodxfeeder
14	OVERBROOK TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	100	y	iesodxldcgenerathree	SOT3	4.16	n	iesodxfeeder
15	UPLANDS MTS #2	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	100	y	iesodxldcgenerathree	Q4801F8	27.6	n	iesodxfeeder
16	ST. ISIDORE TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	82	y	iesoxldcgeneratorsingle	V11F1	8.32 kV	n	iesodxfeeder
17	BRIDLEWOOD MTS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	250	y					
18	HAWTHORNE TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	249	y					
19	ST. ISIDORE TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	53	y					
20	ST. ISIDORE TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	200	y	iesodxldcgenerathree	62M2	8.34 kV	n	iesodxfeeder
21	OVERBROOK TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	250	y	iesodxldcgenerathree	1808	13.2 kV	n	iesodxfeeder
22	ALBION TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	25	y	iesodxldcgenerathree	TA2AF	4.16 kV	n	iesodxfeeder
23	NEPEAN TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	250	y	iesodxldcgenerathree	180F6	8.32 kV	n	iesodxfeeder
24	NEPEAN TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	235	y	iesodxldcgenerathree	200F1	8.32 kV	n	iesodxfeeder
25	FALLOWFIELD DS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	250	y	iesodxldcgenerathree	606F1	27.6 kV	n	iesodxfeeder
26	KANATA MTS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	250	y	iesodxldcgenerathree	624F1	27.6 kV	n	iesodxfeeder
27	SOUTH MARCH TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	250	y	iesodxldcgenerathree	ALEXF3	27.6 kV	n	iesodxfeeder
28	KANATA MTS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	250	y	iesodxldcgenerathree	624F5	27.6 kV	n	iesodxfeeder
29	HAWTHORNE TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	50	y	iesodxldcgenerathree	3F4	8.32	n	iesodxfeeder
30	ALBION TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	50	y	iesodxldcgenerathree	2206	13.2	n	iesodxfeeder
31	OVERBROOK TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	50	y	iesodxldcgenerathree	TO3UT	13.2	n	iesodxfeeder
32	ALBION TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	10	y	iesodxldcgenerathree	TA1JP	13.2	n	iesodxfeeder
33	ALBION TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	100	y	iesodxldcgenerathree	2206	13.2	n	iesodxfeeder
34	ALBION TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	75	y	iesodxldcgenerathree	2206	13.2	n	iesodxfeeder
35	ALBION TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	90	y	iesodxldcgenerathree	2206	13.2	n	iesodxfeeder
36	RUSSELL TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	25	y	iesodxldcgenerathree	5309	13.2	n	iesodxfeeder
37	HAWTHORNE TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	50	y	iesodxldcgenerathree	3F4	8.32	n	iesodxfeeder
38	HAWTHORNE TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	50	y	iesodxldcgenerathree	130F2	8.32	n	iesodxfeeder
39	HAWTHORNE TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	25	y	iesodxldcgenerathree	130F2	8.32	n	iesodxfeeder
40	NEPEAN TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	75	y	iesodxldcgenerathree	180F3	8.32	n	iesodxfeeder
41	NEPEAN TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	75	y	iesodxldcgenerathree	180F3	8.32	n	iesodxfeeder
42	HAWTHORNE TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	100	y	iesodxldcgenerathree	130F2	8.32	n	iesodxfeeder
43	HAWTHORNE TS	CAPACITY-EXEMPT-ALLOCATED	East	projsolarpvrooftop	100	y	iesodxldcgenerathree	130F2	8.32	n	iesodxfeeder
44	BRIDLEWOOD MTS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	250	y	iesodxldcgenerathree	OCR-TF1	27.6	n	iesodxfeeder
45	HAWTHORNE TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	125	y					
46	RUSSELL TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	124	y	iesodxldcgenerathree	TB14	13.2	n	iesodxfeeder
47	NEPEAN TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	100	y	iesodxldcgenerathree	200F2	8.32	n	iesodxfeeder
48	WILHAVEN DS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	100	y					
49	FALLOWFIELD DS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	300	y	iesodxldcgenerathree	606F1	27.6	n	iesodxfeeder



# Attachment 1

Hydro Ottawa Limited  
EB-2010-0133  
Filed: 2010-09-09  
Tab B – CCC Interrogatory Responses  
Interrogatory #37  
Attachment 1  
Page 2 of 2

