

Response to CCC Technical Conference # 1

Differences between the original evidence and the updated evidence:

	Original Evidence	Updated Evidence
As a result of updating the 2011 Bridge Year forecast with actuals to June, changing the inservice date for CIS and correcting 2011 SM:		
Capital Expenditures-CIS	2011 - \$8,423k	2011 - \$4,957k (reduced by \$3,466k)
Capitalization of CIS	2012	2013
Capital Expenditures-suite meters	2011 - \$1,938k	2011 - \$498k (reduced by \$1,440k)
Load Forecast adjusted as result of change in suite meter forecast	C1-1-1	C1-1-1 (Updated) Less suite metering conversions
2011 SM capex	B2-1-1	B2-1-1 (Updated) Additional \$1,495k removed in 2011
Revenue Deficiency	Included SM revenue from adder in revenue from current rates. Included TOC	As per RRWFs – no SM no TOC
As a result of changes in Filing Requirements/Updated Models:		
RRWF updated model	Attachments H and AW	Attachments H (Updated) and AW (Updated)
Cost Allocation	G1-1-1 + Attachments AI & AJ	G1-1-1 (Updated) + Attachments AI & AJ (Updated)
MicroFIT Monthly Service Charge	\$5.97 H5-1-1	\$3.72 H5-1-1 (Updated)
Disposition of Deferral and Variance Accounts- updated spreadsheet and disposition of SM, PILS and SPC Originally asked for <u>prudence review to end clearance of SM accounts only</u> until end of 2010, now <u>asking to clear variances to end of 2011</u> . Originally did not ask to clear PILS and SPC, now required to clear.	I1-1-1 Attachment AQ B2-1-1 I1-1-2 + Attachment AR I2-1-1 To be returned: \$20.2M	I1-1-1 Attachment AQ (Updated) Attachment BH B2-1-1 (Updated) I1-1-2 (Updated) + Attachment AR (Updated) I2-1-1 (Updated) + Attachment BI I1-1-1 Attachment BC-BG To be returned: \$20.3M
LRAM	Didn't include 2010 results I3-1-1	Included 2010 estimated results I3-1-1 (Updated)
Transmission Rates	No change applied for	Filed updated model – change in RTSR Network rates

	H2-1-1	H2-1-1 (Updated) + Attachment BB
	Original Evidence	Updated Evidence
As a result of both changes above:		
Net Fixed Assets	2011 - \$550.4M 2012 - \$592.7M	2011 - \$547.5M 2012 - \$578.7M
Amortization	B3-1-1 2011 – (\$46.9M), 2012 - \$(47.3M)	B3-1-1 (Updated) 2011 – (\$46.8M) 2012 – (\$47.4M)
CIP	CIS capitalized in 2012 2011 – (\$27M), 2012 – (\$27.9M)	CIS not capitalized in 2012 2011 – (\$23.9M), 2012 – (\$38.9M)
Rate Base – as a result of above for CIS and suite meters and SM added back for 2012 Rate Base	2011 - \$642.9M, 2012 - \$677.5M	2011 - \$641.5M 2012 - \$669M
PILS	CGAPP - \$5,951k, MIFRS - \$3,723k D6-1-1 + Attachment AD J3-1-1 + Attachment AU	CGAPP - \$8,567k, MIFRS - \$6,312k D6-1-1 (Updated) + Attachment AD (Updated) J3-1-1 (Updated)+Attachment AU (Updated)
Base Revenue Requirement (before TOC) See below	CGAPP \$157.0M MIFRS \$157.2M Attachments AL and AV	CGAPP \$159.2M MIFRS \$159.3M Attachments AL (Updated) and AV (Updated)
Revenue Deficiency	(\$11,317k) F1-1-1	(\$19,097) difference of (\$7,780) - \$5,277 due to SM, \$2,127 due to increase revenue requirement F1-1-1 (Updated)
Rates	H6-1-1 Attachment AO J3-1-3 Attachment AX	H6-1-1 Attachment AO (Updated) J3-1-3 Attachment AX (Updated)
Bill Impacts	H6-2-1 + Attachment AP J3-1-4 + Attachment AY MIFRS RPP Residential (0.04%)	H6-2-1 (Updated) +Attachment AP (Updated) J3-1-4 (Updated) + Attachment AY (Updates) MIFRS RPP Residential 0.48%
MIFRS Deferral Account	Difference between CGAAP and MIFRS ending NPV was \$427k, deferral account \$136k J4-1-1 + Attachment AZ	Difference between CGAAP and MIFRS ending NPV is \$123k, deferral account \$39k J4-1-1 (Updated) + Attachment AZ (Updated)

	Original Evidence \$M	Updated Evidence \$M	Difference \$M
Base Revenue Requirement (MIFRS)	157.2	159.3	2.1
OM&A	76	76	0
Amortization	39.4	39.4	0
Interest	21.1	20.9	(.2)
ROE	26	25.7	(.3)
PILs	3.7	6.3	2.6
Other Revenue	(9)	(9)	0
	157.2	159.3	2.1

Using projected December 31, 2011 NBV:

Table 1 – Estimated Loss or Gain on Sale of Properties (NBV Dec 2011)

Property	Loss / (Gain)
Albion Road	(\$2.5M)
Merivale Road	\$6.1M
Bank Street	\$2.1M
NET LOSS	\$5.7M

Forecasted Sales by Rate Class with and without the Calibration Factor (MWh)

With Calibration Factor													
Loss													
Adjusted													
System													
Forecast													
Forecast													
Loss													
Factor													
Calibration													
Factor													
Sum of													
Sales													
Residential													
GS < 50													
kW													
GS > 50 <													
1500 kW													
GS >													
1500<													
5000 kW													
Large Use													
Street													
Light													
UMSL													
Dry Core													
2012	Forecast	Forecast	Factor	Factor	Sales	Residential	GS < 50 kW	GS > 50 < 1500 kW	GS > 1500< 5000 kW	Large Use	Street Light	UMSL	Dry Core
1	765,007	738,638	1.0357	1.01	738,638	233,662	76,653	292,978	72,500	56,512	4,572	1,502	259
2	703,281	679,039	1.0357	0.97	679,039	213,926	70,915	269,028	67,875	51,511	4,097	1,440	248
3	690,220	666,429	1.0357	0.98	666,429	202,520	68,255	266,582	69,442	54,178	3,744	1,456	251
4	606,043	585,153	1.0357	0.94	585,153	168,537	59,020	235,162	65,377	52,103	3,309	1,403	242
5	604,466	583,630	1.0357	0.98	583,630	160,277	57,541	236,423	68,740	56,030	2,904	1,464	252
6	648,062	625,723	1.0357	0.99	625,723	181,461	60,847	247,511	72,063	59,443	2,679	1,467	253
7	696,881	672,860	1.0357	1.00	672,860	200,698	64,657	263,975	76,052	63,797	1,942	1,482	256
8	694,237	670,307	1.0357	1.00	670,307	199,000	64,412	263,380	75,991	63,671	2,105	1,490	257
9	614,497	593,316	1.0357	1.00	593,316	163,890	58,271	238,795	70,186	57,319	3,116	1,484	256
10	622,944	601,472	1.0357	0.97	601,472	169,686	59,901	242,885	68,214	55,178	3,910	1,448	250
11	648,904	626,537	1.0357	0.96	626,537	184,765	63,590	250,876	67,573	53,631	4,419	1,436	248
12	735,297	709,952	1.0357	1.00	709,952	219,392	72,959	282,942	71,607	56,502	4,812	1,483	256
Total	8,029,840	7,753,056			7,753,056	2,297,816	777,019	3,090,538	845,619	679,874	41,611	17,553	3,026

Without Calibration Factor													
Loss													
Adjusted													
System													
Forecast													
Forecast													
Sum of													
Sales													
Residential													
GS < 50													
kW													
GS > 50 <													
1500 kW													
GS >													
1500<													
5000 kW													
Large Use													
Street													
Light													
UMSL													
Dry Core													
2012	Forecast	Forecast			Sales	Residential	GS < 50 kW	GS > 50 < 1500 kW	GS > 1500< 5000 kW	Large Use	Street Light	UMSL	Dry Core
1	765,007	738,638			731,325	231,349	75,894	290,077	71,782	55,952	4,527	1,487	256
2	703,281	679,039			700,040	220,542	73,108	277,348	69,974	53,105	4,223	1,484	256
3	690,220	666,429			680,030	206,653	69,648	272,022	70,859	55,284	3,821	1,486	256
4	606,043	585,153			622,503	179,295	62,787	250,173	69,550	55,428	3,521	1,492	257
5	604,466	583,630			595,541	163,548	58,715	241,248	70,143	57,173	2,963	1,494	258
6	648,062	625,723			632,044	183,294	61,461	250,011	72,791	60,043	2,706	1,481	255
7	696,881	672,860			672,860	200,698	64,657	263,975	76,052	63,797	1,942	1,482	256
8	694,237	670,307			670,307	199,000	64,412	263,380	75,991	63,671	2,105	1,490	257
9	614,497	593,316			593,316	163,890	58,271	238,795	70,186	57,319	3,116	1,484	256
10	622,944	601,472			620,074	174,934	61,754	250,397	70,324	56,884	4,031	1,493	257
11	648,904	626,537			652,643	192,464	66,239	261,329	70,389	55,866	4,603	1,495	258
12	735,297	709,952			709,952	219,392	72,959	282,942	71,607	56,502	4,812	1,483	256
Total	8,029,840	7,753,056			7,880,634	2,335,060	789,905	3,141,698	859,647	691,024	42,371	17,851	3,078

Capital Expenditures, 2009 through 2012

Board Groupings	2009 \$0	2009 Transfers \$0	2009 Restated	2010 \$0	2011 \$0	2012 \$0
Land & Buildings	\$5,726		\$5,726	\$3,958	\$3,987	\$7,622
TS Primary Above 50 kV	10,071	1,517	11,588	12,017	9,504	3,024
DS	6,444	3,616	10,060	9,626	11,487	15,628
Poles and Wires	25,405		25,405	29,859	35,293	38,965
Transformers	8,431		8,431	6,323	8,480	9,051
Services and Meters	16,100	-5,133	10,967	11,998	12,406	11,310
General Plant	1,366		1,366	347	1,302	759
Equipment	2,243		2,243	2,479	3,895	3,643
IT Assets	4,827		4,827	7,133	7,854	6,116
Other Distribution Assets	979		979	618	2,062	1,896
Gross TOTAL	\$81,592	\$0	\$81,592	\$84,358	\$96,270	\$98,014
Contributed Capital	(20,911)	0	(20,911)	(20,944)	(17,695)	(19,223)
Net TOTAL	\$60,681	\$0	\$60,681	\$63,414	\$78,575	\$78,791
Add Back CIS Transition Project:						
IT Assets	0	0	0	67	3,223	7,786
Add Back Facilities Strategy:						
Land & Buildings	0	0	0	0	0	4,000
General Plant					376	
Net TOTAL	\$60,681	\$0	\$60,681	\$63,481	\$82,174	\$90,577

HYDRO OTTAWA HOLDING INC.

Issuer

and

THE BNY TRUST COMPANY OF CANADA

Trustee

SERIES 2005-1 SUPPLEMENTAL INDENTURE

Supplementing the Trust Indenture

Dated as of February 4, 2005

and

Providing for the issuance of

\$200,000,000 Principal Amount of 4.93% Senior Unsecured Debentures,

Series 2005-1 due February 9, 2015

February 4, 2005

THIS SERIES 2005-1 SUPPLEMENTAL INDENTURE dated as of the 4 th day of February, 2005

BETWEEN:

HYDRO OTTAWA HOLDING INC.,
a corporation incorporated under the laws of Ontario (the "**Corporation**")

-and-

BNY TRUST COMPANY OF CANADA, a trust company
incorporated under the laws of Canada (the "**Trustee**")

WHEREAS the Corporation has entered into a Trust Indenture dated as of February 4, 2005 which provides for the issuance of one or more series of unsecured debentures of the Corporation by way of Supplemental Indentures;

AND WHEREAS this Series 2005-1 Supplemental Indenture is entered into for the purpose of providing for the issue of \$200,000,000 aggregate principal amount of Series 2005-1 Debentures pursuant to the Trust Indenture and establishing the terms and conditions of the Series 2005-1 Debentures to the extent not otherwise established by the Trust Indenture;

NOW THEREFORE this Series 2005-1 Supplemental Indenture witnesses and it is hereby covenanted, agreed and declared as follows:

ARTICLE 1

INTERPRETATION

1.1 To Be Read With Trust Indenture

This Series 2005-1 Supplemental Indenture is a Supplemental Indenture within the meaning of the Trust Indenture. The Trust Indenture and this Series 2005-1 Supplemental Indenture shall be read together and shall have effect so far as practicable as though all the provisions of both indentures were contained in one instrument.

1.2 Definitions

All terms that are defined in the Trust Indenture and used but not defined in this Series 2005-1 Supplemental Indenture shall have the meanings ascribed to them in the Trust Indenture, as such meanings may be amended by this Series 2005-1 Supplemental Indenture. Subject to the foregoing, in this Series 2005-1 Supplemental Indenture and in the Series 2005-1 Debentures, the following expressions have the respective meanings indicated:

"Canada Yield" on any date, shall mean the yield to maturity on such date, compounded semi-annually, and calculated in accordance with generally accepted Canadian financial practice, which a non-callable Government of Canada bond would carry if issued, in

Canadian dollars in Canada, at 100% of its principal amount on such date with a term to maturity equal to the remaining term to maturity (calculated from the Redemption Date) of the Debentures, such yield to maturity being the average of the yields provided by two Canadian investment dealers specified by the Corporation.

"Canada Yield Price" shall mean the price equal to the net present value of all scheduled payments of interest (other than accrued and unpaid interest) and principal on the Series 2005-1 Debentures being redeemed, calculated in accordance with generally accepted Canadian financial practice, using as a discount rate the sum of 0.16% and the Canada Yield calculated at 10:00 a.m. (Toronto time) three Business Days prior to the Redemption Date.

"Interest Payment Date" means February 9 and August 9 in each year.

"Interest Period" means the period commencing on the later of the date of issue of the Series 2005-1 Debentures and the immediately preceding Interest Payment Date and ending on the day immediately preceding the Interest Payment Date in respect of which interest is payable.

"Series 2005-1 Debentures" means the \$200,000,000 aggregate principal amount of 4.93% Senior Unsecured Debentures, Series 2005-1 due February 9, 2015 referred to in Section 2.1.

"Trust Indenture" means the Trust Indenture dated as of February 4, 2005 between the Corporation and the Trustee, as amended, supplemented or restated from time to time.

ARTICLE 2

SERIES 2005-1 DEBENTURES

2.1 Creation and Designation

The Corporation is authorized in accordance with the Trust Indenture to issue under this Series 2005-1 Supplemental Indenture a series of debentures designated 4.93% Senior Unsecured Debentures, Series 2005-1 due February 9, 2015, which shall have the terms set out in this Series 2005-1 Supplemental Indenture.

2.2 Limitation on Aggregate Principal Amount

The aggregate principal amount of Series 2005-1 Debentures which may be issued under this Series 2005-1 Supplemental Indenture is limited to \$200,000,000.

2.3 Date and Issue of Maturity

The Series 2005-1 Debentures shall be dated as of their date of issue, expected to occur on February 9, 2005 and will mature on February 9, 2015.

2.4 Interest

The Series 2005-1 Debentures shall bear interest on the unpaid principal amount thereof at a rate of 4.93% per annum from their date of issue calculated semi-annually and payable in arrears on each Interest Payment Date, commencing on August 9, 2005.

2.5 Redemption and Repurchase

The Series 2005-1 Debentures are redeemable at any time pursuant to the provisions of Article 5 of the Trust Indenture in whole or in part before maturity. The Redemption Price for the Series 2005-1 Debentures is the greater of (i) the aggregate principal amount of the Series 2005-1 Debentures to be redeemed and (ii) the Canada Yield Price together, in each case, with accrued and unpaid interest to the Redemption Date.

2.6 Denominations

The Series 2005-1 Debentures shall be issued in denominations of \$1,000 or integral multiples thereof.

2.7 Form of Series 2005-1 Debentures

The Series 2005-1 Debentures and the certificate of the Trustee endorsed thereon shall be issuable initially as one Global Debenture held by or on behalf of, CDS, as depository, for its participants and registered in the name of CDS or its nominee. The Global Debenture will be substantially in the form set out in Schedule 1 with such appropriate additions, deletions, substitutions and variations as the Trustee may approve and shall bear such distinguishing letters and numbers as the Trustee may approve, with such approval to be conclusively deemed to have been given by the Trustee certifying such Series 2005-1 Debentures.

ARTICLE 3 MISCELLANEOUS

3.1 Acceptance of Trust

The Trustee accepts the trusts in this Series 2005-1 Supplemental Indenture and agrees to carry out and discharge the same upon the terms and conditions set out in this Series 2005-1 Supplemental Indenture and in accordance with the Trust Indenture.

