



CENTRE WELLINGTON HYDRO LTD.
730 Gartshore St. P.O. Box 217, Fergus, Ontario, N1M 2W8
PHONE: (519) 843-2900 FAX: (519) 843-7601

December 8, 2011

Kirsten Walli, Board Secretary
Ontario Energy Board
2300 Yonge Street, 27th Floor
P.O. Box 2319
Toronto, ON M4P 1E4

Dear Ms. Walli,

Centre Wellington Hydro Ltd. – License #ED-2002-0498
2011 Rate Application – 3rd Generation Incentive Regulation Mechanism
OEB File No.: EB-2011-0160

Please find attached Centre Wellington Hydro Ltd's responses to the Board Staff Interrogatories related to the 2011 IRM3 Rate Application. The response to the Board Staff Interrogatories is being filed pursuant to the Board's e-Filing Services.

Enclosed are:

1. Two paper copies of the Interrogatories responses.
2. The CD of the Responses and Exhibits in "pdf" format.

If you have any questions, please contact the undersigned.

Yours truly,

Original Signed By:

Florence Thiessen, CGA
Vice President / Treasurer
Centre Wellington Hydro Ltd.
Email: thiessen@cwhydro.ca
Phone: (519) 843-2900 Ext 225

Centre Wellington Hydro Ltd.

2012 IRM Rate Application

Responses to Interrogatories

From

OEB Board Staff

EB-2011-0160

**Board Staff Interrogatories
2012 IRM Rate Application
Centre Wellington Hydro Ltd Inc. ("Centre Wellington")
EB-2011-0160**

2012 IRM3 Rate Generator

Board Staff Interrogatory No. 1

Ref: A portion of Sheet "9. 2012 Cont. Sched. Def_Var" is reproduced below.

		2010															
Account Descriptions		Account Number	Opening Principal Amount as of Jan-1-10	Transactions Debit / (Credit) during 2010 excluding interest and adjustments *	Board Approved Disposition during 2010	Other * Adjustments during Q1 2010	Other * Adjustments during Q2 2010	Other * Adjustments during Q3 2010	Other * Adjustments during Q4 2010	Closing Principal Balance as of Dec-31-10	Opening Interest Amount as of Jan-1-10	Interest Jan-1 to Dec-31-10	Board Approved Disposition during 2010	Adjustments during 2010 - other *	Closing Interest Amount as of Dec-31-10	Principal Disposition during 2011 - as instructed by the Board	
Group 1 Accounts																	
1590 - L.V. Variance Account		1590	\$ 58,263	\$ 70,270	\$ 48,014					\$ 77,521	\$ 1,745	\$ 83	\$ 945	\$ -	\$ 137	\$ 6,881	
1591 - RSTVA - Wholesale Market Service Charge		1591	\$ 94,472	\$ 88,881	\$ 88,186					\$ 294,237	\$ 709	\$ 1,315	\$ 1,577	\$ -	\$ 3,001	\$ 45,296	
1592 - RSTVA - Retail Transmission Network Charge		1592	\$ 23,321	\$ 18,444	\$ 38,325					\$ 179,237	\$ 2,363	\$ 1,989	\$ 3,028	\$ -	\$ 1,073	\$ 88,794	
1593 - RSTVA - Retail Transmission Connection Charge		1593	\$ 605,031	\$ 71,277	\$ 293,644					\$ 788,142	\$ 38,178	\$ 3,353	\$ 4,703	\$ -	\$ 3,852	\$ 243,385	
1594 - RSTVA - Power (including Global Adjustment)		1594	\$ 94,473	\$ 91,495	\$ 4,395					\$ 235,902	\$ 33,099	\$ 1,444	\$ 34,546	\$ -	\$ 17	\$ 19,717	
1595 - RSTVA - Power - Sub-Account - Global Adjustment		1595	\$ 17,821	\$ 92,807	\$ 5,299					\$ 85,715	\$ 4,799	\$ 330	\$ 5,030	\$ -	\$ 17	\$ 84,574	
1596 - Recovery of Regulatory Asset Balances		1596	\$ -			\$ 125				\$ 125	\$ -				\$ -	\$ 125	
1597 - Disposition and Recovery of Regulatory Balances (2009)*		1597	\$ -							\$ -	\$ -				\$ -	\$ -	
1598 - Disposition and Recovery of Regulatory Balances (2009)*		1598	\$ -							\$ -	\$ -				\$ -	\$ -	
Group 1 Sub-Total (including Account 1595 - Global Adjustment)			\$ 164,441	\$ 44,030	\$ 490,374	\$ 125	\$ -	\$ -	\$ -	\$ 477,632	\$ 18,704	\$ 4,216	\$ 28,951	\$ -	\$ 14,863	\$ 376,620	
Group 1 Sub-Total (including Account 1598 - Global Adjustment)			\$ 164,441	\$ 44,030	\$ 490,374	\$ 125	\$ -	\$ -	\$ -	\$ 477,632	\$ 18,704	\$ 4,216	\$ 28,951	\$ -	\$ 14,863	\$ 376,620	
RSTVA - Power - Sub-Account - Global Adjustment		1595	\$ 17,821	\$ 92,807	\$ 5,299					\$ 85,715	\$ 4,799	\$ 330	\$ 5,030	\$ -	\$ 17	\$ 84,574	
Special Purpose Charge Assessment Variance Account		1521								\$ -					\$ -		
Deferred Payments in Lieu of Taxes		1562	\$ 95,868							\$ 95,868	\$ 36,030	\$ 526			\$ 37,764		
Group 1 Total - 1521 - 1562			\$ 748,573	\$ 44,030	\$ 490,374	\$ 125	\$ -	\$ -	\$ -	\$ 593,764	\$ 55,541	\$ 3,230	\$ 28,951	\$ -	\$ 22,305	\$ 376,620	
The following is not included in the total claim but are included on a memo basis:																	
Board Approved CDM Variance Account		1567								\$ -	\$ -				\$ -		
PLS and Tax Variance for 2006 and Subsequent Years (includes sub-account and credits account below)		1592								\$ -	\$ -				\$ -		
PLS and Tax Variance for 2006 and Subsequent Years - Account HISTORICAL Input Tax Credits (ITC)		1592								\$ -	\$ -				\$ -		
PLS and Tax Variance for 2006 and Subsequent Years - Account HISTORICAL Credits Account		1592								\$ -	\$ -				\$ -		
Disposition and Recovery of Regulatory Balances*		1595								\$ -	\$ -				\$ -		

Preamble

Note 7 on Sheet 9 of the 2012 IRM3 Rate Generator Model states that the distributor should "Include Account 1595 as part of Group 1 accounts (line 31) for review and disposition if the recovery (or refund) period has been completed, and the audited financial statements support the underlying residual balance in account 1595. If the recovery (or refund) period has not been completed, include the balances in Account 1595 on a memo basis only (line 49)."

Questions/Requests

Please provide the appropriate information for Account 1595 as instructed by Note 7.

Response:

Centre Wellington Hydro missed adding the amounts for Account 1595 to line 49 of the Rate Generator. The disposition period has not been completed for the amounts transferred to 1595 and therefore these amounts should have been shown on a memo basis only as set out in Note 7 of "Sheet 9. 2012 Cont. Sched. Def_Variance" of the 2012_IRM_Rate Generator.

2009								
	Opening Principal Amounts as of Jan-1-09	Board-Approved Disposition during 2009	Adjustments during 2009 - other ³	Closing Principal Balance as of Dec-31-09	Opening Interest Amounts as of Jan-1-09	Interest Jan-1 to Dec-31-09	Board-Approved Disposition during 2009	Closing Interest Amounts as of Dec-31-09
1595	\$ -	\$ 1,216,253	\$ 193,733	-\$ 1,022,520	\$ -	-\$ 4,172	-\$ 102,001	\$ 97,829

2010							
Opening Principal Amounts as of Jan-1-10	Transactions Debit/ (Credit) during 2010 excluding interest and adjustments ⁵	Board-Approved Disposition during 2010	Closing Principal Balance as of Dec-31-10	Opening Interest Amounts as of Jan-1-10	Interest Jan-1 to Dec-31-10	Board-Approved Disposition during 2010	Closing Interest Amounts as of Dec-31-10
-\$ 1,022,520	\$ 438,876	\$ 492,412	-\$ 1,076,055	\$ 97,829	-\$ 9,275	-\$ 19,059	\$ 107,613

2011				Projected Interest on Dec-31-10 Balances			2.1.7 RRR	
Principal Disposition during 2011 - instructed by Board	Interest Disposition during 2011 - instructed by Board	Closing Principal Balances as of Dec 31-10 Adjusted for Dispositions during 2011	Closing Interest Balances as of Dec 31-10 Adjusted during 2011 Disposition	Projected Interest from Jan 1, 2011 to December 31, 2011 on Dec 31 -10 balance adjusted for disposition during 2011 ⁵	Projected Interest from January 1, 2012 to April 30, 2012 on Dec 31 -10 balance adjusted for disposition during 2011 ^{6, 7}	Total Claim	As of Dec 31-10 ⁴	Variance RRR vs. 2010 Balance (Principal + Interest)
\$ 376,490	\$ 11,177	-\$ 1,452,545	\$ 96,436	-\$ 14,666	-\$ 3,667	-\$ 1,374,443	-\$ 968,443	\$ -

Account 1521 – Special Purpose Charge (SPC)

Board Staff Interrogatory No. 2

Ref: Application, page 9 – Manager's Summary

Preamble

On page 9 of the Application, Centre Wellington states that it is not requesting disposition of the December 31, 2011 balance of \$22,258.82 in Account 1521. Centre Wellington notes that the unaudited balance in account 1521, on June 30, 2011 was \$2,335.26. Centre Wellington states that it reserves the right to dispose of the aforementioned balance in a future cost of service or IRM application.

Questions/Requests

- a) Please confirm Centre Wellington's SPC assessment amount and provide a copy of the original SPC invoice.

Response:

Centre Wellington's SPC assessment amount from the Ministry of Energy and Infrastructure on invoice number 50010 dated April 16, 2010 is \$60,232.

A copy of the invoice is shown in Exhibit 1.

- b) Please complete the following table related to the SPC.

SPC Assessment (Principal balance)	Amount recovered from customers in 2010	Carrying Charges for 2010	December 31, 2010 Year End Principal Balance	December 31, 2010 Year End Carrying Charges Balance	Amount recovered from customers in 2011	Carrying Charges for 2011	Forecasted December 31, 2011 Year End Principal Balance	Forecasted December 31, 2011 Year End Carrying Charges Balance	Carrying Charges for 2012 (Jan.1 to Apr.30)	Total for Disposition (Principal & Interest)

Response:

The completed table is shown below reflecting the forecasted December 31, 2011 balances and carrying charges to April 30, 2012.

SPC Assessment (Principal balance)	Amount recovered from customers in 2010	Carrying Charges for 2010	December 31, 2010 Year End Principal Balance	December 31, 2010 Year End Carrying Charges Balance	Amount recovered from customers in 2011	Carrying Charges for 2011	Forecasted December 31, 2011 Year End Principal Balance	Forecasted December 31, 2011 Year End Carrying Charges Balance	Carrying Charges for 2012 (Jan.1 to Apr.30)	Total for Disposition (Principal & Interest)
60,232.00	-38,222.81	249.63	22,009.19	249.63	-20,021.99	113.01	1,987.20	113.01	7.29	2,357.13

- c) Section 8 of O.Reg.66/10 under the OEB Act, with respect to the SPC, states that “Every distributor licensed under Part V of the Act shall apply to the Board by no later than April 15, 2012 for an order authorizing it to clear any debit or credit balance in any variance account established by the Board to track the difference between the amounts remitted by the distributor pursuant to the assessment under subsection 5 (3) and the amounts recovered by the distributor under subsection 7 (1).” Please explain why Centre Wellington believes that it is appropriate to dispose of any balances in Account 1521 beyond the date specified in O.Reg.66/10.

Response:

Centre Wellington had not initially requested deferral of recovery of the December 31, 2010 audit balance of \$22,009.19 because we felt that we would be applying for recovery of an amount that was overstated. The rate generator did not allow for Centre Wellington to include funds that had been recovered during the first four months of 2011 and past regulatory practise did not allow recovery on unaudited balances. Centre Wellington’s SPC recovery period was from May 1, 2010 to April 30, 2011.

- d) Please confirm whether or not Centre Wellington would agree to dispose of the updated balance as of June 30, 2011 if the Board were to accept unaudited transactions for the 2011 stub period.

Response:

Centre Wellington would agree to dispose of the updated balance as of June 30, 2011 if the Board were to accept the unaudited transactions for the 2011 stub period.

Incremental Capital Module Claim

Board Staff Interrogatory No. 3

Ref: 2012 ICM Work Form – Sheet B1.2

Preamble

A section of Sheet B1.2 – “Removal of Rate Riders” of the 2012 ICM Work Form is reproduced below.

Rate Class	Re-based Tariff Service Charge A	Re-based Tariff Distribution Volumetric Rate kWh B	Re-based Tariff Distribution Volumetric Rate kW C	Service Charge Rate Adders D	Distribution Volumetric kWh Rate Adders E	Distribution Volumetric kW Rate Adders F	R S
Residential	15.00	0.0135	0.0000	1.00	0.0006	0.0000	
General Service Less Than 50 kW	16.44	0.0167	0.0000	1.00	0.0006	0.0000	
General Service 50 to 2,999 kW	72.46	0.0000	3.4778	1.00	0.0000	0.2169	
General Service 3,000 to 4,999 kW	559.28	0.0000	2.7166	1.00	0.0000	0.2559	
Unmetered Scattered Load	16.65	0.0269	0.0000	0.00	0.0006	0.0000	
Sentinel Lighting	2.72	0.0000	7.3719	0.00	0.0000	0.1714	
Street Lighting	2.36	0.0000	11.5745	0.00	0.0000	0.1677	

Questions/Requests

- a) Please confirm that the values entered in column D represent the \$1.00 smart meter funding adder approved by the Board in EB-2008-0225.

Response:

The values in column D "Service charge rate adder" represents the \$1.00 smart meter funding adder that was approved in EB-2008-0225, effective May 1, 2009.

- b) Please confirm that the values entered in columns E and F represent the low voltage service rates for each applicable class.

Response:

The values entered in column E "Distribution Volumetric kWh Rate Adders" and F "Distribution Volumetric kW Rate Adders" is the low voltage service rates that had an effective date of May 1, 2009.

Rate Class	Re-based Tariff Service Charge A	Re-based Tariff Distribution Volumetric Rate kWh B	Re-based Tariff Distribution Volumetric Rate kW C	Service Charge Rate Adders D	Distribution Volumetric kWh Rate Adders E	Distribution Volumetric kW Rate Adders F
Residential	15.00	0.0135	0.0000	1.00	0.00064	0.00000
General Service Less Than 50 kW	16.44	0.0167	0.0000	1.00	0.00057	0.00000
General Service 50 to 2,999 kW	72.46	0.0000	3.4778	1.00	0.00000	0.21693
General Service 3,000 to 4,999 kW	559.28	0.0000	2.7166	1.00	0.00000	0.25586
Unmetered Scattered Load	16.65	0.0269	0.0000	0.00	0.00057	0.00000
Sentinel Lighting	2.72	0.0000	7.3719	0.00	0.00000	0.17136
Street Lighting	2.36	0.0000	11.5745	0.00	0.00000	0.16771

Board Staff Interrogatory No. 4

Ref: 2012 ICM Work Form – Sheet B1.4

Ref: Chapter 3 of the Filing Requirements for Transmission and Distribution Applications – 2.2 Incremental Capital Module

Sheet B1.4 – "Re-based Rev Req" of the 2012 ICM Work Form is reproduced below.

Detailed Re-Based Revenue From Rates

Last COS Re-based Year

2009

Last COS OEB Application Number

EB-2008-0225

Applicants Rate Base

Average Net Fixed Assets

Gross Fixed Assets - Re-based Opening
Add: C/WIP Re-based Opening
Re-based Capital Additions
Re-based Capital Disposals
Re-based Capital Retirements
Deduct: C/WIP Re-based Closing
Gross Fixed Assets - Re-based Closing
Average Gross Fixed Assets

\$ 14,989,396
\$ 815,600
\$ 15,804,996

A
B
C
D
E
F
G

\$ 15,397,196 H = (A + G) / 2

Accumulated Depreciation - Re-based Opening
Re-based Depreciation Expense
Re-based Disposals
Re-based Retirements
Accumulated Depreciation - Re-based Closing
Average Accumulated Depreciation

\$ 8,186,556
\$ 719,877
\$ 8,906,433

I
J
K
L
M

\$ 8,546,495 N = (I + M) / 2

Average Net Fixed Assets

\$ 6,850,702 O = H - N

Working Capital Allowance

Working Capital Allowance Base
Working Capital Allowance Rate

\$ 13,116,153
15.0%

P
Q

Working Capital Allowance

\$ 1,967,423 R = P * Q

Rate Base

\$ 8,818,124 S = O + R

Return on Rate Base

Deemed Short Term Debt %
Deemed Long Term Debt %
Deemed Equity %

4.00%
52.67%
43.33%

T
U
V

\$ 352,725 W = S * T
\$ 4,644,506 X = S * U
\$ 3,820,893 Y = S * V

Short Term Interest

1.33% Z

\$

4,691 AC = W * Z

Long Term Interest

7.62% AA

\$

353,911 AD = X * AA

Return on Equity

8.01% AB

\$

306,054 AE = Y * AB

Return on Rate Base

\$ 664,656 AF = AC + AD + AE

Distribution Expenses

OM&A Expenses
Amortization
Ontario Capital Tax (P1.12-Federal Tax Charges)
Grossed Up PILS (P1.12-Federal Tax Charges)
Low Voltage
Transformer Allowance

\$ 1,746,600
\$ 638,185
\$ 10,466

AG
AH
AI
AJ

AK

AL

AM

AN

AO

\$ 2,395,251 AP = SUM (AG : AO)

Revenue Offsets

Specific Service Charges
Late Payment Charges
Other Distribution Income
Other Income and Deductions

-\$ 335,443
AS
AT

AQ
AR
AS
AT

-\$ 335,443 AU = SUM (AQ : AT)

Revenue Requirement from Distribution Rates

\$ 2,724,464 AV = AF + AP + AU

Preamble

Board staff has been unable to reconcile some of the data entered by Centre Wellington in Sheet B1.4 with the Board approved values from Centre Wellington's last rebasing application (EB-2008-0225).

On pages 11 and 12 of Chapter 3 of the Filing Requirements, the Board states that the appropriate parameters to be used in calculating the revenue requirement associated with the ICM are:

- 1) a deemed capital structure of 60% debt and 40% equity;
- 2) the last Board-approved cost of capital parameters determined during the distributors last rebasing application; and
- 3) the current tax rates.

Questions/Requests

- a) Please reconcile the following values with the Board approved quantities in Centre Wellington's last rebasing application and explain any discrepancies:
 - i. Average Accumulated Depreciation (variable N on Sheet B1.4);
 - ii. OM&A Expenses (variable AG on Sheet B1.4);
 - iii. Amortization (variable AH on Sheet B1.4);
 - iv. Grossed-up PILs (variable AJ on Sheet B1.4); and
 - v. Revenue offsets (variables AQ, AR, AS and AT on Sheet B1.4).

Response:

Centre Wellington has updated the Sheet B1.4 with the 2009 Board approved quantities. Centre Wellington excluded the Board Adjustments to the 2009 application in the original submission.

- b) If any Application amounts, shown in the Revenue Requirement Work Form ("RRWF") filed with the draft Rate Order for EB-2008-0225, were entered instead of the Board approved values, indicate these errors and Board staff will make the appropriate changes to the 2012 ICM Work Form.

Response:

Centre Wellington has made the changes to "Sheet B1.4 Re-Based Rev Req" of the 2012 ICM Work Form for the differences to bring the values to Board adjusted figures for 2009 rebasing application (EB-2008-0225)

All changes are shown below in the modified "Detailed Re-Based Revenue from Rates".

Detailed Re-Based Revenue From Rates

Last COS Re-based Year

2009

Last COS OEB Application Number

EB-2008-0225

Applicants Rate Base

Average Net Fixed Assets

Gross Fixed Assets - Re-based Opening
Add: CWIP Re-based Opening
Re-based Capital Additions
Re-based Capital Disposals
Re-based Capital Retirements
Deduct: CWIP Re-based Closing
Gross Fixed Assets - Re-based Closing
Average Gross Fixed Assets

Last Rate Re-based Amount			
\$	14,989,396	A	
		B	
\$	815,600	C	
		D	
		E	
		F	
\$	15,804,996	G	
			\$ 15,397,196 H = (A + G) / 2

Accumulated Depreciation - Re-based Opening
Re-based Depreciation Expense
Re-based Disposals
Re-based Retirements
Accumulated Depreciation - Re-based Closing
Average Accumulated Depreciation

\$	8,186,556	I	
\$	578,951	J	
		K	
		L	
\$	8,765,507	M	
			\$ 8,476,032 N = (I + M) / 2

Average Net Fixed Assets

\$ 6,921,165 O = H - N

Working Capital Allowance

Working Capital Allowance Base
Working Capital Allowance Rate

\$	14,122,251	P	
15.0%		Q	
			\$ 2,118,338 R = P * Q

Working Capital Allowance

\$ 9,039,502 S = O + R

Rate Base

Return on Rate Base

Deemed ShortTerm Debt %
Deemed Long Term Debt %
Deemed Equity %

4.00%	T	\$	361,580	W = S * T
52.70%	U	\$	4,763,818	X = S * U
43.30%	V	\$	3,914,104	Y = S * V

Short Term Interest
Long Term Interest
Return on Equity

1.33%	Z	\$	4,809	AC = W * Z
7.62%	AA	\$	363,003	AD = X * AA
8.01%	AB	\$	313,520	AE = Y * AB
		\$	681,332	AF = AC + AD + AE

Return on Rate Base

Distribution Expenses

OM&A Expenses
Amortization
Ontario Capital Tax (F1.1 Z-Factor Tax Changes)
Grossed Up PILS (F1.1 Z-Factor Tax Changes)
Low Voltage
Transformer Allowance

\$	1,753,350	AG	
\$	591,209	AH	
\$	2,242	AI	
\$	38,225	AJ	
		AK	
		AL	
		AM	
		AN	
		AO	
			\$ 2,385,026 AP = SUM (AG : AO)

Revenue Offsets

Specific Service Charges
Late Payment Charges
Other Distribution Income
Other Income and Deductions

-\$	120,120	AQ	
-\$	10,373	AR	
-\$	49,250	AS	
-\$	155,700	AT	
			\$ 335,443 AU = SUM (AQ : AT)

Revenue Requirement from Distribution Rates

\$ 2,730,915 AV = AF + AP + AU

Rate Classes Revenue

Rate Classes Revenue - Total (B1.1 Re-based Revenue - Gen)

\$ 2,814,985 AW

Difference

-\$ 84,070 AZ = AV - AW

Difference (Percentage - should be less than 1%)

-2.99% BA = AZ / AW

- c) Please provide the rationale for using a capital structure other than the deemed 60% debt and 40% equity requested in the Board's filing requirements.