Number	Connection Point	OPA Application Status	Application Region	Project Source	Nameplate Capacity	Proj Cap Alloc Exempt	Single Phase or Triple Phase (Dx)	Connection Feeder (Dx)	Connection Voltage (Dx)	Dx expansion required for economic connection (Dx)	Connected to Feeder or TS (Dx)
50	KING EDWARD TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	135	y					
51	WILHAVEN DS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	70	y					
52	WILSON TS DESN 2	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	100	y					
53	OVERBROOK TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	75	y					
54	MOULTON MTS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	450	y	iesodxldcgenerathree	8F3	27.6	n	iesodxfeeder
55	NEPEAN TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	135	y					
56	CARLING TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	40	y	iesodxldcgenerathree	UC03	4.16	n	iesodxfeeder
57	HAWTHORNE TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	141	y	iesodxldcgenerathree	6F1	8.3	n	iesodxfeeder
58	BILBERRY CREEK TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	70	y					
59	NEPEAN TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	85	y					
60	KANATA MTS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	250	y	iesodxldcgenerathree	624F2	27.6	n	iesodxfeeder
61	ALBION TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	250	y	iesodxldcgenerathree	TA1AQ	13.8	n	iesodxfeeder
62	OVERBROOK TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	100	y					
63	HAWTHORNE TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	210	y	iesodxldcgenerathree	48M4	44	n	iesodxfeeder
64	RIVERDALE TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	250	y	iesodxldcgenerathree	TR02UQ	13.2	n	iesodxfeeder
65	MARCHWOOD MTS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	65	y					
66	RUSSELL TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	250	y	iesodxldcgenerathree	5306	13.2	n	iesodxfeeder
67	UPLANDS MTS #2	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	65	y					
68	NEPEAN TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	250	y	iesodxldcgenerathree		8.32	n	iesodxtx
69	LIMEBANK MTS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	70	y					
70	BILBERRY CREEK TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	500	y					
71	FALLOWFIELD DS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	250	y					
72	WOODROFFE TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	60	y					
73	KANATA MTS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	400	y	iesodxldcgenerathree	624F1	27.6	n	iesodxfeeder
74	SOUTH MARCH TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	135	y					
75	HINCHEY TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	135	y					
76	NAVAN DS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	250	y					
77	ST. ISIDORE TS	CAPACITY-EXEMPT-APPROVED	East	projsolarpvrooftop	110	y					
78	FALLOWFIELD DS	CAPACITY-EXEMPT-APPROVED	East	projbiogas	500	y	iesodxldcgenerathree	606F1	27.6	n	iesodxfeeder
79	ALBION TS	TAT-IN-PROGRESS	East	projsolarpvrooftop	500	n	iesodxldcgenerathree		13.2	n	iesodxtx
80	LIMEBANK MTS	TAT-IN-PROGRESS	East	projsolarpvrooftop	4000	n	iesodxldcgenerathree	7F2	27.6	n	iesodxfeeder



1 **Interrogatory**

2  
3 Green Energy Plan

4  
5 38. B1/T2/S3/p.2

6 Hydro Ottawa states that with respect to the Goulbourn Expansion it is confident that if  
7 the line were constructed a number of renewable projects would begin moving forward.  
8 What if the projects do not materialize? Please provide any economic feasibility  
9 studies/business cases prepared for this expansion. Wouldn't it be more appropriate to  
10 wait for these projects to be confirmed before embarking on the project?

11  
12 **Response**

13  
14 The expansion of the 44 kV to Goulbourn serves dual purposes; one is to motivate  
15 potential generators to move forward with their project, which may not have previously  
16 happened due to high connection charges associated with grid upgrades, and two is to  
17 improve the operability and reliability of the system. If the potential generators do not  
18 proceed with development, Hydro Ottawa Limited ("Hydro Ottawa") anticipates that the  
19 increase to system performance brought about by extending the system would be  
20 beneficial to enabling future distributed generation onto the Hydro Ottawa distribution  
21 system.

22  
23 Under the directive of the Ontario Energy Board (the "Board") and the Green Energy and  
24 Green Economy Act ("GEA"), local distribution companies are required to accommodate  
25 the connection of renewable energy generation facilities through investment for  
26 development, expansion, and reinforcement of the distribution system. By actively  
27 investing in system development to accommodate renewable distributed generation and  
28 increase system operability and reliability, Hydro Ottawa believes that it is providing a  
29 strong business case that is in line with the Board's directive and guideline.



**Interrogatory**

Green Energy Plan

39. B1/T2/S3/p.12

Hydro Ottawa indicates that it has received the application for 42 FIT projects through the OPA totalling 64.6MW. Please explain what this means. What is the status of these projects? Have the developers signed actual contracts with the OPA? Are these projects definitely going ahead? Have any of them been impacted by the new pricing schedule announced by the Minister on July 2?