3.2 Confirmation of Trust Indenture

The Trust Indenture as supplemented by this Series 2005-1 Supplemental Indenture is in all respects confirmed.

3.3 Counterparts

This Series 2005-1 Supplemental Indenture may be executed in several counterparts each of which so executed shall be deemed to be original and such counterparts together shall constitute one and the same instrument.

IN WITNESS WHEREOF the parties hereto have executed this Series 2005-1 Supplemental Indenture under the hands of their proper officers in that behalf.

HYDRO OTTAWA HOLDING INC.

By: Ron Stewart

Name: Ron Stewart

Title: President and Chief Executive Officer

By: Shirley Mears

Name: Shirley Mears

Title: Senior Vice-President and Chief Financial Officer

BNY TRUST COMPANY OF CANADA

By: Marcia Redway

Name: MARCIA REDWAY
Authorized Officer

Title: _____

SCHEDULE 1

Form of 4.93% Senior Unsecured Debentures, Series 2005-1 due 2015

This Debenture is a Global Debenture within the meaning of the Trust Indenture referred to below and is registered in the name of a Depository or its Nominee. Unless this certificate is presented by an authorized representative of The Canadian Depository for Securities Limited ("CDS") to the Issuer or its agent for registration of transfer, exchange or payment, and any certificate issued in respect thereof is registered in the name of CDS & CO., or in such other name as is requested by an authorized representative of CDS (and any payment is made to CDS & Co. or to such other entity as is requested by an authorized representative of CDS), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL since the registered holder hereof, CDS & CO., has an interest herein.

CUSIP : 44882CAA2

\$200,000,000

HYDRO OTTAWA HOLDING INC.
(incorporated under the laws of Ontario)

SERIES 2005-1 GLOBAL DEBENTURE

Issue Date:	February 9, 2005
Maturity Date:	February 9, 2015
Interest Rate Per Annum:	4.93%
Interest Payment Dates:	February 9 and August 9 in each year
Initial Interest Payment Date:	August 9, 2005
Principal Amount:	\$200,000,000

HYDRO OTTAWA HOLDING INC. (the "**Corporation**") for value received promises to pay to the registered holder of this debenture on the Maturity Date, or on such earlier date as the Principal Amount may become due in accordance with the provisions of the Trust Indenture (as defined below), the Principal Amount in lawful money of Canada on presentation and surrender of this 4.93% Senior Unsecured Debenture, Series 2005-1 due February 9, 2015 (the "Series 2005-1 Debenture") at the principal corporate trust office of the Trustee and to pay interest on the Principal Amount at the Interest Rate Per Annum from the later of the Issue Date and the last Interest Payment Date on which interest has been paid or made available for payment on this debenture, in like money semi-annually on the Interest Payment Dates in each year, commencing on the Initial Interest Payment Date, and if the Corporation at any time defaults in the payment of any principal or interest, to pay interest on the amount in

default at the same rate, in like money, semi-annually on the same dates. Interest shall be paid in the manner provided for in the Trust Indenture.

This Series 2005-1 Debenture is one of an authorized issue of debentures designated 4.93% Debentures, Series 2005-1 due February 9, 2015 forming the first series of debentures issued under a supplemental indenture dated as of February 4, 2005 (the "**Supplemental Indenture**") to a trust indenture (the "**Indenture**") dated as of February 4, 2005, made between the Corporation and BNY Trust Company of Canada (the "**Trustee**"), as Trustee (the Supplemental Indenture and the Indenture collectively referred to herein as the "**Trust Indenture**"). The Trust Indenture specifies the terms and conditions upon which the Series 2005-1 Debentures are issued or may be issued and held and the rights of the holders of the Series 2005-1 Debentures, the Corporation and the Trustee, all of which are incorporated by reference in this Debenture and to all of which the holder of this Series 2005-1 Debenture agrees. To the extent that any provision of this debenture is inconsistent with the provisions of the Trust Indenture, the provisions of the Trust Indenture shall prevail.

The aggregate principal amount of debentures that may be issued pursuant to the Indenture is unlimited. The Series 2005-1 Debentures comprise and are limited to \$200,000,000 aggregate principal amount and are issuable as fully registered debentures in denominations of \$1,000 and integral multiples thereof.

This Series 2005-1 Debenture is a direct unsecured obligation of the Corporation and will rank equally and rateably with all other debentures from time to time issued and outstanding pursuant to the Indenture and with all other unsecured and unsubordinated indebtedness of the Corporation, except to the extent prescribed by law.

The Series 2005-1 Debentures are redeemable at any time at the option of the Corporation in accordance with the provisions specified in the Trust Indenture.

This Series 2005-1 Debenture shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

This Series 2005-1 Debenture shall not become obligatory for any purpose until it shall have been certified by the Trustee in accordance with the Trust Indenture.

IN WITNESS WHEREOF HYDRO OTTAWA HOLDING INC. has caused its corporate seal to be hereunto affixed and this Series 2005-1 Debenture to be signed by its Chief Executive Officer and its Chief Financial Officer.

HYDRO OTTAWA HOLDING INC.

By: _____
Ron Stewart
President and Chief Executive Officer

By: _____
1-2

Shirley Mears
Senior Vice President and
Chief Financial Officer

(Form of Trustee's Certificate)

TRUSTEE'S CERTIFICATE

This Debenture is one of the Series 2005-1 Debentures referred to in the Trust Indenture referred to above.

BNY TRUST COMPANY OF CANADA
As Trustee

By: _____
Authorized Signatory

(FORM OF REGISTRATION PANEL)

**(NO WRITING HEREON EXCEPT BY THE TRUSTEE
OR OTHER REGISTRAR)**

DATE OF REGISTRY	IN WHOSE NAME REGISTERED	SIGNATURE OF TRUSTEE OR OTHER REGISTRAR

OTT_LAW\ 941090\5



HYDRO OTTAWA HOLDING INC.
Issuer

and

THE BNY TRUST COMPANY OF CANADA
Trustee

SERIES 2006-1 SUPPLEMENTAL INDENTURE
Supplementing the Trust Indenture
Dated as of February 4, 2005

and

Providing for the issuance of
\$50,000,000 Principal Amount of 4.968% Senior Unsecured Debentures,
Series 2006-1 due December 19, 2036

Gowling Lafleur Henderson LLP
December 20, 2006

THIS SERIES 2006-1 SUPPLEMENTAL INDENTURE dated as of the 20th day of December, 2006 is made

BETWEEN:

HYDRO OTTAWA HOLDING INC.,
a corporation incorporated under the laws of Ontario (the "**Corporation**")

-and-

BNY TRUST COMPANY OF CANADA, a trust company
incorporated under the laws of Canada (the "**Trustee**")

WHEREAS the Corporation has entered into a trust indenture dated as of February 4, 2005 (the "**Principal Indenture**") which provides for the issuance of one or more series of unsecured debentures of the Corporation by way of Supplemental Indentures;

AND WHEREAS by a Supplemental Indenture dated February 4, 2005 (the "**2005-1 Supplemental Indenture**") the Corporation provided for the issue of \$200,000,000 aggregate principal amount of Series 2005-1 Debentures pursuant to the Principal Indenture and established the terms and conditions of the Series 2005-1 Debentures to the extent not otherwise established by the Principal Indenture;

AND WHEREAS this Series 2006-1 Supplemental Indenture is entered into for the purpose of providing for the issue of \$50,000,000 aggregate principal amount of Series 2006-1 Debentures pursuant to the Principal Indenture and establishing the terms and conditions of the Series 2006-1 Debentures to the extent not otherwise established by the Principal Indenture;

NOW THEREFORE this Series 2006-1 Supplemental Indenture witnesses and it is hereby covenanted, agreed and declared as follows:

ARTICLE 1

INTERPRETATION

1.1 To Be Read With Principal Indenture

This Series 2006-1 Supplemental Indenture is a Supplemental Indenture within the meaning of the Principal Indenture. The Principal Indenture and this Series 2006-1 Supplemental Indenture shall be read together and shall have effect so far as practicable as though all the provisions of both indentures were contained in one instrument.

1.2 Definitions

All terms that are defined in the Principal Indenture and used but not defined in this Series 2006-1 Supplemental Indenture shall have the meanings ascribed to them in the Principal Indenture, as such meanings may be amended by this Series 2006-1 Supplemental Indenture. Subject to the foregoing, in this Series 2006-1 Supplemental Indenture and in the Series 2006-1 Debentures, the following expressions have the respective meanings indicated:

"Canada Yield" on any date, shall mean the yield to maturity on such date, compounded semi-annually, and calculated in accordance with generally accepted Canadian financial practice, which a non-callable Government of Canada bond would carry if issued, in Canadian dollars in Canada, at 100% of its principal amount on such date with a term to maturity equal to the remaining term to maturity (calculated from the Redemption Date) of the Series 2006-1 Debentures, such yield to maturity being the average of the yields provided by two Canadian investment dealers specified by the Corporation.

"Canada Yield Price" shall mean the price equal to the net present value of all scheduled payments of interest (other than accrued and unpaid interest) and principal on the Series 2006-1 Debentures being redeemed, calculated in accordance with generally accepted Canadian financial practice, using as a discount rate the sum of 0.23% and the Canada Yield calculated at 10:00 a.m. (Toronto time) three Business Days prior to the Redemption Date.

"Interest Payment Date" means June 19 and December 19 in each year.

"Interest Period" means the period commencing on the later of the date of issue of the Series 2006-1 Debentures and the immediately preceding Interest Payment Date and ending on the day immediately preceding the Interest Payment Date in respect of which interest is payable.

"Series 2006-1 Debentures" means the \$50,000,000 aggregate principal amount of 4.968% Senior Unsecured Debentures, Series 2006-1 due December 19, 2036 referred to in Section 2.1.

"Trust Indenture" means the Principal Indenture as supplemented by this Series 2006-1 Supplemental Indenture, as amended, further supplemented or restated from time to time.

ARTICLE 2

SERIES 2006-1 DEBENTURES

2.1 Creation and Designation

The Corporation is authorized in accordance with the Trust Indenture to issue under this Series 2006-1 Supplemental Indenture a series of debentures designated 4.968% Senior Unsecured Debentures, Series 2006-1 due December 19, 2036, which shall have the terms set out in this Series 2006-1 Supplemental Indenture.

2.2 Limitation on Aggregate Principal Amount

The aggregate principal amount of Series 2006-1 Debentures which may be issued under this Supplemental Indenture is limited to \$50,000,000.

2.3 Date and Issue of Maturity

The Series 2006-1 Debentures shall be dated as of their date of issue, expected to occur on December 20, 2006 and will mature on December 19, 2036.

2.4 Interest

The Series 2006-1 Debentures shall bear interest on the unpaid principal amount thereof at a rate of 4.968% per annum from their date of issue calculated semi-annually and payable in arrears on each Interest Payment Date, commencing on June 19, 2007.

2.5 Redemption and Repurchase

The Series 2006-1 Debentures are redeemable at any time pursuant to the provisions of Article 4 of the Principal Indenture in whole or in part before maturity. The Redemption Price for the Series 2006-1 Debentures is the greater of (i) the aggregate principal amount of the Series 2006-1 Debentures to be redeemed and (ii) the Canada Yield Price together, in each case, with accrued and unpaid interest to the Redemption Date.

2.6 Denominations

The Series 2006-1 Debentures shall be issued in denominations of \$1,000 or integral multiples thereof.

2.7 Form of Series 2006-1 Debentures

The Series 2006-1 Debentures and the certificate of the Trustee endorsed thereon shall be issuable initially as one Global Debenture held by or on behalf of CDS, as depository, for its participants and registered in the name of CDS or its nominee. The Global Debenture will be substantially in the form set out in Schedule 1 with such appropriate additions, deletions, substitutions and variations as the Trustee may approve and shall bear such distinguishing letters and numbers as the Trustee may approve, with such approval to be conclusively deemed to have been given by the Trustee certifying such Series 2006-1 Debentures.

ARTICLE 3 MISCELLANEOUS

3.1 Acceptance of Trust

The Trustee accepts the trusts in this Series 2006-1 Supplemental Indenture and agrees to carry out and discharge the same upon the terms and conditions set out in this Series 2006-1 Supplemental Indenture and in accordance with the Trust Indenture.

3.2 Confirmation of Trust Indenture

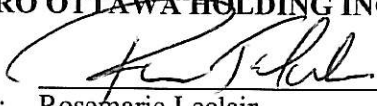
The Principal Indenture as supplemented by this Series 2006-1 Supplemental Indenture is in all respects confirmed.

3.3 Counterparts

This Series 2006-1 Supplemental Indenture may be executed in several counterparts each of which so executed shall be deemed to be original and such counterparts together shall constitute one and the same instrument.

IN WITNESS WHEREOF the parties hereto have executed this Series 2006-1 Supplemental Indenture under the hands of their proper officers in that behalf.

HYDRO OTTAWA HOLDING INC.

By: 
Name: Rosemarie Leclair
Title: President and Chief Executive Officer

By: 
Name: Wojciech Zielonka
Title: Chief Financial Officer

BNY TRUST COMPANY OF CANADA

By: _____
Name: _____
Title: _____


IN WITNESS WHEREOF the parties hereto have executed this Series 2006-1 Supplemental Indenture under the hands of their proper officers in that behalf.

HYDRO OTTAWA HOLDING INC.

By: _____
Name: Rosemarie Leclair
Title: President and Chief Executive Officer

By: _____
Name: Wojciech Zielonka
Title: Chief Financial Officer

BNY TRUST COMPANY OF CANADA

By: 
Name: GEORGE A. BRAGG
Title: VICE-PRESIDENT

SCHEDULE 1

Form of Series 2006-1 Debentures

This Debenture is a Global Debenture within the meaning of the Trust Indenture referred to below and is registered in the name of a Depository or its Nominee. Unless this certificate is presented by an authorized representative of CDS Clearing and Depository Services Inc. ("CDS") to Hydro Ottawa Holding Inc. (the "Issuer") or its agent for registration of transfer, exchange or payment, and any certificate issued in respect thereof is registered in the name of CDS & CO., or in such other name as is requested by an authorized representative of CDS (and any payment is made to CDS & Co. or to such other entity as is requested by an authorized representative of CDS), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL since the registered holder hereof, CDS & CO., has an interest herein. This certificate is issued pursuant to a Master Letter of Representations of the Issuer to CDS, as such letter may be replaced or amended from time to time.

ISIN: CA44882CAB06

Certificate: _____
CUSIP: 44882CAB0

\$50,000,000

HYDRO OTTAWA HOLDING INC.
(incorporated under the laws of Ontario)

SERIES 2006-1 GLOBAL DEBENTURE

Issue Date:	December 20, 2006
Maturity Date:	December 19, 2036
Interest Rate Per Annum:	4.968%
Interest Payment Dates:	June 19 and December 19
Initial Interest Payment Date:	June 19, 2007
Principal Amount:	\$50,000,000

HYDRO OTTAWA HOLDING INC. (the "**Issuer**") for value received promises to pay to the registered holder of this Debenture on the Maturity Date, or on such earlier date as the Principal Amount may become due in accordance with the provisions of the Trust Indenture (as defined below), the Principal Amount in lawful money of Canada on presentation and surrender of this 4.968% Senior Unsecured Debenture, Series 2006-1 due December 19, 2036 (the "**Series 2006-1 Debenture**") at the principal corporate trust office of the Trustee and to pay interest on the Principal Amount at the Interest Rate Per Annum from the later of the Issue Date and the last Interest Payment Date on which interest has been paid or made available for payment on this Debenture, in like money semi-annually on the Interest Payment Dates in each year, commencing on the Initial Interest Payment Date, and if the Issuer at any time defaults in the payment of any principal or interest, to pay interest on the amount in default at the same rate, in like money, semi-annually on the same dates. Interest shall be paid in the manner provided for in the Trust Indenture.

This Series 2006-1 Debenture is one of an authorized issue of Debentures designated 4.968% Senior Unsecured Debentures, Series 2006-1 due December 19, 2036 forming a series of Debentures issued under a supplemental indenture dated as of December 20, 2006 (the "**Supplemental Indenture**") to a trust indenture (the "**Principal Indenture**") dated as of February 4, 2005, made between the Issuer and BNY Trust Company of Canada (the "**Trustee**"), as Trustee (the Supplemental Indenture and the Principal Indenture as amended, supplemented or restated are collectively referred to herein as the "**Trust Indenture**"). The Trust Indenture specifies the terms and conditions upon which the Series 2006-1 Debentures may be issued and held and the rights of the holders of the Series 2006-1 Debentures, the Issuer and the Trustee, all of which are incorporated by reference in this Debenture and to all of which the holder of this Series 2006-1 Debenture agrees. To the extent that any provision of this Debenture is inconsistent with the provisions of the Trust Indenture, the provisions of the Trust Indenture shall prevail.