Response:

The capital structure of 43.33% deemed equity, 4.0% deemed short term debt, and 52.67% deemed long term debt was used because Sheet B1.4 required Centre Wellington Hydro to use the rates that were in the 2009 COS application. Using these rates ensures that the revenue requirements impact is the same as the 2009 rebasing application.

Centre Wellington Hydro is providing in the below table the values adjusted for the capital structure of deemed 60% debt and 40% equity as requested.

Detailed Re-Based Revenue From Rates

Last COS Re-based Year

2009

Last COS OEB Application Number

EB-2008-0225

Applicants Rate Base

Average Net Fixed Assets

Gross Fixed Assets - Re-based Opening
Add: CWIP Re-based Opening
Re-based Capital Additions
Re-based Capital Disposals
Re-based Capital Retirements
Deduct: CWIP Re-based Closing
Gross Fixed Assets - Re-based Closing
Average Gross Fixed Assets

Last Rate Re-based Amount			
\$	14,989,396	A	
		B	
\$	815,600	C	
		D	
		E	
		F	
\$	15,804,996	G	
			\$ 15,397,196 H = (A + G) / 2

Accumulated Depreciation - Re-based Opening
Re-based Depreciation Expense
Re-based Disposals
Re-based Retirements
Accumulated Depreciation - Re-based Closing
Average Accumulated Depreciation

\$	8,186,556	I	
\$	578,951	J	
		K	
		L	
\$	8,765,507	M	
			\$ 8,476,032 N = (I + M) / 2

Average Net Fixed Assets

\$ 6,921,165 O = H - N

Working Capital Allowance

Working Capital Allowance Base
Working Capital Allowance Rate

\$	14,122,251	P	
15.0%		Q	
			\$ 2,118,338 R = P * Q

Working Capital Allowance

\$ 9,039,502 S = O + R

Rate Base

Return on Rate Base

Deemed ShortTerm Debt %
Deemed Long Term Debt %
Deemed Equity %

4.00%	T	\$	361,580	W = S * T
56.00%	U	\$	5,062,121	X = S * U
40.00%	V	\$	3,615,801	Y = S * V

Short Term Interest
Long Term Interest
Return on Equity

1.33%	Z	\$	4,809	AC = W * Z
7.62%	AA	\$	385,734	AD = X * AA
8.01%	AB	\$	289,626	AE = Y * AB
		\$	680,168	AF = AC + AD + AE

Return on Rate Base

Distribution Expenses

OM&A Expenses
Amortization
Ontario Capital Tax (F1.1 Z-Factor Tax Changes)
Grossed Up PILs (F1.1 Z-Factor Tax Changes)
Low Voltage
Transformer Allowance

\$	1,753,350	AG	
\$	591,209	AH	
\$	2,242	AI	
\$	38,225	AJ	
		AK	
		AL	
		AM	
		AN	
		AO	
			\$ 2,385,026 AP = SUM (AG : AO)

Revenue Offsets

Specific Service Charges
Late Payment Charges
Other Distribution Income
Other Income and Deductions

-\$	120,120	AQ	
-\$	10,373	AR	
-\$	49,250	AS	
-\$	155,700	AT	
			\$ 335,443 AU = SUM (AQ : AT)

Revenue Requirement from Distribution Rates

\$ 2,729,751 AV = AF + AP + AU

Rate Classes Revenue

Rate Classes Revenue - Total (B1.1 Re-based Revenue - Gen)

\$ 2,814,985 AW

Difference

-\$ 85,234 AZ = AV - AW

Difference (Percentage - should be less than 1%)

-3.03% BA = AZ / AW

Board Staff Interrogatory No. 5

Ref: 2012 ICM Work Form – Sheet C1.1

Sheet C1.1 – “Ld Act-Most Recent Year” of the 2012 ICM Work Form is reproduced below.

Load Actual - Most Recent Year												
Rate Class	Fixed Metric	Vol Metric	Billed Customers or Connections	Billed kWh	Billed kW	Base Service Charge	Base Distribution Volumetric Rate kWh	Base Distribution Volumetric Rate kW	Service Charge Revenue	Distribution Volumetric Rate Revenue kWh	Distribution Volumetric Rate Revenue kW	Total Revenue by Rate Class
			A	B	C	D	E	F	G = A * D * 12	H = B * E	I = C * F	J = G + H + I
Residential	Customer	kWh	5,562	44,627,090	0	\$14.00	\$0.0029	\$0.0000	\$77,448	\$577,304	\$0	\$1,508,320
General Service Less Than 50 kW	Customer	kWh	681	21,852,267	0	\$15.44	\$0.0061	\$0.0000	\$105,076	\$1,341,966	\$0	\$1,447,042
General Service 50 to 2,999 kW	Customer	kWh	59	74,443,332	17,872	\$71.46	\$0.0000	\$2,2809	\$4,209	\$0	\$198,225	\$198,225
General Service 3,000 to 4,999 kW	Customer	kWh	1	17,861,609	44,277	\$558.20	\$0.0000	\$2,4607	\$5,589	\$0	\$109,200	\$115,000
Unmetered Scattered Load	Customer	kWh	6	438,125	0	\$16.65	\$0.0063	\$0.0000	\$100	\$1,536	\$0	\$12,735
Sentinel Lighting	Connection	kW	34	46,388	128	\$2.72	\$0.0000	\$7,2005	\$110	\$0	\$302	\$2,031
Street Lighting	Connection	kW	(45)	11,984,278	3,184	\$2.34	\$0.0000	\$11,4068	\$105,813	\$0	\$15,863	\$12,676
									\$1,187,898	\$926,827	\$712,389	\$2,826,514

Preamble

Board staff has been unable to reconcile the majority of the data entered in columns A, B and C of Sheet C1.1. with Centre Wellington’s RRR 2.1.5 filings for 2010.

Questions/Requests

- a) Please reconcile the data entered on the above sheet with Centre Wellington’s RRR 2.1.5 filings for 2010 for Columns A, B and C for all classes, except Unmetered Scattered Load. Please explain any discrepancies.

Response:

In the table above Centre Wellington Hydro used RRR 2.1.5 filings for 2008, instead of 2010. The revised data with 2010 has been entered in the below table.

Load Actual - Most Recent Year												
Rate Class	Fixed Metric	Vol Metric	Billed Customers or Connections	Billed kWh	Billed kW	Base Service Charge	Base Distribution Volumetric Rate kWh	Base Distribution Volumetric Rate kW	Service Charge Revenue	Distribution Volumetric Rate Revenue kWh	Distribution Volumetric Rate Revenue kW	Total Revenue by Rate Class
			A	B	C	D	E	F	G = A * D * 12	H = B * E	I = C * F	J = G + H + I
Residential	Customer	kWh	5,632	45,162,580	0	\$14.00	\$0.0029	\$0.0000	\$95,616	\$580,791	\$0	\$1,537,047
General Service Less Than 50 kW	Customer	kWh	709	20,301,953	0	\$15.44	\$0.0061	\$0.0000	\$131,364	\$1,327,458	\$0	\$1,458,822
General Service 50 to 2,999 kW	Customer	kWh	61	64,195,369	171,222	\$71.46	\$0.0000	\$3,2609	\$4,309	\$0	\$198,225	\$198,225
General Service 3,000 to 4,999 kW	Customer	kWh	1	17,861,609	44,277	\$558.20	\$0.0000	\$2,4607	\$5,589	\$0	\$109,200	\$115,000
Unmetered Scattered Load	Customer	kWh	6	438,125	0	\$16.65	\$0.0063	\$0.0000	\$100	\$1,536	\$0	\$12,735
Sentinel Lighting	Connection	kW	30	41,378	121	\$2.72	\$0.0000	\$7,2005	\$81	\$0	\$302	\$2,031
Street Lighting	Connection	kW	(45)	11,984,278	3,184	\$2.34	\$0.0000	\$11,4068	\$105,813	\$0	\$15,863	\$12,676
									\$1,196,553	\$919,785	\$707,050	\$2,823,388

- b) If another source of data was used, please provide supporting evidence for the data in columns A, B and C.

Response:

As stated in part a) Centre Wellington Hydro used RRR 2.1.5 filings for 2008, instead of 2010. The revised data for 2010 has been entered.

Board Staff Interrogatory No. 6

Ref: 2012 ICM Work Form – Sheet D1.1

A section of Sheet D1.1 – “Current Revenue from Rates” of the 2012 ICM Work Form is reproduced below.

Current Revenue from Rates

Rate Class	Fixed Metric	Vol Metric	Current Base	Current Base	Current Base
			Service Charge	Distribution	Distribution
			A	B	C
Residential	Customer	kWh	13.99	0.0129	
General Service Less Than 50 kW	Customer	kWh	15.43	0.0161	
General Service 50 to 2,999 kW	Customer	kW	96.69		3.0657
General Service 3,000 to 4,999 kW	Customer	kW	557.94		2.4592
Unmetered Scattered Load	Customer	kWh	15.44	0.0244	
Sentinel Lighting	Connection	kW	3.59		9.4907
Street Lighting	Connection	kW	3.37		16.2724

Preamble

Board staff has been unable to reconcile the data entered under columns labeled A, B and C with the tariff schedules from Centre Wellington’s previous IRM application (EB-2010-0072).

Questions/Requests

- a) Please reconcile the data entered on the above sheet with Centre Wellington’s current tariff schedules. Please explain any discrepancies.

Response:

Centre Wellington Hydro used the rates from EB-2009-0218 Tariff of Rates and Charges with an effective May 1, 2010. The workform has been updated with Tariff of Rates and Charges from 2011 3IRM (EB-2010-0072) with effective date of May 1, 2011. The approved rates effective May 1, 2011 are provided in the table below.

Current Revenue from Rates

Rate Class	Fixed Metric	Vol Metric	Current Base Service Charge A	Current Base Distribution Volumetric Rate kWh B	Current Base Distribution Volumetric Rate kW C
Residential	Customer	kWh	13.79	0.0127	
General Service Less Than 50 kW	Customer	kWh	15.21	0.0159	
General Service 50 to 2,999 kW	Customer	kW	130.26		2.8947
General Service 3,000 to 4,999 kW	Customer	kW	557.83		2.4587
Unmetered Scattered Load	Customer	kWh	15.21	0.0240	
Sentinel Lighting	Connection	kW	4.43		11.6967
Street Lighting	Connection	kW	4.40		21.2392

Board Staff Interrogatory No. 7

Ref: 2012 ICM Work Form – Sheet E4.1

A section of Sheet E4.1 “IncrementalCapitalAdjust” of the 2012 ICM Work Form is reproduced below.

Grossed up PIL's			
Regulatory Taxable Income	O	\$ 44,938	T
Add Back Amortization Expense	S	\$ 32,188	U
Deduct CCA		\$ 84,876	V
Incremental Taxable Income		-\$ 7,750	$W = T + U - V$
Current Tax Rate (F1.1 Z-Factor Tax Changes)	15.5%	X	
PIL's Before Gross Up		-\$ 1,201	$Y = W * X$
Incremental Grossed Up PIL's		-\$ 1,422	$Z = Y / (1 - X)$

Questions/Requests

- a) Please provide evidence in support of Centre Wellington's stated current tax rate of 15.5%.

Response:

The corporate tax rate of 15.5% was obtained from the 2012 IRM3 Shared Tax Savings work form, Sheet 5. Z factor tax changes, Cell M38.

Board Staff Interrogatory No. 8

Ref: 2012 Incremental Capital Work Sheet – Sheet “Incremental Capital Summary”

A section of Sheet “Incremental Capital Summary” is reproduced below.

Asset Component	Capital Cost	Capital Cost (1/2 year rule applied)	Depreciation Rate	CCA Class	CCA Rate
1 Rehabilitate Fergus MS2 Station at 295 Queen Street	1,199,400	599,700	4%	47	8%
2 Install fully functional SCADA system for CW's 6 Municipal Stations	164,000	82,000	10%	45.1	45%
3		-			
4		-			
5		-			

Questions/Requests

- a) Please explain the rationale for applying only one CCA class to the entire amount sought for recovery in each project.

Response:

Since receiving these questions, Centre Wellington Hydro has contacted their external auditors (KPMG) for advice. The following table has been updated based on their advice.

Asset Component	Capital Cost	Capital Cost (1/2 year rule applied)	Depreciation Rate	CCA Class	CCA Rate
1 Rehabilitate Fergus MS2 Station at 295 Queen Street	1,149,400	574,700	4%	47	8%
2 Install fully functional SCADA system for CW's 6 Municipal Stations	164,000	82,000	5%	8	20%
3 Additional Land Fergus MS Station	50,000	25,000	0%		
4		-			
5		-			

- b) Please provide a reference from the *Income Tax Act* in support of Centre Wellington's selection of a CCA class of 45.1 for the SCADA project.

Response:

Centre Wellington on the advice of their auditors (KPMG) has changed the CCA class to 8.

- c) Please provide a reference in support of the depreciation rates shown in the Depreciation Rate column of Sheet "Incremental Capital Summary."

Response:

Since receiving these questions, Centre Wellington Hydro has contacted their external auditors (KPMG) for advice. The depreciation rate for the SCADA project was obtained from Category 43 (TUL) of the "Asset Amortization Study for the Ontario Energy Board" published in draft form on April 28, 2010 by Kinectrics Inc.

- d) Which APH accounts will be used to record the capital additions for each project? Please provide a table to show the amounts to be recorded in each APH account for each project.

Response:

The APH account that will be used to record the capital additions is as follows:

1. Fergus MS2 \$1,149,400 APH account 1820;
2. Fergus MS2 Land \$50,000 APH account 1805;
3. SCADA \$164,000 APH account 1980;

Board Staff Interrogatory No. 9

Ref: Application / Tab 4 – Incremental Capital Module – Third Party Report

Preamble

The table on page 5 of the 2012 IRM Supporting Information report, prepared by Costello Associates Inc., shows a table prioritizing the capital projects proposed in the report.

Questions/Requests

- a) Given that Centre Wellington is scheduled to file for rebasing next year, please explain the rationale for seeking to fund the Fergus MS-2 and SCADA projects through the ICM proposed in this IRM application.

Response:

As Costello Associates Inc., supporting information report points out there is a substantial amount of work that needs to be completed on Centre Wellington Hydro's stations for a multitude of reasons. To ensure these projects are completed in a timely manner Centre Wellington Hydro feels that waiting until rebasing next year, therefore pushing our long term stations capital plan out will expose Centre Wellington Hydro to public safety, and reliability risk. Also contract labour and metal costs have been steadily rising and completing Fergus MS-2 and SCADA projects in 2012 will mitigate total costs.

Phasing in the replacement and rehabilitation of Distribution Station components during IRM periods as well as during a Cost of Service rate year is viewed as a much more responsible approach than waiting until the next Cost of Service application. This approach smooth's the costs for the customers versus the significant rate shock that would likely require rate mitigation measures in the COS rate year.

- b) What would be the impact of delaying the recovery of costs for the proposed capital projects until Centre Wellington's next rebasing application?

Response:

Given the extent of projected capital expenditures anticipated towards station refurbishment, recovery of costs distributed over a longer term by triggering the ICM would “smooth” the total recovery and would help to avoid rate shock to the customers.

- c) Costello Associates Inc. has split the required capital projects based on location and prioritized accordingly. Has Centre Wellington considered prioritizing work based on the need and urgency for each proposed item of work? For example, has Centre Wellington considered prioritizing each safety concern, regardless of location, and completing the necessary work in that order?

Response:

Yes, Centre Wellington Hydro has taken into consideration and prioritized by Public safety, worker safety, and risk of Major Equipment Failure in that order as spelled out in Costello Associates report. For example, the fencing and security issues that caused concern to the possibility of the general public entering stations from the January 2011 report have been corrected. Fergus MS-2 and Fergus MS-1 are of the same vintage and have identical equipment exposing Centre Wellington Hydro to an equal amount of risk in regards to reliability however Fergus MS-2 has a higher degree of public safety risk due to the location of the distribution transformer inside the station therefore giving it top priority to rehabilitate.

Board Staff Interrogatory No. 10

Ref: Application / Tab 1 – Manager's Summary – 5. Incremental Capital Module

Preamble

On page 3 of the Manager's Summary, Centre Wellington states:

Centre Wellington has chosen the option of a variable rate rider for the recovery period as shown on Sheet “F1.2 Incr Cap RRider Opt B Var”.

Questions/Requests

- a) Please explain Centre Wellington's rationale for recovering ICM funds using a variable rate rider.

Response:

Centre Wellington's rationale for recovering the ICM funds using a variable rate rider is based on the assumption that the variable costs reflect the use of the system and the associated assets while the fixed costs are charged whether the customer uses electricity or not. Centre Wellington believes the variable charge is more appropriate for recovery of these costs.

Centre Wellington Hydro was given two options and Centre Wellington Hydro selected "Option B" because we feel that the capital projects benefits the customers as a whole and the spreading of cost through a volumetric rate is appropriate.

The revised ICM rate riders using "Option B" are shown in the table below. Centre Wellington adjusted the stretch factor to 0.6% on sheet A1.1 LDC Information before calculating these rate riders.

Calculation of Incremental Capital Rate Rider - Option B Variable

Rate Class	Total Revenue \$ by Rate Class A	Total Revenue % by Rate Class B = A / \$H	Total Incremental Capital \$ by Rate Class C = \$I * B	Billed kWh D	Billed kW E	Distribution Volumetric Rate kWh Rate Rider F = C / D	Distribution Volumetric Rate kW Rate Rider G = C / E
Residential	\$1,516,983	53.54%	\$69,079	45,046,630	0	\$0.0015	
General Service Less Than 50 kW	\$472,155	16.66%	\$21,501	21,809,071	0	\$0.0010	
General Service 50 to 2,999 kW	\$564,888	19.94%	\$25,723	64,439,774	166,526		\$0.1545
General Service 3,000 to 4,999 kW	\$114,567	4.04%	\$5,217	20,979,417	43,874		\$0.1189
Unmetered Scattered Load	\$9,976	0.35%	\$454	400,443	0	\$0.0011	
Sentinel Lighting	\$3,288	0.12%	\$150	43,755	122		\$1.2271
Street Lighting	\$151,387	5.34%	\$6,894	1,112,732	3,006		\$2.2933
	\$2,833,244	100.00%	\$129,018				
	H		I				

Enter the above rate riders onto "Sheet 14. Proposed Rate Riders" in the 2012 OEB IRM3 Rate Generator as an "Rate Rider for Incremental Capital"

- b) Please state the scheduled in service dates of the Fergus MS-2 and SCADA projects.

Response:

The scheduled in service dates for the SCADA project is June 30, 2012 and Fergus MS-2 tentative date October – December 2012.

Board Staff Interrogatory No. 11

Ref: Application / Tab 4 – Incremental Capital Module – Third Party Report
Ref: Chapter 3 of the Filing Guidelines for Transmission and Distribution Applications – 2.2 Incremental Capital Module.

Preamble

On pages 1 and 2 of the 2012 IRM Supporting Information report, Costello Associates Inc. state:

CWH currently has an obsolete remote meter reading system that provides some of the data acquisition functions common in SCADA systems, but is limited in functionality in terms of data archiving and interoperability with other engineering and operating tools such as Geographical Information Systems (GIS) and distribution analysis software (short circuit, load flow, load balancing, and loss reduction). It does not have any ability to perform supervisory control of circuit breakers, reclosing, or remote annunciation of critical substation alarms.

Page 2 of the 2012 IRM Supporting Information report states:

Four of the six CWH existing substations are designed with fuses or hydraulic reclosers which inherently do not provide any functionality for SCADA, automatic restoration, transfer trips for distributed generation, or other abilities often associated with anticipated Smart Grid (SG) applications. The two stations equipped with circuit breakers which could be adapted for these SG applications are obsolete and should be replaced (discussed below).

Page 9 of Chapter 3 of the Filing Guidelines states that in assessing the need for an incremental capital project:

Amounts should be directly related to the claimed driver, which must be clearly non-discretionary. The amounts must be clearly outside of the base upon which rates were derived.

Questions/Requests

- a) Please explain why Centre Wellington believes the SCADA project qualifies as a non-discretionary cost that is appropriate for recovery through an ICM?

Response:

Centre Wellington believes installing SCADA is an inherent part of the long term stations capital plan. Centre Wellington Hydro views the implementation of SCADA prior to or in conjunction with the rehabilitation of the first Station to be completed beneficial as it will be used immediately to take advantage of the automated protection devices installed including warnings. And going forward will

be used operationally to monitor circuit/feeder load transfers needed and establish work protection remotely to complete ongoing station projects.

The scope of our long term stations capital plan is such that starting in 2012 is essential to mitigate risk in the areas of reliability and asset condition management.

If Centre Wellington's long term plan is not initiated in 2012 the projected completion of the work will affect our risk exposure in each year going forward. If the first one isn't completed in 2012 it has a ripple effect on the completion of the subsequent stations.

- b) Please provide further details regarding the nature of work and facilities/hardware that are included in the \$164,000 budget for this project, estimated by Costello Associates Inc.

Response:

The below details are taken from the report provided by Costello Associates Inc outlining the major areas and the cost of installing the SCADA Master Station. As you will note the estimated cost has been rounded up to \$164,000 from \$163,875 as provided below.

Project: New SCADA Master Station

Estimated by: S. Costello

Schedule: 2012

No.	Item	Cost
1	Survalent Single Server Scada System	\$ 80,000
2	Upgrade to Dual System	\$ 20,000
3	Database Development	\$ 12,000
4	Graphics Development	\$ 4,500
5	Factory Acceptance Testing	\$ 12,000
6	Site Commissioning	\$ 6,000
7	ICCP Programming & Testing to Hydro One	<u>\$ 8,000</u>
	Sub-total	\$ 142,500
	Contingency 15%	<u>\$ 21,375</u>
	Total	<u>\$ 163,875</u>

- c) Costello Associates Inc. explains that four of the substations are designed with some hardware that cannot provide any functionality for SCADA or other SG application. Costello Associates Inc. also notes that the two

stations which could be adapted for SG applications are equipped with obsolete circuit breakers.

- i. What functionality/benefits will the SCADA system provide if installed prior to the hardware upgrades proposed for each substation?

Response:

The installation of a new SCADA system in 2012 coincides with the in-service date of the first substation rehabilitation project. The conceptual designs for all of the Centre Wellington Hydro rehabilitation projects include SCADA-ready circuit breakers and protective relays. The installation of the SCADA system in 2012 will allow full SCADA interoperability as the stations are upgraded/rebuilt. In addition, the existing remote meter reading system has recently experienced hardware failures, and would require significant upgrades to keep the system running.

The new SCADA system will provide for remote opening/closing of circuit breakers, remote hold offs, remote station alarm annunciation, acquisition of system loading data, transformer station data from local Hydro-One TS's, and required telemetry from new distributed generation projects that connect to the Centre Wellington Hydro system.

- ii. How does the functionality described in (i) above differ from the functionality of Centre Wellington's current remote meter reading system?

Response:

The existing remote meter reading system provides only periodic remote feeder current readings. The new system will provide this information, plus telemetry from Hydro One TS's and potential DS projects. It also provides remote control capability and remote alarm annunciation from critical station alarms.