**Response**

The previous reported number of 42 FIT projects through the Ontario Power Authority (“OPA”) totalling 64.6 MW now stands at 80 projects. What this means is that these projects have filed for a contract with the OPA to install distributed generation within Hydro Ottawa Limited’s service area. Project details are further expanded upon in the Attachment 1 to CCC #37.

The total output of the distributed generation was estimated using the nameplate capacity of each potential distributed generator. Current status of potential projects is also given in the Attachment 1 to CCC #37 and summarized in Table 1.

**Table 1 – Project Status**

Status	Number
CAE – Approved	35
Approved – Fail	6
CAE – Allocated	37
TAT – In Progress	2
CAE Approved Undergoing CIA	13

CAE (“Capacity Allocation Exempt”)

TAT (“Transmission Availability Test”)

CIA (“Connection Impact Assessment”)



1 Projects that are not CAE and all projects filed after the initial OPA contract offering are  
2 currently on hold due to technical issues associated with Hydro One Networks Inc.  
3 (“HONI”). Approximately 46 out of 80 projects filed with the OPA are on hold. Those  
4 CAE projects filed within the original call for contracts by the OPA have been approved  
5 and can now apply for an impact assessment if they wish to move forward. Until a  
6 resolution for the HONI technical issue can be achieved between HONI, Hydro Ottawa,  
7 the Ontario Energy Board and the OPA, any new FIT projects will be placed in the queue  
8 and will not progress.

9  
10 The majority of projects in Hydro Ottawa service territory are roof mounted solar PV and  
11 therefore have not been impacted by the new pricing schedule announced by the  
12 Minister on July 2<sup>nd</sup>, 2010.



1 **Interrogatory**

2

3 Green Energy Plan

4 40. B1/T2/S3/p.13 - What is the impact on the 2011 revenue requirement of the  
5 Goulbourn project?

6

7 **Response**

8

9 Exhibit B4-4-3 Table 1 shows that the in-service date for the Goulbourn line extension is  
10 2012. As a result, the 2011 related capital expenditure will be in construction work in  
11 progress at the end of 2011 and therefore will have no impact on the 2011 revenue  
12 requirement.





1 **Interrogatory**

2  
3 Green Energy Plan

4  
5 41. B1/T2/S3/p.15

6 Please provide an economic feasibility study/business case for the Protective Relay  
7 Upgrades Project. What is the impact of the project on the 2011 revenue  
8 requirement?

9  
10 **Response**

11  
12 The following is the requested business case for the Protective Relay Upgrades Project:

13  
14 **Business Need:**

15 A system upgrade necessary for the penetration of renewable distributed generation  
16 (“DG”) is the replacement of uni-directional relays. With the addition of DG onto Hydro  
17 Ottawa Limited’s distribution system, station and line protection needs to be upgraded in  
18 order to protect essential stations and line assets. Breaker relay protection must be able  
19 to differentiate between faults occurring upstream from the station and downstream on  
20 the feeder. This bi-direction function is necessary as current transformers will only see  
21 the net difference between fault current at the stations breakers.

22  
23 **Drivers for Change:**

24 Reliability - Large amounts of renewable DG may bring increased reliability to certain  
25 areas in the distribution system, through the implementation of micro-grids. Bi-  
26 directional relays are essential to increasing reliability through a growing penetration of  
27 renewable DG.

28  
29 Resources - As fault current is fed back into the stations, bi-directional relays are  
30 necessary to differentiate between faults upstream, downstream and to sectionalize  
31 feeders on the same bus.



Technology - Electro-mechanical relays currently in service are unable to meet the requirements of DG and the required protection. They will need replacement and upgrades to bi-directional microprocessor relays.

Directive - As a directive in the Green Energy and Green Economy Act (GEA), a main driver behind the relay replacements, LDC's will accommodate the connection of renewable energy generation facilities through investment for development, expansion, and reinforcement of the distribution system.

**Requirement:**

Through site visits the physical location of relay protection, and availability for further space at the station, can be assessed. Using site visits and asset planning a recommended plan forward will be developed, based on one, or a combination of the alternatives listed in Table 1.

**Table 1 – Implementation Alternatives**

Requirement	Core	Desirable	Optional
Replace Relay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Replace Relay & Breaker	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Replace Relay & Breaker with Switchgear, P&C	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Replace Secondary	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Replace Station	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

In order to fully address the business need it can be seen that relay replacement is the core requirement to addressing bi-directional relay replacements.