The aggregate principal amount of Debentures that may be issued pursuant to the Principal Indenture is unlimited. The Series 2006-1 Debentures comprise and are limited to \$50,000,000 aggregate principal amount and are issuable as fully registered Debentures in denominations of \$1,000 and integral multiples thereof.

This Series 2006-1 Debenture is a direct unsecured obligation of the Issuer and will rank equally and rateably with all other debentures from time to time issued and outstanding pursuant to the Principal Indenture and with all other unsecured and unsubordinated indebtedness of the Issuer, except to the extent prescribed by law.

The Series 2006-1 Debentures are redeemable at any time at the option of the Issuer in accordance with the provisions specified in the Trust Indenture.

This Series 2006-1 Debenture shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

This Series 2006-1 Debenture shall not become obligatory for any purpose until it shall have been certified by the Trustee in accordance with the Trust Indenture.

IN WITNESS WHEREOF HYDRO OTTAWA HOLDING INC. has caused its corporate seal to be hereunto affixed and this Series 2006-1 Debenture to be signed by its President and Chief Executive Officer and its Chief Financial Officer.

HYDRO OTTAWA HOLDING INC.

By: _____
Rosemarie Leclair
President and Chief Executive Officer

By: _____
Wojciech Zielonka
Chief Financial Officer

(Form of Trustee's Certificate)

TRUSTEE'S CERTIFICATE

This Debenture is one of the Series 2006-1 Debentures referred to in the Trust Indenture referred to above.

BNY TRUST COMPANY OF CANADA
As Trustee

By: _____
Authorized Signatory

(FORM OF REGISTRATION PANEL)

**(NO WRITING HEREON EXCEPT BY THE TRUSTEE
OR OTHER REGISTRAR)**

Date of Registry	In Whose Name Registered	Signature of Trustee or Other Registrar

June 21, 2011



Hydro Ottawa Holding Inc.
3025 Albion Road North
Ottawa, Ontario.
K1G 3S4

Attention: Mr. Alan Hoverd, Chief Financial Officer

Dear Mr. Hoverd:

We confirm that, subject to acceptance by you, The Bank of Nova Scotia (the "Bank") will make available to Hydro Ottawa Holding Inc. (the "Borrower") credit facilities on the terms and conditions set out in the attached Terms and Conditions Sheet and in Schedule "A".

If the arrangements set out in this letter, and in the attached Terms and Conditions Sheet and Schedule "A" (collectively the "Commitment Letter") are acceptable to you, please sign the enclosed copy of this letter in the space indicated below and return the letter to us by the close of business on July 22, 2011, after which date this offer will lapse.

This Commitment Letter replaces all previous commitments issued by the Bank to the Borrower.


Yours truly,

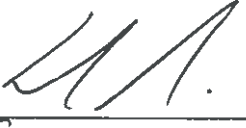

B. Lynch
Senior Credit Solutions Manager


L. Bastianelli
Director, Commercial Banking

With changes to Canadian Accounting Standards commencing January 1, 2011 (i.e. transition to International Financial Reporting Standards ("IFRS"), Private Enterprise GAAP, and Not-for-Profit GAAP), the Bank recommends the Borrower consult with their accounting advisor to assess potential impact and ensure timely transition.

The arrangements set out above and in the attached Terms and Conditions Sheet and Schedule "A" (collectively the "Commitment Letter") are hereby acknowledged and Accepted by:

Hydro Ottawa Holding Inc.
Name
By: 
Title: CHIEF FINANCIAL OFFICER
Date: July 26, 2011


By: _____
Title: TREASURER
Date: July 26, 2011

TERMS AND CONDITIONS

CREDIT NUMBER: 01

AUTHORIZED AMOUNT: \$75,000,000

TYPE

364 Day Revolving Term

PURPOSE

To assist with financing day to day general operating requirements.

CURRENCY

Canadian dollars

AVAILMENT

The Borrower may avail the Credit by way of direct advances evidenced by Grid Note and/or Bankers' Acceptances in Canadian dollars in multiples of \$500,000 and having terms of maturity of 7 to 180 days without grace.

INTEREST RATE/FEE

The Bank's Prime Lending Rate from time to time, per annum with interest payable monthly.

ACCEPTANCE FEES

A Bankers' Acceptance Fee of 1.25% per annum, subject to a minimum fee of \$500 per availment, payable at the time of each availment.

OTHER FEES

A Standby Fee of 0.25% per annum on the daily unused portion of the credit, is payable monthly.

DRAWDOWN

Advances are to be made in minimum amounts of \$500,000.

REPAYMENT

The Credit will revolve, and the principal may be drawn, repaid and redrawn at any time until July 12, 2012 (the "Revolving Term Maturity Date"). Unless the Credit is extended, the Credit shall terminate and all amounts outstanding or accrued under the Credit shall be due and payable on the Revolving Term Maturity Date.

The Borrower has the option, provided written notice has been received by the Bank at least 60 days prior to the Revolving Term Maturity Date, to request extension of the Revolving Term Maturity Date for a further period not to exceed 364 days. Any extension of the Revolving Term Maturity Date is subject to the Bank's absolute discretion and written approval.

SPECIFIC SECURITY

The following security, evidenced by documents in form satisfactory to the Bank and registered or recorded as required by the Bank, is to be provided prior to any advances or availment being made under the Credit:

Bankers' Acceptance Agreement

CREDIT NUMBER: 02 AUTHORIZED AMOUNT: \$17,500,000

TYPE

Standby Letters of Credit / Letters of Guarantee

PURPOSE

To provide prudential support to the Independent Electricity System Operator ("IESO") of the Ontario electricity wholesale market operating under the Ontario Electricity Act. The facility may also be used by the Borrower and/or its subsidiaries to secure sundry obligations.

CURRENCY

Canadian dollars

AVAILMENT

The Borrower may avail the Credit by way of Standby Letters of Credit and/or Letters of Guarantee (with each availment subject to completion of an Application and Agreement for Irrevocable Standby Letter of Credit/Letter of Guarantee in a form satisfactory to the Bank) issued for periods not to exceed one year from date of issuance.

COMMISSION

0.50% per annum, calculated on the issue amount, based on increments of 30 days or multiples thereof, from date of issuance to expiry date. Periods of less than 30 days will be counted as a thirty day increment. The amount is subject to the Bank's minimum fee as well as revision at any time and is payable upon issuance.

CREDIT NUMBER: 03 AUTHORIZED AMOUNT: \$50,000,000

TYPE

5 Year Revolving Term

PURPOSE

To assist with financing capital expenditures and permitted acquisitions.

CURRENCY

Canadian dollars

AVAILMENT

The Borrower may avail the unavailed portion of the Credit by way of direct advances evidenced by Promissory Notes and/or Bankers' Acceptances in Canadian dollars in multiples of \$500,000 and having terms of maturity of 30 to 180 days without grace. The unavailed portion of the Credit is subject to Annual Review, which review shall include the general terms and conditions and the Interest Rate and Fees.

INTEREST RATE/FEE

The Bank's Prime Lending Rate from time to time, plus 0.25% per annum with interest payable monthly.

ACCEPTANCE FEES

A Bankers' Acceptance Fee of 2.00% per annum, subject to a minimum fee of \$500 per availment, payable at the time of each availment.

OTHER FEES

A Standby Fee of 0.40% per annum on the daily unused portion of the credit, is payable monthly.

DRAWDOWN

Advances are to be made in minimum amounts of \$500,000.

REPAYMENT

The Credit will revolve, and the principal may be drawn, repaid and redrawn at any time until July 15, 2015 (the "Revolving Term Maturity Date"). Unless the Credit is extended, the Credit shall terminate and all amounts outstanding or accrued under the Credit shall be due and payable on the Revolving Term Maturity Date – June 21, 2016.

SPECIFIC SECURITY

The following security, evidenced by documents in form satisfactory to the Bank and registered or recorded as required by the Bank, is to be provided prior to any advances or availment being made under the Credit:

Banker's Acceptance Agreement.

CREDIT NUMBER: 04

AUTHORIZED AMOUNT: \$150,000

TYPE

Scotiabank VISA Business Card. Availment, interest rate and repayment as per Cardholder Agreement.

CREDIT NUMBER: 05

AUTHORIZED AMOUNT: \$1,000,000

TYPE

Commercial Card. Availment, interest rate and repayment as per Cardholder Agreement.

GENERAL SECURITY, TERMS AND CONDITIONS APPLICABLE TO ALL CREDITS

GENERAL SECURITY

The following security, evidenced by documents in form satisfactory to the Bank and registered or recorded as required by the Bank, is to be provided prior to any advances or availment being made under the Credits:

Negative Pledge Agreement acknowledged and accepted by Hydro Ottawa Holding Inc., Energy Ottawa Inc., Hydro Ottawa Limited and Telecom Ottawa Holding Inc. confirming that they will not further encumber their assets to any other party, except encumbrances within the definition of "Permitted Encumbrance", without the prior written consent of the Bank.

"Permitted Encumbrance" is defined, with respect to Hydro Ottawa Holding Inc., Hydro Ottawa Limited, Energy Ottawa Inc. and Telecom Ottawa Holding Inc., as any of the following:

- (a) purchase money security interests, capital leases and other encumbrances not exceeding in an aggregate amount of \$5,000,000;
- (b) liens for taxes, payments in lieu of taxes, assessments, government charges or claims not yet due or for which instalments have been paid based on reasonable estimates pending final assessments, or if due, the validity of which is being contested in good faith, on in respect of which appropriate provision is made in consolidated financial statements of the Borrower;
- (c) a lien or deposit under workers' compensation, social security or similar legislation or deposits to secure public or statutory obligations;
- (d) a lien or deposit of cash or securities in connection with contracts, bids, tenders, leases or expropriation proceedings or to secure surety and appeal bonds not exceeding an aggregate amount of \$1,000,000 at any time;
- (e) a lien or privilege imposed by law, such as a builder's, carrier's, warehousemen's, landlord's mechanic's, supplier's or other similar liens and public, statutory and other like obligations incurred in the ordinary course of business;
- (f) a lien or right of distress reserved in or exercisable under any lease, for rent or for compliance with the terms of the lease;
- (g) undetermined or inchoate liens, rights of distress, privileges and charges incidental to current operations which have not at such time been filed or exercised or which relate to obligations not due or payable, or if due, the validity of which is being contested diligently and in good faith by appropriate proceedings;
- (h) reservations, limitations, provisos and conditions expressed in any original grants from the Crown or other grants of real or immovable property, or interests therein, which do not materially affect the use of the affected land for the purpose for which it is being used;
- (i) title defects, encroachments or irregularities or other matters relating to title which in the aggregate do not materially impair the use of the affected property for the purpose for which it is used;
- (j) zoning, land use and building restrictions, by-laws, regulations and ordinances of federal, provincial, state, municipal and other governmental authorities, licences, easements, rights-of-way, rights in the nature of easements (including, without limiting the generality of the foregoing, licences, easements, rights-of-way and rights in the nature of easements for railways, sidewalks, public ways, sewers,

- drains, gas, steam and water mains or electric light and power, or telephone and telegraph conduits, poles, wires and cables) which do not materially impair the use of the affected land for the purpose for which it is being used;
- (k) any right reserved to or vested in any municipality or governmental or other public authority by the terms of any lease, licence, franchise, grant or permit acquired by that person or by any statutory provision to terminate any lease, licence, franchise, grant or permit, or to require annual or other payments as a condition for the continuance thereof;
 - (l) security given to a public utility or any municipality or governmental authority when required by such utility or authority in connection with the operations of that person in the ordinary course of business;
 - (m) security for costs of litigation where required by law;
 - (n) attachments, judgements and other similar encumbrances arising in connection with court proceedings; provided that the encumbrances are in existence for less than 30 days after their creation or the execution or other enforcement of the encumbrances is effectively stayed or the claims so secured are being actively contested in good faith and by proper legal proceedings;
 - (o) encumbrances, if any, granted to BNY Trust Company of Canada for and on behalf of each holder of a debt instrument pursuant to a capital markets issuance issued under a Trust Indenture, provided that the Bank is granted the same security and the security granted to Bank ranks on a *pari passu* basis with the capital markets issuance.

The Borrower shall pay the Bank in priority to all amounts owed by the Borrower to Hydro Ottawa Limited, Energy Ottawa Inc. and Telecom Ottawa Holding Inc. The Borrower, Hydro Ottawa Limited, Energy Ottawa Inc., Telecom Ottawa Holding Inc. and the Bank has executed an Inter-Creditor Agreement dated February 19, 2009 pursuant to which amounts owing by the Borrower to the Bank will be paid prior to amounts owing to the other parties to the Agreement.

GENERAL CONDITIONS

Until all debts and liabilities under the Credits have been discharged in full, the following conditions will apply in respect of the Credits:

An event of default shall be deemed to have occurred if the Borrower and/or its subsidiaries further encumber their assets in contravention of the Negative Pledge provided to the Bank.

The Borrower shall provide evidence that borrowings are approved by the Ontario Energy Board or such other regulatory body as may be required under the Energy Competition Act.

Business activities to be restricted to those permitted pursuant to Section 73 of the Ontario Energy Board Act 1998.

Tangible Net Worth (TNW), calculated on the basis of the consolidated results for Hydro Ottawa Holding Inc. is to be maintained in excess of \$175,000,000 at all times.

TNW is defined as the sum of share capital, earned and contributed surplus less (i) amounts due from officers/affiliates, (ii) investments in affiliates, and (iii) intangible assets as defined by the Bank.

The ratio of Total Debt to Capitalization is not to exceed 0.75:1 calculated on the basis of the consolidated results for Hydro Ottawa Holding Inc.

Capitalization is defined as total debt as defined by the Bank plus the sum of share capital, earned and contributed surplus.

Without the Bank's prior written consent, such consent not to be unreasonably withheld or delayed:

No change in ownership is permitted.

No dividends, withdrawals, bonuses, advances to shareholders, management or affiliates are permitted which would place any Bank credit conditions in default.

Guarantees or other contingent liabilities are not to be entered into and assets are not to be further encumbered in excess of \$3,000,000. Other contingent obligations not to be incurred if they would have a material adverse effect on the financial position of the Borrower and its subsidiaries taken as a whole.

Subsidiaries designated as Hydro Ottawa Limited, Energy Ottawa Inc. and Telecom Ottawa Holding Inc., are not to incur further indebtedness (other than inter-corporate indebtedness or indebtedness to/from the Borrower), with the exception of "Permitted Encumbrances" and Lease transactions having an aggregate balance of no greater than \$5,000,000.

No mergers, Permitted Acquisitions* representing more than 40% of TNW or material change in the Borrower's primary line of business are permitted. TNW is calculated on the basis of the Consolidated results for Hydro Ottawa Holding Inc.

*Permitted Acquisitions include any non-hostile Acquisitions with respect to which:

- a) The business of the entity being acquired (in the case of Equity Acquisition) or the assets being acquired are being used in or relate to (in the case of an Asset Acquisition) the Business.**
- b) No Pending Event of Default or Event of Default exists at the time of such proposed Acquisition and no Pending Event of Default or Event of Default would exist immediately after the implementation of such proposed Acquisition.
- c) The Debt to Capitalization covenant would be met, on a pro forma basis, immediately after the implementation of any such Proposed Acquisition.
- d) The Borrower has provided the Bank with notice of such Acquisition at least 5 business days prior to the completion of such Acquisition.

**Business is defined as those business activities permitted pursuant to Section 73 of the Ontario Energy Board Act 1998

Additional terms and conditions in Schedule A are to apply.

If there is any change from the accounting policies, practices and calculation methods used by the Borrower in preparing any part of its financial statements for the fiscal year most recently completed before the date of this Commitment Letter, the Borrower shall provide the Bank with all information that the Bank requires to ensure that reporting provided to the Bank after any changes are comparable to previous reporting. In addition, all calculations made for the purposes of this Commitment Letter shall continue to be made based on the accounting policies, practices and calculation methods in effect as at the date of the financial statements for the most recently completed fiscal year. In the event of a change in the accounting policies, practices and calculation methods, the Bank retains the right (a) to act on any default under the financial covenants or any other terms and conditions as defined in this Commitment Letter that is disclosed by applying the previous accounting policies, practices and calculation methods and (b) at its discretion and acting reasonably, to amend/reset covenants that are affected by the change.

GENERAL BORROWER REPORTING CONDITIONS

Annual Audited Consolidated and Unaudited Unconsolidated Financial Statements, prepared in accordance with the elected Generally Accepted Accounting Principle ("GAAP") applicable at the date of the financial statements, within 120 days of the Borrower's fiscal year end, duly signed.

Copy of approved annual budget to be submitted in conjunction with annual audited consolidated and unaudited unconsolidated financial statements, within 120 days of the Borrower's fiscal year end.