- iii. Given the limitations to SCADA integration caused by the hardware currently installed in Centre Wellington's substations, why has Costello Associates Inc. prioritized the SCADA project over the other proposed projects?

Response:

Installation of the new SCADA system replaces the functionality provided by the existing meter reading system which is experiencing reliability issues, and provides full SCADA functionality for all rehabilitated stations as they come online over the next few years.

- iv. Are there any economic efficiencies achieved by completing the SCADA project earlier? Conversely, are there any negative economic impacts of delaying the work proposed?

Response:

SCADA systems provide economic efficiencies in two main areas. First, it provides the necessary data to allow the efficient operation of the station feeders – balancing loads on feeders and between phases, to reduce system losses. Secondly, it allows remote control of station devices and most often eliminates the need to drive to the substation. This allows crews to work more efficiently.

- d) Does Centre Wellington propose to acquire new control center facilities to accompany as part of the SCADA acquisition?

Response:

No.

- e) If a new SCADA control center is not part of the proposed acquisition, will the current system accommodate the updated SCADA remote terminal units (RTUs)?

Response:

Yes. New RTU's will be installed at the substations as they are rehabilitated.

- f) If a new SCADA control center is part of the proposed acquisition, will it accommodate those RTUs which are not being updated?

Response:

There are no existing RTU's.

- g) Has Center Wellington done a cost benefit study for the provision of the SCADA? If so, please provide it.

Response:

No a cost benefit study has not been done. Centre Wellington Hydro feels through industry knowledge of the use of SCADA that an improvement in line losses will be anticipated. As well as more efficient labour/time management as remotely operated reclosers will negate the need to physically send line crews to obtain hold offs and operate reclosers. SCADA is required to make full use of automated equipment, such as remote operation of reclosers and switches.

Board Staff Interrogatory No. 12

Ref: Application / Tab 4 – Incremental Capital Module – Third Party Report

Preamble

On page 3 of the 2012 IRM Supporting Information report, Costello Associates Inc. states the following with respect to the Fergus MS-2 Substation:

The Fergus MS-2 substation was installed in 1962, and has similar 5kV switchgear as Fergus MS-1. It also shares the same issues in terms of age, condition, and safety. Further, it sits almost directly on the banks of the Grand River and at the time of the condition assessment, had no secondary oil containment. CWH has since installed an oil containment system.

We propose that a major rehabilitation is required to completely replace all 4 kV equipment with modern switchgear and reclosers, and to install secondary oil containment for the existing power transformer.

The budget for this project is \$1.2M.

Questions/Requests

- a) Please provide further details regarding the nature and extent of the rehabilitation work that will be performed to the Fergus MS-2 substation.

Response:

The attached drawings in Exhibit 2 shows existing single line diagram and conceptual design diagram of the Fergus MS#2 substation.

The breakdown of the costs to rehabilitate Fergus MS#2 including labour, materials, equipment and other costs are as follows:

Design	Demolish and remove existing 5 kV outdoor switchgear Replace with outdoor metalclad switchgear and padmount reclosers, c/w
SEL 651R	Controllers. New SCADA RTU and total station metering New 4.16 kV feeder cables
Voltage	44 - 4.16/2.4 kV
Installed Capacity	5000 kVA
Switchgear Type	Outdoor metalclad & padmount (inside station fence)
Main Breaker	none
Feeder Breakers	15 kV 800A solid dielectric

Schedule	Budget		
Component	Cost Detail	Summary	
1) Property Costs			
1.1) Demolish existing building & dispose	\$ 40,000		
1.2) Grading, compaction, restoration	\$ 25,000		
1.3) Additional land	<u>\$ 50,000</u>		
		\$ 115,000	
2) Engineering & Design			
2.1) Preliminary engineering	\$ 7,500		
2.2) Environmental Screening	\$ 10,000		
2.3) Geotechnical Investigation	\$ 12,000		
2.4) Grounding	\$ 15,000		
2.5) Detailed engineering & Design	\$ 45,000		
2.6) Site Meetings	\$ 3,000		
2.7) Site Supervision & Project Management	\$ 25,000		
2.8) Protection Study	<u>\$ 7,500</u>		
		\$ 125,000	
3) Major equipment			
3.1) Power Transformer 5/6.7 MVA	\$ -		
3.2) Station Reclosers (3)	\$ 105,000		
3.3) 44 kV Switches/Fuses	\$ -		
3.4) S&C Switchgear	\$ 175,000		
3.5) Prefab. Control Shack w/pad	\$ 30,000		
3.6) Station Service	\$ 7,500		
3.7) 44 kV Cables/Terminators	\$ -		
3.8) 15 kV 500 MCM Cables/Terminators	\$ 125,000		
3.9) Solid Blade Riser Switches (9)	\$ 6,000		
3.10) Scada RTU, programming, commissioning	<u>\$ 15,000</u>		
		\$ 463,500	
4) Civil Construction			
4.1) Construction Power	\$ 7,500		
4.2) Clearing, Grubbing, Grading, compacting, fill	\$ 40,000		
4.3) Road entrance/paving/landscaping	\$ 7,500		
4.4) Oil Containment	\$ -		
4.5) Duct Banks	\$ 80,000		
4.6) Concrete Foundations	\$ 20,000		
4.7) Fence & Stone	<u>\$ 30,000</u>		
		\$ 185,000	
5) Electrical			
5.1) Grounding	\$ 25,000		
5.2) 44 kV Dip Pole	\$ -		
5.3) 4.16 kV Riser Poles	\$ 7,500		
5.4) Installation of Transformer	\$ -		
5.5) Installation of Reclosers & Switchgear	\$ 45,000		
5.6) Power & Control Cabling	\$ 15,000		
5.7) Station Service Panel	\$ 3,000		
5.8) Commissioning	<u>\$ 20,000</u>		
		\$ 115,500	
6) Miscellaneous			
6.1) Mobilization, Bonding, Insurance	\$ 30,000		
6.2) Fees & Permits	<u>\$ 5,000</u>		
		\$ 35,000	

7) CWH Staff Costs

7.1) Lines	\$ 5,000	
7.2) Stations	\$ -	
7.3) Engineering	<u>\$ 5,000</u>	<u>\$ 10,000</u>
Sub-Total		\$ 1,049,000
Contingency 10%		<u>\$ 104,900</u>
Sub Total		<u>\$ 1,153,900</u>
CWH Operations Manager Time and Cost		\$45,500
Total Project		<u>\$ 1,199,400</u>

- b) Please explain what criteria were considered by Costello Associates Inc. when proposing this capital project. Were several options considered? Was any form of cost/benefit analysis performed with regards to the various options presented?

Response:

Public/worker safety and reliability were critical factors in the decision to rehabilitate the existing substations. The budget provided to Centre Wellington Hydro was based on typical Ontario LDC design practises for similar stations. A total station replacement with the budgetary cost of \$2.2M was considered but through the station condition assessment, it was determined that the lower cost of rehabilitation would meet the necessary improvements needed. The proposed capital program makes use of the existing major components that are in acceptable working condition, to minimize capital expenditures.

It is intended that detailed cost/benefit analysis of various equipment alternatives will be completed as part of the detailed engineering effort.

- c) Is the current switchgear rated 4kV or 5kV? The report refers to both voltages.

Response:

The power system is 4.16kV, but the ANSI/CSA equipment classification for this supply voltage is 5 kV.

- d) Is Centre Wellington proposing to replace the complete substation switchgear? Please provide a description of the substation and the electrical arrangement.

Response:

Yes, Centre Wellington is proposing to replace the complete substation switchgear. Please refer to the answer provided in 12a. Drawings and budget figures are provided.

e) Is it required to change the transformers at the substation?

Response:

No. However, the transformers are operating near the end of their useful life. The conceptual design allows for cable connections to the transformers, and would support the replacement of the existing transformers with minimal power interruptions and construction costs.

f) What is the nominal voltage of the distribution system supplied by this station? Is this a common voltage for the switchgear? Is it appropriate to continue utilizing 4kV as a standard?

Response:

Centre Wellington Hydro's distribution system's operating voltage is 4.16 kV. It is appropriate to continue using 4kV as an operating voltage given Centre Wellington Hydro's customer base, geographic position and existing infrastructure.

Conversion to a higher system voltage may be considered at some point in the future, but this will require significant capital as the entire distribution system would need to be upgraded.

Note the conceptual design of the substations included 15kV class switchgear and cables, and would be compatible with a higher distribution voltage should it be necessary to convert at some point in the future.

g) What is the basis for the budget amount? Has it been, or will it, be determined by competitive bidding?

Response:

Budget amounts are based on current costs of similar projects of scale and scope within the industry that had gone through a competitive bid process. It is Centre Wellington Hydro's intention to request competitive bids to complete station upgrades.

Board Staff Interrogatory No. 13

Ref: Application / Tab 4 – Incremental Capital Module – Third Party Report

Page 4 of the Substation Condition Report, prepared by Costello Associates Inc., says:

We suggest that CWH expand their maintenance plan to maintain two stations every year, for a cycle of three years. In addition, transformer oil analysis should be performed at least once per year. It is very important to use the same testing firm year after year if at all possible, so trends can be assessed.

Page 5 of the Substation Condition Report, says:

The second issue with this station is that there is a padmount transformer installed within the station yard that provides secondary service to the adjacent municipal office building. In the event of a major short circuit at the station, there is a risk of transferring high voltage from the station ground grid into the office building via secondary conductors.

Page 6 of the Substation Condition Report states:

There is some evidence to suggest that some of the distribution system may not have adequate overcurrent protection. This is a public safety issue, and poses a risk to CWH equipment.

Preamble

Some of the examples presented in the report represent serious situations that are an immediate threat to the safety of personnel at the station and/or the public and the environment and represent a potential for major liability to Centre Wellington Hydro Ltd Inc.

Questions/Requests

- a) Please provide a table indicating, for all the identified deficiencies in the report, what specific actions have been or will be undertaken and the expected completion date of those actions.

Response:

The table below shows the deficiency repair schedule by station. It identifies all deficiencies, the steps required to rectify the issue, the scheduled completion

date, date completed, and notes regarding repairs if the issue has been addressed.

STATION DEFICIENCY REPAIR SCHEDULE						
STATION	COMPONENT/Device	DESCRIPTION	STEPS REQUIRED TO RECTIFY	SCHEDULED COMPLETION DATE	COMPLETED	NOTES OF REPAIR MADE
Elora MS-1	Station service cut-outs	A privately owned commercial building is adjoining the station. The station service cut outs/switches are a distance of 5' to the privately owned eavestrough.	Centre Wellington Hydro's long term stations upgrade plan involves relocating Elora MS-2 which will rectify this issue.	2014		
	Transformer silicate gel replacement	silicate gel requires replacement	Replace silicate gel	Discuss with Stations maintenance contractor to determine timing.		
	Transformer explosion relief diaphragm may have water at glass level		Discuss with Stations maintenance contractor the issue and possible steps required to rectify.	Discuss with Stations maintenance contractor to determine timing.		
	Perimeter security not to OESC code	The existing fence is a non conventional, composite solid block design with custom fabricated gates. It needs to be determine if the gates are sufficiently grounded. There is no barbed wire at the top of the block fence.	The requirements to bring security up to OESC code needs to be determined including gates being sufficiently grounded and installing barbed wire at the top of the block fence. All of these issues will certainly be rectified as Centre Wellington Hydro's long term stations upgrade plan involves relocating Elora MS-2.	Interim public safety issues 2012. Station relocation scheduled for 2014.		
	Transformer	Transformer age an issue.	Will be rectified during station relocation.	2014		
	Reclosers	Recloser vintage an issue as replacing or refurbishing if damaged	Will be rectified during station relocation.	2014		
	Switch gradient control mat.	Mat is buried in stone.	Raise mat.	2011	2011	Mat raised.
	Oil containment	Elora MS-1 is located 60 meters from the Grand River and there is no current oil spill containment.	Determine need for oil containment.	Centre Wellington Hydro's long term stations upgrade plan involves relocating Elora MS-2 which will rectify this issue in 2014.		
STATION DEFICIENCY REPAIR SCHEDULE						
STATION	COMPONENT/Device	DESCRIPTION	STEPS REQUIRED TO RECTIFY	SCHEDULED COMPLETION DATE	COMPLETED	NOTES OF REPAIR MADE
Elora MS-2	Grass around perimeter	Grass is immediately outside station fence.	Stone must extend 1 meter outside of fenced perimeter.	2nd - 3rd quarter 2012		
	Possible need for silica gel breather.	Discuss with Stations maintenance contractor the issue and possible steps required to rectify.	Determine need for and install silica breather if required.	Discuss with Stations maintenance contractor to determine timing.		
	Fence grounding.	Improper grounding connections.	Replace/install grounding connections as required	4th quarter 2011		
	Security/Fence	Fence tension wire slack.	Tighten tension wire.		2011	Installed tensioner and Tightened tension wire.
	Nomenclature	Incorrect nomenclature.	Correct signage and switch detail.		2011	Corrected nomenclature.
	Reclosers	Recloser vintage an issue as replacing or refurbishing if damaged would be time consuming if possible at all.	Will be rectified during station rehabilitation.	2015		
	Neutral Connection.	Verification of all neutral connections including at transformer.	Verify during next station outage.			

STATION DEFICIENCY REPAIR SCHEDULE						
STATION	COMPONENT/Device	DESCRIPTION	STEPS REQUIRED TO RECTIFY	SCHEDULED COMPLETION DATE	COMPLETED	NOTES OF REPAIR MADE
Fergus MS-1	Security/Fence	Fence tension wire slack.	Tighten tension wire.		2011	Installed tensioner and Tightened tension wire.
	Grass around perimeter	Grass is immediately outside station fence.	Stone must extend 1 meter outside of fenced perimeter.	During Station rehabilitation in 2013.		
	Transformer	Transformer low oil level.	check oil level during next scheduled maintenance or station rehabilitation. In the interim determine oil level with thermal imaging device.		2011	Interim check of oil level with thermal imaging device completed and oil level determined to be acceptable.
	Oil temperature gauge	Oil temperature gauge may not be working.	check oil temperature gauge during next scheduled maintenance or station rehabilitation. In the interim determine oil temperature checks with inverted device periodically.	permanently during Station rehabilitation in 2013. Periodically prior to rehabilitation.	Periodical checks indicate temperature acceptable.	
	Feeder cables	Feeder cables are exposed and of tape shield type.	Replace with new cable and terminations.	During Station rehabilitation in 2013.		
	5 KV mini OCB	5 KV mini OCB obsolete and hazardous to operate.	Replace obsolete circuit breakers with modern reclosers.	During Station rehabilitation in 2013.		
	Oil containment	Fergus MS1 is located 75 meters from the Grand River and there is no current oil spill containment.	Determine need for oil containment.	During Station rehabilitation in 2013 if required.		
STATION DEFICIENCY REPAIR SCHEDULE						
STATION	COMPONENT/Device	DESCRIPTION	STEPS REQUIRED TO RECTIFY	SCHEDULED COMPLETION DATE	COMPLETED	NOTES OF REPAIR MADE
Fergus MS-2	Clearances to exposed 4160/2400 volt apparatus.	Exposed energized bus can be readily contacted by workers inside the fence with no barriers in place.	This issue will be resolved as the current apparatus will be removed during station rehabilitation.	2012		
	5 KV mini OCB	5 KV mini OCB obsolete and hazardous to operate.	Replace obsolete circuit breakers with modern reclosers.	During Station rehabilitation in 2012.		
	Oil containment	Fergus MS-2 is located 30 meters from the Grand River and 70 meters from a Municipal well.		During Station rehabilitation in 2012 it will be determined if the interim oil containment installed is adequate as a permanent long term solution.	interim oil containment solution installed in 3rd quarter of 2011.	A fabric oil containment barrier was installed in the 3rd quarter of 2011 to reduce the risk of contamination to the nearby Municipal well and Grand River if an oil spill occurs.
	Security/Fence	Fence tension wire slack.	Tighten tension wire.		2011	Installed tensioner and Tightened tension wire.
	Transformer	Possible leaks in gasket as per neutral pressure indication on pressure gauge. Transformer oil level low.	inspect overall condition of transformer while isolated, and perform all applicable tests including oil level and pressure tests.	During Station rehabilitation in 2012.		
	Feeder cables	Feeder cables are of tape shield type and at near or end of life.	Replace with new cable and terminations.	During Station rehabilitation in 2013.		
	Distribution padmount transformer inside Station fence.	There is a risk of transferring high voltage from the station to the office building via the secondary conductors.	Relocate the distribution transformer to a suitable location outside the station fence.	During Station rehabilitation in 2012.		
STATION DEFICIENCY REPAIR SCHEDULE						
STATION	COMPONENT/Device	DESCRIPTION	STEPS REQUIRED TO RECTIFY	SCHEDULED COMPLETION DATE	COMPLETED	NOTES OF REPAIR MADE
Fergus MS-3	security and grounding	Fencing was lose and barbed wire damaged or missing. Improper fence ground connections.	Repair/replace lose tension wire, extend fence to a height of 8' and replace barbed wire. Replace ground connections with compliant connections.		2nd quarter 2011	Raised fence, replaced tension wire and barbed wire. Replaced all ground to fence connections.
	Oil containment	Fergus MS-2 is located 30 meters from the Grand River and 70 meters from a Municipal well.		During Station rehabilitation in 2012 it will be determined if the interim oil containment installed is adequate as a permanent long term solution.	interim oil containment solution installed in 3rd quarter of 2011.	A fabric oil containment barrier was installed in the 3rd quarter of 2011 to reduce the risk of contamination to the nearby Municipal well and Grand River if an oil spill occurs.
	Transformer	Possible secondary bushing oil leak	Inspect overall condition of transformer while isolated, and perform all applicable tests.	During station Maintenance in 2013		
	system neutral	May not be sized properly.	Inspect system neutral size and connections while station is isolated.	During station maintenance in 2013		
	communication cable	Cable may transfer vault directly to connected computer equipment inside CWH service centre.	install an optical isolator inline with the communication cable.		4th quarter 2011	Installed an RS 485 optical isolator.
	Distribution Feeder protection.	400E fuses may not properly protect distribution feeder conductor and devices.	Replace switches with modern reclosers.	During Station rehabilitation in 2015.		

STATION DEFICIENCY REPAIR SCHEDULE						
STATION	COMPONENT/Device	DESCRIPTION	STEPS REQUIRED TO RECTIFY	SCHEDULED COMPLETION DATE	COMPLETED	NOTES OF REPAIR MADE
Fergus MS-4	security and grounding	Fencing was loose and barbed wire damaged or missing. Improper fence ground connections.	Repair/replace loose tension wire, extend fence to a height of 8' and replace barbed wire. Replace ground connections with compliant connections.		2nd quarter 2011	Raised fence, replaced tension wire and barbed wire. Replaced all ground to fence connections.
	Private fence in vicinity of station switch handle.	A 3' section of a privately owned metallic fence is in close proximity to the 44kV station switch handle and grounding mat.	Fence should be covered by an insulating material to avoid hand to hand connection between the fence and handle.	During station maintenance in 2013		
	Distribution Feeder protection.	400E fuses may not properly protect distribution feeder conductor and devices.	Replace switches with modern reclosers.	During Station rehabilitation in 2015.		
	Oil containment	Fergus MS-3 is located 30 meters from a Municipal well.		During Station rehabilitation in 2015 it will be determined if the interim oil containment installed is adequate as a permanent long term solution.	interim oil containment solution installed in 3rd quarter of 2011.	A fabric oil containment barrier was installed in the 3rd quarter of 2011 to reduce the risk of contamination to the nearby Municipal well if an oil spill occurs.

b) In prioritizing the capital projects, has Centre Wellington given appropriate priority to safety over automation?

Response:

Yes, Centre Wellington has prioritized safety over automation. For example all public safety hazards around security have been rectified in 2011. And worker safety issues around exposed primary apparatus are scheduled to be addressed in the first two years of Centre Wellington Hydro's long term plan.

c) Please provide a description of the staffing responsibilities and reporting structure for the operation of the system.

Response:

The staffing responsibilities and reporting for the operation of Centre Wellington Hydro's system is predominantly that of the Superintendent. The Superintendent documents monthly visual inspections performed by Centre Wellington Hydro Line staff of the stations, and schedules thorough station inspections and maintenance every 3 to 5 years.

Board Staff Interrogatory No. 14

Ref: Application / Tab 4 – Incremental Capital Module – Third Party Report

Page 4 of 2012 IRM Supporting Information report states the following with regards to the Fergus MS-1 Substation:

The station is located close to the Grand River and municipal storm drains. There is no secondary oil containment. There is an environmental risk that in the event of a catastrophic transformer

failure, oil could be released into the Grand River of municipal storm system.

We propose that a major rehabilitation is required to completely replace all 4 kV equipment with modern switchgear and reclosers, and to install secondary oil containment for the existing power transformer.

The budget for this project is \$1.1M.

Questions/Requests

- a) What is the basis for the estimate of \$1.1M for this project?

Response:

The basis for the estimate of \$1.1 M for this project is current costs of similar projects of scale and scope.

- b) Please confirm that the Fergus MS-1 substation has a primary oil containment system.

Response:

The existing Fergus MS-1 does not have a primary oil containment system.

- c) Is Centre Wellington proposing to replace the entire substation? Are there any transformers which need to be changed?

Response:

No, Centre Wellington is not proposing to replace the entire substation. No, there are not any transformers that need to be changed.

- d) What is the basis for the budget amount? Has it been, or will it be, determined by competitive bidding?

Response:

The basis for the budgetary amount is current, 2011 figures from actual contracts for similar type work and similar projects including contract labour and equipment /material costs. Actual contracts will be awarded through competitive bidding.

Lost Revenue Adjustment Mechanism

Board Staff Interrogatory No. 14

Ref: Application / Tab 1 – Manager's Summary - LRAM & SSM

Centre Wellington noted that it is proposing recovery of lost revenue in the amount of \$104,881.75. However, the table provided shows the LRAM claim is \$103,372.23 and the SSM claim is \$1509.52.

Questions/Requests

- a) Please verify the amounts claimed for LRAM and SSM.

Response:

Total of LRAM and SSM being applied for as filed:

LRAM: \$103,372.23 and SSM claim is \$1,509.52

Total LRAM and SSM Claim as adjusted (based on 2010 finalized results)

LRAM: \$106,968.67 and SSM: \$1,509.52.

- b) Please provide the total amount claimed for both LRAM and SSM.

Response:

Total LRAM and SSM Claim (As filed): \$104,881.75

Total LRAM and SSM adjusted amount (based on 2010 finalized results):
\$108,478.20

- c) Please provide a description on the scope (e.g. applicable program years) of the claim for LRAM.

Response:

The LRAM Claim includes OPA programs run from 2006-2010 and Third Tranche programs from 2005-2007

- d) Please provide a description on the scope (e.g. applicable program years) of the claim for SSM.

Response:

The SSM Claim includes Third Tranche programs run from 2005-2007

Board Staff Interrogatory No. 15

Ref: Application / Tab 6 - Burman Energy LRAM & SSM Support Document,
Sept. 7, 2011

Burman noted that the application for LRAM and SSM compensation is based on Centre Wellington's 2005 to 2010 inclusive CDM results.

Questions/Requests

- a) Please confirm if the claim for LRAM includes the 2010 program evaluation results from the OPA.