**Economics:**

Using recommended alternatives based on Hydro Ottawa's stations projected to see the highest influx of distributed generation, approximately \$2.68 million has been budgeted over 5 years to upgrade relays in order to continually provide a high level of reliability to Hydro Ottawa customers, with the addition of system DG.



1 **Outcome:**

2 Hydro Ottawa is striving to achieve a distribution system that includes a high penetration  
3 of renewable DG. Through planning studies and a systematic approach to the  
4 connection of DG, Hydro Ottawa hopes to increase system reliability and grid stability to  
5 its customers. In order to provide the increased reliability and stability, proper protection,  
6 i.e. bi-directional relays, must be in place before a high penetration of DG can be  
7 coupled onto the distribution system.

8  
9 The budgeted capital expenditure for the Protective Relay Upgrades Project is \$680k in  
10 2011 and the impact of this project on the 2011 revenue requirement is approximately  
11 \$41k.



1 **Interrogatory**

2  
3 Green Energy Plan

4  
5 42. B1/T2/S3/p.16 - Please provide an economic feasibility study/business case for the  
6 Communication Infrastructure - Smart Grid Communication project. What is the  
7 impact of the project on the 2011 revenue requirement?

8  
9 **Response**

10  
11 The following is the requested business case for the the Communication Infrastructure -  
12 Smart Grid Communication Project:

13  
14 **Business Need:**

15 Communication Infrastructure is essential to meeting the Green Energy and Green  
16 Economy Act ("GEA") and the Ontario Energy Board (the "Board") directive of  
17 accomodating renewable generation and smart grid deployment. Before a truly smart  
18 grid can begin transmitting and receiving data and information, the communication  
19 infrastructure must first be in place.

20  
21 As stated in Hydro Ottawa Limited's Basic GEA Plan, improved communication  
22 infrastrucure will allow for expansion of Smart Grid automated devices and sensors.  
23 This infrastructure will foster and enable generators to connect to Hydro Ottawa  
24 Limited's distribution system, while providing the flexibility to implement protection and  
25 control now, and through future development.

26  
27 **Drivers for Change:**

28 Directive – Direction for LDC's to accommodate the connection of renewable energy  
29 generation facilities through investment for development, expansion, and reinforcing of  
30 the distribution system fuels Hydro Ottawa's investment in the enablement of renewable



distributed generation (“DG”) and Smart Grid resources through communication infrastructure.

Technology – Communication Infrastructure is the essential piece to the enablement of data sharing at high speeds through the distribution system. Data sharing is necessary for the enablement of DG and other Smart Grid assets.

**Requirement:**

To fully assess the optimal communication links and infrastructure paths the project will be split into various phases, beginning with an initial trial/pilot phase. Hydro Ottawa has developed a comprehensive multi-year plan that will follow this initial phase. In this first phase fibre optic cable will be installed from Hydro Ottawa’s operations center through multiple substations. These links will provide communication infrastructure necessary to enable renewable DG and other Smart Grid resources.

**Economics:**

Communication infrastructure links will be installed over 28 km for the next 5 years. Approximately \$1.52 million has been budgeted towards this initial 28 km of fibre optic cable placement, necessary to accommodate GEA directives.

**Outcome:**

With the installation of fibre optic communication infrastructure Hydro Ottawa will successfully meet the Board and GEA’s directive of accomodating renewable DG, while improving system reliabilty and improving customer satisfaction through various Smart Grid enabling investments dependent upon necessary communication infrastructure.

The budgeted capital expenditure for the Communication Infrastructure - Smart Grid Communication Project is \$317k in 2011 and the impact of this project on the 2011 revenue requirement is approximately \$24k.



1 **Interrogatory**

2  
3 Green Energy Plan

4  
5 43. B1/T2/S3/p.23

6 Please explain why Hydro Ottawa's ratepayers should fund the SuRE Program at  
7 Carleton University? Why is this not considered a charitable donation and funded by  
8 Hydro Ottawa's shareholders?

9  
10 **Response**

11  
12 Hydro Ottawa Limited's ratepayers should help fund the SuRE Program at Carleton  
13 University since this is not a standard charitable donation that Hydro Ottawa or its  
14 shareholder would typically make. Hydro Ottawa predominately donates to not for profit  
15 organizations, rather than a major Canadian University.

16  
17 The Board is currently recognizing expenditures associated with Smart Grid education  
18 and training. Hydro Ottawa is supporting the SuRE program at Carleton, but not  
19 engaging in research and development activities at this time. The program may provide  
20 for many opportunities within the Hydro Ottawa distribution system, including improved  
21 system operability and reliability. Supporting the program positions Hydro Ottawa in line  
22 with the Ontario Energy Board's directive and guidance.