Annual Audited Financial Statements for Hydro Ottawa Limited and Energy Ottawa Inc., prepared in accordance with the elected Generally Accepted Accounting Principle ("GAAP") applicable at the date of the financial statements, within 120 days of the respective fiscal year end, duly signed.

Annual Internally Prepared Financial Statements for Telecom Ottawa Holding Inc, within 120 days of the respective fiscal year end.

Quarterly Interim Consolidated Financial Statements of the Borrower, within 60 days of period, with the exception of 120 days for the period ended December 31st.

Annual certificate signed by the Borrower confirming that all Ministry of Environment requirements are being met and that there are no outstanding active environmental orders.

A Quarterly Compliance Certificate signed by the Chief Financial Officer of the Borrower, certifying that the Borrower is in compliance with all conditions of the credit facility and that there has been no breach of conditions of credit during the quarter, other than as outlined in the Compliance Certificate, within 60 days of the end of each fiscal quarter of the Borrower, with the exception of 120 days of the end of the quarter ended December 31st. The Borrower is also to certify as to compliance/non-compliance with any other Lender.

OTHER FEES AND COMMISSIONS

An Annual Renewal Fee in the amount of \$5,000 is payable by the Borrower each year.

SCHEDULE A
ADDITIONAL TERMS AND CONDITIONS APPLICABLE
TO ALL CREDITS

Calculation and Payment of Interest

1. Interest on loans/advances made in Canadian dollars will be calculated on a daily basis and payable monthly on the 22nd day of each month (unless otherwise stipulated by the Bank). Interest shall be payable not in advance on the basis of a calendar year for the actual number of days elapsed both before and after demand of payment or default and/or judgment.

Interest on Overdue Interest

2. Interest on overdue interest shall be calculated at the same rate as interest on the loans/advances in respect of which interest is overdue, but shall be compounded monthly and be payable on demand, both before and after demand and judgment.

Indemnity Provision

3. If the introduction, adoption or implementation of, or any change in, or in the interpretation of, or any change in its application to the Borrower of, any law, regulation, guideline or request issued by any central bank or other governmental authority (whether or not having the force of law), including, without limitation, any liquidity reserve or other reserve or special deposit requirement or any tax (other than tax on the Bank's general income) or any capital requirement, has due to the Bank's compliance the effect, directly or indirectly, of (i) increasing the cost to the Bank of performing its obligations hereunder or under any avallment hereunder; (ii) reducing any amount received or receivable by the Bank or its effective return hereunder or in respect of any avallment hereunder or on its capital; or (iii) causing the Bank to make any payment or to forgo any return based on any amount received or receivable by the Bank hereunder or in respect of any avallment hereunder determined by the Bank in its discretion, then upon demand from time to time the Borrower shall pay such amount as shall compensate the Bank for any such cost, reduction, payment or forgone return (collectively "Increased Costs") as such amounts are reasonably determined by the Bank and set forth in a certificate to the Borrower.

In the event of the Borrower becoming liable for such Increased Costs, the Borrower shall have the right to prepay in full, without penalty, the outstanding principal balance under the affected credit other than the face amount of any document or instrument issued or accepted by the Bank for the account of the Borrower, including, without limitation, a Letter of Credit, a Letter of Guarantee or a Bankers' Acceptance. Upon any such prepayment, the Borrower shall also pay the then accrued interest on the amount prepaid and the Increased Costs to the date of prepayment together with such amount as will compensate the Bank for the cost of any early termination of its funding arrangements in accordance with its normal practices, as such amounts are calculated in a certificate reasonably prepared by the Bank.

Calculation and Payment of Bankers' Acceptance Fee

4. The fee for the acceptance of each Bankers' Acceptance will be payable on the face amount of each Bankers' Acceptance at the time of acceptance of each draft calculated on the basis of a calendar year for the actual number of days elapsed from and including the date of acceptance to the due date of the draft.

Calculation and Payment of Standby Fee

5. Standby fees shall be calculated daily on the unused portion of Credit Number 01 and Credit Number 03 and payable monthly on the basis of a calendar from the date of acceptance by the Borrower of this Commitment Letter.

Environment

6. The Borrower represents to the bank that (i) neither the Borrower nor any of its subsidiaries is subject to any civil or criminal proceeding or investigation relating to applicable environmental laws and neither it nor any of its subsidiaries is aware of any threatened proceeding or investigation relating to requirements of applicable environmental laws other than for non-material matters arising in the normal course of business none of which, individually or in the aggregate, could reasonably be expected to have a material adverse effect on the Borrower and its subsidiaries, taken as a whole; (ii) each of the Borrower and its subsidiaries has all material permits, licences, registrations and other authorizations required by applicable environmental laws for the operation of its business and the properties which it owns, leases or otherwise occupies; (iii) no hazardous substances are or have been stored or disposed of by the Borrower or any of its subsidiaries or otherwise used in violation of any applicable environmental laws (including, without limitation, release of hazardous substances by the Borrower or any of its subsidiaries at, on or under any property now or previously owned or leased by the Borrower or any of its subsidiaries) that have, or could reasonably be expected to have, a material adverse effect on the Borrower and its subsidiaries taken as a whole.

The Borrower shall and shall cause each of its subsidiaries to operate its business in compliance with applicable environmental laws other than those in respect of which non-compliance could not reasonably be expected to have a material adverse effect on the Borrower and its subsidiaries taken as a whole and operate all property owned, leased or otherwise used by it such that no obligation, including a clean-up or remedial obligation, shall arise under any applicable environmental law other than obligations that could not reasonably be expected to have a material adverse effect on the Borrower and its subsidiaries taken as a whole.

Notice of Drawdown/Payments

7. The Borrower shall give the Bank prior notice of a drawdown or payment of any loan/advance as follows:
- two bank business days when the amount is \$25 million dollars or more excluding any loan/advance required to permit Hydro Ottawa Limited to pay amounts due to the Independent Electrical System Operator ("IESO").
 - Bank business day(s) includes the day of advance/payment.

Initial Drawdown

8. The right of the Borrower to obtain the initial drawdown under the Credit(s) is subject to the condition precedent that there shall not have been any material adverse changes in the financial condition or the environmental condition of the Borrower or any guarantor of the Borrower.

Periodic Review

9. The obligation of the Bank to make further advances or other accommodation available under any Credit(s) of the Borrower under which the indebtedness or liability of the Borrower is payable on demand, is subject to periodic review and to no adverse change occurring in the financial condition or the environmental condition of the Borrower or any guarantor.

Evidence of Indebtedness

10. The Bank's accounts, books and records constitute, in the absence of manifest error, conclusive evidence of the advances made under the Credit Facilities, repayments on account thereof and the indebtedness of the Borrower to the Bank.

Acceleration

11. All indebtedness and liability of the Borrower to the Bank not payable on demand, shall, at the option of the Bank, become immediately due and payable, the security held by the Bank shall immediately become enforceable, and the obligation of the Bank to make further advances or other accommodation available under the Credits shall terminate, if any one of the following Events of Default occurs:
- (i) the Borrower or any guarantor fails to make when due, or at a fixed payment date, by acceleration or otherwise, any payment of interest, principal, fees, commissions or other amounts payable to the Bank;
 - (ii) there is a breach by the Borrower or any guarantor of any other term or condition contained in this Commitment Letter or in any other agreement to which the Borrower and/or any guarantor and the Bank are parties;
 - (iii) any default occurs under any security listed in this Commitment Letter under the headings "Specific Security" or "General Security" or under any other credit, loan or security agreement to which the Borrower and/or any guarantor is a party;
 - (iv) any bankruptcy, re-organization, compromise, arrangement, insolvency or liquidation proceedings or other proceedings for the relief of debtors are instituted by or against the Borrower or any guarantor and, if instituted against the Borrower or any guarantor, are allowed against or consented to by the Borrower or any guarantor or are not dismissed or stayed within 60 days after such institution;
 - (v) a receiver is appointed over any property of the Borrower or any guarantor or any judgement or order or any process of any court becomes enforceable against the Borrower or any guarantor or any property of the Borrower or any guarantor or any creditor takes possession of any property of the Borrower or any guarantor;
 - (vi) any course of action is undertaken by the Borrower or any guarantor or with respect to the Borrower or any guarantor which would result in the Borrower's or guarantor's reorganization, amalgamation or merger with another corporation or the transfer of all or substantially all of the Borrower's or any guarantor's assets;
 - (vii) any guarantee of indebtedness and liability under the Credit Line is withdrawn, determined to be invalid or otherwise rendered ineffective;
 - (viii) any adverse change occurs in the financial condition of the Borrower or any guarantor.
 - (ix) any adverse change occurs in the environmental condition of:
 - (A) the Borrower or any guarantor of the Borrower; or
 - (B) any property, equipment, or business activities of the Borrower or any guarantor of the Borrower.

Costs

12. All reasonable costs, as determined by the Bank, including legal fees incurred by the Bank relative to security and other documentation and the enforcement thereof, shall be for the account of the Borrower and may be charged to the Borrower's deposit account when submitted.



EB-2008-0244

IN THE MATTER OF the *Ontario Energy Board Act, 1998*,
S.O. 1998, c. 15, (Schedule B);

AND IN THE MATTER OF an application by
PowerStream Inc. for an order approving just and
reasonable rates and other charges for electricity
distribution to be effective May 1, 2009.

BEFORE: Gordon Kaiser
Presiding Member and Vice Chair

Paul Vlahos
Member

Cathy Spoel
Member

MAJORITY DECISION

July 27, 2009

*This is a Majority Decision by Members Paul Vlahos and Cathy Spoel. The Minority
Decision by Vice Chair Gordon Kaiser follows the Majority Decision.*

The Board directs that PowerStream amend its Conditions of Service and related contracts going forward in a manner that clearly reflects the intent described by the PowerStream witnesses in this hearing. PowerStream shall file, for convenience, the amended sections of the Conditions of Service and related Terms of Reference Letters or other contracts as part of its draft rate order.

Rate Base

In accepting the revenue requirement reflected in the Settlement Proposal earlier in this decision, the Board considered the argument advanced by SEC that non-revenue producing condominium suite meters should not be forming part of rate base. The Board does not accept that revenue-generation is the test for including an asset in rate base. The test is used or useful. SEC's suggestion is not consistent with the long-standing regulatory practices in this regard. Notably, as article 410 of the Board's Accounting Procedures Handbook points out, assets will be included in rate base if they have the "capacity" to contribute to future cash flows and earn income. PowerStream's asset recognition approach to condominiums is the same as that for conventional subdivisions where installations can pre-date connection and revenue producing by a considerable time period. There is no supportable basis to treat the condominium suite metering assets distinctly.

Implementation of Rates

Pursuant to the Settlement Proposal that was approved by the Board the new rates are to be effective May 1, 2009 and implemented August 1, 2009.

Given the date of this Decision, an August 1, 2009 implementation date is no longer possible. The Board authorizes PowerStream to implement the new rates September 1, 2009.

The results of the Settlement Proposal together with the Board's findings outlined in this Decision are to be reflected in a Draft Rate Order. The Board expects PowerStream to file detailed supporting material, including all relevant calculations showing the impact of the implementation of the Settlement Proposal and this Decision on its proposed revenue requirement, the allocation of the approved revenue requirement to the classes and the determination of the final rates, including bill impacts. Supporting



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such circumstances to have but one trial, and it is clear that the trust companies' action is not the one that should be stayed.

- a I digress to state that contrary to what was asserted by Miss Panchenko in her discussion of *Leonard v. Wharton* (1921), 50 O.L.R. 609, 64 D.L.R. 609, and *Radcliff Realities Co. v. Delfino* (1976), 2 C.P.C. 97, it is possible under the rules, as stated by Master Davidson in the *Union Gas* decision, to stay execution
- b when judgment is given. I believe that the contrary rule is properly applicable when the stay of execution is not part of the judgment itself but it is sought to stay in a separate proceeding a judgment obtained in an earlier proceeding. Had there been a judgment in the Rosenberg action a stay of execution might well in the circumstances have been part of the judgment.

- c The Rosenberg action is stayed pending the final determination or disposition of the trust companies' action, and Rosenberg shall have the right to set up his claim as a counterclaim in the trust companies' action.

- d Costs shall be in the cause.

Order accordingly.

[HIGH COURT OF JUSTICE]
DIVISIONAL COURT

e

Re Union Gas Ltd. and Ontario Energy Board et al.

STEELE, ANDERSON
AND SAUNDERS JJ.

1st NOVEMBER 1983.

- f **Public utilities — Rates — Board empowered to fix just and reasonable rates for sale of gas — Disallowing unabsorbed demand charges as costs to be recovered — Whether board erred — Ontario Energy Board Act, R.S.O. 1980, c. 332, s. 19.**

- g Pursuant to s. 19(1) of the *Ontario Energy Board Act*, R.S.O. 1980, c. 332, the board may make orders fixing "just and reasonable rates" for the sale of gas. On an application for the fixing of rates by the appellant public utility, the board excluded from the amount to be recovered by the rates "demand charges", a sum paid on a monthly basis whether or not the quantity of gas contracted for was actually taken. The company was then in an acute over-supply position. The result was to reduce the rate of return to shareholders. On a motion for leave to appeal and, if granted, an appeal from the order, **held**, the motion for leave to appeal should be granted but the appeal should be dismissed.

- h In balancing the conflicting interests of the enterprise, which seeks the highest possible rate of return on its operations, and the customers, who wish to be served as cheaply as possible, and in determining just and reasonable rates, the Ontario Energy Board has a wide discretion, although the exercise of its discretion must not be arbitrary or capricious. As well, it is under an obligation to approve rates

- (c) the applicant's cost of service;
- (d) the revenue deficiency (or revenue surplus), and
- (e) the appropriate rate increases (or decreases) for each customer class required to meet the deficiency (or surplus).

Accordingly, in each rate application the applicant utility structures the evidence filed in support of the application so as to permit the O.E.B. to determine the appropriate rate base and the appropriate cost rates for each element of the capital structure used to finance the rate base, the utility's cost of service and, finally, the amount of the revenue deficiency (if any) that existing rates would produce if they were not altered. These amounts are estimated and determined by the O.E.B. for the period covered by the application, a future "test year" during which the rates to be fixed will be in force.

Traditionally, the O.E.B., and most other utility regulators, have set rates based upon an historic "test year" utilizing actual results for a past period.

Recently, and in E.B.R.O. 388, some regulated utilities have chosen to seek rates based on a future test year. This requires forecasts or predictions of future conditions.

The future test year approach has been accepted by the O.E.B. as appropriate in specific cases. While the approach has certain advantages in times of rising costs, it does require the application of extensive judgment in all areas and increases the uncertainties involved.

The rate base is simply the depreciated cost to the utility of Union's property (plant and equipment) "used or useful" in serving the public, *e.g.*, pipelines, compressors, trucks and typewriters, together with allowances for such items as working capital.

As Union has investments in unregulated activities (*e.g.*, the development of oil and gas in western Canada), the O.E.B. must determine an appropriate capital structure for the utility operation alone that includes long-term debt, preference shares, common equity capital and short-term borrowings.

The O.E.B. then determines the appropriate cost rates for the test year for each component of the capital structure, *i.e.*, long-term and short-term debt, preference shares and common equity.

The utility's revenue requirement, which is made up of two components, its total operating costs and an appropriate return on rate base, represents the utility's cost of service for the test year. Operating costs include the cost of gas supplies, pay-roll costs, depreciation and taxes.

Board Staff 14a

Year	Eligible Year	In	Eligible Cumulative	Actual Retirement	Balance Cumulative
Prior					7
2008	7		14	4	10
2009	18		28	12	16
2010	21		37	11	26
2011 YTD	11		37	8	29
Totals	57			35	

Note: Of 35 actual retirements since 2008, 72% have retired within 6 months of eligible date. 29 remain eligible cumulatively, primarily from 2010 and 2011.

Of the 8 retirements in 2011 to date, 2 became eligible in 2011, 5 in 2010, and 1 in 2008 3 additional staff have provided notice to retire.

GRID PROMISSORY NOTE

Effective the 1st day of January 2009.

As consideration for the transfer of funds by Hydro Ottawa Holding Inc. to Hydro Ottawa Limited, **Hydro Ottawa Limited**, (the "Borrower"), a corporation incorporated pursuant to the laws of the Province of Ontario, hereby unconditionally promises to pay to or to the order of **Hydro Ottawa Holding Inc.** (the "Lender") at Ottawa, Canada the principal amount advanced under this grid promissory note (the "Principal") together with interest at a rate specified below ("Interest") on the amount of Principal from time to time outstanding in lawful money of Canada upon the terms and subject to the conditions set forth below.

This Note is a negotiable instrument.