Response:

Yes, the LRAM claim of \$106,968.67 has been updated to include finalized 2010 Results released by the OPA November 15, 2011

- b) If the answer to a) is yes, is the LRAM claim based on the final 2010 program evaluation results from the OPA?

Response:

Yes, the adjusted LRAM claim is based on the final 2010 program evaluation results from the OPA.

- c) If Centre Wellington has not received final 2010 program results from the OPA, please discuss when Centre Wellington plans on receiving them and how it proposes to update its LRAM amount to reflect the final results.

Response:

Yes, we have received the results and the updated amounts are shown in this submission.

- d) Please confirm when Centre Wellington's last load forecast was approved by the Board.

Response:

Yes, Centre Wellington's last load forecast with the 2009 Cost of Service application (EB-2008-0225) was approved by the Board April 29, 2009.

- e) Please identify the CDM savings that were included in Centre Wellington's last Board approved load forecast for CDM programs deployed from 2006 to 2010 inclusive.

Response:

There were no CDM savings in Centre Wellington's last Board approved load forecast.

Centre Wellington Hydro Ltd.

2012 IRM Rate Application

Responses to Interrogatories

From

School Energy Coalition (SEC)

EB-2011-0160

INTERROGATORIES FROM THE SCHOOL ENERGY COALITION

1. [Tab 4, page 3-6]

With respect to the Fergus MS-2 Substation:

- a) What replacements and repairs have been undertaken with respect to the circuit switchgears and reclosers in the past 5 years?

Response:

Regular maintenance and testing has been performed on the mini oil filled circuit breakers and switchgear. The contact resistance has been found to be high and cleaning of the contacts performed. These units are obsolete ruling out repairing or replacing with like devices if they were to fail.

- b) What is the estimated or actual probability of a 'catastrophic transformer failure'?

Response:

It is impossible to definitively determine whether a catastrophic transformer failure would occur, or a failure of lesser degree. Given the age and condition of the secondary circuit protection devices adds to the possibility of stressing the transformer if they were to fail during an overload or fault situation.

- c) What is the estimated or actual probability that a 'catastrophic transformer failure' will cause oil to be released into the Grand River?

Response:

It is highly probable that oil would be released into the Grand River in the event of an oil spill due to a catastrophic transformer failure or a more moderate leak. The expectation of oil making its way to the Grand River is because of the very close proximity, and the grade sloping towards the bank from the station.

- d) What is the estimated or actual probability of a 'major short circuit' causing a transfer of high voltage from station to the ground failure into the office building via the secondary conductors?

Response:

If a short circuit fault occurred within the station and was dissipated out through the ground gradient which the secondary neutral is directly connected to it is probable that voltage would be transferred to the supplied office building. The actual voltage level would be dependent on varying conditions such as fault voltage level and duration.

While performing a Substation Condition Assessment Study for Centre Wellington Hydro in January of 2011 Costello and Associates raised concerns of the distribution padmount transformer located inside Fergus MS-2. Due to the possible public safety hazard the Issue of the location of the transformer was sufficient enough to have a second professional opinion by METSCO Energy Solutions. METSCO Energy Solutions conclusion and recommendation specific to the distribution transformer being inside the MS-2 fence were as follows:

Fergus MS#2: The main transformer secondary neutral and station ground grid may be isolated from the multi-grounded street neutral except through the neutral of a small pad mounted transformer. Integrity tests should be used to review this connection. The multi-grounded street neutral should be bonded directly to the main transformer secondary neutral and then to the grid via two AWG 4/0 insulated conductors for redundancy if this condition is not present. Secondly the secondary neutral of the pad mounted transformer near the station fence appears to be connected to station ground which could transfer an excessive ground potential rise to a neighbouring building. This transformer should be relocated outside the station fence with the secondary and primary neutral carried independently to the street neutral.

2. [Tab 4, page 4]

Please explain why the SCADA project meets the requirements of the ICM.

Please explain why the project cannot wait to be approved in the Applicant's next cost of service application scheduled for next year.

Response:

The SCADA project meets the requirements of the ICM because to rehabilitate Fergus MS #2 and the SCADA project brings the total capital requirement over the Incremental Capital threshold. Also, Centre Wellington will be including the remainder of the capital plan expenditures from the Costello report in its 2013 Cost of Service application covering the period of 2012 to 2016. Starting the plan in 2012 has the effect of smoothing the expenditures over several years to mitigate rate shock for the customers of Centre Wellington Hydro.

After reviewing recent station maintenance records and conducting a Substation Condition Assessment through Costello Associates Inc. Centre Wellington Hydro has determined the need for rehabilitation of all stations to bring them to current day standards and operability, and the need for SCADA. A long term Stations Capital plan has been developed to implement these projects, and working through prioritizing projects it was decided the implementation of SCADA should occur prior to or in conjunction with the rehabilitation of the first station upgrade. In doing so the first station to be upgraded would have full monitoring of critical station alarms and newly installed

equipment would be fully automated with remote operability upon commissioning, allowing Centre Wellington Hydro to take full advantage of new equipment immediately. Another deciding factor to put a high priority on implement SCADA in 2012 is the benefits it will give Centre Wellington Hydro in future station upgrades by assisting in circuit loading transfers needed to take station off and on line while completing projects. Postponing or rescheduling the implementation of SCADA will ultimately lengthen the completion of required station upgrades.

3. [Tab1, page 5]

Is the Applicant applying the half-year rule with regards to calculation of rate base and any associated depreciation expenses for the approved ICM expenditures?

Response:

Yes, the Applicant is applying the half-year rule with regards to the calculation of rate base and any associated depreciation expenses for the approved ICM expenditures.

Centre Wellington Hydro Ltd.

2012 IRM Rate Application

Responses to Interrogatories

From

Vulnerable Energy Consumers Coalition (VECC)

EB-2011-0160

EB-2011-0160

ONTARIO ENERGY BOARD

IN THE MATTER OF

the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15 (Schedule B), as amended;

AND IN THE MATTER OF an Application by
Centre Wellington Hydro Ltd. for an order or orders
approving or fixing just and reasonable
distribution rates to be effective May 1, 2012.

Information Requests of the Vulnerable Energy Consumers Coalition (VECC)

INCREMENTAL CAPITAL

VECC Question # 1

Reference: Manager's Summary, Section 5: Incremental Capital Module

Preamble: The evidence indicates that Centre Wellington Hydro (CWH) has 2012 forecasted capital expenditures of \$2,178,300 that includes \$1,363,000 to rehabilitate Fergus MS#2 (\$1,199,400) and to install fully functional SCADA for Centre Wellington's six Municipal Sub-stations (\$164,000).

- a) Please provide a Capital Spending Schedule that sets out, on a comparative basis, approved 2009 capital spending (EB-2008-0225) and the proposed spending for 2012, using spending categories from EB-2008-0225.

Response:

The below Capital Spending Schedule sets out a comparison between the 2009 approved capital spending and the proposed spending for 2012 as requested.

USoA Code	USoA Code Description	2012 Capital Budget	2009 Approved Capital Spending	Variance between 2009 Approved and 2012 Capital Budget	Variance as %
1805	Land	50,000	-		
1806	Land Rights	4,000	4,000	-	0%
1820	Dist Stn Equipment	1,329,400	-	1,329,400	-
1830	Poles Twrs & Fixtures	64,200	110,500	(46,300)	-42%
1835	OH Conductors & Devices	63,800	136,300	(72,500)	-53%
1840	UG Conduit	198,000	5,000	193,000	3860%
1845	UG Conductor & Devices	62,100	19,200	42,900	223%
1850	Transformers	148,200	306,000	(157,800)	-52%
1855	Services	10,600	59,600	(49,000)	-82%
1860	Meters	25,000	15,000	10,000	67%
1908	Building and Fixtures	30,000	-	30,000	-
1920	Computer Equipment-Hardware	29,000	29,000	-	0%
1925	Computer Software	-	82,000	(82,000)	-100%
1930	Transportation Equipment	-	45,000	(45,000)	-100%
1935	Stores Equipment	-	1,000	(1,000)	-100%
1940	Tools, Shop and Garage Equip	-	2,000	(2,000)	-100%
1945	Measurement & Testing Eq	-	1,000	(1,000)	-100%
1980	System Supervisory Equipment	164,000	-	164,000	-
	Total Capital Budget	2,178,300	815,600	1,362,700	167%

b) Please provide explanations for any categories where the variance between the 2009 approved and the current 2012 budget spending exceeds plus/minus 10%.

Response:

It is difficult to explain variances between the capital expenditures between 2009 Approved Capital spending and 2012 Capital Budget because the capital program is developed on a project basis which changes annually. Centre Wellington has provided in the below table a list of capital projects for 2012. The 2009 listing of capital projects is found in Exhibit 2, Tab 3, Schedule 1, Pages 17-21 of EB-2008-0225 Cost of Service Application.

Job No.	Accounts Affected	Budget Amount by Account	Budget Amount	Details by project	Justification of Capital Project	Expected In Service Date	Replacement-Rehabilitation = R New Capital = N	Discretionary = Y Non-discretionary = N
CP1	1855	\$7,600	\$ 7,600.00	All new connections in 2012.		2012	R	N
CP7-1	1830	\$14,600	\$ 14,600.00	All pole replacements resulting from pole inspections carried out in 2011.	Approximately three hundred wood poles that have been in service for forty years or more will be inspected and tested in the fall of 2011. Suspect poles will be changed out in 2012.	30-Jun-12	R	N
CP7-2	1835	\$37,900	\$ 37,900.00	New conductor and insulators to replace substandard #6 solid conductor at the following locations: Hill St E from St David ST to Gowrie St; St George St W at Maiden Lane; McAllister ST from Princess St to Argyll St; Victoria St from Forfar to Parkside St; James St from Garafraxa St to Forfar St; Johnson St North and South and Churchill Crescent W.	All substandard #6 solid conductor in these areas will be changed as well as any porcelain insulators that are still in service. Our work procedures do not allow live line work on solid conductors which means we have to arrange an interruption any time we need to work on this type of conductor.	Work to be completed in April and May 2012.	R	N
CP9	1850	\$100,000	\$ 100,000.00	Various New Transformers will be ordered to replace any of our stock that are installed either for new connections, damaged by lighting, or any other reason.	To keep transformer stock at current level. Replacement transformers are for those used in 2011 or will be used in 2012. First off, 7 transformers used will be used on Argyll Street \$28,000; 1-300KV 120/200 installed at new apartment site \$20,000; 1-300 kV 347/600 transformer installed at the Smart Centre Site in 2012 - \$20,000; 1- 300 kV 120/208 Transformer damaged by lighting in 2011- \$20,000; and \$40,000 for transformer replacement during the current year.	2012	R	N
CP12	1860	\$25,000	\$ 25,000.00	New meters and instrument transformers for interval customers \$10,000 Contract \$15,000	New meters are needed to replace existing in field meters due for reverification under Measurement Canada regulations. Contract services required for installations and inspection of three phase installations.	2012	R	N

Job No.	Accounts Affected	Budget Amount by Account	Budget Amount	Details by project	Justification of Capital Project	Expected In Service Date	Replacement Rehabilitation = R New Capital = N	Discretionary = Y Non-discretionary = N
CP16	1830 1835 1850	\$13,900 \$4,100 \$12,000	\$ 30,000.00	Replace existing Three Phase transformer banks with new polyphase transformers at the Elora Curling Club. Remove one single phase transformer at rear of the building and connect one customer by extending 120/240 secondary from David St. All components of this project, poles, anchors, conductors, and transformers will require an engineered design.	This entire installation is substandard; the poles are too short and one is in the middle of a paved parking lot; the transformer switches are too close to operate safely; the conductors are too low for safety because the guying is inadequate and one span of single phase conductor passes over the rear of the building.	July 2012.	R	N
CP17	1840 1845 1850 1855	\$186,000 \$40,300 \$36,200 \$3,000	\$ 265,500.00	Argyll St. The UG system on this street is over 35 years old and consists of direct buried 5kv cable and Pole Tran type transformers. The life expectancy of these cables is 25 years. A new underground system that will be in compliance with Ontario Regulation 22/04 has to be designed by consultant engineers.	The life expectancy of the cables in this installation has been exceeded by eight years so far.	Aug-Oct 2012	R	N
CP 18	1806	\$4,000	\$ 4,000.00	Easements	Easements are required to enable the LDC to have access to infrastructure.	2012	R	N
CP 19	1805 1820	\$50,000 \$1,149,400	\$ 1,199,400.00	Rehabilitate Fergus MS2 Station @ 295 Queen Street	Costello & Associates 2012 IRM supporting document	Oct-Dec 2012	R	N
CP20	1820	\$180,000	\$ 180,000.00	relocating 73 M3 Fergus TS Wholesale PME unit.	The Measurement Canada seal date of this Wholesale metering unit expires at the end of 2012. Hydro One requires Centre Wellington Hydro to relocate this installation to a position outside of there Fergus TS.	Oct-Dec 2012	R	N

Job No.	Accounts Affected	Budget Amount by Account	Budget Amount	Details by project	Justification of Capital Project	Expected In Service Date	Replacement-Rehabilitation = R New Capital = N	Discretionary = Y Non-discretionary = N
CP21	1830 1835	\$12,600 \$4,700	\$ 17,300.00	End of Maiden Lane road allowance across Grand River to Sewage Treatment property on Queen St West. Replace the pole on each side of the river and install new conductor.	The existing poles are more than forty years old, the one on the south side of the river is inaccessible to trucks because of a steep grade and it is surrounded by small trees. The one on the north side is very weathered and is close to the edge of a paved parking lot. An engineered design will be required in order to be in compliance with Ontario Regulation 22/04.	June 2012.	R	N
CP22	1830 1835	\$11,500 \$5,000	\$ 16,500.00	Gowrie St N across Grand River to Gowrie St S. Replace the old wooden portal structure on each side of the river with new poles and conductor.	Both of these structures are very old and substandard as far as clearances and anchoring are concerned. This crossing will need an engineered design to be in compliance with Ontario Regulation 22/04.	June 2012.	R	N
CP23	1830 1835 1845	\$11,600 \$12,100 \$21,800	\$ 45,500.00	Tower St Sth at McQueen Blvd. Alterations to the intersection to extend McQueen Blvd west will require the relocation of five concret poles	We are obligated to relocate our poles whenever they are in the way of township road improvements.	This is expected to start in May 2012 with a completion date no later than November 2012	R	N
CP24	1830 1835 1845 1995	\$14,200 \$4,600 \$15,200 (\$34,000)	\$ -	Install two new wood poles, possibly 70', to allow for a loop feed into and out of proposed Eastwood subdivision. Engineered design will be required to accommodate Hydro One 44kv and 8kv circuits. Expected cost is \$34,000 however, this amount will be recouped from the developer as contributed capital.	These new higher poles will have to be installed to allow for a loop feed into the proposed subdivision. This project is expected to go ahead in 2012 and the pole framing will have to be an engineered design to comply with Ontario Regulation 22/04.	2012	N	N
CP25	1980	\$164,000	\$ 164,000.00	Install fully functional SCADA system for Centre Wellington Hydro's 6 municipal Stations.	Costello & Associates 2012 IRM supporting document	Jun-12	N	N

Job No.	Accounts Affected	Budget Amount by Account	Budget Amount	Details by project	Justification of Capital Project	Expected In Service Date	Replacement/Rehabilitation = R New Capital = N	Discretionary = Y Non-discretionary = N
CP26	1840	\$12,000	\$ 12,000.00	Tower Street bridge reconstruction. Duct bank to be installed while bridge is under construction.	The installation of a duct bank in a new bridge is a prudent measure for unforeseeable changes to the distribution system in a busy thoroughfare.	Summer 2012	N	N
CP XX	1920	\$9,000	\$ 9,000.00	Replacement of two computer systems for \$6,000 and one new network enabled tape backup device for \$3,000.	The purchase of the computers is part of the planned replacement of two computer systems that will have outlived their useful life. The Network Enabled Tape backup device is required because with the construction of our data room the file server will be moving upstairs into the secure room. Currently, our tape backup drive is housed in our file server. In order to limit access to the secure server room and continue to have regular backups of our system taken off site we require a tape backup unit on the main floor of the office.	1-May-12	R	N
CP 28	1908 1920	\$30,000 \$20,000	\$ 50,000.00	Install new server room equipment and devices.	The new server room will provide us with a, safe, secure environment to house our file server and Scada System. We will need server racks, network routers, ups, and additional network cabling to properly accommodate these computers in this room and be able communicate with them for day to day operations.	May-12	N	N
			\$ 2,178,300.00	Total Capital (Original Submission)				
			\$ 719,913.23	Revised Threshold Capital with IRs				
				(Amount that can be funded each year via depreciation and current rates)				
			\$ 1,458,386.77	Difference between Total Capital & Threshold Capital				
CP 19	1820		\$ 1,149,400.00	Fergus MS#2-Station				
CP 19	1805		\$ 50,000.00	Fergus MS#2-Land				
CP25	1980		\$ 164,000.00	SCADA				
			\$ 1,363,400.00	Total ICM application				
			\$ 94,986.77	Shortfall in funding request due to Changes made during IRs				

- c) Please identify all spending in the 2012 Capital Budget that addresses replacement and rehabilitation projects and quantify any discretionary expenditures.

Response:

The 2012 total capital budget in the table in part b) above also identifies all of Centre Wellington's replacement and rehabilitation projects for 2012. All of these items in the 2012 Capital budget are deemed to be non-discretionary expenditures.

- d) For the spending categories/projects not addressed in response to part c), please provide an explanation as to why the budgeted level of spending is required in 2012 and quantify any discretionary expenditures.

Response:

The 2012 total capital budget in the table in part b) above identifies all of Centre Wellington's projects for 2012. All of these items in the 2012 capital budget are deemed to be non-discretionary expenditures.

- e) Please provide a breakdown of the costs to rehabilitate Fergus MS#2 and install SCADA including labour, materials, equipment and other costs.

Response:

The breakdown of the costs to rehabilitate Fergus MS#2 including labour, materials, equipment and other costs are as follows:

Design	Demolish and remove existing 5 kV outdoor switchgear Replace with outdoor metalclad switchgear and padmount reclosers, c/w SEL 651R Controllers. New SCADA RTU and total station metering
Voltage	New 4.16 kV feeder cables
Installed Capacity	44 - 4.16/2.4 kV
Switchgear Type	5000 kVA
Main Breaker	Outdoor metalclad & padmount (inside station fence)
Feeder Breakers	none
Schedule	15 kV 800A solid dielectric Budget

Component	Cost Detail	Summary
1) Property Costs		
1.1) Demolish existing building & dispose	\$ 40,000	
1.2) Grading, compaction, restoration	\$ 25,000	
1.3) Additional land	<u>\$ 50,000</u>	

\$ 115,000

2) Engineering & Design

2.1) Preliminary engineering	\$ 7,500
2.2) Environmental Screening	\$ 10,000
2.3) Geotechnical Investigation	\$ 12,000
2.4) Grounding	\$ 15,000
2.5) Detailed engineering & Design	\$ 45,000
2.6) Site Meetings	\$ 3,000
2.7) Site Supervision & Project Management	\$ 25,000
2.8) Protection Study	<u>\$ 7,500</u>

\$ 125,000

3) Major equipment

3.1) Power Transformer 5/6.7 MVA	\$ -
3.2) Station Reclosers (3)	\$ 105,000
3.3) 44 kV Switches/Fuses	\$ -
3.4) S&C Switchgear	\$ 175,000
3.5) Prefab. Control Shack w/pad	\$ 30,000
3.6) Station Service	\$ 7,500
3.7) 44 kV Cables/Terminators	\$ -
3.8) 15 kV 500 MCM Cables/Terminators	\$ 125,000
3.9) Solid Blade Riser Switches (9)	\$ 6,000
3.10) Scada RTU, programming, commissioning	<u>\$ 15,000</u>

\$ 463,500

4) Civil Construction

4.1) Construction Power	\$ 7,500
4.2) Clearing, Grubbing, Grading, compacting, fill	\$ 40,000
4.3) Road entrance/paving/landscaping	\$ 7,500
4.4) Oil Containment	\$ -
4.5) Duct Banks	\$ 80,000
4.6) Concrete Foundations	\$ 20,000
4.7) Fence & Stone	<u>\$ 30,000</u>

\$ 185,000

5) Electrical

5.1) Grounding	\$ 25,000
5.2) 44 kV Dip Pole	\$ -
5.3) 4.16 kV Riser Poles	\$ 7,500
5.4) Installation of Transformer	\$ -
5.5) Installation of Reclosers & Switchgear	\$ 45,000
5.6) Power & Control Cabling	\$ 15,000
5.7) Station Service Panel	\$ 3,000
5.8) Commissioning	<u>\$ 20,000</u>

\$ 115,500

6) Miscellaneous

6.1) Mobilization, Bonding, Insurance	\$ 30,000
6.2) Fees & Permits	<u>\$ 5,000</u>

\$ 35,000

7) CWH Staff Costs

7.1) Lines	\$ 5,000
------------	----------

7.2) Stations	\$ -	
7.3) Engineering	<u>\$ 5,000</u>	
		<u>\$ 10,000</u>
Sub-Total		\$ 1,049,000
Contingency 10%		<u>\$ 104,900</u>
Sub Total		<u>\$ 1,153,900</u>
CWH Operations Manager Time and Cost		\$45,500
Total Project		<u>\$ 1,199,400</u>

The breakdown of the costs to install the SCADA master station including labour, materials, equipment and other costs is as follows:

Project: New SCADA Master Station
Estimated by: S. Costello
Schedule: 2012

No.	Item	Cost	
1	Survalent Single Server Scada System	\$ 80,000	
2	Upgrade to Dual System	\$ 20,000	
3	Database Development	\$ 12,000	
4	Graphics Development	\$ 4,500	
5	Factory Acceptance Testing	\$ 12,000	
6	Site Commissioning	\$ 6,000	
7	ICCP Programming & Testing to Hydro One	<u>\$ 8,000</u>	
	Sub-total		\$ 142,500
	Contingency 15%		<u>\$ 21,375</u>
	Total		<u>\$ 163,875</u>

f) Please discuss the timing of the capital expenditures proposed in 2012.

Response:

The schedule of the capital projects as outlined in part b) includes the proposed completion and in service dates of the capital expenditures.

VECC Question # 2

Reference: Tab 4, Incremental Capital, Third Party Report, Page 1

Preamble: Costello Associates Inc. was retained by CWH to provide supporting technical information and budgetary estimates for planned substation replacement projects, and for a new SCADA system.

- a) Please discuss when the need to replace or rehabilitate the substations was identified in the context of CWH's long term capital plan.

Response:

The need to replace and rehabilitate the stations was identified and long term capital planning determined after receiving the Costello Associates report in January 2011.

- b) Please discuss the substation capital investment in the context of the significant influence on the operation of the distributor.

Response:

The substation capital investment has significant influence on Centre Wellington's operations in the following areas.

- Public & worker safety: eliminating grounding and arc flash hazards.
- Reliability: upgraded circuit/feeder protection, new cable, new switchgear and station layout that will conform to current standards.
- Asset management: Long term plan of replacing equipment and apparatus in a manner that keeps the projects workloads and operations manageable.