1 **Interrogatory**

2  
3 Green Energy Plan

4  
5 44. B1/S2/T3/p.24- Hydro Ottawa is proposing, as a part of it Green Energy Plan, to  
6 create 4 additional roles in Asset Planning and Conservation and Demand  
7 Management. Will these positions be funded though the Global Adjustment  
8 mechanism? if not, why not?  
9

10 **Response**

11  
12 Hydro Ottawa is not proposing that any of the additional four positions created as part of  
13 the Green Energy Plan will be funded through the Global Adjustment mechanism. For  
14 an explanation of why not, please see the response to CCC #45.



1 **Interrogative**

2  
3 Green Energy Plan

4  
5 45. B1/S2/T3/p.24 - The evidence states that Hydro Ottawa is not seeking  
6 recovery of any green investments from Provincial ratepayers. Why not?

7  
8 **Response**

9  
10 The *Green Energy Green Economy Act* amended the *Ontario Energy Board Act*, 1998 to  
11 introduce a mechanism under section 79.1 whereby some of the Board-approved costs  
12 incurred by a distributor to make an 'eligible investment' for the purpose of connecting or  
13 enabling the connection of a renewable energy generation facility to its distribution  
14 system may [*emphasis added*] be recovered from all provincial ratepayers rather than  
15 solely from the ratepayers of the distributor making the investment.

16  
17 Similarly, the Ontario Energy Board's (the "Board") Filing Requirements for Distribution  
18 System Plans under Deemed Conditions of Licence state "where costs may [*emphasis*  
19 *added*] be eligible for recovery from provincial ratepayers, a calculation or quantification  
20 of the direct benefits accruing to the distributor's customers, consistent with the Board's  
21 policy."

22  
23 Hydro Ottawa has interpreted these two uses of the word 'may' to mean that it is a  
24 possibility, not a requirement, which would have used the term 'must'.

25  
26 Hydro Ottawa's Green Energy Plan is still in its infancy. The associated revenue  
27 requirement and bill impacts are small and the details on how the provincial pool was to  
28 be accessed were not finalized until shortly before Hydro Ottawa filed its rate application.  
29 Hydro Ottawa determined that the materiality of the potential contribution did not merit  
30 recovery from the provincial pool. Certainly in the future, as the Plan develops, Hydro





- 1 Ottawa will be looking at seeking recovery of its green investments from Provincial
- 2 ratepayers, where it is warranted.



1 **Interrogative**

2  
3 Green Energy Plan

4  
5 46. B1/S2/T3/p.25

6 Please explain what Hydro Ottawa is doing in order to "collaborate with other LDCs, and  
7 the OPA to identify new technologies that can enhance system performance and enable  
8 greater renewable penetration levels within HOL's system and within the Province".  
9

10 **Response**

11  
12 In order to collaborate with other LDCs and the Ontario Power Authority, Hydro Ottawa  
13 Limited ("Hydro Ottawa") has one executive position on the Ontario Smart Grid Forum  
14 ("OSGF") and one position on the OSGF Working Group. The forum contains LDC and  
15 industry leaders who along with the working group provide ongoing collaboration  
16 towards identifying new technologies best suited to enhance system performance while  
17 at the same time being cost effective for the customer. Hydro Ottawa also has one  
18 executive position on the Canadian Electricity Association's ("CEA") Standards  
19 Management Committee, and one position on the newly created Smart Grid  
20 Standardization and Conformity Task Group ("SGSCTG"). The Committee and Task  
21 Group monitor and guide the development and understanding of Smart Grid regulations  
22 and standards in Canada, while providing a forum for members to discuss standard  
23 implementation best practices.  
24

25 Hydro Ottawa is also actively taking part in smart grid and renewable generation  
26 conferences to stay up to date on where the industry and the province is headed with  
27 respect to renewable generation.



1 **Interrogative**

2  
3 Green Energy Plan

4  
5 47. B1/S2/T3/p.26 - Hydro Ottawa has identified a number of potential  
6 projects/investments that could be undertaken in the 2012-2015 timeframe. Are  
7 there any costs in the 2011 revenue requirement related to these activities? If so,  
8 please identify those costs.

9  
10 **Response**

11  
12 Section 5 of Hydro Ottawa Limited's 2010 Green Energy Act Basic Plan identifies twelve  
13 potential projects/investments that could be undertaken in the 2012-2015 timeframe.  
14 There are no costs in the 2011 revenue requirement related to these activities.