The following are the terms and conditions of the Note:

1. PRINCIPAL

- (1) The total amount authorized will not exceed \$75,000,000.00 CDN.
- (2) Advances of Principal may be made in tranches to meet business requirements.
- (3) The liability of the Borrower and of any guarantor of the Borrower ("Guarantor") or endorser in respect of Principal shall not exceed the outstanding amount of Principal.
- (4) Advances shall be deemed conclusively to have been made to and for the benefit of the Borrower when,
 - (a) deposited or credited to the account of the Borrower by the Lender; or
 - (b) made in accordance with the instructions of the Borrower.
- (5) All advances of Principal under this Note shall be evidenced by endorsement upon the grid attached to this Note as Schedule A (the "Grid").
- (6) The Lender's Chief Financial Officer, President and Chief Executive Officer and Treasurer are authorized to endorse the Grid, including any continuation Grid that may be attached to this Note, the date and amount of each advance and together with the unpaid balance of the Principal and each endorsement shall be prima facie evidence of the amounts so advanced and the balance of principal outstanding under this Note.

2. INTEREST RATE

- (1) Interest shall be payable upon the amounts advanced under this Note at a fixed rate of interest payable monthly in arrears on a mutually agreed date. The rate established for long term debt will be based on either of two methods:
- a) If available, the actual cost of external long term debt, including issuance costs, issued to a 3rd party of which the proceeds, in part or total, flow through to Hydro Ottawa Limited or;
 - b) An estimated "deemed interest rate" which will be based on the underlying methodology outlined in the Ontario Energy Board's "Report of the Board" on the Cost of Capital for Ontario's Regulated Utilities EB-2009-0084 dated December 11, 2009. The rate will be determined from available information at the time of the advancement using indicative rates as provided to Hydro Ottawa Limited. The rate will also include estimated issuance costs that would be associated with an issuance. The rate that is in effect when the advance was made will be used for the duration of the advance as per the Term and Payment section. .
 - c) All changes to interest rates under this Note shall be evidenced by endorsement upon the Grid attached as Schedule A.

3. ADMINISTRATIVE FEE

An administrative charge will be added to the rate of interest charged on Long Term Debt advances at the rate of 0.10% per annum.

4. TERM AND REPAYMENT

- (1) The Principal and any accrued and outstanding Interest payable under this Note shall be payable in full on February 9, 2015 unless otherwise agreed by **Hydro Ottawa Holding Inc. and Hydro Ottawa Limited**.
- (2) **Hydro Ottawa Limited** may, at any time, repay the full Principal amount outstanding from time to time on this Note. In addition to any other amount then payable by the Borrower pursuant to the terms hereof (including, without limitation, accrued interest) in respect to the repayment, the Borrower shall pay to the Lender an amount equal to three months simple interest on the full Principal amount being repaid.
- (3) **Hydro Ottawa Holding Inc.** may require that **Hydro Ottawa Limited** repay the Principal and Interest payable within 30 days following a change of control of **Hydro Ottawa Limited**. For the purpose of this sub-section control means with respect to **Hydro Ottawa Limited** at any time (i) holding, as owner or other beneficiary – other than solely as beneficiary of an unrealized security interest – directly or indirectly, securities or ownership interests of **Hydro Ottawa Limited**

carrying votes or ownership interests sufficient to elect or appoint the majority of individuals who are responsible for the supervision or management or **Hydro Ottawa Limited**, or (ii) the exercise of de facto control of **Hydro Ottawa Limited**, whether direct or indirect and whether through the ownership of securities or ownership interests, by contract, trust or otherwise.

5. **SUBORDINATION**

The obligation of **Hydro Ottawa Limited** to pay the Principal Amount or the amount remaining unpaid from time to time on this Grid Promissory Note are subordinated and postponed to the obligations of **Hydro Ottawa Limited** to a third party for the payment in full of any secured indebtedness and all security interests granted to secure such obligations of **Hydro Ottawa Limited**.

a. **WAIVER OF NOTICE IN EVENT OF DEFAULT**

Hydro Ottawa Limited hereby waives presentment, protest and notice of any kind in the enforcement of this Grid Promissory Note. **Hydro Ottawa Limited** further agrees to pay all costs of collection, including legal fees on a solicitor and client basis, in case the Principal Amount, or the amount remaining unpaid from time to time on this Grid Promissory Note, is not made when due.

b. **RIGHTS AND REMEDIES IN EVENT OF DEFAULT**

The rights and remedies of **Hydro Ottawa Holding Inc.** under this Grid Promissory Note which it may have at law or in equity against **Hydro Ottawa Limited** shall be distinct, separate and cumulative, and shall not be deemed inconsistent with one another, and none of the said rights, whether or not exercised by **Hydro Ottawa Holding Inc.**, shall be deemed to be to the exclusion of any other, and any one or more of said rights and remedies may be exercised at the same time. The obligations of **Hydro Ottawa Limited** under this Grid Promissory Note shall continue until the entire debt evidenced hereby is paid, notwithstanding any court action or actions taken by **Hydro Ottawa Holding Inc.** which may be brought to recover any amounts due and payable under this Grid Promissory Note. No delay or failure by **Hydro Ottawa Holding Inc.** in the enforcement of any covenant, promise or agreement of **Hydro Ottawa Limited** hereunder shall constitute or be deemed to constitute a waiver of such right. Any waivers of **Hydro Ottawa Holding Inc.** shall only occur and be valid when set forth in writing by **Hydro Ottawa Holding Inc.** No waiver of any event of default shall discharge or release any person at any time liable for the payment of this Grid Promissory Note from such liability. No single or partial

exercise of any of **Hydro Ottawa Holding Inc.**'s powers hereunder shall preclude other and further exercise thereof or the exercise of any other power.

c. **ASSIGNMENT**

This Grid Promissory Note may not be assigned by **Hydro Ottawa Holding Inc.** or **Hydro Ottawa Limited.**

d. **GOVERNING LAW**

This Grid Promissory Note shall be governed by the laws of the Province of Ontario and the laws of Canada applicable therein.

IN WITNESS WHEREOF Hydro Ottawa Limited has duly executed this Grid Promissory Note on the date first appearing above.

HYDRO OTTAWA LIMITED

Per: 

Name: Rosemarie T. Leclair

Title: President and Chief Executive Officer

Per: 

Name: Alan Hoverd

Title: Chief Financial Officer

HANDOUT PERTAINING TO BOARD STAFF TCQ#37

SCENARIO 1 – LOSS ON THE DISPOSAL OF A POOLED ASSET

For illustrative purposes, the situation is as follows, a pole with a cost of \$100 is disposed of for \$0 proceeds, the accumulated depreciation associated with the asset is \$80, resulting in a \$20 loss on disposal.

In the year of disposition, distribution revenue collected is \$500, of which \$20 represents the collection of the \$20 regulatory asset for the loss on disposal noted above

Originating Entries

Dr. 4360 Loss on Disposal	\$20	
Dr. 2105 Accumulated Depreciation	\$80	
Cr. 1830 Asset Cost		\$100

To dispose of the asset and record the loss on disposal

Dr. 15x2 Regulatory Asset	\$20	
Cr. 4360 Loss on Disposal		\$20

To set up the regulator asset

Disposition Entries

Dr. 1100 Accounts Receivable	\$500	
Cr. 15x2 Regulatory Asset		\$20
Cr. 4080 Distribution Revenue	\$480	

To record the collection

Dr. 4360 Loss on Disposal	\$20	
Cr. 4080 Distribution Revenue	\$20	

To record the loss on disposal

SCENARIO 2 – GAIN ON THE DISPOSAL OF A POOLED ASSET

For illustrative purposes, the situation is as follows, a pole with a cost of \$100 is disposed of for proceed of \$30, the accumulated depreciation associated with the asset is \$80, resulting in a \$10 gain on disposal.

In the year of disposition, distribution revenue is \$500, however only \$490 is collected from the customers as the \$10 gain noted above is returned to the customer.

Originating Entries

Dr. 1005 Cash (Proceeds)	\$30	
Dr. 2105 Accumulated Depreciation	\$80	
Cr. 1830 Asset Cost		\$100
Cr. 4355 Gain on Disposal		\$10

To dispose of the asset and record the gain on disposal

Dr. 4355 Gain on Disposal	\$10	
Cr. 15x2 Regulatory Asset		\$10

To set up the regulator asset

Disposition Entries

Dr. 1100 Accounts Receivable	\$490	
Dr. 15x2 Regulatory Asset		\$10
Cr. 4080 Distribution Revenue		\$500

To record the collection

Dr. 4080 Distribution Revenue	\$10	
Cr. 4355 Gain on Disposal		\$10

To record the gain on disposal

Hydro Ottawa Limited
Review and Update of Overhead
Capitalization Estimates

August 16th, 2007



Table of Contents

Executive Summary	i
I. Introduction	1
II. Study Approach	2
III. Evaluation Criteria.....	5
IV. Hydro Ottawa Capitalization Policies	6
A. External Guidance.....	6
B. Hydro Ottawa's Internal Guidelines	7
C. The Nature of Capitalized Overhead Costs	9
D. Impacts on Operations	10
E. Use of FTE Estimates	12
F. Allocation of Costs from Holdco.....	12
G. Costs Allocated by Department	13
H. The Structure of Burdens	17
V. Rationale for Capitalization Estimates	20
A. Allocation Factors.....	20
B. Documentation.....	21
VI. Implementation	22
A. The Use of Annual Updates.....	22
B. Comprehensive Updates	22

Appendix – Accounting and Regulatory Guidance



Executive Summary

KPMG was retained by Hydro Ottawa Limited ("Hydro Ottawa") to help review and update the company's estimates of the amount of overhead costs related to capital. These costs will be allocated to capital projects through burden rates applied to direct project costs. The study results will be reflected on a prospective basis, as the results are deemed by management to be a change in accounting estimate.

As noted in our report, no single regulatory guideline, statement, or source exists that is universally accepted by industries and regulators as the definitive statement, definition, or standard that prescribes what kinds of overhead costs should be considered for capitalization. However, this topic has been the subject of discussion and comment and a body of evidence exists on the topic. From this evidence, a common principle arises:

That any assignment of indirect costs to a capital project should be done based upon some reasonable causal link or association with the capital activity.

The estimates outlined in this update adhere to this principle.

KPMG has reviewed Hydro Ottawa's documented policy and finds it reasonable and in accordance with industry standards and practice related to overhead capitalization. As part of this update, KPMG has also reviewed the cost drivers that have been used by Hydro Ottawa and validated the appropriateness of the overhead costs that are to be applied to capital projects. Accordingly, KPMG finds that the overhead capitalization results developed in this study and presented herein are fair and reasonable and meet the criteria that KPMG outlines in Chapter III for this review.

In the table below, we summarize this study's estimates of the amount of overhead costs related to capital.



Summary of Capitalized Overhead Costs – Draft 2008 Budget as at August 1st, 2008

	Total Gross OM&A	Total Capitalized Overhead	% of Total Gross OM&A Capitalized
Sub-total – Admin	26,398,993	5,923,819	22.4%
DAM & CAM ¹	52,467,305	7,087,088	13.5%
Customer Contact & Conservation	6,660,970	Nil	-
Metering & Electricity Revenue	16,654,415	Nil	-
Sub-total – Operations	75,782,690	7,087,088	9.4%
Total (Unadjusted)	102,181,683	13,010,907	12.7%
Less: Internal Maintenance Included In Total Above	(12,754,768)	Nil	-
Total OM&A Expenditures	89,426,915	13,010,907	14.5%

¹ For DAM & CAM, there is \$3,625,861 in costs capitalized through the Engineering Burden, and \$3,461,227 in costs capitalized through the Supervision Burden. The Supervision Burden includes supervisory costs from the metering department within the Metering & Electricity Revenue division.



I. Introduction

1. Objective of this Study

KPMG was retained by Hydro Ottawa Limited ("Hydro Ottawa") to help review and update the company's estimates of the amount of overhead costs related to capital. These costs will be allocated to capital projects through burden rates applied to direct project costs. The study results will be reflected on a prospective basis, as the results are deemed by management to be a change in accounting estimate.

2. Principal Findings and Recommendations

KPMG has reviewed Hydro Ottawa's documented policy and finds it reasonable and in accordance with industry standards and practice related to overhead capitalization. As part of this update, KPMG has reviewed the cost drivers that have been used by Hydro Ottawa and validated the appropriateness of the overhead costs that are to be applied to capital projects. Accordingly, KPMG finds that the overhead capitalization results developed in this study and presented herein are fair and reasonable and meet the criteria that KPMG outlines in Chapter III for this review.

3. Organizational Structure

Hydro Ottawa provides electricity distribution services in the Ottawa area. It is a subsidiary of Hydro Ottawa Holding Inc ("Holdco"). A telecommunications company and an electricity generating company are also subsidiaries of Holdco.

Table I-1 below summarizes the formal company names for each of the entities discussed in the report, matched to the abbreviations that have been used for brevity.

Table I - 1 – Glossary of Company Names

Name Used in this Report	Formal Company Name
Holdco	Hydro Ottawa Holding Inc.
Hydro Ottawa	Hydro Ottawa Limited



II. Study Approach

In this Chapter, we summarize the methodology and approach used to complete this study. Our work plan was developed in collaboration with Hydro Ottawa management, and was designed to provide a supportable basis for the company's estimates of the amount of overhead costs related to capital.

Our work plan incorporated the following steps:

- **Step 1: Interview company officials.** In this step, we interviewed senior representatives from each operating area to understand and identify those company departments that appear to support, either directly or indirectly, capital projects at Hydro Ottawa. The purpose of this step was to gain an understanding of the specific activities within Hydro Ottawa that may be eligible to have costs allocated to capitalized overhead. This step also provided us with a good understanding of Hydro Ottawa's organizational structure and its approach to the installation of capital assets.
- **Step 2: Document regulatory and accounting policy guidance.** In this step, we researched the guidance provided by various accounting and regulatory authorities on the topic of overhead capitalization. The objective of this step was to ensure that the approach adopted in this review was consistent with a cross-section of current industry standards and practices. The results of our research are summarized in the appendix.
- **Step 3: Develop criteria for an overhead capitalization approach.** Based on the initial steps above, and on our assessment of appropriate objectives, we developed a set of criteria to be used to evaluate our approach to estimating the amount of overhead costs associated with capital projects. The criteria are provided in Chapter III.
- **Step 4: Document Hydro Ottawa's capitalization approach.** In this step, we prepared a statement that summarizes Hydro Ottawa's guidelines for overhead capitalization. This statement appears in Section B of Chapter IV of this report. Additional guidance on the nature of eligible costs is provided in Section C of the same chapter. Together, these sections were used as an information guide for management when compiling information for this review and update. They provided:
 - Guidance on the types of activities and costs that may be eligible for overhead capitalization.
 - A framework for classifying these activities and costs.
 - The details of a "test" for identifying whether specific support costs should be included as capitalized overhead. The purpose of the test is to act as a materiality threshold and to thereby ensure that the overhead capitalization process does not become unduly complex or detailed as a result of trying to



capture all of the costs that may conceivably have a link to capital projects.¹ The test ensures that the process focuses only on costs with a significant or measurable link to capital.

- **Step 5: Assess reasonableness of Hydro Ottawa's approach.** In this step, we reviewed Hydro Ottawa's guidelines for overhead capitalization, as documented in the step above. We checked this approach against guidance from the Ontario Energy Board (OEB), the Canadian Institute of Chartered Accountants ("CICA"), from other accounting and regulatory agencies (e.g. the U.S. Federal Accounting Standards Board and the Federal Energy Regulatory Commission), and the practices of other North American utilities as observed through a review of regulatory filings in other jurisdictions. We also validated Hydro Ottawa's policies against the criteria that we developed in Step 3 and which are documented in Chapter III. KPMG then concluded that the Hydro Ottawa capitalization approach, as documented in Step 4 above, is reasonable and is an appropriate basis for overhead capitalization at the utility.
- **Step 6: Internal data collection.** In this step, KPMG and finance staff within Hydro Ottawa collected data from all relevant departments within each operating company. To support proposed allocations from any given department, company management prepared the following:
 - A written description of the specific activities within the department that support capital projects.
 - Estimates of the percentage of the cost of these activities that should be allocated to capitalized overhead, and
 - Supporting documentation with respect to the basis of the proposed cost allocation factors.

This step was intended to provide an audit trail for the costs to be allocated to capitalized overhead.

- **Step 7: Review internal survey results.** In this step, KPMG reviewed the data assembled by company management in the step above. We checked that the information provided was consistent with Hydro Ottawa's internal policies for overhead capitalization as documented in Step 4 and with the information received from our initial interview process (Step 1). We also verified the accuracy of any supporting calculations and cross-checked the information provided with respect to the costs of activities and cost drivers used against budget data for Hydro Ottawa overall. Where required and appropriate, departments were asked to review and/or update the calculations provided in the previous step.

Overall, this step was very important to the overall integrity of this study update process: KPMG personnel worked to ensure that the allocation process was reasonable and that it was applied consistently across the company.

¹ As outlined in Chapter IV, the test states that a support function should not allocate costs if the workload for that function would not be reduced by at least ½ an FTE and any associated G&A costs in the absence of capital projects.