- c) Please discuss what actions CWH will take in the event that the Board does not approve relief for incremental capital.

Response:

If the Board does not approve the relief for incremental capital in the 2012 3IRM, Centre Wellington Hydro for the reasons indicated in part b) above intends to proceed with the replacement of the Fergus MS#2 station and the installation of the fully functional SCADA system. Delaying of the projects would not be in the best interest of our customers.

Phasing in the replacement and rehabilitation of Distribution Station components during IRM periods as well as during a Cost of Service rate year is viewed as a much more responsible approach than waiting until the next Cost of Service application. This approach smooth's the costs for the customers versus the significant rate shock that would likely require rate mitigation measures in the COS rate year.

VECC Question # 3

Reference: Report of the Board on 3rd Generation Incentive Regulation for Ontario's Electricity Distributors, July 14, 2008, Eligibility Criteria, Appendix: Filing Guidelines, Page II

Preamble: The eligibility criteria for distributors to recover amounts through rates to fund incremental capital investment are: materiality, need and prudence.

a) Please discuss the need criteria in the context of the Board's Guidelines.

Response:

The need to rehabilitate Fergus MS-2 is due to the drivers such as public and worker safety, reliability and environmental protection issues brought to Centre Wellington Hydro attention through the station condition assessment report conducted in January 2011 by Costello Associates. Centre Wellington Hydro feels the condition of the station is such that it is prudent to rehabilitate as soon as the project can be designed, contracts tendered and physical work scheduled.

b) Please discuss the options CWH explored regarding the evaluation of the substations to arrive at the most cost-effective option for rate-payers and provide details.

Response:

Options Centre Wellington Hydro explored regarding the evaluation of substations rehabilitation / replacement needs were safety, reliability, risk management and cost. When prioritizing the need to either rehabilitate or completely replace a station factors from grounding through to major equipment were taken in to consideration. For example the proposed rehabilitation of Fergus MS-2 makes use of existing major components such as the power transformer, 44kV switches and fuses, and metal structure used to connect to the high voltage circuit, as well as existing footings that may be included in the design.

VECC Question # 4

Reference: Tab 4, Incremental Capital, Third Party Report, Appendix 1, Page 1

Preamble: Costello Associates Inc. indicates that all stations were field inspected and assessed based on two evaluation models. The first model considers three main areas of concern: public safety, worker safety, and risk of major equipment failure and classification ratings of the above categories range from blue (excellent condition) to red (poor condition).

- a) Please provide a schedule that shows the colour classification ratings for each area of concern (public safety, worker safety, risk of major equipment failure) for each substation.

Response:

The colour classification ratings for each area of concern (public safety, worker safety, risk of major equipment failure) for each substation are shown in Exhibit 3.

VECC Question # 5

Reference: Tab 4, Incremental Capital, Third Party Report, Appendix 1, Page 1

Preamble: Costello Associates Inc. indicates that the second evaluation model is a points-based system, which considers equipment, operating condition, usually based on detailed knowledge gained from maintenance and testing.

- a) Please provide the results of the points-based evaluation for each substation.

Response:

The points-based evaluation for each substation is included in Exhibit 3 as referenced in question 4 a.

VECC Question # 6

Reference: Tab 4, Incremental Capital, Third Party Report, Prioritization, Page 5

Preamble: The evidence indicates that the projects have been prioritized on the basis of public and worker safety, reliability (asset condition), environmental protection, staff resources, and capital funding.

- a) Please provide the results of the analysis undertaken to determine that the Fergus MS-2 substation and SCADA were the priorities for 2012.

Response:

In the station ranking in the table below, it has been identified that Fergus MS-1 and Fergus MS-2 had the lowest point scores. Both stations are of the same vintage being constructed within 3 years of each other, and having identical equipment at risk of failure such as breakers, and worker safety concerns. Fergus MS-2 however is seen as having a greater public risk given the issue of the distribution transformer inside the station fence and grounding problems around that.

Centre Wellington Hydro station Rankings

Substation Asset Condition Assessment
January 2011 – Costello Associates Inc.

No.	Station ID	Address	Stn Size	Stn Built	Voltage	Stn Age	Cables Age	Public Safety	Worker Safety	Risk of Failure	Overall Assessment	Point Score	Comments
1	Elora MS-1	Mill St Elora	5 MVA	1960	4.16 kV	7	7	Red	Yellow	Orange	Orange	53	Exact station age not provided
2	Elora MS-2	Waterloo St Elora	5 MVA	1997	4.16 kV	14	14	Red	Blue	Purple	Red	67	After maintenance, condition = Purple
3	Fergus MS-1	Blair St Fergus	5 MVA	1960	4.16 kV	51	25	Red	Yellow	Orange	Orange	50	Exact station age not provided
4	Fergus MS-2	Queen St Fergus	5 MVA	1963	4.16 kV	48	25	Red	Red	Red	Red	45	Cable age estimated
5	Fergus MS-3	Gartshore St Fergus	5 MVA	1991	4.16 kV	20	20	Yellow	Purple	Red	Red	58	Cable age estimated
6	Fergus MS-4	Gzowski St Fergus	5 MVA	1989	4.16 kV	22	22	Purple	Purple	Purple	Purple	69	Cable age estimated

Centre Wellington Hydro views the implementation of SCADA prior to or in conjunction with the rehabilitation of the first station to be completed beneficial as it will be used immediately to take advantage of the automated protection devices installed including warnings. And going forward will be used operationally to monitor circuit/feeder load transfers needed and establish work protection remotely to complete ongoing station projects through Centre Wellington Hydro long term plan.

The acquisition of a SCADA system is seen as a prudent investment, that is in time expected to more than pay for its initial capital cost in reduction of system losses and operations labour costs. It will also help to enable local distributed generation, and improve the flow of technical data between Hydro One and Centre Wellington Hydro.

VECC Question # 7

Reference: Tab 4, Incremental Capital Workform

- a) Please explain why a capital structure of 43.3% Equity/4.0% Short-Term Debt/52.7% Long Term Debt is used in the determination of the revenue requirement impact when CWH's transition to a 40/4/56 structure was completed in EB-2009-0218.

Response:

The capital structure of 43.33% deemed equity, 4.0% deemed short term debt, and 52.67% deemed long term debt was used because Sheet B1.4 required Centre Wellington Hydro to use the rates that were in the 2009 COS application. Using these rates ensures that the revenue requirements impact is the same as the 2009 rebasing application.

- b) Please re-do the revenue requirement calculation assuming the 40/4/56 capital structure.

Response:

Centre Wellington agrees to redo Sheet B1.4 using the 40/4/56 capital structure.

- c) Please provide the reference for the current base service charges, distribution volumetric rates and (kWh) and volumetric rates (kW) shown for each rate class on Sheet D1.1, Current Revenue from Rates.

Response:

The reference for the current base service charges, distribution volumetric rates (kWh) and volumetric rates (kW) shown for each rate class on Sheet D1.1, Current Revenue from Rates is EB-2009-0218 for Tariff of Rates and Charges effective May 1, 2010. As requested by the Board in their interrogatory 6a, sheet D1.1 has been updated with current rates, effective May 1, 2011 (EB-2010-0072).

VECC Question # 8

Reference: Chapter 3 Filing Guidelines, Section 2.1, Price Cap Index Adjustment, Page 8

Preamble: The value of the stretch factor is specific to each distributor for each rate year, and will be one of the following values: 0.2%; 0.4%; or 0.6%. The Board will determine each distributor's stretch factor.

- a) In CWH's 2011 IRM application, its utility specific stretch factor was 0.6%. In this application, a stretch factor of 0.4% has been applied. Please verify.

Response:

At the time of the 2011 IRM application we were directed on Sheet 17.GDP-IPI-X that the Board Staff would be updating the stretch factor field and that we were to use the stretch factor of 0.4% as provided in the model.

The Stretch Factor Rankings were published on December 1, 2011 and Centre Wellington Hydro's ranking was set at 0.6%. Board Staff stated that they would be adjusting this field to reflect the 2012 ranking as published.

However, as we have been able to change the stretch factor to 0.6% in the rate generator and the ICM models, these models have been updated to reflect this stretch factor.

VECC Question # 9

Reference: Tab 4, Incremental Capital Workform

Preamble: CWH proposes that the rate riders be established on "Option B" in the 2012 IRM3 Incremental Capital Workform, whereby the revenue requirement is recovered through a volumetric rate rider.

- a) Please provide the rationale for using Option B.

Response:

Centre Wellington's rationale for recovering the ICM funds using a variable rate rider is based on the assumption that the variable costs reflect the use of the system and the associated assets while the fixed costs are charged whether the customer uses electricity or not. Centre Wellington believes the variable charge is more appropriate for recovery of these costs.

Centre Wellington Hydro was given two options and Centre Wellington Hydro selected “Option B” because we feel that the capital projects benefits the customers as a whole and the spreading of cost through a volumetric rate is appropriate.

VECC Question # 10

Reference: Tab 6, Lost Revenue Adjustment Mechanism (LRAM/SSM) – Report and Schedules, Page 6

Preamble: CWH indicates that “For all programs/projects, the most recently published OPA assumptions and measures list were used in the LRAM calculations...”

- a) Please provide the version/date of the OPA assumptions and measures list used in the LRAM calculations and confirm it is the most recent OPA assumptions and measures list.

Response:

The original submission used the 2006-2009 Final OPA Final OPA CDM Results for Centre Wellington Hydro and estimated data for 2010. However, the LRAM of \$106,968.67 has been updated to use “2006-2010 Final OPA CDM Results Centre Wellington Hydro Ltd”, released by the OPA November 15, 2011.

- b) Please confirm the OPA’s 2006 to 2009 CDM Results were used in the LRAM calculation for OPA Programs.

Response:

The OPA’s 2006 to 2009 CDM results were used in the LRAM Calculations for OPA Programs in our original submission.

- c) When will the OPA results for the 2010 Programs be available and how may this affect the LRAM claim?

Response:

The 2010 Programs results are now available and have been used to update Centre Wellington Hydro’s LRAM claim.

The LRAM has been updated to use “2006-2010 Final OPA CDM Results Centre Wellington Hydro Ltd”, released by the OPA November 15, 2011

Original LRAM / SSM Submission:

LRAM & SSM Totals			
Rate Class			
	LRAM \$	SSM \$	TOTAL \$
Third Tranche			
RESIDENTIAL	\$7,694.91	\$1,735.28	\$9,430.19
GENERAL SERVICE (50 TO 2,999kW)		-\$225.76	-\$225.76
OPA Programs			
RESIDENTIAL	\$68,649.47		\$68,649.47
GENERAL SERVICE <50KW	\$17,641.60		\$17,641.60
General Service 50 to 2,999 kW	\$9,386.24		\$9,386.24
	\$103,372.23	\$1,509.52	\$104,881.75

Updated LRAM / SSM Submission using November 15, 2011 OPA results:

LRAM & SSM Totals			
Rate Class			
	LRAM \$	SSM \$	TOTAL \$
Third Tranche			
RESIDENTIAL	\$7,694.91	\$1,735.28	\$9,430.19
GENERAL SERVICE (50 TO 2,999kW)		-\$225.76	-\$225.76
OPA Programs			
RESIDENTIAL	\$71,209.35		\$71,209.35
GENERAL SERVICE <50KW	\$19,175.55		\$19,175.55
General Service 50 to 2,999 kW	\$8,888.86		\$8,888.86
	\$106,968.67	\$1,509.52	\$108,478.20

- d) If 2010 OPA preliminary or final results are available, please provide a copy and update the LRAM claim accordingly.

Response:

See part c) above for the summarized result of the 2010 OPA final results as published November 15, 2011. The attached Exhibit 4 is the "2006-2010 Final OPA CDM Results Centre Wellington Hydro Ltd.xls", released by the OPA November 15, 2011.

VECC Question # 11

Reference: Tab 6, Lost Revenue Adjustment Mechanism (LRAM/SSM) – Report and Schedules

- a) Please provide the following details by year for the OPA Every Kilowatt Counts and Every Kilowatt Counts Power Savings Event that adds to the data shown in Attachment A: # units, unit and total kWh savings, operating hours, lifetime, and free ridership rate. Reconcile to the lost revenues by year and total lost revenues shown in Attachment B.

Response:

Please see Exhibit 5 for the updated file:

Attachment A-D - LRAM Application LDC - Incl 2010 r8.xls, VECC Question 11a TAB

- b) List and confirm OPA's input assumptions for Every Kilowatt Counts (EKC) 2006 to 2010 including the measure life, unit kWh savings and free ridership for Compact Fluorescent Lights (CFLs) and Seasonal Light Emitting Diodes (LED). Confirm some of these assumptions were changed in 2007 and again in 2009 and compare the values.

Response:

Please see Exhibit 5 for the updated file:

Attachment A-D - LRAM Application LDC - Incl 2010 r8.xls, VECC Question 11b TAB

- c) Demonstrate that savings for EKC 2006 Mass Market measures 13-15 W Energy Star CFLs & Seasonal LEDs have been removed from the LRAM claim beginning in 2010.

Response:

Please see Exhibit 5 for the updated file:

Attachment A-D - LRAM Application LDC - Incl 2010 r8.xls, VECC Question 11c TAB

- d) Adjust the LRAM claim as necessary to reflect the measure lives and unit savings for any/all measures that have expired starting in 2010.

Response:

No adjustments are necessary as measure lives have been taken into account already.

VECC Question # 12

Reference: Tab 6, Lost Revenue Adjustment Mechanism (LRAM/SSM) – Report and Schedules

- a) Please confirm the input assumptions (# of units, unit kWh savings, lifetime, free ridership rate by year for the CFLs (13-15 W) and LED lighting measures under the following 3rd Tranche CDM Programs: Lighten Your Electricity Bill, Decorative Lighting Efficiency and Energy Crunch Conservation Kits. Reconcile to the lost revenues by year and total lost revenues shown in Attachment B.

Response:

Please see Exhibit 5 for the updated file:

Attachment A-D - LRAM Application LDC - Incl 2010 r8.xls, VECC Question 12a TAB

- b) Identify all Mass Market measures (CFLs etc) installed in 2005 and 2006 with measure lives of 4 years or less for which savings have been claimed in any prior claim.

Response:

Centre Wellington Hydro has not filed a previous LRAM claim.

- c) Adjust the current Third Tranche LRAM claim as necessary to reflect the measure lives (and unit savings) for any/all measures that have expired starting in 2009.

Response:

No adjustments are necessary as expired measures were not included into 2009.

VECC Question # 13

Reference: Tab 6, Lost Revenue Adjustment Mechanism (LRAM/SSM) – Report and Schedules, Page 5

Preamble: For each program, net load reductions were calculated (net of free ridership) for both SSM and LRAM calculations.

- a) Please provide the rationale for calculating lost revenues to the end of 2011.

Response:

2011 Calculations are persistent values from 2006-2010 programs only (i.e., excluding results from 2011 program initiatives).

Because Centre Wellington Hydro is not rebasing in 2012, there are persisting lost revenues from historical programs that haven't been accounted for in their load forecast. It is reasonable to include these amounts beyond 2010 until rebasing occurs consistent with 2011 filing requirements, specifically:

“Deadline for filing LRAM and SSM applications

The Board has approved LRAM and SSM applications for many distributors since the beginning of the Third Tranche CDM period in 2005. The Board has stated its understanding that there may still be remaining distributors who have yet to apply to the Board for recovery of LRAM and/or SSM amounts related to CDM activities undertaken between 2005 and 2010.

Distributors intending to file an LRAM or SSM application for CDM Programs funded through distribution rates, or an LRAM application for CDM Programs funded by the OPA between 2005 and 2010, shall do so as part of their 2012 rate application filings, either cost-of-

service or IRM. If a distributor does not file for the recovery of LRAM or SSM amounts in its 2012 rate application, it will forego the opportunity to recover LRAM or SSM for this legacy period of CDM activity.”

In addition, the timeframe associated with processing final approval of Centre Wellington’s rate submission is not expected to be complete prior to 2011 year end.

The 2011 lost revenue claim is therefore consistent with Section 5.0 of the GUIDELINES FOR ELECTRICITY DISTRIBUTOR CONSERVATION AND DEMAND MANAGEMENT EB-2008-0037:

“LRAM is a retrospective adjustment, which is designed to recover revenues lost from distributor supported CDM activities in a prior year.”

b) Please provide the calculation of the LRAM/SSM Rate Riders to the end of 2010.

Response:

The below table reflects the updated calculation of the LRAM/SSM Rate Riders.

LRAM / SSM Rate Rider Calculation	LRAM	SSM	Total	kWh	kW	One Year Rate Rider	
Residential	\$ 78,904.26	\$ 1,735.28	\$ 80,639.54	45,046,630		0.00179	\$/kWh
General Service Less Than 50 kW	\$ 19,175.55		\$ 19,175.55	21,809,071		0.00088	\$/kWh
General Service 50 to 2,999 kW	\$ 8,888.86	\$ (225.76)	\$ 8,663.10	64,439,774	166,526	0.05202	\$/kW
General Service 3,000 to 4,999 kW				20,979,417	43,874		\$/kW
Unmetered Scattered Load				400,443			\$/kWh
Sentinel Lighting				43,755	122		\$/kW
Street Lighting				1,112,732	3,066		\$/kW
Total	\$ 106,968.67	\$ 1,509.52	\$ 108,478.20				

VECC Question # 14

Reference: Tab 6, Lost Revenue Adjustment Mechanism (LRAM/SSM) – Report and Schedules, Attachment C, SSM Amounts by Class and Program

a) Provide the unit kWh input assumptions used for SSM calculations by year for the Lighten Your Electricity Bill, Decorative Lighting Efficiency and Energy Crunch Conservation Kits.

Response:

Please see Exhibit 5 for the updated file:

Attachment A-D - LRAM Application LDC - Incl 2010 r8.xls, VECC Question 14a TAB

- b) Confirm that the measure life used for CFLs was 4 years and unit savings was 104 kWh (13 – 15 W CFLs).

Response:

Correct, for SSM calculations, measure life for CFLs was 4 years and unit savings of 104kWh

- c) Confirm that the 2010 savings for CFLs should be adjusted to recognize the 4 year life for CFLs.

Response:

Yes the unit assumptions for CFLs used a 4 year life for the calculation of SSM purposes.

- d) Attachment C summarizes the calculation of the SSM amounts. Please provide a copy of the spreadsheet showing the SSM calculation. Reconcile to Attachment C.

Response:

The SSM calculation is 5% of the Total NPV for the program. NPV was calculated using Burman Energy's TRC Calculator. The front page of the TRC Calculator is attached in Exhibit 6 (Appendix A: Burman report) for each program.

EXHIBIT – 1

Revised Invoice
Ministry of Energy and Infrastructure
Conservation and Renewable Energy Program Costs

To: Centre Wellington Hydro Ltd.
730 Gartshore Street, Box 217
Fergus, ON N1M 2W8
Attn: Douglas Sherwood, President

Item Description:

Assessment for Ministry of Energy and Infrastructure Conservation and Renewable Energy Program Costs.

Quote-part pour les coûts des programme de conservation et d'énergie renouvelable du ministère de l'Énergie et de l'Infrastructure.

Customer No./No du client 377702
Customer Site No./ N° d'emplacement du client 1061025
Invoice Date/Date de la facture April 16, 2010
Invoice No./ N° de la facture 50010
Due Date/ Date d'échéance July 30, 2010
Payment Amount/ Montant remis CAD \$ 60,232

Questions related to the remittance should be directed to the Non-Tax Revenue Management Branch Contact Centre at 1-877-535-0554 or Fax (416) 326-5177. Les questions concernant la remise doivent être posées à l'InfoCentre de la Direction de la gestion des revenus non fiscaux au 1 877 535-0554 ou par télécopieur au 416 326-5177.

This assessment was calculated by the Ontario Energy Board, 2300 Yonge St. 27th Floor, P.O. Box 2319, Toronto, ON M4P 1E4. Questions related to the invoice should be directed to the Market Operations Hotline 416-440-7604. La présente quote-part a été fixée par la Commission de l'énergie de l'Ontario, 2300, rue Yonge, 27^e étage, case postale 2319, Toronto (Ontario) M4P 1E4. Les questions relatives à la facture doivent être posées au service de téléassistance du service Activités du marché : 416 440-7604.

Payments are to be made to the Minister of Finance not the Ontario Energy Board.
Les paiements doivent être faits au ministre des Finances et non à la Commission de l'énergie de l'Ontario.

Detach here/ Détacher ici



Ministry of Finance/Ministère des Finances
Payment Processing Centre/Centre de traitement des paiements
33 King St. West/33 rue King Ouest
PO Box 647/CP 647
Oshawa, ON L1H 8X3

Please detach and return this portion with your payment in the enclosed envelope. Make your cheque or money order payable to the **Minister of Finance**. Veuillez détacher et retourner cette partie avec votre remise dans l'enveloppe ci-jointe. Libellez votre chèque ou votre mandat à l'ordre du **ministre des Finances**.

Centre Wellington Hydro Ltd.
730 Gartshore Street, Box 217
Fergus, ON N1M 2W8
Attn: Douglas Sherwood, President

Customer No. / N° du client 377702
Customer Site No./ N° d'emplacement du client 1061025
Invoice No./ N° de la facture 50010
Payment Amount / Montant remis CAD \$.

EXHIBIT – 2

44 kV SUPPLY

13-LL2

B13T2-L

ABS

125E

T1

5000 KVA

44 - 4.16/2.4 kV

OPEN IPS BUS

S&C METALCLAD 5
kV SWITCHGEAR

BEPCO METALCLAD
5 kV SWITCHGEAR

F8

400E

M

3 X 1C 500 MCM Cu

FEEDER F8

F4

400A

F5

400A

M

M

30

51

PML 7330 IDN
METERS

3 X 1C 500 MCM Cu

FEEDER F4

FEEDER F5

F/D Conn. to PML
Master via IDN
Protocol

RS-485/F-D
MEDIA CONVERTOR

COSTELLO ASSOCIATES
SUDBURY, ON
(705) 522-0501
www.costelloassociates.ca

DATE

AUGUST 2011

INITIALS

DESCRIPTION

CENTRE WELLINGTON HYDRO
FERGUS MS-2

SINGLE LINE DIAGRAM

SCALE:

DRAWN

DESIGNED

APPROVED

NTS

S. COSTELLO

dwg no.

CWH-F2-1

EXHIBIT – 3

Costello Associates

Substation Risk Assessment Form

Station Elora MS-1

Year Built < 1973

Section 1: Public Safety – conditions that impact public safety at the station:

Area of Concern	Check		
	1	2	3
Perimeter Security			✓
Fence Grounding and Bonding		✓	
Station Yard			✓
Station Building	n/a		
Station Setting – Proximity			✓
Station Setting - Encroachments		✓	
Overall public safety condition			✓

1 = Acceptable

2 = Some deficiencies

3 = Needs attention soon

Overall Public Safety Risk Rating	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
					✓

Section 2: Worker Safety – conditions that impact worker safety at the station:

Area of Concern	Check		
	1	2	3
Grounding and Bonding		✓	
Safe limits of approach	✓		
Working clearances	✓		
Switching access difficult		✓	
Multiple sources of voltage			
Porcelain	✓		
Operational Issues	✓		
Maintenance Issues		✓	
Overall worker safety condition		✓	

1 = Acceptable

2 = Some deficiencies

3 = Needs attention soon

Maintenance issues that can be quickly rectified may be eliminated from risk assessment.