- **Step 8: Prepare summary report.** In this step, we prepared this summary report to document and summarize the results of the update process.



III. Evaluation Criteria

Methodologies for overhead capitalization should address a set of formal, objective criteria that speak to company and policy objectives. The criteria that we used in this study to evaluate the proposed capitalization approach are as follows:

- **Defensible cost causation linkage.** To conform to accounting guidelines, the methodology should show a direct causal link between capitalized overhead costs and capital activity. This is a key test in ensuring that the methodology will be acceptable to regulators and under Canadian Generally Accepted Accounting Principles ("Canadian GAAP").
- **Freedom from Bias.** The allocation approaches should not tend to allocate an undue proportion of costs toward either operating or capital activities.
- **Transparency.** The methodology and calculations should be easy to follow and to understand by internal users and by external observers (i.e., regulators). This will facilitate acceptance of the methodology.
- **Accuracy of Underlying Data.** Any data used in the allocation process should be accurate and able to be relied upon. The data should provide an appropriate measure of the underlying volume of activity or output.
- **Flexibility/Adaptability.** The methodology should accommodate changes in organizational structure, business processes, and information systems with reasonable ease. Thus, the methodology should be dynamic: it should be relatively easy to update and keep current as the organization evolves. To the extent possible, it should automatically adjust for changes in circumstance.
- **Cost-Effectiveness.** In evaluating different accounting approaches, we need to ensure that they are cost-effective. Additional accuracy may require significant additional cost, and thus an appropriate balance is required between precision and cost. In evaluating cost-effectiveness, two different time perspectives are relevant:
 - **Low implementation cost.** All else being equal, the methodology should be capable of being implemented at a reasonable cost.
 - **Low on-going costs.** The approach should have relatively low costs of upkeep. Further, it should reduce the administrative, record-keeping and reporting burden imposed on operating staff. The methodology should also integrate easily with the process used to prepare company financial statements.
- **Stability.** The methodology should not result in disproportionately large variations in the amounts of capitalized overhead from year-to-year.



IV. Hydro Ottawa Capitalization Policies

In this Chapter, we review guidance from regulatory and accounting bodies on the capitalization of overhead costs. In this context, we then present the Hydro Ottawa policy for overhead capitalization and discuss its implications. This study confirmed the appropriateness of Hydro Ottawa's policy, and it was used as the basis of the current update.

A. External Guidance

In this section, we summarize guidance from the Ontario Energy Board (OEB) and the Canadian Institute of Chartered Accounts on the capitalization of overhead costs. We also note the potential for international harmonization of standards.

1. Ontario Energy Board

Article 410 of the Ontario Energy Board Accounting Procedures Handbook for electricity distribution utilities states:

"Property, Plant and Equipment should be recorded at cost, which includes the purchase price and other acquisition costs such as: option costs when an option is exercised, brokers' commissions, installation costs including architectural, design and engineering fees, legal fees, survey costs, site preparation costs, freight charges, transportation insurance costs, duties, testing and preparation charges."¹

Further guidance is provided by Article 230, Definitions and Instructions, No. 20. This document defines the components of construction cost as follows:

"the cost of construction properly included in the electric plant accounts shall include where applicable, the cost of labour; materials and supplies; transportation; work done by others for the utility; injuries and damages incurred in construction work; privileges and permits; special machinery services; allowance for fund used during construction; and such portion of general engineering, administrative salaries and expenses, insurance, taxes, and other similar items as may be properly included in construction costs."²

¹ Ontario Energy Board, *Accounting Procedures Handbook*, Article 410, p. 7.

² Ontario Energy Board, *Accounting Procedures Handbook*, Article 230, p. 5.



2. The Canadian Institute of Chartered Accountants

The Canadian Institute of Chartered Accountants (CICA) provides guidance regarding the nature of costs that should be allocated to capitalized overhead within Handbook section CICA 3061.20 as follows:

“The cost of an item of property, plant and equipment includes direct construction or development costs (such as materials and labour), and overhead costs *directly attributable* to the construction or development activity.”
[Emphasis ours]

The accounting standard does not go into further details on how the overhead costs should be identified or the actual determination of an overhead rate.

Additional sources of guidance from Canadian and U.S. bodies on the capitalization of overhead costs are summarized in the appendix.

3. International Financial Reporting Standards

As a result of recent initiatives by the Accounting Standards Board of Canada (“AcSB”), entities such as Hydro Ottawa may be required to report under International Financial Reporting Standards (“IFRS”) by 2011. IFRS is more restrictive than current accounting standards for regulated utilities with respect to the capitalization of overhead costs.

At this point, there is still some uncertainty regarding the details of the application of IFRS to regulated Canadian utilities. IFRS and Canadian standards may evolve in the years leading up to 2011 and Canadian utility regulators have not yet addressed the issue of transition. The year 2011 is also beyond the horizon of this study’s analysis. Accordingly, IFRS was not specifically considered in the development of this study’s estimates of capitalized overhead costs for Hydro Ottawa.

B. Hydro Ottawa’s Internal Guidelines

While the OEB and CICA, as noted above, provide general guidance with respect to capitalized overhead costs, Hydro Ottawa has prepared its own internal guidelines to provide more specific direction as to the nature, type, and quantum of costs that should be allocated to capitalized overhead. The definition of capitalized overhead costs that has been adopted for this study is as follows:

“Overhead costs must be directly attributable to construction activity at the utility. This will be interpreted to mean that the overhead costs to be charged to capital are those that would not exist if Hydro Ottawa did not construct its own capital assets. Eligible costs may appear fixed in the short term but would be eliminated over time (in 3 to 5 years) if Hydro Ottawa did not have a capital



program. Overhead expenditures that are capitalized include such costs as salaries and benefits of construction and engineering personnel not directly chargeable to project costs and the cost of administrative and support services that are required as a result of construction activity.”

This study has therefore adopted a time-based approach (i.e. the 3 to 5 year test) for identifying costs that are directly attributable to, or can be linked to, construction activity. This approach is useful because:

- It is easy to understand and to “operationalize” by personnel seeking to interpret the policy guidelines.
- It is conceptually attractive and captures the nature of costs that are typically considered for overhead capitalization.

Because Hydro Ottawa uses a 3-5 year time horizon, many of the overhead costs captured in the process will not vary directly with the level of capital spending in the short term. They could be eliminated in the absence of a capital program but, given that Hydro Ottawa does have a capital program, they are relatively fixed in nature and may not change materially with changes in capital spending from year to year.

1. Example Application of Costing Approach

The allocation approach adopted by Hydro Ottawa has implications for certain support costs. For example, in allocating the costs of the Human Resource department, Hydro Ottawa focuses only on those costs that will vary with the number of employees. To the extent that Hydro Ottawa would have fewer employees in the absence of a capital program, any Human Resources costs that would be eliminated as a result of the work-force reduction are eligible for inclusion in the overhead allocated to capital. For example, some portion of Human Resource costs (and staffing) may be associated with handling questions and benefits claims from employees. Such staffing should be reduced in proportion with a fall in the overall employee count. However, fixed costs associated with the Human Resource function, which would continue in the absence of a capital program, are not allocated proportionately between the operating and capital portions of Hydro Ottawa. They are instead charged to current operations.

2. Treatment of Non-Productive Time

For employees whose costs are captured through the overhead capitalization process, we have directed respondents to allocate a proportionate share of all costs associated with these employees to the capitalized overhead pool. Thus if an employee spends 50% of his/her productive time on activities related to capital, costs allocated to the overhead capitalization pool should be equal to 50% of the total salary and benefit costs associated with that employee. This approach means that capital projects are allocated an appropriate share of vacations, sick time, and other internal non-productive time.



The approach outlined above is consistent with the way that Hydro Ottawa allocates those costs associated with operating staff whose time is charged directly to projects. The labour rate used for directly-charged time includes an uplift to account for the portion of employees' paid time that is not charged. This can be referred to as non-productive time. Such paid time includes allowances for training, vacation, paid sick-leave, and any other paid time that is not directly associated with productive work. Some amount of non-productive time is inevitable, and it needs to be taken into account in the cost allocation process.

3. Change in Capitalization Thresholds

In parallel with this study, Hydro Ottawa has adjusted its capitalization threshold for General Plant. This threshold has been increased from \$200 to \$500. The change in threshold will decrease the number of General Plant items that are capitalized rather than expensed, although the dollar impact on amounts capitalized is not expected to be large.

C. The Nature of Capitalized Overhead Costs

Capitalized overhead costs can be distinguished from:

- **Costs charged directly to capital.** These are costs that are charged directly to capital projects and that therefore form part of the direct capital cost of the associated assets. Such costs include the costs of materials and construction labour, as well as any purchased services (e.g. outside contracting) that may be associated with installation of the asset. At Hydro Ottawa, direct costs also include fleet charges for the recovery of the costs of vehicles used by personnel performing capital work.
- **Costs charged directly to operating expenses.** These costs appear in the income statement for Hydro Ottawa in the period concerned. These costs include any costs that are not identified as being related to capital projects. They thus encompass a wide range of costs, including costs associated with customer billing and service, most general and administrative costs, and costs associated with maintenance activities.

Capitalized overhead, in contrast to the cost elements above, reflects those costs that relate to capital projects but that have not been specifically identified with any individual project. The nature of capitalized overhead costs is more fully outlined below.



Functions that have costs allocated to capitalized overhead generally fall into one of the three categories noted below. While the boundaries between these types of activities are not always clear, the categories do help to provide a conceptual framework to help identify and evaluate those costs eligible for capitalized overhead:

- **Non-Project-Specific Capital Support.** This category encompasses processes for formulating, evaluating, initiating, designing and implementing capital additions. This includes feasibility analyses, expenditures to obtain approval, and budgeting. It also includes in-house design work, software coding work, and economic assessments. Activities in this category are specifically focused on capital but cannot be charged to specific projects, either:
 - Because it is impractical or costly to do so, or
 - Because the function is related to capital projects generally rather than to specific or identified projects.
- **Administration and Oversight of Activities Directly Related to Capital Projects.** This category encompasses processes for the supervision and administration, cost control, and reporting of those activities and/or costs that are in direct support of capital projects. Activities in support of projects can either be directly charged to those projects or they can be associated with non-project specific capital support (the first category of capitalized overhead costs noted in the bullet above). Activities in this support category thus include the administration and supervision of construction departments.
- **Support Functions and Infrastructure.** This category covers the support functions and infrastructure networks that enable the departments that are directly involved in the installation of capital projects to do their work. Relevant support functions include Human Resources and Facilities.

Because the last category of cost has the least direct relationship to capital projects, Hydro Ottawa implemented a “test” to ensure that any cost centre or activity that allocates costs to capitalized overhead has some causal linkage with capital spending. This test applies only to Support Functions and Infrastructure, and is as follows:

Would the workload of this function be materially reduced if the company ceased to undertake all capital projects?

As a materiality threshold, the workload for that function would need to be reduced by the equivalent of at least ½ of a Full-Time Employee (or “FTE”) under the scenario in which all capital projects at Hydro Ottawa cease.

If the function would not have its workload reduced by at least ½ an FTE under a scenario in which capital projects cease, then none of the costs of that function should be allocated to capitalized overhead.

D. Impacts on Operations

Within Hydro Ottawa, the core processes associated with operation of the distribution network and the addition of new network assets occur within the divisions titled



Distribution Asset Management ("DAM") and Construction And Maintenance ("CAM"). Accordingly, CAM and DAM are the locus of most capital projects within the company and were a major focus of our review. These divisions operate under the direction of the Chief Operating Officer (COO) of Hydro Ottawa.

Management within CAM and DAM did a detailed analysis of the workloads of various groups and individuals within these divisions to determine the staffing that is in support of capital projects. In total, management determined that the work effort equivalent to approximately 190 FTEs within CAM and DAM is related to capital projects. Key elements of this staffing estimate are:

- About 70 FTEs, representing approximately 2/3 of the workload of trades-people within CAM. These are personnel who directly perform maintenance or capital work in the field or in company shops and who install projects in the field. Associated with these trades-people are, in addition, over 20 support personnel, including managers and supervisors, co-ordinators, and administrative assistants.)
- About 2/3 of the work-force associated with transformer stations, encompassing about 20 FTEs.
- Over 40 FTEs associated with design work, service layouts, and manning of the service desk.
- A substantial share of the workforce in the GIS/Records departments.
- Most of the engineering personnel in DAM.

It should be noted that some of the labour costs associated with the personnel outlined above are charged directly to projects. This is generally the case for the trades personnel who work in the field and at Hydro Ottawa transformer stations (comprising about 90 FTEs of the labour effort noted above).

As outlined elsewhere, the hourly labour charged includes an allowance for the non-productive time of the employees. The actual allocation of direct labour costs will adjust between capital and maintenance projects based on the mix of projects undertaken and, hence, timesheet entries by personnel in the field.

Beyond those FTEs that are charged directly to projects, it follows from the discussion above that there are about 100 FTEs of capital support within CAM and DAM whose costs remain within gross OM&A. The costs of these FTEs must be captured in the overhead capitalization process. This recovery is provided for in the allocation percentages outlined later in the chapter.

Some activities within DAM are not in support of capital projects and, hence, have no costs allocated to capitalized overhead. These groups include, for example, the Systems Operations Group. This group mans the control room at Hydro Ottawa, and thus directs the real-time operation of the network.



E. Use of FTE Estimates

The estimates of staffing within CAM and DAM that are in support of capital are a key starting point for our overall estimates of the overhead costs associated with capital projects at Hydro Ottawa. Staffing levels associated with capital are the basis of allocations from, in particular, the HR and Facilities departments. Demand for these support functions is largely determined by overall staffing levels. Allocations of costs from these support functions must therefore take into account the total amount of company labour that supports capital projects, and the associated impact on company costs for support and infrastructure. For the purpose of determining support allocations, the labour effort associated with capital projects includes both labour charged directly to capital projects and engineering and other overhead and administrative labour whose costs are recovered through the overhead capitalization process.

When the labour effort associated with all company support functions is taken into account, the total number of FTE's associated with capital projects is estimated at approximately 230. This represents approximately 40 percent of projected total staffing at Hydro Ottawa in 2008. Accordingly, capital projects represent a significant proportion of the workloads of Hydro Ottawa staff.

F. Allocation of Costs from Holdco

Holdco provides a variety of administrative and support services to the operating companies. These services include finance and treasury functions, regulatory affairs, and legal support.

To identify an appropriate allocation of costs, KPMG personnel and staff from the Finance group interviewed managers in the relevant functional departments. Based on the application of our guidelines in Section B, we determined that only two groups within Holdco should have costs allocated to capital projects at Hydro Ottawa. These groups are as follows:

- General Counsel.
- Regulatory Affairs.

Managers for these groups estimated the proportion of costs within these functions associated with capital projects. The basis of the estimates are as outlined in Table IV-1.



Table IV-1
Allocations by Departments from Holdco

Department	Allocation to Capital
Chief Executive Officer	<i>Nil</i>
Chief Financial Officer	<i>Nil</i>
Internal Audit	<i>Nil</i>
General Counsel	Allocation of 35.5% is based on the estimated time that is associated with the review of contracts for construction work and the administration and control of easements for the construction of capital assets.
Chief Regulatory Officer	Allocation of 10% of costs of Chief Regulatory officer, based on estimated time that is associated with regulatory work pertaining to capital assets.
General Office	<i>Nil</i>

G. Costs Allocated by Department

In Table IV-2 we provide an overall summary of the costs allocated to capitalized overhead from each of various departments and from Holdco. These costs are grouped by the burden rate through which they are recovered. (Burden rates are more fully explained in Section H of this Chapter.)

In Table IV-2, the first column lists the total gross OM&A associated with each department. In this context, "gross" means before deductions for overhead that is charged to capital. In the second column in the table, labeled "Total Gross OM&A Considered for Capitalization", the figures have been adjusted by removing certain overhead costs that are directly charged to operating expenses and that therefore are not considered eligible for overhead capitalization. These non-eligible costs include items such as OEB membership dues, facility costs for stations, and environmental costs. For costs associated with administration, the second column therefore represents those costs remaining, which were then examined for potential allocation to the pool of capitalized overhead costs.