Overall Worker Safety Risk Rating	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
			✓		

Inspected by: S. Costello

Date: JAN. 6 / 2011

Costello Associates
Substation Risk Assessment Form

Elora ms-1

Section 3: Risks of Major Equipment Failure

A. Condition of Equipment

Area of Concern	Check		
	1	2	3
Power Transformers		✓	
High-side switchgear	✓		
Distribution-side switchgear		✓	
Protection and Control Equipment		n/a	
Underground cables	✓		
Structures		✓	
Overall equipment condition		✓	

1 = Acceptable

2 = Some deficiencies

3 = Needs attention soon

B. Factors that may impact the consequences of major equipment failure

Concern	Impact of Consequence		
	L	M	H
Station setting – proximity	More than 100m	Between 100m and 10m	10m or less
Station setting – watercourses	None	Storm sewers/drains	Open water
Lack of backup supply	<2 hours switching	Between 2 – 24h outage	No backup
Critical loads (hospitals etc)	None	With generators	No generators
Grounding and bonding	Today's code	Some deficiencies	Poor
Oil containment	Yes	Partial	None
Explosion barriers	Yes	Partial	None
Fire fighting capability	Hydrants	Storage Tanks	None
Presence of PCB's	None	Storage Only	In-service
Overall equipment condition	L	M	H

C. Based on the equipment condition and consequences, state the risk rating for a major equipment failure:

Overall Failure Risk Rating	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
				✓	

Section 4: Overall Substation Risk Assessment

Station Risk Assessment	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
				✓	

Comments: Former station building has been sold and is now operating as a small business. Very low clearances to high voltage. Perimeter security not to OESC code.

Inspected by: S. Costello

Date: JAN. 6 2011

Costello Associates Inc.

Centre Wellington Hydro - Substation Score Form

Station Elora MS-1

Year Built < 1973

1 Public Safety

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	<u>1</u>	<u>1/5</u>	20	<u>20</u>

2 Worker Safety

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	<u>3</u>	<u>3/5</u>	20	<u>60</u>

3 Environmental

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	<u>2</u>	<u>2/5</u>	20	<u>40</u>

4 Reliability Impacts

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	<u>3</u>	<u>3/5</u>	20	<u>60</u>

5 Power Transformers

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	<u>2</u>	<u>2/5</u>	6	<u>12</u>
2	Peak Loading	<u>4</u>	<u>4/5</u>	4	<u>16</u>
3	Visual Inspection	<u>3</u>	<u>3/5</u>	2	<u>6</u>
4	Testing	<u>4</u>	<u>4/5</u>	8	<u>32</u>
					<u>= 66</u>

Costello Associates Inc.

Centre Wellington Hydro - Substation Score Form

Elora ms-1

6 Breakers and Reclosers

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	3	3/5	8	24
2	Visual Inspection	5	5/5	4	20
3	Testing	4	4/5	8	32
					= 76.

7 Cables

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	5	5/5	8	40
2	Cable Type	5	5/5	4	20
3	Testing	5	5/5	8	40
					= 100

8 Protective Relays and RTU's

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	N/A		10	
2	Testing			10	

9 Batteries and Chargers

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	N/A		10	
2	Testing			10	

10 Ground Grid

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	2	2/5	10	20
2	Testing <i>none</i>	1	1/5	10	10
					= 30

11 Fences

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	1	1/5	20	20

Costello Associates Inc.

Centre Wellington Hydro - Substation Score Form

Elora ms-1

12 Buildings

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	n/a		20	

Summary

	Criteria	Actual Score	Weight Factor	Score
1	Public Safety	20	20%	4
2	Worker Safety	60	5%	3
3	Environmental	40	5%	2
4	Reliability Impacts	60	10%	6
5	Transformers	66	20%	13
6	Breakers	76	10%	8
7	Cables	100	5%	5
8	P&C and SCADA	n/a	5%	
9	Batteries and chargers	n/a	5%	
10	Ground Grid	30	5%	2
11	Fences	20	5%	2
12	Buildings	n/a	5%	
	Total		100% 85	45/85 = <u>53</u>

Comments: Proximity to neighbour's building ~ 5' from H.V. bus. Fence security does not meet OESC. Transformer age becoming a concern.

Inspected by: S. CostelloDate: JAN. 6/11

Costello Associates

Substation Risk Assessment Form

Station Elora MS-2

Year Built 1997

Section 1: Public Safety – conditions that impact public safety at the station:

Area of Concern	Check		
	1	2	3
Perimeter Security			✓
Fence Grounding and Bonding		✓	
Station Yard	✓		
Station Building	na		
Station Setting – Proximity	✓		
Station Setting - Encroachments	✓		
Overall public safety condition		✓	

1 = Acceptable

2 = Some deficiencies

3 = Needs attention soon

Overall Public Safety Risk Rating	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
					✓

Section 2: Worker Safety – conditions that impact worker safety at the station:

Area of Concern	Check		
	1	2	3
Grounding and Bonding		✓	
Safe limits of approach	✓		
Working clearances	✓		
Switching access difficult	✓		
Multiple sources of voltage	✓		
Porcelain	✓		
Operational Issues	✓		
Maintenance Issues	✓		
Overall worker safety condition	✓		

1 = Acceptable

2 = Some deficiencies

3 = Needs attention soon

Maintenance issues that can be quickly rectified may be eliminated from risk assessment.

Overall Worker Safety Risk Rating	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
	✓				

Inspected by: S. Costello

Date: JAN. 6 2011

Costello Associates
Substation Risk Assessment Form

Elora ms-2

Section 3: Risks of Major Equipment Failure

A. Condition of Equipment

Area of Concern	Check		
	1	2	3
Power Transformers	✓		
High-side switchgear	✓		
Distribution-side switchgear		✓	
Protection and Control Equipment	na		
Underground cables		✓	
Structures	✓		
Overall equipment condition		✓	

1 = Acceptable

2 = Some deficiencies

3 = Needs attention soon

B. Factors that may impact the consequences of major equipment failure

Concern	Impact of Consequence		
	L	M	H
Station setting – proximity	More than 100m	Between 100m and 10m	10m or less
Station setting – watercourses	None	Storm sewers/drains	Open water
Lack of backup supply	<2 hours switching	Between 2 – 24h outage	No backup
Critical loads (hospitals etc)	None	With generators	No generators
Grounding and bonding	Today's code	Some deficiencies	Poor
Oil containment	Yes	Partial	None
Explosion barriers	Yes	Partial	None
Fire fighting capability	Hydrants	Storage Tanks	None
Presence of PCB's	None	Storage Only	In-service
Overall equipment condition	L	M	H

C. Based on the equipment condition and consequences, state the risk rating for a major equipment failure:

Overall Failure Risk Rating	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
		✓			

Section 4: Overall Substation Risk Assessment

Station Risk Assessment	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
		✓			✓

Comments: Repair fence security issues and risk assessment can be re-classified as "Purple".

Inspected by: S. Costello

Date: JAN. 6 2011

Costello Associates Inc.

Centre Wellington Hydro - Substation Score Form

Station Elora MS-2

Year Built 1997

1 Public Safety

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	2	2/5	20	40

2 Worker Safety

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	5	5/5	20	100

3 Environmental

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	4	4/5	20	80

4 Reliability Impacts

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	4	4/5	20	80

5 Power Transformers

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	4	4/5	6	24
2	Peak Loading	4	4/5	4	16
3	Visual Inspection	3	3/5	2	6
4	Testing	3	3/5	8	24
	2 High water from analysis in 2007.				= 70

Costello Associates Inc.

Centre Wellington Hydro - Substation Score Form

Elora ms-2

6 Breakers and Reclosers

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	4	4/5	8	24
2	Visual Inspection	5	5/5	4	20
3	Testing	4	4/5	8	32
					= 76

7 Cables

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	3	3/5	8	24
2	Cable Type	5	5/5	4	20
3	Testing	4	4/5	8	32
					= 76

8 Protective Relays and RTU's

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	n/a		10	
2	Testing			10	

9 Batteries and Chargers

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	n/a		10	
2	Testing			10	

10 Ground Grid

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	4	4/5	10	40
2	Testing none	3		10	30
					= 70

11 Fences

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	2	2/5	20	40

Costello Associates Inc.

Centre Wellington Hydro - Substation Score Form

Elora ms-2

12 Buildings

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	n/a		20	

Summary

	Criteria	Actual Score	Weight Factor	Score
1	Public Safety	40	20%	8
2	Worker Safety	100	5%	5
3	Environmental	80	5%	4
4	Reliability Impacts	80	10%	8
5	Transformers	70	20%	2
6	Breakers	76	10%	8
7	Cables	76	5%	4
8	P&C and SCADA	-	5%	-
9	Batteries and chargers	-	5%	-
10	Ground Grid	70	5%	4
11	Fences	40	5%	2
12	Buildings	-	5%	-
	Total		100% 85	45 / 85 = 53 67 57

Comments: Fence security - tension wire slack. Lack of testing info on ground grid. Newest station - in good condition, will improve score with maintenance.

Inspected by: S. CostelloDate: JAN. 6 2011

Costello Associates

Substation Risk Assessment Form

Station Fergus MS-1

Year Built _____

Section 1: Public Safety – conditions that impact public safety at the station:

Area of Concern	Check		
	1	2	3
Perimeter Security		✓	
Fence Grounding and Bonding		✓	
Station Yard	✓		
Station Building		✓	
Station Setting – Proximity	✓		
Station Setting - Encroachments	✓		
Overall public safety condition		✓	

1 = Acceptable

2 = Some deficiencies

3 = Needs attention soon

Overall Public Safety Risk Rating	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
				✓	

Section 2: Worker Safety – conditions that impact worker safety at the station:

Area of Concern	Check		
	1	2	3
Grounding and Bonding		✓	
Safe limits of approach			✓
Working clearances			✓
Switching access difficult			✓
Multiple sources of voltage	✓		
Porcelain	✓		
Operational Issues			✓
Maintenance Issues			✓
Overall worker safety condition			✓

1 = Acceptable

2 = Some deficiencies

3 = Needs attention soon

Maintenance issues that can be quickly rectified may be eliminated from risk assessment.

Overall Worker Safety Risk Rating	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
					✓

Inspected by: S. Costello

Date: Jan. 6 2011

Costello Associates

Substation Risk Assessment Form

Fergus ms-1

Section 3: Risks of Major Equipment Failure

A. Condition of Equipment

Area of Concern	Check		
	1	2	3
Power Transformers			✓
High-side switchgear	✓		
Distribution-side switchgear			✓
Protection and Control Equipment	✓		
Underground cables			✓
Structures	✓		
Overall equipment condition			✓

1 = Acceptable

2 = Some deficiencies

3 = Needs attention soon

B. Factors that may impact the consequences of major equipment failure

Concern	Impact of Consequence		
	L	M	H
Station setting – proximity	More than 100m	Between 100m and 10m	10m or less
Station setting – watercourses	None	Storm sewers/drains	Open water
Lack of backup supply	<2 hours switching	Between 2 – 24h outage	No backup
Critical loads (hospitals etc)	None	With generators	No generators
Grounding and bonding	Today's code	Some deficiencies	Poor
Oil containment	Yes	Partial	None
Explosion barriers	Yes	Partial	None
Fire fighting capability	Hydrants	Storage Tanks	None
Presence of PCB's	None	Storage Only	In-service
Overall equipment condition	L	M	H

C. Based on the equipment condition and consequences, state the risk rating for a major equipment failure:

Overall Failure Risk Rating	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
				✓	

Section 4: Overall Substation Risk Assessment

Station Risk Assessment	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
				✓	

Comments: Station 5kV switchgear is at end of life. Station transformer is 40 years old. Safety concerns for 5kV switchgear exposed cables and bus work. Fence tension wire is slack. Transformer oil level is low.

Inspected by: S. Costello

Date: JAN. 6 2011

Costello Associates Inc.

Centre Wellington Hydro - Substation Score Form

Station Centre Wellington Hydro - Fergus MS-1 Year Built

1 Public Safety

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	2	2/5	20	40

2 Worker Safety

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	1	1/5	20	20

3 Environmental

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	3	3/5	20	60

4 Reliability Impacts

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	3	3/5	20	60

5 Power Transformers

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	2	2/5	6	12
2	Peak Loading	3	3/5	4	12
3	Visual Inspection	2	2/5	2	4
4	Testing	4	4/5	8	32
					= 60

Costello Associates Inc.

Centre Wellington Hydro - Substation Score Form

Fergus ms-1

6 Breakers and Reclosers

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	1	1/5	8	8
2	Visual Inspection	2	2/5	4	8
3	Testing	3	3/5	8	24
					= 40

7 Cables

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	1	1/5	8	8
2	Cable Type	1	1/5	4	4
3	Testing	3	3/5	8	24
					= 36

8 Protective Relays and RTU's

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	4	4/5	10	40
2	Testing	5	5/5	10	50
	recently upgraded				= 90

9 Batteries and Chargers

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age <i>un known</i>	3	3/5	10	30
2	Testing <i>un known</i>	3	3/5	10	30
					= 60

10 Ground Grid

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	2	2/5	10	20
2	Testing <i>none</i>	2	2/5	10	20
					= 40

11 Fences

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	3	3/5	20	60

Costello Associates Inc.

Centre Wellington Hydro - Substation Score Form

Fergus ms-1

12 Buildings

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	2	2/5	20	40

Summary

	Criteria	Actual Score	Weight Factor	Score
1	Public Safety	40	20%	8
2	Worker Safety	20	5%	1
3	Environmental	60	5%	3
4	Reliability Impacts	60	10%	6
5	Transformers	60	20%	12
6	Breakers	40	10%	4
7	Cables	36	5%	2
8	P&C and SCADA	40	5%	4
9	Batteries and chargers	60	5%	3
10	Ground Grid	40	5%	2
11	Fences	60	5%	3
12	Buildings	40	5%	2
	Total		100%	50

Comments: Major station components are at or near end of life. Concerns with safety and reliability of station.

Inspected by: S. CostelloDate: JAN. 6 2011

Costello Associates

Substation Risk Assessment Form

Station Fergus MS-2

Year Built 1963

Section 1: Public Safety – conditions that impact public safety at the station:

Area of Concern	Check		
	1	2	3
Perimeter Security			✓
Fence Grounding and Bonding	✓		
Station Yard		✓	
Station Building	✓		
Station Setting – Proximity			✓
Station Setting - Encroachments	✓		
Overall public safety condition			✓

1 = Acceptable

2 = Some deficiencies

3 = Needs attention soon

Overall Public Safety Risk Rating	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
				✓	✓

Section 2: Worker Safety – conditions that impact worker safety at the station:

Area of Concern	Check		
	1	2	3
Grounding and Bonding	✓		
Safe limits of approach			✓
Working clearances			✓
Switching access difficult			✓
Multiple sources of voltage	✓		
Porcelain	✓		
Operational Issues			✓
Maintenance Issues			✓
Overall worker safety condition			✓

1 = Acceptable

2 = Some deficiencies

3 = Needs attention soon

Maintenance issues that can be quickly rectified may be eliminated from risk assessment.

Overall Worker Safety Risk Rating	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
					✓

Inspected by: S. Costello

Date: Jan. 6 2011

Costello Associates

Substation Risk Assessment Form

Fergus MS-2

Section 3: Risks of Major Equipment Failure

A. Condition of Equipment

Area of Concern	Check		
	1	2	3
Power Transformers 1974			✓
High-side switchgear	✓		
Distribution-side switchgear			✓
Protection and Control Equipment			✓
Underground cables			✓
Structures		✓	
Overall equipment condition			✓

1 = Acceptable

2 = Some deficiencies

3 = Needs attention soon

B. Factors that may impact the consequences of major equipment failure

Concern	Impact of Consequence		
	L	M	H
Station setting – proximity	More than 100m	Between 100m and 10m	10m or less
Station setting – watercourses	None	Storm sewers/drains	Open water
Lack of backup supply	<2 hours switching	Between 2 – 24h outage	No backup
Critical loads (hospitals etc)	None	With generators	No generators
Grounding and bonding	Today's code	Some deficiencies	Poor
Oil containment	Yes	Partial	None
Explosion barriers	Yes	Partial	None
Fire fighting capability	Hydrants	Storage Tanks	None
Presence of PCB's	None	Storage Only	In-service
Overall equipment condition	L	M	H

C. Based on the equipment condition and consequences, state the risk rating for a major equipment failure:

Overall Failure Risk Rating	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
					✓

Section 4: Overall Substation Risk Assessment

Station Risk Assessment	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
				✓	✓

Comments: Environmental concerns with proximity to Grand River. Public and worker safety issues. Possible transformer leak. Low oil in tx. Potential structural issues with footings.

Inspected by: S. Costello

Date: JAN. 6 2011

Costello Associates Inc.

Centre Wellington Hydro - Substation Score Form

Station Fergus MS-2

Year Built 1963

1 Public Safety

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	2	2/5	20	40

2 Worker Safety

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	1	1/5	20	20

3 Environmental

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	1	1/5	20	20

4 Reliability Impacts

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	3	3/5	20	60

5 Power Transformers

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	2	2/5	6	12
2	Peak Loading	3	3/5	4	12
3	Visual Inspection	2	2/5	2	4
4	Testing	4	4/5	8	32
					= 60

Costello Associates Inc.

Fergus MS-2

Centre Wellington Hydro - Substation Score Form

6 Breakers and Reclosers

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	1	1/5	8	8
2	Visual Inspection	2	2/5	4	8
3	Testing	3	3/5	8	24
					= 32

7 Cables

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	1	1/5	8	8
2	Cable Type	1	1/5	4	4
3	Testing	3	3/5	8	24
					= 36

8 Protective Relays and RTU's

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	1	1/5	10	10
2	Testing	2	2/5	10	20
					= 30

9 Batteries and Chargers

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	2	2/5	10	20
2	Testing <i>none?</i>	2	2/5	10	20
					= 40

10 Ground Grid

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	2	2/5	10	20
2	Testing	2	2/5	10	20
					= 40

11 Fences

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	3	3/5	20	60

Costello Associates Inc.

Centre Wellington Hydro - Substation Score Form

Fergus ms-2

12 Buildings

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	3	3/5	20	60

Summary

	Criteria	Actual Score	Weight Factor	Score
1	Public Safety	40	20%	8
2	Worker Safety	20	5%	1
3	Environmental	20	5%	1
4	Reliability Impacts	60	10%	6
5	Transformers	60	20%	12
6	Breakers	32	10%	3
7	Cables	36	5%	2
8	P&C and SCADA	30	5%	2
9	Batteries and chargers	40	5%	2
10	Ground Grid	40	5%	2
11	Fences	60	5%	3
12	Buildings	60	5%	3
	Total		100%	45

Comments: Major equipment is at or near end of life. Significant public and worker safety issues. Significant environmental risk due to proximity of Grand River.

Inspected by: S. Costello.

Date: Jan. 6 2011

Costello Associates

Substation Risk Assessment Form

Station Fergus MS-3

Year Built 1991 ?

Section 1: Public Safety – conditions that impact public safety at the station:

Area of Concern	Check		
	1	2	3
Perimeter Security			✓
Fence Grounding and Bonding			✓
Station Yard	✓		
Station Building <i>na</i>			
Station Setting – Proximity			✓
Station Setting - Encroachments	✓		
Overall public safety condition		✓	✓

1 = Acceptable

2 = Some deficiencies

3 = Needs attention soon

Overall Public Safety Risk Rating	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
			✓		

See notes.

Section 2: Worker Safety – conditions that impact worker safety at the station:

Area of Concern	Check		
	1	2	3
Grounding and Bonding		✓	
Safe limits of approach	✓		
Working clearances	✓		
Switching access difficult	✓		
Multiple sources of voltage	✓		
Porcelain	✓		
Operational Issues	✓		
Maintenance Issues	✓		
Overall worker safety condition	✓		

1 = Acceptable

2 = Some deficiencies

3 = Needs attention soon

Maintenance issues that can be quickly rectified may be eliminated from risk assessment.

Overall Worker Safety Risk Rating	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
		✓			

Inspected by: S. Costello

Date: JAN. 6 2011

Costello Associates

Substation Risk Assessment Form

Fergus ms-3

Section 3: Risks of Major Equipment Failure

A. Condition of Equipment

Area of Concern	Check		
	1	2	3
Power Transformers <i>rewound 92</i>		✓	
High-side switchgear	✓		
Distribution-side switchgear		✓	
Protection and Control Equipment		✓	
Underground cables		✓	
Structures	✓		
Overall equipment condition		✓	

1 = Acceptable

2 = Some deficiencies

3 = Needs attention soon

B. Factors that may impact the consequences of major equipment failure

Concern	Impact of Consequence		
	L	M	H
Station setting – proximity	More than 100m	<u>Between 100m and 10m</u>	10m or less
Station setting – watercourses	None	Storm sewers/drains	<u>Open water</u>
Lack of backup supply	<u><2 hours switching</u>	Between 2 – 24h outage	No backup
Critical loads (hospitals etc)	None	<u>With generators</u>	No generators
Grounding and bonding	Today's code	<u>Some deficiencies</u>	Poor
Oil containment	Yes	Partial	<u>None</u>
Explosion barriers	Yes	Partial	<u>None</u>
Fire fighting capability	<u>Hydrants</u>	Storage Tanks	None
Presence of PCB's	<u>None</u>	Storage Only	In-service
Overall equipment condition	L	M	<u>H</u>

well

C. Based on the equipment condition and consequences, state the risk rating for a major equipment failure:

Overall Failure Risk Rating	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
					✓

Section 4: Overall Substation Risk Assessment

Station Risk Assessment	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
		✓			✓ *

Comments: *Section 1: Public safety - fencing issues are mitigated with Town fence around entire site. Section 4 - low rating due to environmental risk due to proximity to municipal well. Electrically station is in good shape.*

Inspected by: S. Costello

Date: JAN. 6 2011

Costello Associates Inc.

Centre Wellington Hydro - Substation Score Form

Station Fergus MS-3

Year Built 1991 ?

1 Public Safety

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	3	3/5	20	60

2 Worker Safety

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	3	3/5	20	60

3 Environmental

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	1	1/5	20	20

4 Reliability Impacts

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	3	3/5	20	60

5 Power Transformers

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age <u>19</u>	3	3/5	6	18
2	Peak Loading	3	3/5	4	12
3	Visual Inspection	4	4/5	2	8
4	Testing	4	4/5	8	24
					= 62

Costello Associates Inc.

Fergus MS-3

Centre Wellington Hydro - Substation Score Form

6 Breakers and Reclosers / Fused Switch gear

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	3	3/5	8	24
2	Visual Inspection	4	4/5	4	16
3	Testing	4	4/5	8	24
					= 64

7 Cables

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	2	2/5	8	16
2	Cable Type	1	1/5	4	4
3	Testing	3	3/5	8	24
					= 54

8 Protective Relays and RTU's n/a.

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age			10	
2	Testing			10	

9 Batteries and Chargers n/a.

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age			10	
2	Testing			10	

10 Ground Grid

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	3	3/5	10	30
2	Testing none	3	3/5	10	30
					= 60

11 Fences

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	2	2/5	20	40

Costello Associates Inc.

Fergus ms-3

Centre Wellington Hydro - Substation Score Form

12 Buildings

n/a

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection			20	

Summary

	Criteria	Actual Score	Weight Factor	Score
1	Public Safety	60	20%	12
2	Worker Safety	60	5%	3
3	Environmental	20	5%	1
4	Reliability Impacts	60	10%	6
5	Transformers	62	20%	12
6	Breakers	64	10%	6
7	Cables	54	5%	3
8	P&C and SCADA	na	5%	-
9	Batteries and chargers	na	5%	-
10	Ground Grid	60	5%	3
11	Fences	40	5%	2
12	Buildings	na	5%	-
	Total		100% 85	49/85 = 58

Comments: Environmental concern with proximity to municipal water supply. Cables near end of life (19 years). Possible protection issue with 400A fuses. Possible bushing leak. Maintenance issues.

Inspected by: S. Costello

Date: Jan. 6 2011

Costello Associates

Substation Risk Assessment Form

Station Fergus MS-4

Year Built 1989

Section 1: Public Safety – conditions that impact public safety at the station:

Area of Concern	Check		
	1	2	3
Perimeter Security	✓		
Fence Grounding and Bonding		✓	
Station Yard	✓		
Station Building	✓		
Station Setting – Proximity	✓		
Station Setting - Encroachments	✓		
Overall public safety condition	✓		

1 = Acceptable

2 = Some deficiencies

3 = Needs attention soon

Overall Public Safety Risk Rating	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
		✓			

Section 2: Worker Safety – conditions that impact worker safety at the station:

Area of Concern	Check		
	1	2	3
Grounding and Bonding		✓	
Safe limits of approach	✓		
Working clearances	✓		
Switching access difficult	✓		
Multiple sources of voltage	✓		
Porcelain	✓		
Operational Issues	✓		
Maintenance Issues	✓		
Overall worker safety condition	✓		

1 = Acceptable

2 = Some deficiencies

3 = Needs attention soon

Maintenance issues that can be quickly rectified may be eliminated from risk assessment.

Overall Worker Safety Risk Rating	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
		✓			

Inspected by: S. Costello

Date: JAN. 6 / 2011

Section 3: Risks of Major Equipment Failure

A. Condition of Equipment

Area of Concern	Check		
	1	2	3
Power Transformers <i>22 years</i>		✓	
High-side switchgear	✓		
Distribution-side switchgear		✓	
Protection and Control Equipment			✓
Underground cables <i>22 years?</i>		✓	
Structures	✓		
Overall equipment condition		✓	

1 = Acceptable

2 = Some deficiencies

3 = Needs attention soon

B. Factors that may impact the consequences of major equipment failure

Concern	Impact of Consequence		
	L	M	H
Station setting – proximity	<i>More than 100m</i>	Between 100m and 10m	10m or less
Station setting – watercourses	<i>None</i>	Storm sewers/drains	Open water
Lack of backup supply	<i><2 hours switching</i>	<i>Between 2 – 24h outage</i>	No backup
Critical loads (hospitals etc)	None	<i>With generators</i>	No generators
Grounding and bonding	Today's code	<i>Some deficiencies</i>	Poor
Oil containment	Yes	Partial	<i>None</i>
Explosion barriers	Yes	Partial	<i>None</i>
Fire fighting capability	<i>Hydrants</i>	Storage Tanks	None
Presence of PCB's	<i>None</i>	Storage Only	In-service
Overall equipment condition	<i>L</i>	M	H

C. Based on the equipment condition and consequences, state the risk rating for a major equipment failure:

Overall Failure Risk Rating	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
		✓			

Section 4: Overall Substation Risk Assessment

Station Risk Assessment	Blue	Purple	Yellow	Orange	Red
	20+ Years	11-20 years	4-10 years	2-3 years	1 year
		✓			

Comments: *Station appears to be in good condition.*

Inspected by: *J. Costello*

Date: *Jan. 6 2011*

Costello Associates Inc.

Centre Wellington Hydro - Substation Score Form

Station Fergus MS-4

Year Built 1989 ?

1 Public Safety

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	4	4/5	20	80

2 Worker Safety

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	4	4/5	20	80

3 Environmental

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	4	4/5	20	80

4 Reliability Impacts

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	4	4/5	20	80

5 Power Transformers

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age 22	3	3/5	6	18
2	Peak Loading	3	3/5	4	12
3	Visual Inspection	3	3/5	2	6
4	Testing	4	4/5	8	32
					= 58

Costello Associates Inc.

Centre Wellington Hydro - Substation Score Form

Fergus ms-4

6 Breakers and Reclosers

Fused Switchgear

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age	3	3/5	8	24
2	Visual Inspection	4	4/5	4	16
3	Testing	4	4/5	8	32
					= 72

7 Cables

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age 22 y.	2	2/5	8	16
2	Cable Type CN	4	4/5	4	16
3	Testing	4	4/5	8	32
					= 64

8 Protective Relays and RTU's

n/a

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age			10	
2	Testing			10	

9 Batteries and Chargers

n/a

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age			10	
2	Testing			10	

10 Ground Grid

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Age 22	3		10	30
2	Testing none.	3		10	30
					= 60

11 Fences

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection	4	4/5	20	80

Costello Associates Inc.

Centre Wellington Hydro - Substation Score Form

Fergus ms-4

12 Buildings

n/a

	Criteria	Rating	Rank (1-5)	Weight	Score
1	Visual Inspection			20	

Summary

	Criteria	Actual Score	Weight Factor	Score
1	Public Safety	80	20%	16
2	Worker Safety	80	5%	4
3	Environmental	80	5%	4
4	Reliability Impacts	80	10%	8
5	Transformers	58	20%	10
6	Breakers	72	10%	7
7	Cables	64	5%	3
8	P&C and SCADA	-	5%	-
9	Batteries and chargers	-	5%	-
10	Ground Grid	60	5%	3
11	Fences	80	5%	4
12	Buildings	-	5%	-
	Total		100% 85	59/85 = 69

Comments: Station appears to be in good condition.

Inspected by: _____

Date: _____

EXHIBIT – 4

2010 Final CDM Results: Summary

LDC: Centre Wellington Hydro Ltd.

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	Centre Wellington Hydro Ltd.					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	247	0.04	61	0.09	146	136,626	20.22	31,117	46.01	72,821
Consumer	Every Kilowatt Counts Power Savings Event	Products purchased	681	0.00	21	0.00	46	613,248	1.70	19,100	4.00	41,300
Consumer	Great Refrigerator Roundup	Appliances	108	0.01	63	0.02	118	67,822	5.96	39,290	11.64	73,912
Consumer	peaksaver [®]	Devices installed	14	0.01	0	0.01	0	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	0	0.00	0	0.00	0	1,532	19.80	111,740	37.82	220,230
Business	High Performance New Construction*	Projects	0	0.02	39	0.02	56	288	12.91	29,433	18.44	42,048
Business	Hydro Ottawa peaksaver [®] Small Commercial Pilot	Devices installed	0	0.00	0	0.00	0	939	0.80	2,500	0.88	2,750
Business	Multifamily Energy Efficiency Rebates	Projects	0	0.00	3	0.00	5	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	80	0.07	213	0.07	214	48,274	42.20	129,200	42.60	129,500
Business, Industrial	Demand Response 3	Facilities	0	0.33	7	0.33	7	246	251.70	4,932	251.70	4,932
Business, Industrial	Loblaw & York Region Demand Response*	Facilities	0	0.04	0	0.04	0	2	29.21	0	29.21	0
Industrial	Demand Response 2	Facilities	0	0.16	184	0.16	184	3	119.00	139,100	119.00	139,100
Total				0.7	592	0.7	775		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	Evaluation not yet complete; Updates expected in October/November
Business	Hydro Ottawa peaksaver [®] Small Commercial Pilot	Program run exclusively in Hydro Ottawa service territory	
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. 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	Demand Response 3	Initiative level allocation based on 2010 non-residential energy throughput by LDCs	
Business, Industrial	Loblaw & York Region Demand Response*	Initiative level allocation based on 2010 non-residential energy throughput by LDCs	

* Initiative is not evaluated

EXHIBIT – 5

ATTACHMENT A

CDM Load Impacts by Class and Program

Class Program Third Tranche	Program Year Implemented	NET 2006		GROSS 2006		NET 2007		GROSS 2007		NET 2008		GROSS 2008		NET 2009		GROSS 2009		NET 2010		GROSS 2010		NET 2011		GROSS 2011		NET		GROSS		
		kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	Total kWh	Total kW	Total kWh	Total kW	
RESIDENTIAL																														
Lighten Your Electricity Bill	2005	46,017	4.94	47,545	4.96	46,017	4.94	47,545	4.96	46,017	4.94	47,545	4.96	46,017	4.94	47,545	4.96	46,017	4.94	47,545	4.96	46,017	4.94	47,545	4.96	276,104	29.61	285,267	29.78	
CFL 15W		8,261	0.19	9,202	0.21	8,261	0.19	9,202	0.21	8,261	0.19	9,202	0.21	8,261	0.19	9,202	0.21	8,261	0.19	9,202	0.21	8,261	0.19	9,202	0.21	49,689	1.15	55,210	1.28	
LED Christmas Lights - 5W		5,469	0.00	5,757	0.00	5,469	0.00	5,757	0.00	5,469	0.00	5,757	0.00	5,469	0.00	5,757	0.00	5,469	0.00	5,757	0.00	5,469	0.00	5,757	0.00	3,815	0.00	34,542	0.00	
LED Christmas Lights - Mini Lights		686	0.00	722	0.00	686	0.00	722	0.00	686	0.00	722	0.00	686	0.00	722	0.00	686	0.00	722	0.00	686	0.00	722	0.00	4,114	0.00	4,330	0.00	
Programmable Thermostat - Space Heating		24,755	0.00	24,755	0.00	24,755	0.00	24,755	0.00	24,755	0.00	24,755	0.00	24,755	0.00	24,755	0.00	24,755	0.00	24,755	0.00	24,755	0.00	24,755	0.00	148,529	0.00	148,529	0.00	
Programmable Thermostat - Space Cooling		4,278	4.68	4,278	4.68	4,278	4.68	4,278	4.68	4,278	4.68	4,278	4.68	4,278	4.68	4,278	4.68	4,278	4.68	4,278	4.68	4,278	4.68	4,278	4.68	25,668	28.09	25,668	28.09	
Timer - Outdoor - Light		629	0.00	699	0.00	629	0.00	699	0.00	629	0.00	699	0.00	629	0.00	699	0.00	629	0.00	699	0.00	629	0.00	699	0.00	3,773	0.00	4,192	0.00	
Timer - Indoor - Light		788	0.03	876	0.03	788	0.03	876	0.03	788	0.03	876	0.03	788	0.03	876	0.03	788	0.03	876	0.03	788	0.03	876	0.03	4,728	0.15	5,254	0.17	
Ceiling Fan		1,131	0.04	1,257	0.04	1,131	0.04	1,257	0.04	1,131	0.04	1,257	0.04	1,131	0.04	1,257	0.04	1,131	0.04	1,257	0.04	1,131	0.04	1,257	0.04	6,789	0.23	7,344	0.25	
Decorative Lighting Efficiency	2005-2006	2,174	0.00	2,394	0.00	5,523	0.00	5,814	0.00	5,523	0.00	5,814	0.00	5,523	0.00	5,814	0.00	5,523	0.00	5,814	0.00	5,523	0.00	5,814	0.00	29,891	0.00	31,464	0.00	
LED Decorative Lighting 5W SLED - 2005		2,274	0.00	2,394	0.00	2,274	0.00	2,394	0.00	2,274	0.00	2,394	0.00	2,274	0.00	2,394	0.00	2,274	0.00	2,394	0.00	2,274	0.00	2,394	0.00	13,646	0.00	14,360	0.00	
LED Decorative Lighting 5W SLED - 2006						3,249	0.00	3,420	0.00	3,249	0.00	3,420	0.00	3,249	0.00	3,420	0.00	3,249	0.00	3,420	0.00	3,249	0.00	3,420	0.00	16,245	0.00	17,100	0.00	
Energy Conservation Kits	2007									58,320	1.35	64,800	1.50	58,320	1.35	64,800	1.50	58,320	1.35	64,800	1.50	58,320	1.35	64,800	1.50	233,280	5.40	259,200	6.00	
CFL 15W										1,773	0.01	2,513	0.01	1,773	0.01	2,513	0.01	1,773	0.01	2,513	0.01	1,773	0.01	2,513	0.01	7,092	0.03	10,053	0.03	
Low Income Housing	2007																													
R32 in Attic										856	0.00	1,222	0.00	856	0.00	1,222	0.00	856	0.00	1,222	0.00	856	0.00	1,222	0.00	3,422	0.00	4,889	0.00	
R-32 in Attic										856	0.00	1,222	0.00	856	0.00	1,222	0.00	856	0.00	1,222	0.00	856	0.00	1,222	0.00	3,422	0.00	4,889	0.00	
Energy Star Fridge										62	0.01	69	0.01	62	0.01	69	0.01	62	0.01	69	0.01	62	0.01	69	0.01	248	0.03	275	0.03	
OPA Programs																														
A Copy of the Program Measures by Year, Unit kWh Savings, Useful Life, # of Units can be found on "OPA MEASURES" Tab																														
Residential																														
Secondary Fridge Retirement Pilot	2006	6,165	1.40	6,850	1.55	6,165	1.40	6,850	1.55	6,165	1.40	6,850	1.55	6,165	1.40	6,850	1.55	0	1.40	13,512	45.57	0	1.40	13,512	45.57	24,660	8.38	54,423	97.35	
Cool & Hot Savings Rebate	2006-2007	15,219	14.10	19,280	17.15	40,019	30.65	67,990	51.88	40,019	30.65	67,990	51.88	40,019	30.65	67,990	51.88	28,014	19.32	182,863	59.30	28,014	19.32	182,863	59.30	191,305	144.70	588,974	291.40	
Cool Savings Rebate Program	2008-2010									25,684	16.27	44,712	21.82	59,073	38.26	122,858	78.55	184,630	79.41	101,250	0.00	404	79.41	101,250	0.00	269,792	213.34	370,071	81.38	
Every Kilowatt Counts	2007-2010	394,894	4.66	438,771	5.17	543,558	10.41	641,588	13.51	541,740	9.87	638,282	12.53	541,740	9.87	638,282	12.53	38,312	45.67	50,411	0.00	38,312	45.67	50,411	0.00	2,098,555	126.16	2,457,745	43.74	
Great Refrigerator Roundup	2007-2010	peaksaver				28,014	3.22	69,052	7.89	106,645	11.64	214,171	23.56	112,393	12.44	224,776	25.04	198,118	92.47	2,698,889	2.05	198,118	92.47	2,698,889	2.05	643,288	212.24	5,905,778	60.59	
Summer Savings	2007-2010					41,011	45.57			120,412	17.65	176,517	18.55	176,517	18.55	189,555	19.07	210,611	37.744	82.15	586,097	0.00	37,744	82.15	586,097	0.00	78,792	1,175,865	389.98	
Social Housing – Pilot	2007					88,517	49.56	738	412.96	14,920	14.78	124	123.16	5,647	7.12	47,062	59.30	5,129	0.00	1,765	250.00	5,129	0.00	1,765	250.00	119,342	71.45	51,453	1095.41	
Summer Sweepstakes	2008					13,512	1.59	13,512	1.59	13,512	1.59	13,512	1.59	13,512	1.59	13,512	1.59	0	4.86	0	16.13	0	4.86	0	16.13	40,535	14.49	40,535	37.03	
Energy Efficiency Assistance for Houses Pilot	2007									100,063	25.32	128,971	32.63	36,108	14.52	46,540	18.71	0	0.00	143	0.00	0	0.00	143	0.00	136,171	39.83	175,796	51.34	
Every Kilowatt Counts Power Savings Event	2008-2010					37,744	4.86	37,744	4.86	37,744	4.86	37,744	4.86	37,744	4.86	37,744	4.86	1,138,800	1.85	577	88.23	1,138,800	1.85	577	88.23	2,390,831	18.27	114,385	191.04	
										130,380	7.11	323,363	17.03	187,871	12.68	479,979	32.18	6,529	31.61	638,605	23.88	0	31.61	638,605	23.88	324,780	83.02	2,080,551	96.97	
General Service-50kW																														
OPA Conservation Programs																														
High Performance New Construction	2008-2010									404	0.48	577	0.68	12,200	5.83	18,006	0.68	72,298	333.36	799,614	183.07	72,298	0.00	608,735	183.07	157,201	339.66	1,426,933	367.50	
Power Savings Blitz	2008-2010									0	0.00	0	0.00	194,774	49.92	205,025	52.55	0	38.69	0	19.29	0	0.00	0	19.29	194,774	88.61	205,025	91.14	
Electricity Retrofit Incentive Program	2007-2010					2,564	0.92	2,849	1.03	2,564	0.92	2,849	1.03	2,564	0.92	2,849	1.03	78,631	50.69	693,150	447.47	78,631	50.69	693,150	447.47	164,955	104.14	1,394,947	898.01	
Multi-Family Energy Efficiency Rebates	2010																	1,400,492	0.00	3,530,501	218.12	1,400,492	0.00	3,530,501	218.12	2,800,983	0.00	6,870,122	436.25	
General Service 50 to 2,999 kW																														
Electricity Retrofit Incentive Program	2007-2010					2,564	0.92	2,849	1.03	2,564	0.92	2,849	1.03	2,564	0.92	2,849	1.03													
Demand Response 1	2006 - 2010	356.52		356.52		429.77		429.77		618.53		618.53		10,616	241.61	10,616	241.61										7,693	2.77	8,548	3.08
Demand Response 2	2009-2010													101,056	164.06	101,056	164.06	0	0.00	0	0.00	0	0.00	0	0.00	101,056	164.06	164.06		
Demand Response 3	2008-2010									119.61		119.61		1,930	234.37	1,930	234.37	272,228	20.16	0	747.88	0	0.00	0	0.00	274,158	374.14	1,930	1101.87	
Loblaw & York Region Demand Response	2006-2010	17.45		17.45		35.60		35.60		41.10		41.10		0	40.27	0	241.61	0	0.00	0	0.00	0	0.00	0	0.00	0	134.42	0	335.76	

ATTACHMENT B

Foregone Revenue by Class and Program

Class Program	Program Year Implemented	2006				2007				2008				2009				2010				2011				Total Revenue
		Load Unit	kWh or kW	Rate per Unit	Revenue	Load Unit	kWh or kW	Rate per Unit	Revenue	Load Unit	kWh or kW	Rate per Unit	Revenue	Load Unit	kWh or kW	Rate per Unit	Revenue	Load Unit	kWh or kW	Rate per Unit	Revenue	Load Unit	kWh or kW	Rate per Unit	Revenue	
Third Tranche																										
RESIDENTIAL																										
Lighten Your Electricity Bill	2005	46,017	kWh	0.0151	\$712.12	46,017	kWh	0.0152	\$697.93	46,017	kWh	0.0153	\$702.53	46,017	kWh	0.0135	\$648.84	46,017	kWh	0.0129	\$602.83	46,017	kWh	0.0127	\$587.49	\$3,951.74
Decorative Lighting Efficiency	2005-2006	2,274	kWh	0.0151	\$35.19	5,523	kWh	0.0152	\$83.77	5,523	kWh	0.0153	\$84.32	5,523	kWh	0.0135	\$77.88	5,523	kWh	0.0129	\$72.36	5,523	kWh	0.0127	\$70.51	\$424.04
Energy Crunch Conservation Kits	2007	0	kWh	0.0151	\$0.00	0	kWh	0.0152	\$0.00	58,320	kWh	0.0153	\$890.35	58,320	kWh	0.0135	\$822.31	58,320	kWh	0.0129	\$763.99	58,320	kWh	0.0127	\$744.55	\$3,221.21
Low Income Housing	2007	0	kWh	0.0151	\$0.00	0	kWh	0.0152	\$0.00	1,773	kWh	0.0153	\$27.07	1,773	kWh	0.0135	\$25.00	1,773	kWh	0.0129	\$23.23	1,773	kWh	0.0127	\$22.64	\$97.93
\$7,694.91																										
OPA Programs																										
Residential																										
Secondary Fridge Retirement Pilot	2006	6,165	kWh	0.0151	\$95.40	6,165	kWh	0.0152	\$93.50	6,165	kWh	0.0153	\$94.12	6,165	kWh	0.0135	\$86.93	0	kWh	0.0129	\$0.00	0	kWh	0.0127	\$0.00	\$369.95
Cool & Hot Savings Rebate	2006-2007	15,219	kWh	0.0151	\$235.51	40,019	kWh	0.0152	\$606.96	40,019	kWh	0.0153	\$610.96	40,019	kWh	0.0135	\$564.27	28,014	kWh	0.0129	\$366.98	28,014	kWh	0.0127	\$357.65	\$2,742.33
Cool Savings Rebate Program	2008-2010	0	kWh	0.0151	\$0.00	0	kWh	0.0152	\$0.00	25,684	kWh	0.0153	\$392.11	59,073	kWh	0.0135	\$832.93	184,630	kWh	0.0129	\$2,418.66	404	kWh	0.0127	\$5.16	\$3,648.86
Every Kilowatt Counts	2006-2007	394,894	kWh	0.0151	\$6,110.98	543,558	kWh	0.0152	\$8,243.96	541,740	kWh	0.0153	\$8,270.56	541,740	kWh	0.0135	\$7,638.53	38,312	kWh	0.0129	\$501.89	38,312	kWh	0.0127	\$489.12	\$31,255.03
Great Refrigerator Roundup	2007-2010	28,014	kWh	0.0152	\$424.88	106,645	kWh	0.0153	\$1,628.11	112,393	kWh	0.0135	\$1,584.74	198,118	kWh	0.0135	\$1,584.74	198,118	kWh	0.0129	\$2,595.35	198,118	kWh	0.0127	\$2,529.31	\$8,762.38
peaksaver®	2007-2010	0	kWh	0.0152	\$0.00	1,588	kWh	0.0153	\$24.25	1,717	kWh	0.0135	\$24.20	37,744	kWh	0.0135	\$24.20	37,744	kWh	0.0129	\$494.44	37,744	kWh	0.0127	\$481.86	\$1,024.75
Summer Savings	2007	88,517	kWh	0.0152	\$1,342.51	14,920	kWh	0.0153	\$227.78	5,647	kWh	0.0135	\$79.63	5,129	kWh	0.0135	\$79.63	5,129	kWh	0.0129	\$67.19	5,129	kWh	0.0127	\$65.48	\$1,782.59
Social Housing – Pilot	2007	13,512	kWh	0.0152	\$204.93	13,512	kWh	0.0153	\$206.28	13,512	kWh	0.0135	\$190.51	0	kWh	0.0129	\$0.00	0	kWh	0.0129	\$0.00	0	kWh	0.0127	\$0.00	\$601.72
Summer Sweepstakes	2008	0	kWh	0.0152	\$0.00	100,063	kWh	0.0153	\$1,527.63	36,108	kWh	0.0135	\$509.13	0	kWh	0.0129	\$0.00	0	kWh	0.0129	\$0.00	0	kWh	0.0127	\$0.00	\$2,036.76
Energy Efficiency Assistance for Houses Pilot	2007	37,744	kWh	0.0152	\$572.45	37,744	kWh	0.0153	\$576.22	37,744	kWh	0.0135	\$532.19	1,138,800	kWh	0.0135	\$532.19	1,138,800	kWh	0.0129	\$14,918.28	1,138,800	kWh	0.0127	\$14,538.68	\$31,137.81
Every Kilowatt Counts Power Savings Event	2008-2010	0	kWh	0.0152	\$0.00	130,380	kWh	0.0153	\$1,990.47	187,871	kWh	0.0135	\$1,990.47	187,871	kWh	0.0135	\$2,648.98	6,529	kWh	0.0129	\$85.53	0	kWh	0.0127	\$0.00	\$4,724.99
\$88,087.17																										
GENERAL SERVICE Less Than 50kW																										
High Performance New Construction	2008-2010	0.00	kWh	0.0176	\$0.00	404	kWh	0.0177	\$7.13	12,200	kWh	0.0177	\$7.13	12,200	kWh	0.0167	\$207.81	72,298	kWh	0.0161	\$1,178.46	72,298	kWh	0.0159	\$1,154.36	\$2,547.77
Power Savings Blitz	2008-2010	0.00	kWh	0.0176	\$0.00	0	kWh	0.0177	\$0.00	194,774	kWh	0.0177	\$3,317.65	0	kWh	0.0167	\$3,317.65	0	kWh	0.0161	\$0.00	0	kWh	0.0159	\$0.00	\$3,317.65
Electricity Retrofit Incentive Program	2007-2010	2,564.48	kWh	0.0176	\$539.57	2,564	kWh	0.0177	\$45.31	2,564	kWh	0.0177	\$45.31	2,564	kWh	0.0167	\$43.68	78,631	kWh	0.0161	\$1,281.68	78,631	kWh	0.0159	\$1,255.47	\$3,165.70
Multi-Family Energy Efficiency Rebates	2010	0.00	kWh	0.0176	\$0.00	0	kWh	0.0177	\$0.00	0	kWh	0.0177	\$0.00	0	kWh	0.0167	\$0.00	1,400,492	kWh	0.0161	\$22,828.01	1,400,492	kWh	0.0159	\$22,361.18	\$45,189.20
\$9,031.12																										
General Service 50 to 2,999 kW																										
Electricity Retrofit Incentive Program	2007-2010	356.52	kW	2.9333	\$1,045.78	0.92	kW	2.9597	\$32.69	0.92	kW	2.9804	\$32.94	0.92	kW	3.4778	\$36.69	0.00	kW	3.0657	\$0.00	0.00	kW	2.8947	\$0.00	\$102.33
Demand Response 1	2006-2010	0.00	kW	2.9333	\$0.00	429.77	kW	2.9597	\$1,271.99	618.53	kW	2.9804	\$1,843.48	241.61	kW	3.4778	\$840.27	0.00	kW	3.0657	\$0.00	0.00	kW	2.8947	\$0.00	\$5,001.53
Demand Response 2	2009-2010	0.00	kW	2.9333	\$0.00	0.00	kW	2.9597	\$0.00	0.00	kW	2.9804	\$0.00	164.06	kW	3.4778	\$570.57	0.00	kW	3.0657	\$0.00	0.00	kW	2.8947	\$0.00	\$570.57
Demand Response 3	2008-2010	0.00	kW	2.9333	\$0.00	0.00	kW	2.9597	\$0.00	119.61	kW	2.9804	\$356.49	234.37	kW	3.4778	\$815.10	20.16	kW	3.0657	\$61.80	0.00	kW	2.8947	\$0.00	\$1,233.39
Loblaw & York Region Demand Response	2006-2010	17.45	kW	2.9333	\$51.19	35.60	kW	2.9597	\$105.36	41.10	kW	2.9804	\$122.51	40.27	kW	3.4778	\$140.05	0.00	kW	3.0657	\$0.00	0.00	kW	2.8947	\$0.00	\$419.10
\$7,326.92																										