Table IV-2
Summary of Capitalized Overhead Costs – Draft 2008 Budget as
at August 1st, 2008

	Total Gross OM&A	Total Gross OM&A Considered for Capitalization	Total Capitalized Overhead	% of Total Gross OM&A Capitalized
Holdco	1,858,742	1,858,742	185,874	10.0%
Corporate Costs	1,995,871	1,868,867	373,773	18.7%
COO's Office	1,007,602	1,007,602	151,140	15.0%
Finance	3,275,140	3,275,140	605,901	18.5%
Regulatory	1,752,755	812,505	81,251	4.6%
Supply Chain	2,718,636	2,692,636	2,288,741	84.2%
Facilities	4,462,311	3,625,046	953,387	21.4%
HR & Safety	5,703,494	3,583,980	1,182,713	20.7%
IT	3,624,443	3,367,941	101,038	2.8%
Sub-total –Admin	26,398,993	22,092,459	5,923,819	22.4%
DAM & CAM ¹	52,467,305		7,087,088	13.5%
Customer Contact & Conservation	6,660,970		Nil	-
Metering & Electricity Revenue	16,654,415		Nil	-
Sub-total – Operations	75,782,690		7,087,088	9.4%
Total (Unadjusted)	102,181,683		13,010,907	12.7%
Less: Internal Maintenance Included In Total Above	(12,754,768)		Nil	
Total OM&A Expenditures	89,426,915		13,010,907	14.5%

¹ For DAM & CAM, there is \$3,625,861 in costs capitalized through the Engineering Burden, and \$3,461,227 in costs capitalized through the Supervision Burden. The Supervision Burden includes supervisory costs from the metering department within the Metering & Electricity Revenue division.



Table IV-3 provides a summary description of the basis of allocations, and a short description of the costs recovered.

Table IV-3
Basis of Overhead Allocations

	% Related to Capital	Basis of Allocation
Holdco	10.0	See Table IV-1
Corporate Costs	18.7	These costs represent allocations of future employee benefits and property insurance.
COO's Office	15.0	These costs represent about 40% of the labour and G&A expense associated with personnel providing performance indicators and efficiency improvements.
Finance	18.5	Based on elimination of one A/P associate, one financial analyst, one billing analyst, one management accountant and one supervisor because of reduction in supplier invoices, variance analysis, and billing for capital projects. Figure includes proportionate share of departmental G&A expenses.
Regulatory	4.6	Represents estimated share of Regulatory department's workload associated with seeking approvals for capital projects and modeling and approvals with respect to customer contributions. License fees and association dues are excluded from the allocation.
Supply Chain	84.2	Allocated based on dollar value of materials and outside services associated with capital projects (out of total).
Facilities	21.4	Pro-rata allocation of space costs.
Human Resources & Safety	20.7	Based on estimate of staffing reduction in HR function with no capital projects and, hence, fewer line and support staff elsewhere in the company.
IT	2.8	Reflects reduction in head-count of 1 person due to lower call volumes for help desk support.
Operations (Engineering)	10.5	Identified specific staff in engineering design, record keeping and asset management who would not be required in the absence of capital projects.
Supervision	61.4	Ratio based on estimated proportion of dollars associated with capital projects versus maintenance and work for others. Based on management salaries and one-half of G&A in Operations and Meter Installation areas.

A detailed discussion of some of specific issues associated with a number of the departments is provided below.



Information Technology (IT)

The information technology department allocates a relatively small proportion of its operating budget to capital. This reflects a number of circumstances that mean that its costs would generally not be reduced with a reduction in overall organizational staffing levels and in the level of capital activity:

- The cost of new computer equipment, which is generally purchased rather than leased, typically exceeds Hydro Ottawa's capitalization thresholds, and thus these costs do not appear within OM&A budgets. Accordingly, reductions in the number of personal computers as a result of reduced staffing levels would not appear in IT department's operating budget.
- Monthly fees associated with mobile phones and other telecommunications devices are included in the budgets for individual departments. Reductions in these costs that may be associated with lower staffing levels under a scenario of no capital projects are thus captured elsewhere as reductions in the general and administrative expenses of the functional departments, rather than as a saving by the IT department.
- Much of the cost of the IT department relates to supporting the breadth of software applications used at Hydro Ottawa, rather than the number of users associated with each. These types of costs would not be significantly reduced even in the absence of capital projects.

As a result of the above factors, the major source of savings in the IT department as a result of the elimination of capital projects are associated with one fewer staff person in the Help Desk to provide support to operating staff.

The IT budget does not include expenditures associated with the Customer Information System (CIS). These costs are included in the Customer Care division.

Facilities

Reductions in staffing under the scenario in which no capital projects occur would result in a reduction in space required at three Hydro Ottawa facilities: Albion Road, Merivale, and Bank Street. In total, about 390 inside staff are housed at the 3 facilities.

As a starting point to estimating costs for the overhead capitalization process, the operating budget associated with these facilities was converted to an amount per inside employee that works at these facilities. This amount per employee was multiplied by the expected reduction in the number of inside workers under a scenario in which there are no capital projects.

The costing approach outlined above has the following implications:

- The figures use an average figure per employee for the three facilities together, rather than identifying the specific space that would be reduced. This avoided difficulties that may arise from differences across facilities in the cost of space per unit area or uncertainties in the specific space that would be retained (versus sold or sub-leased.)



- We assumed that space is a variable cost over the 3-5 year horizon used for analyzing cost behaviour. We thus assumed that excess space could either be sold or sub-leased, to capture space savings from employee reductions.

Regulatory

The functions of the regulatory group are split between Hydro Ottawa and Holdco. The Chief Regulatory Officer sits within Holdco, and costs associated with her involvement in Hydro Ottawa capital projects are included in the allocation of Holdco costs. Within Hydro Ottawa, there are 5 staff working on regulatory and rates issues associated with the utility. Within this group, the effort of ½ of an FTE was determined to be directly related to capital projects. The focus of this work is on planning and approvals for capital projects, and work to calculate costs that should be recovered through customer contributions or connection fees.

The costs of this department include OEB license fees and association dues. These external costs are excluded from the allocation to capital projects. This results in a lower allocation of total department costs to capital projects than would be suggested by the ½ FTE workload share noted above.

Fleet Costs

The cost of vehicles is recovered through an hourly vehicle rate (or burden) that is charged to all applicable projects, whether they are related to capital, maintenance, or work for others. The hourly rate is designed to capture all costs associated with the fleet department. These rates are not included in the overhead capitalization amounts that are the subject of this report. Fleet charges, however, are included in the base that is used to allocate Engineering Burdens.

H. The Structure of Burdens

Hydro Ottawa applies overhead costs to capital through three separate burden rates. The use of multiple burden rates allows overhead costs to be applied more precisely to the particular projects that are associated with the various types of overhead costs. The three different burden rates are as follows:

- **Engineering Burden.** This burden is designed to recover those costs of the engineering department that are associated with capital projects.
- **Supervision Burden.** This burden is designed to recover the costs of management salaries and general and administrative costs in the operations and metering divisions (which includes CAM and DAM).
- **General and Administrative Burden.** This burden is designed to recover the costs of various administrative and support services associated with capital projects.



In applying burdens, the approach distinguishes between two types of capital assets:

- **Distribution Plant**, which represents projects associated with Hydro Ottawa's outside distribution network, and
- **General Plant**, which covers all other capital projects. Major elements of General Plant include computer and software projects, vehicles, and buildings and equipment.

The Engineering and Supervision Burdens are applied only to Distribution Plant, since it was determined that General Plant projects do not generally consume (or draw on) the overhead resources associated with engineering and supervision activities. The Administration Burden is applied to both General Plant and Distribution Plant.

The Supervision Burden differs from the others in that it is applied to all three of the major work activities performed by Hydro Ottawa: capital, maintenance, and work for others. ("Work for others" covers projects or work undertaken on behalf of customers or other parties.) The basis for allocating the Supervision Burden is the direct project costs associated with Hydro Ottawa field labour and with outside services (e.g. contracting fees). This reflects the fact that Hydro Ottawa needs to supervise and inspect both the work done by its own field staff and the work done by others.

In Table IV-2, presented earlier in this chapter, the amount of dollars allocated to capital through the Supervision Burden is calculated based on the budgeted proportion of capital work versus maintenance projects and work for others. The actual amount allocated to capital will vary during the course of the year based on the actual levels of work activity. This is due to the fact that the percentage burden developed to recover these costs is fixed. The actual recoveries are monitored on an ongoing basis and are compared to the actual costs considered for capitalization. Any adjustments that may be required are made through a true-up process as per the allocation procedures.

The key attributes of the burden structure at Hydro Ottawa are summarized in Table IV-4 below.



Exhibit IV-4
Burden Structure

Burden	Nature of Costs Recovered	Basis of Allocation	Types of Projects
Engineering	Engineering	Sum of: - Direct Labour - Materials - Fleet Charges - Outside Services	Distribution Plant Only
Supervision	Management salaries and general and administrative costs in the Construction & Maintenance (CAM) and Distribution Asset Management (DAM) departments	Sum of - Direct Labour - Outside Services	Distribution Plant Only <i>Note: Applied as well to distribution maintenance and work-for others</i>
Administration	Various administrative and support costs including: - Supply Chain - Facilities - Human Resources and Safety - IT - Finance - Corporate costs - Holdco - Regulatory	Sum of - Direct Labour - Materials - Fleet Charges - Outside Services	Distribution Plant and General Plant



V. Rationale for Capitalization Estimates

In this Chapter, we summarize the rationale for the capitalization estimates prepared, and link it to the criteria noted in Chapter III.

To ensure that our estimates are consistent with regulatory and industry precedent, we undertook a review of some relevant regulatory and accounting guidance, and have summarized the results of our review in the appendix. As noted in this appendix, no single regulatory guideline, statement, or source exists that is universally accepted by industries and regulators as the definitive statement, definition, or standard that prescribes what kinds of overhead costs should be considered for capitalization. However, this topic has been the subject of discussion and comment among regulators and professional accounting bodies and a body of evidence exists on the topic. From this evidence, a common principle arises:

That any assignment of indirect costs to a capital project should be done based upon some reasonable causal link or association with the capital activity.

Any estimates that Hydro Ottawa prepares should apply this basic principle. It speaks to the first criterion listed in Chapter III, which is that the methodology should have a **defensible cost causation linkage**. The estimates outlined in this update adhere to this principle. For all departments that allocate costs to capitalized overhead, company officials were asked to identify the activities concerned and to provide a rationale for the proposed cost allocation approach. Proposed cost allocations were expected to have a reasonable and defensible basis.

Other elements of the capitalization approach are discussed below.

A. Allocation Factors

In this update, careful consideration was given to the allocation factors used to identify capitalized overhead costs. We ensured that allocation factors were based on a **defensible cost causation linkage**.

As noted in Chapter II, officials within each department were asked to provide the details of their proposed approach to allocating costs to capitalized overhead for those activities that support Hydro Ottawa's capital projects.

The following methods were used to allocate costs in this update:

- **Time estimation.** In this method, the allocation factors (or "cost drivers") for a particular department or function were based on estimates of the proportion of time spent by employees within the department on activities in support of capital. These estimates were typically made by managers within the department who had a good knowledge and understanding of the workloads of associated employees. For the operations area, the time of managers and support staff was



allocated based on the time allocation of front-line employees (or, in other words, of those employees directly involved in carrying out department functions).

- **Volume drivers.** In this method, allocations were based on measures of throughput for a particular department. For example, vehicle insurance costs are allocated based on the underlying share of Fleet department costs that are charged to capital versus maintenance and work for others.
- **Value Measures.** Where appropriate volume measures were not available, dollar values were used. Thus, for example, costs for the Supply Chain department were allocated based on the relative value of purchases for capital versus operating activities. This allocation was based on activity levels over the last few years.

In addition to identifying appropriate cost drivers for activities allocated to capital, it was important to have a clear philosophy or rationale for the costs to be capitalized. This study focused on those costs or activities that would be eliminated in the absence of capital projects. This clear definition helped to ensure that our estimates exhibit a **freedom from bias**. The materiality threshold also helped to achieve this objective.

B. Documentation

The approach implemented for this update relies on formal documentation at each step of the process. It thus addresses the need for **transparency**. Elements of this approach are as follows:

- The Hydro Ottawa capitalization policy was documented in a formal statement. This statement provided additional guidance, relative to earlier implementation efforts, regarding the types of activities that are considered to have a causal link to capital projects.
- Finance staff, working with managers from each operating area, were required to justify the allocation factors used and to provide associated back-up (whether based on outputs from the financial reporting system or a time estimation process). Responses received represent an in-house record of the bases of cost allocation factors.
- Under the direction of KPMG, finance staff reviewed all departmental input regarding cost allocation factors, requested additional support or clarification as required, and then put together an integrated Excel spreadsheet to calculate overall overhead capitalization factors for Hydro Ottawa. This spreadsheet framework will facilitate updates, and should thus help to support the criteria of **flexibility/adaptability** and **low on-going costs**.



VI. Implementation

In this Chapter, we discuss recommendations for updating the capitalization process on an on-going basis.

A. The Use of Annual Updates

Our review suggests that most of the costs included in the overhead capitalization process are likely to be relatively fixed in nature from year to year, either in their dollar value or in their percentage of the total OM&A budget. This reflects the fact that costs allocated to the overhead capitalization process are generally related to overhead functions that are relatively stable in nature and that do not vary directly with the dollar value of capital expenditures in any particular period.

Accordingly, we recommend that burden rates used to recover capitalized overhead costs rates be recalculated annually to take into account changes in capital expenditures from year to year. An annual updating of the rate will better reflect the nature of overhead costs associated with capital projects. It will ensure that the process compensates appropriately for changes in the size of the capital budget.

The base amount of overhead costs allocated to capital will also need to be reviewed annually for reasonableness, and should be adjusted by management to account for changes in overall budgets or in the nature or breakdown of activities in the organization.

B. Comprehensive Updates

Hydro Ottawa should undertake a formal, comprehensive review of its overhead capitalization process on a periodic basis. The appropriate frequency for such updates will vary depending on the amount of change that occurs within the company over intervening periods. As a general rule, however, a comprehensive review should be carried out no less frequently than every 4 to 5 years. Specific triggers that could suggest an earlier review include the following:

- There are material changes in the costs or structure of the support functions that are associated with capital projects. Thus, changes in the organization of engineering, procurement, or stores functions, for example, could suggest an earlier update.
- There are changes in the types or nature of costs that are directly allocated to capital projects. This update, for example, has suggested that the costs of direct labour be adjusted to include an allowance for non-productive time. Such a change would require an update to the allocations within this study.



- There are changes in the definition of capital versus operating projects. This could be manifested, for example, as a change in capitalization thresholds. Any significant change in threshold may require a review of the overhead allocations, since the threshold affects the balance of work related to capital versus operating projects.
- There are significant changes in the balance of work that is done using in-house staff versus outside suppliers. Such changes may require changes in the overhead costs related to supervision and control.
- There are large changes in the size of capital budgets. Such changes could be a signal that overhead costs associated with capital projects have changed materially.
- There are changes in accounting or regulatory guidance.



Appendix

Accounting and Regulatory Guidance

August 16th, 2007



Appendix - Accounting and Regulatory Guidance

In this Appendix, we provide references to a variety of Canadian and US sources of guidance on the capitalization of overhead costs. This listing is not comprehensive, but does capture the key sources that are likely to be of interest or relevance to Hydro Ottawa.

A. Canadian Guidance

1. *Ontario Energy Board's Accounting Procedures Handbook for Electric Distribution Utilities*

Article 410 of the Ontario Energy Board Accounting Procedures Handbook states:

"Property, Plant and Equipment should be recorded at cost, which includes the purchase price and other acquisition costs such as: option costs when an option is exercised, brokers' commissions, installation costs including architectural, design and engineering fees, legal fees, survey costs, site preparation costs, freight charges, transportation insurance costs, duties, testing and preparation charges."¹

Further guidance is provided by Article 230, Definitions and Instructions, No. 20. This document defines the components of construction cost as follows:

"the cost of construction properly included in the electric plant accounts shall include where applicable, the cost of labour; materials and supplies; transportation; work done by others for the utility; injuries and damages incurred in construction work; privileges and permits; special machinery services; allowance for fund used during construction; and such portion of general engineering, administrative salaries and expenses, insurance, taxes, and other similar items as may be properly included in construction costs."²

2. *Ontario Energy Board's Uniform System of Accounts for Class A Gas Utilities*

According to the Ontario Energy Board's Uniform System of Accounts for Class "A" Gas Utilities, Appendix A, Plant Accounting Instructions:

"Overhead Charged to Construction: includes engineering, supervision, administrative salaries and expenses, construction engineering and supervision, legal expenses, taxes and other similar items. The assignment of overhead costs to particular jobs or units shall be on the basis of a reasonable allocation of actual costs. The records supporting the entries for overhead charged to construction

¹ Ontario Energy Board, *Accounting Procedures Handbook*, Article 410, p. 7.

² Ontario Energy Board, *Accounting Procedures Handbook*, Article 230, p. 5.



costs shall be maintained so as to show the total amount for each element of overhead for the year and the basis of allocation.”

3. CICA Handbook Section 3061 Property, Plant and Equipment (“PP&E”)

This Section of the Handbook of the Canadian Institute of Chartered Accountants (“CICA”) discusses measurement of PP&E. Section 3061.16 indicates that PP&E should be recorded at cost. Cost is defined in Section 3061.05 as “the amount of consideration given up to acquire, construct, develop or better an item of PP&E and includes all costs directly attributable to the acquisition, construction, development or betterment of the asset”.

When an asset is constructed or developed over time, Section 3061.20 indicates that cost includes the direct construction or development costs as well as the overhead costs *directly attributable [our emphasis]* to the construction or development activity.

The Handbook does not define the term “directly attributable”; however, this term is used throughout the handbook in various sections with reference to cost allocations.

4. CICA Handbook Accounting guideline AcG-16 Oil and Gas Accounting – Full Cost

This accounting guideline applies to the application of the full cost method of accounting for oil and gas exploration, development and production activities. While this guideline is not specifically relevant to the capitalization of costs to PP&E, it does discuss the concept of overhead allocation and the capitalization of such costs. The guideline does not recommend or discourage the use of the full cost method of accounting.

Paragraph 7 of the guideline indicates that internal costs capitalized should be limited to those costs that can be “directly identified with the acquisition, exploration and development activities undertaken by the enterprise for its own account, and should not include any costs related to production (lifting costs), general corporate overhead, or similar activities”. The guideline further states that capitalized costs include the “portion of overhead or general and administrative costs that can be directly related to, and is necessary to, the exploration and development activity”.

5. CICA Handbook Section 3450 Research and Development Costs

This section discusses the costs that can be capitalized as research and development costs. Paragraph 3450.08 indicates that R&D costs include a reasonable allocation of overhead with the allocation being made on bases similar to those used in allocating overhead to inventory. It further states that current accounting practice does not allocate general and administrative costs that are not clearly related to a particular activity or function. These are treated as period costs.



6. CICA Handbook section 3031 Inventories

Paragraph 3031.10 states that the “cost of inventories shall comprise all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition”.

Paragraph 3031.12 states that the costs of conversion include “a systematic allocation of fixed and variable production overheads that are incurred in converting materials into finished goods”. It then states: “Fixed production overheads are those indirect costs of production that remain relatively constant regardless of the volume of production, such as depreciation and maintenance of factory buildings and equipment, and the cost of factory management and administration. Variable production overheads are those indirect costs of production that vary directly, or nearly directly, with the volume of production, such as indirect materials and indirect labour.”

Paragraph 3031.13 states that “the allocation of fixed production overheads to the costs of conversion is based on the normal capacity of the production facilities”. Normal capacity is “the production expected to be achieved on average over a number of periods or seasons under normal circumstances, taking into account the loss of capacity resulting from planned maintenance”. Paragraph 13 goes on to state that the “amount of fixed overhead allocated to each unit of production is not increased as a consequence of low production or idle plant. Unallocated overheads are recognized as an expense in the period in which they are incurred.”

7. REALpac Accounting Practices Handbook

The Real Property Association of Canada (“REALpac”) has published a manual to provide practical and professional interpretations of accounting principles as they relate to Canadian real estate investment and development companies.

REALpac recommends that general and administrative costs directly attributable to construction of a property should be capitalized as a cost of the project. The section describes general and administrative costs to include the following:

- Salaries and benefits of officers of company;
- Travel and automotive costs;
- Audit and legal fees;
- Occupancy costs;
- Stationery;
- Office expenses,;
- Directors’ fees;
- Insurance;
- Computer facility costs;
- Subscriptions;



- Capital and business taxes and;
- Donations.

General and administrative costs that cannot be identified with a specific project or projects should not be allocated as a capitalized cost. REALpac gives the example of corporate stewardship costs as a cost that would not be capitalized.

If general and administrative costs (that qualify for capitalization) relate to a number of construction projects, then REALpac recommends that they be allocated to the projects using judgment and well supported methodology. REALpac advises that a time basis would be the most appropriate basis for allocation in most cases. The allocation method should be used on a consistent basis.

B. US Guidance

1. *FAS 67 – Accounting for Costs and Initial Rental Operations of Real Estate Projects*

The guidance under FAS 67 from the Financial Accounting Standards Board (FASB) states that:

“Indirect project costs that relate to several projects shall be capitalized and allocated to the projects to which the costs relate. Indirect costs that do not clearly relate to projects under development or construction, including general and administrative expenses, shall be charged to expense as incurred.” (FAS 67 para 7.)

2. *Uniform System of Accounts – Federal Energy Regulatory Commission*

Under the Uniform System of Accounts prescribed for public utilities and licensees subject to provisions of the Federal Power Act, capital overhead is defined as:

“Overhead Construction Costs”

- A. All overhead construction costs, such as engineering, supervision, general office salaries and expenses, construction engineering and supervision by others than the accounting utility, law expenses, insurance, injuries and damages, relief and pensions, taxes and interest, shall be charged to particular jobs or units on the basis of the amounts of such overheads reasonably applicable thereto, to the end that each job or unit shall bear its equitable proportion of such costs and that the entire cost of the unit, both direct and overhead, shall be deducted from the plant accounts at the time the property is retired.
- B. As far as practicable, the determination of payroll charges included in construction overheads shall be based on time card distributions thereof. Where this procedure is impractical, special studies shall be made periodically of the time of supervisory employees devoted to construction activities to the end that only such overhead costs as have a definite relation to construction shall be capitalized. The addition to direct construction costs of arbitrary percentages or amounts to cover assumed overhead costs is not permitted.



- c. For Major utilities, the records supporting the entries for overhead construction costs shall be so kept as to show the total amount of each overhead for each year, the nature and amount of overhead expenditure charged to each construction work order and to each electric plant account, and the bases of distribution of such costs.

C. Summary

All of this guidance has a common theme. Overhead that can be directly attributed to the construction project should be capitalized as part of the cost of the project. Limited guidance is given to determine which items of overhead would be considered to be "directly attributed" to a project. It seems clear that each entity must review its overhead expenses by type and determine if the cost is necessary to perform the construction project and if so, a portion of the cost should be capitalized. A reasonable basis of allocation must be determined. No guidance is given on allocation methods.

No single regulatory guideline, statement, or source exists that is universally accepted by industries and regulators as the definitive statement, definition, or standard that prescribes what kinds of overhead costs should be considered for capitalization. However, this topic has been the subject of discussion and comment among regulators and a body of evidence exists on the topic and a number endorse a common principle: that any assignment of indirect costs to a capital project should be done based upon some reasonable causal link or association with the capital activity. Any definition or standard that Hydro Ottawa adopts should apply this basic principle.

Initiative	Business Line / Business Prime (+ Director)	Budget \$000'S		YTD June Actual \$ 000'S		Comments
		OM&A 2011	CAPX 2011	OM&A	CAPX	
CC&B Transition	COO/CIO (SDI)		7000		1716	
CIS Regulatory	COO/CIO (SDI)		1520		248	
Transition to Monthly Billing	CEO / CIO (SDI)					2012 initiative
TOU Infrastructure Disaster Recovery Capability	COO / CIO	250	160	162	0	
AMI Regulatory			1700		509	
IT Security	CIO / IM-IT Plan-Programs	300	100	120	3	K2 Security
IT Infrastructure	CIO / IS&T	75		53		
Contracts Document Management	Finance / CIO-IM		250		31	
JDE Human Capital Management	HR		540		0	Project to start Sept
JDE Financials Phase 2	Finance		800		266	JDE upgrade Phase 1 completion
Call Recording	COO/ Customer Service		61		7	
IVR Platform Upgrade	COO/ Customer Service		180		0	Postponed until 2012
Customer IVR Self-Serve Functionality	COO/ Customer Service		260		10	
Outage Management Communications	COO/ Customer Service		20		13	
Telecomm Radio Systems	CIO / IS&T		195		0	Start upgrade in October
PQView Connector	COO / SMRT GRID – Asset Mgmt		12		0	
P1 2010 Upgrade	COO / SMRT GRID – Asset Mgmt					2012 initiative
4Command	COO / SMRT GRID – Asset Mgmt		32.5		0	Project to start in August
GIS/OMS IT Licensing & Systems Upgrades	COO / Distribution Operations	520	139	268	0	Upgrade to start Sept/Oct
GIS Customizations (Intergraph)	COO / Distribution Operations		90		30	
CYME to GIS Interface	COO / SMRT GRID – Asset Mgmt					2012 initiative
GE MDS PulseNet	COO / SMRT GRID – Asset Mgmt		22		0	Project to start in Q3
PQ Data Collection	COO / SMRT GRID – Asset Mgmt					2012 initiative
PQView 4 Upgrade	COO / SMRT GRID – Asset Mgmt		30		0	
Network Fibre Ring	COO / SMRT GRID – Asset Mgmt					2012 initiative
Mobile Vehicle Installations for OMS	COO / Distribution Operations		32		0	Project to start October
Intranet Renewal	Marketing/Communications	150		3		
Contact Center Platform Upgrade	COO/ Customer Service		30		0	Project to start in Q3
Contact Center Applications	COO/ Customer Service					2012 initiative
My Hydro Link	COO/ Customer Service	105	40	11	30	Capital to start in October
One Portal OMS Applications for Customers	COO / Distribution Operations		50		0	Project to start October
	Total	1,400	13,264	617	2,863	
	Total Excluding CCB	1,400	6,264	617	1,147	
	Half year	700	3,132	617	1,147	
				88%	37%	

[illegible]

Type	Unit Number	Make	Year	LCM Replacement Date	5 YR Plan Anticipated Replacement Date	Estimate Kms June 30, 2012	2012 Count
Forklift	8991	Clark	1989	02-Jun-04	30/June/2012		1
Forklift	9568	Clark	1995	28-Jun-09	30/June/2012		1
Forklift	283	Clark	1994	12-Dec-09	30/June/2012		1
Truck - Bucket	2014	Freightliner	2000	24-Sep-12	30/June/2012	128,993	1
Truck - Bucket	2601	Freightliner	2006	29-Mar-12	30/June/2012	249,927	1
Truck - Bucket	9982	Freightliner	1999	03-Jan-12	30/June/2012	117,656	1
Truck - P/U Comp	2516	Dodge	2005	29-Jun-12	30/June/2012	114,798	1
Truck - P/U Comp	2517	Dodge	2005	27-Jul-12	30/June/2012	213,034	1
Truck - P/U Comp	2518	Dodge	2005	27-Jul-12	30/June/2012	149,350	1
Truck - P/U Comp	2526	Dodge	2006	26-Dec-12	30/June/2012	95,000	1
Truck - P/U Comp	2527	Dodge	2006	26-Dec-12	30/June/2012	125,000	1
Truck - P/U Comp	2529	Chevrolet	2005	26-Dec-12	30/June/2012	105,000	1
Truck - P/U Conv	2406	GMC 1500	2004	28-Jun-12	30/June/2012	105,966	1
Truck - P/U Conv	2407	GMC 1500	2004	28-Jun-12	30/June/2012	247,877	1
Truck - P/U Conv	2408	GMC 1500	2004	28-Jun-12	30/June/2012	165,923	1
Truck - P/U Conv	2409	GMC 1500	2004	28-Jun-12	30/June/2012	94,572	1
Truck - P/U Conv	2412	GMC 1500	2004	12-Oct-12	30/June/2012	129,638	1
Van - Comp	2410	GMC	2004	13-Oct-11	30/June/2011	67,700	1
Van - Comp	2507	GMC	2005	04-Jun-12	30/June/2012	98,038	1
Van - Comp	2509	GMC	2005	04-Jun-12	30/June/2012	37,348	1
Van - Comp	2510	GMC	2005	04-Jun-12	30/June/2012	108,901	1
Van - Comp	2511	GMC	2005	04-Jun-12	30/June/2012	106,493	1
Van - Comp	2512	GMC	2005	04-Jun-12	30/June/2012	40,877	1
Van - Comp	2527	Chevrolet	2005	20-Dec-12	30/June/2012	74,066	1
Van - Stepside	9810	Ford	1998	17-Jan-14	30/June/2012	84,874	1

2010 Final CDM Results: Summary

LDC: Hydro Ottawa Limited

This report provides an estimated allocation of 2010 OPA-funded conservation and demand management (CDM) program results for each LDC’s service territory. A full, detailed report will be available in late September/early October.

The results provided in this report are in accordance with OPA practices and policies for reporting. Demand Response initiatives, for example, have been reported based on the total DR resources that were available (based on contracted nameplate capacity) rather than the actual demand reduction which occurred at the one-hour system peak in a given year.

The OPA welcomes inquiries regarding the determination of these province-wide CDM program results and/or allocation of these results to individual LDC territories. Please direct any questions to ldc.support@powerauthority.on.ca. The OPA is unable to provide any technical or regulatory advice to LDCs regarding specific treatment of these OPA-funded CDM program savings for the purposes of Lost Revenue Adjustment Mechanism or other filings by LDCs to the OEB. Such inquiries should be directed to the OEB.

All results are incremental savings in 2010 presented at the end-user level

Program	Initiative	Activity Unit	Hydro Ottawa Limited				Province-Wide					
			Activity Level	Net Summer Peak Demand Savings (MW)	Net Energy Savings (MWh)	Gross Summer Peak Demand Savings (MW)	Gross Energy Savings (MWh)	Activity Level	Net Summer Peak Demand Savings (MW)	Net Energy Savings (MWh)	Gross Summer Peak Demand Savings (MW)	Gross Energy Savings (MWh)
Consumer	Cool Savings Rebate	Rebates	10,274	1.64	2589	3.79	6112	136,626	20.22	31,117	46.01	72,821
Consumer	Every Kilowatt Counts Power Savings Event	Products purchased	34,277	0.10	1068	0.22	2308	613,248	1.70	19,100	4.00	41,300
Consumer	Great Refrigerator Roundup	Appliances	4,816	0.42	2797	0.81	5255	67,822	5.96	39,290	11.64	73,912
Consumer	peaksaver®	Devices installed	4,455	2.49	10	2.74	11	36,507	20.44	81	22.49	89
Business	Toronto Comprehensive	Projects	0	0.00	0	0.00	0	730	17.70	114,600	37.50	281,200
Business	Electricity Retrofit Incentive Program	Projects	128	1.66	9369	3.17	18465	1,532	19.80	111,740	37.82	220,230
Business	High Performance New Construction*	Projects	20	0.88	2004	1.26	2863	288	12.91	29,433	18.44	42,048
Business	Hydro Ottawa peaksaver® Small Commercial Pilot	Devices installed	939	0.80	2500	0.88	2750	939	0.80	2,500	0.88	2,750
Business	Multifamily Energy Efficiency Rebates	Projects	78	0.36	4303	0.48	5841	970	4.55	53,700	5.95	72,900
Business	peaksaver®	Devices installed	0	0.00	0	0.00	0	243	0.09	2	0.17	2
Business	Power Savings Blitz	Projects	2,314	2.02	6194	2.04	6209	48,274	42.20	129,200	42.60	129,500
Business, Industrial	Demand Response 3	Facilities	17	17.14	336	17.14	336	246	251.70	4,932	251.70	4,932
Business, Industrial	Loblaw & York Region Demand Response*	Facilities	0	1.99	0	1.99	0	2	29.21	0	29.21	0
Industrial	Demand Response 2	Facilities	0	8.10	9472	8.10	9472	3	119.00	139,100	119.00	139,100
Total				37.6	40,642	42.6	59,622		546.3	674,795	627.4	1,080,783

Program	Initiative	Allocation Methodology	Notes
Consumer	Cool Savings Rebate	Actual LDC specific results	
Consumer	Every Kilowatt Counts Power Savings Event	Measure level allocation based on 2010 Residential Energy Throughput	
Consumer	Great Refrigerator Roundup	Actual LDC specific results	
Consumer	peaksaver®	Actual LDC specific results	
Business	Toronto Comprehensive	Program run exclusively in Toronto Hydro-Electric System Ltd. service territory	
Business	Electricity Retrofit Incentive Program	LDC’s respective proportion of province-wide reported gross demand savings.	
Business	High Performance New Construction	Initiative level allocation based on 2010 non-residential energy throughput by LDCs	
Business	Hydro Ottawa peaksaver® Small Commercial Pilot	Program run exclusively in Hydro Ottawa service territory	Evaluation not yet complete; Updates expected in October/November
Business	Multifamily Energy Efficiency Rebates	LDC’s respective proportion of province-wide reported gross demand savings.	
Business	peaksaver®	Actual LDC specific results	
Business	Power Savings Blitz	LDC’s respective proportion of province-wide reported gross demand savings.	
Industrial	Demand Response 2	Initiative level allocation based on 2010 non-residential energy throughput by LDCs	1) Although the program is managed internally and actual participant data is available, the small participant population can lead to participant confidentiality issues if disclosed on an actual LDC share basis.
Business, Industrial	Demand Response 3	Initiative level allocation based on 2010 non-residential energy throughput by LDCs	2) Program results are based on contracted nameplate capacity at the end of the calendar year and not actual summer coincident peak demand reduction.
Business, Industrial	Loblaw & York Region Demand Response*	Initiative level allocation based on 2010 non-residential energy throughput by LDCs	

* Initiative is not evaluated