ATTACHMENT C
SSM Amounts by Class and Program

Class	Total Costs \$	Total Benefits \$	Net Benefits \$ NPV	Benefits/Cost Ratio	SSM Amount \$
Program					
Third Tranche					
RESIDENTIAL					
Lighten Your Electricity Bill	\$4,733.30	\$27,845.06	\$23,111.76	5.88	\$1,155.59
CFL 15W	\$383.40	\$4,767.29	\$4,383.89		\$219.19
LED Christmas Lights - 5W	\$191.90	\$1,807.22	\$1,615.32		\$80.77
LED Christmas Lights - Mini Lights	\$190.00	\$684.80	\$494.80		\$24.74
Programmable Thermostat - Space Heating	\$648.00	\$11,401.78	\$10,753.78		\$537.69
Programmable Thermostat - Space Cooling	\$1,674.00	\$5,668.20	\$3,994.20		\$199.71
Timer - Outdoor - Light	\$306.00	\$3,515.77	\$3,209.77		\$160.49
Timer - Indoor - Light		\$0.00			\$0.00
Ceiling Fan		\$0.00			\$0.00
Program Cost	\$1,340.00	\$0.00	-\$1,340.00		-\$67.00
Conservation Website	\$5,506.75	\$0.00	-\$5,506.75		-\$275.34
Education and Promotion	\$14,430.45	\$0.00	-\$14,430.45		-\$721.52
Decorative Lighting Efficiency	\$193.80	\$1,892.28	\$1,698.48		\$84.92
2005	\$79.80	\$751.52	\$671.72		\$33.59
2006	\$114.00	\$1,140.77	\$1,026.77		\$51.34
Residential Appliance Saturation Survey	\$1,000.00	\$0.00	-\$1,000.00		-\$50.00
Energy Crunch Conservation Kits	\$2,700.00	\$33,866.77	\$31,166.77	12.54	\$1,558.34
Low Income Housing	\$2,534.40	\$2,200.18	-\$334.22		-\$16.71
R32 in Attic	\$993.60	\$1,124.91	\$131.31		\$6.57
R-32 in Attic	\$1,477.80	\$1,011.66	-\$466.14		-\$23.31
Energy Star Fridge	\$63.00	\$63.60	\$0.60		\$0.03
GENERAL SERVICE (50 TO 2,999kW)					
Industrial Energy Audit	\$4,515.12	\$0.00	-\$4,515.12		-\$225.76
TOTALS	\$35,613.82	\$65,804.30	\$30,190.48		\$1,509.52

ATTACHMENT D
LRAM & SSM Totals

Rate Class

	LRAM \$	SSM \$	TOTAL \$
<u>Third Tranche</u>			
RESIDENTIAL	\$7,694.91	\$1,735.28	\$9,430.19
GENERAL SERVICE (50 TO 2,999kW)		-\$225.76	-\$225.76
<u>OPA Programs</u>			
RESIDENTIAL	\$88,087.17		\$88,087.17
GENERAL SERVICE <50KW	\$9,031.12		\$9,031.12
General Service 50 to 2,999 kW	\$7,326.92		\$7,326.92
	\$112,140.13	\$1,509.52	\$113,649.65

ATTACHMENT E
LRAM & SSM Input Assumptions

Class Program	Free Rider Rate		Number of Units		Table Applied		Discount Factor		Technology Life	
	LRAM	SSM	LRAM	SSM	LRAM	SSM	LRAM	SSM	LRAM	SSM
Third Tranche										
RESIDENTIAL										
Lighten Your Electricity Bill										
CFL 15W	10%		213		OPA	OEB	8.57%		8	4
LED Christmas Lights - 5W	5%		101		OPA	OEB	8.57%		30	
LED Christmas Lights - Mini Lights	5%		100		OPA	OEB	8.57%		30	
Programmable Thermostat - Space Heating	0%	10%	12		OPA	OEB	8.57%		15	18
Programmable Thermostat - Space Cooling	0%	10%	31		OPA	OEB	8.57%		15	18
Timer - Outdoor - Light	10%		17		OPA	OEB	8.57%		10	20
Timer - Indoor - Light	10%		4		OPA	OEB	8.57%			10
Ceiling Fan	10%		14		OPA	OEB	8.57%		10	
Decorative Lighting Efficiency										
LED Decorative Lighting 5W SLED - 2005	5%		42		OPA	OEB	8.57%		30	
LED Decorative Lighting 5W SLED - 2006	5%		60		OPA	OEB	8.13%		30	
Energy Crunch Conservation Kits										
CFL 15W	10%		1,500		OPA	OEB	8.13%		8	4
Low Income Housing										
R32 in Attic	30%		1		Direct Input		8.13%		25	
R-32 in Attic	30%		1		Direct Input		8.13%			20
Energy Star Fridge	10%		1		OPA	OEB	8.13%		14	19

1Tables

OEB: OEB Total Resource Cost Guide, Section 5, Assumptions and Measures List September 8, 2005 - File: cdm_assumptionsmeasureslist_08092005.xls

OPA: 2009 Mass Market Measures and Assumptions, V1.02 April 2009, Ontario Power Authority - 16080_V_1_02_2009_MA_List_-_MM_14Apr_2009.pdf

OPA Conservation & Demand Management Programs

Measure Results at End-User Level

For: Centre Wellington Hydro Ltd.

#	Initiative Number	Initiative Name	Program Name	Program Year	Results Basis	#	Measure Name	Gross Summer Peak Demand (kW)	Gross Annual Energy Savings (kWh)	Gross Lifetime Energy Savings (kWh)	Net Summer Peak Demand (kW)	Net Annual Energy Savings (kWh)	Net Lifetime Energy Savings (kWh)								
								Unit Savings Assumptions													
								Net Summer Peak Demand (kW)	Net Annual Energy Savings (kWh)	Net Lifetime Energy Savings (kWh)	Aggregate Net-to-Gross Savings (%)	Effective Useful Life (EUL)									
								LDC Specific Results													
								Activity Results (#)	Gross Summer Peak Demand (kW)	Gross Annual Energy Savings (kWh)	Gross Lifetime Energy Savings (kWh)	Net Summer Peak Demand (kW)	Net Annual Energy Savings (kWh)	Net Lifetime Energy Savings (kWh)							
1	1	Refrigerator Retirement Pilot	Consumer	2006/2007	Final	0.2715	1,200	7,200	0.246	1,080	6,480	80.5	6.0	5,539	1,105	6,643	29,809	1.38	6,571	35,429	
2	2	Refrigerator Retirement Pilot	Consumer	2006/2007	Final	0.204	900	5,400	0.184	810	4,860	80.5	6.0	4,039	0.95	2,121	12,901	0.04	594	1,162	
3	3	25c/kWh & Hot Savings Rebate	Consumer	2006/2007	Final	0.3795	390	3,405	0.379	351	3,014	90.0	14.0	15,879	6.13	6,183	36,900	5.09	5,567	77,931	
4	4	25c/kWh & Hot Savings Rebate	Consumer	2006/2007	Final	0.3181	327	2,823	0.318	294	2,526	90.0	14.0	13,082	5.04	5,044	31,145	1.93	5,141	24,168	
5	5	25c/kWh & Hot Savings Rebate	Consumer	2006/2007	Final	0.4220	410	3,280	0.378	369	2,952	90.0	14.0	10,816	4.54	4,414	14,474	4.09	3,991	31,927	
6	6	25c/kWh & Hot Savings Rebate	Consumer	2006/2007	Final	0.1599	150	2,760	0.097	89	1,595	17.0	18.0	2,360	0.05	0.008	0.008	0.31	0.06	0.12	
7	7	25c/kWh & Hot Savings Rebate	Consumer	2006/2007	Final	0.496	493	4,175	0.291	494	4,175	90.0	14.0	17,999	3.17	3,169	47,134	0.31	3,862	50,303	
8	8	25c/kWh & Hot Savings Rebate	Consumer	2006/2007	Final	0.038	54	804	0.008	15	221	27.5	15.0	6,284	0.17	137	5,053	0.05	93	1,188	
9	9	3Every Kilowatt Counts	Consumer	2006/2007	Final	0.000	104	418	0.000	99	376	90.0	4.0	1414	0.00	0.00	151,396	0.00	0.00	154,313	
10	10	3Every Kilowatt Counts	Consumer	2006/2007	Final	0.000	189	3,660	0.000	165	3,294	90.0	20.0	41,339	0.00	7,565	151,300	0.00	6,809	136,176	
11	11	3Every Kilowatt Counts	Consumer	2006/2007	Final	0.000	216	3,240	0.045	194	2,916	90.0	15.0	17,882	0.00	3,884	58,262	0.41	3,496	52,418	
12	12	3Every Kilowatt Counts	Consumer	2006/2007	Final	0.014	141	2,820	0.031	127	2,538	90.0	20.0	18,679	0.31	1,939	38,376	0.17	1,786	34,118	
13	13	3Every Kilowatt Counts	Consumer	2006/2007	Final	0.000	104	418	0.000	94	376	90.0	4.0	2,186,348	0.00	228,235	913,019	0.00	205,429	821,717	
14	14	3Every Kilowatt Counts	Consumer	2006/2007	Final	0.000	94	363	0.006	26	886	90.0	30.0	562,255	0.00	16,362	465,468	0.00	14,564	458,922	
15	15	3Every Kilowatt Counts	Consumer	2006/2007	Final	0.118	522	9,388	0.306	470	8,458	90.0	18.0	46,495	4.08	18,117	126,009	3.48	18,300	293,408	
16	16	3Every Kilowatt Counts	Consumer	2006/2007	Final	0.000	139	1,390	0.000	125	1,253	90.0	10.0	27,438	0.00	2,853	38,128	0.00	3,432	34,313	
17	17	3Every Kilowatt Counts	Consumer	2006/2007	Final	0.000	209	4,180	0.000	189	3,782	90.0	20.0	8,963	0.00	2,853	41,443	0.00	3,851	47,328	
18	18	3Every Kilowatt Counts	Consumer	2006/2007	Final	0.000	1,466	26,363	0.000	1,320	23,754	90.0	18.0	2,964	0.00	3,039	54,336	0.00	2,727	49,081	
19	19	4Demand Response 1	Business, Industrial	2006/2007	Final	0.000	1	1	0.000	1	1	100.0	1.0	0.012	356.52	0	0	356.52	0	0	0
20	20	15c/kWh & York Region Demand Response	Business, Industrial	2006/2007	Final	0.000	1	1	0.000	1	1	100.0	1.0	0.001	4.89	0	0	4.89	0	0	0
21	21	15c/kWh & York Region Demand Response	Business, Industrial	2006/2007	Final	0.000	1	1	0.000	1	1	100.0	1.0	0.001	13.42	0	0	13.42	0	0	0
22	22	60-watt Refrigerator Roundup	Consumer	2007/2008	Final	0.125	1,864	9,578	0.094	1,770	2,022	73.0	9.0	5,605	0.00	693	6,232	0.00	5,539	4,698	
23	23	60-watt Refrigerator Roundup	Consumer	2007/2008	Final	0.007	471	3,772	0.031	216	1,724	45.7	8.0	20,338	0.17	9,584	76,670	0.43	4,381	35,051	
24	24	60-watt Refrigerator Roundup	Consumer	2007/2008	Final	0.007	900	8,099	0.038	352	3,171	89.0	9.0	5,373	0.52	4,835	43,514	0.20	1,893	17,035	
25	25	60-watt Refrigerator Roundup	Consumer	2007/2008	Final	0.070	721	6,491	0.031	282	2,441	89.0	9.0	14,887	1.14	10,736	96,614	0.41	4,203	37,817	
26	26	60-watt Refrigerator Roundup	Consumer	2007/2008	Final	0.048	199	2,708	0.015	102	815	80.5	7.0	8,743	0.04	2,512	2,012	0.03	76	606	
27	27	60-watt Refrigerator Roundup	Consumer	2007/2008	Final	0.052	490	4,410	0.016	147	1,327	80.5	7.0	11,367	0.06	512	5,148	0.02	172	1,510	
28	28	60-watt Refrigerator Roundup	Consumer	2007/2008	Final	0.079	712	5,876	0.031	266	2,178	89.0	9.0	13,947	0.88	19,465	105,381	1.87	17,514	139,893	
29	29	60-watt Refrigerator Roundup	Consumer	2007/2008	Final	0.104	343	5,843	0.049	340	2,717	45.7	8.0	3,929	0.42	2,919	23,314	0.19	3,135	10,677	
30	30	60-watt Refrigerator Roundup	Consumer	2007/2008	Final	0.000	1,466	26,363	0.000	1,320	23,754	90.0	18.0	2,964	0.00	3,039	54,336	0.00	2,727	49,081	
31	31	7c/kWh & Hot Savings Rebate	Consumer	2007/2008	Final	0.108	155	2,789	0.097	89	1,595	57.2	18.0	3,329	0.58	514	9,282	0.32	205	5,309	
32	32	7c/kWh & Hot Savings Rebate	Consumer	2007/2008	Final	0.496	837	12,500	0.293	494	7,417	99.0	15.0	7,807	3.48	5,865	87,938	2.05	3,465	51,973	
33	33	7c/kWh & Hot Savings Rebate	Consumer	2007/2008	Final	0.138	214	3,904	0.097	124	2,204	90.0	14.0	16,491	0.31	349	42,910	0.00	314	5,144	
34	34	7c/kWh & Hot Savings Rebate	Consumer	2007/2008	Final	0.189	155	2,789	0.097	89	1,595	57.2	18.0	25,905	4.39	4,013	72,241	2.51	2,396	41,322	
35	35	7c/kWh & Hot Savings Rebate	Consumer	2007/2008	Final	0.189	155	2,789	0.097	89	1,595	57.2	18.0	0.000	0.00	0	0	0.00	0	0	0
36	36	7c/kWh & Hot Savings Rebate	Consumer	2007/2008	Final	0.496	837	12,500	0.293	494	7,417	99.0	15.0	0.000	0.00	0	0	0.00	0	0	0
37	37	7c/kWh & Hot Savings Rebate	Consumer	2007/2008	Final	0.496	837	12,500	0.293	494	7,417	99.0	15.0	0.000	0.00	0	0	0.00	0	0	0
38	38	7c/kWh & Hot Savings Rebate	Consumer	2007/2008	Final	0.138	214	3,904	0.097	124	2,204	90.0	14.0	0.000	0.00	0	0	0.00	0	0	0
39	39	7c/kWh & Hot Savings Rebate	Consumer	2007/2008	Final	0.217	235	3,173	0.240	31	185	15.7	5.0	31,847	8.18	7,483	37,415	1.20	1,576	5,679	
40	40	8Every Kilowatt Counts	Consumer	2007/2008	Final	0.000	43	344	0.001	34	288	78.0	8.0	2,897,847	3.51	116,007	928,059	2.74	90,488	723,888	
41	41	8Every Kilowatt Counts	Consumer	2007/2008	Final	0.000	209	4,180	0.000	189	3,782	90.0	20.0	46,495	0.00	17,273	118,187	0.00	17,131	170,188	
42	42	8Every Kilowatt Counts	Consumer	2007/2008	Final	0.006	123	1,968	0.003	68	1,082	55.5	16.0	10,479	0.00	1,288	20,006	0.00	708	11,333	
43	43	8Every Kilowatt Counts	Consumer	2007/2008	Final	0.001	17	630	0.001	25	536	77.0	18.0	0.000	0.00	0	0	0.00	0	0	0
44	44	8Every Kilowatt Counts	Consumer	2007/2008	Final	0.000	1	1	0.000	1	1	100.0	1.0	0.000	0.00	0	0	0.00	0	0	0
45	45	8Every Kilowatt Counts	Consumer	2007/2008	Final	0.001	43	344	0.001	33	265	77.0	8.0	50,736	0.04	7,414	39,294	0.56	18,513	148,424	
46	46	8Every Kilowatt Counts	Consumer	2007/2008	Final	0.001	1	1	0.000	1	1	100.0	1.0	0.000	0.00	0	0	0.00	0	0	0
47	47	8Every Kilowatt Counts	Consumer	2007/2008	Final	0.001	1	1	0.000	1	1	100.0	1.0	0.000	0.00	0	0	0.00	0	0	0
48	48	8Every Kilowatt Counts	Consumer	2007/2008	Final	0.001	1	1	0.000	1	1	100.0	1.0	0.000	0.00	0	0	0.00	0	0	0
49	49	8Every Kilowatt Counts	Consumer	2007/2008	Final	0.001	1	1	0.000	1	1	100.0	1.0	0.000	0.00	0	0	0.00	0	0	0
50	50	8Every Kilowatt Counts	Consumer	2007/2008	Final	0.001	1	1	0.000	1	1	100.0	1.0	0.000	0.00	0	0	0.00	0	0	0
51	51	8Every Kilowatt Counts	Consumer	2007/2008	Final	0.001	1	1	0.000	1	1	100.0	1.0	0.000	0.00	0	0	0.00	0	0	0
52	52	8Every Kilowatt Counts	Consumer	2007/2008	Final	0.001	1	1	0.000	1	1	100.0	1.0	0.000	0.00	0	0	0.00	0	0	0
53	53	8Every Kilowatt Counts	Consumer	2007/2008	Final	0.001	1	1	0.000	1	1	100.0	1.0	0.000	0.00	0	0	0.00	0	0	0
54	54	8Every Kilowatt Counts	Consumer	2007/2008	Final	0.001	1	1	0.000	1	1	100.0	1.0	0.000	0.00	0	0	0.00	0	0	0
55	55	8Every Kilowatt Counts	Consumer	2007/2008	Final	0.001	1	1	0.000	1	1	100.0	1.0	0.000	0.00	0	0	0.00	0	0	0
56	56	8Every Kilowatt Counts	Consumer	2007/2008	Final	0.001	1	1	0.000	1	1	100.0	1.0	0.000	0.00	0	0	0.00	0	0	0
57	57	8Every Kilowatt Counts	Consumer	2007/2008	Final	0.001	1	1	0.000	1	1	100.0	1.0	0.000	0.00	0	0	0.00	0	0	0
58	58	8Every Kilowatt Counts	Consumer	2007/2008	Final	0.001	1	1	0.000	1	1	100.0	1.0	0.000	0.00	0	0	0.00	0	0	0
59	59	8Every Kilowatt Counts	Consumer	2007/2008	Final	0.001	1	1	0.000	1	1	100.0	1.0	0.000	0.00	0	0	0.00	0	0	0
60	60	10Summer Savings	Consumer	2007/2008	Final	2.920	5,453	5,453	0.351	654	654	12.0	1.0	46,485	135.05	253,470	253,470	85.31	30,616	30,616	
61	61	10																			

Attachment F - OPA Assumptions

#	Initiative Number	Initiative Name	Program Name	Program Year	Results Basis	#	Measure Name	Unit Savings Assumptions	Gross Summer Peak Demand (kW)	Gross Annual Energy Savings (kWh)	Gross Lifetime Energy Savings (kWh)	Net Summer Peak Demand Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifetime Energy Savings (kWh)	Aggregate Net-to-Gross Adjustment	Effective Unit (EU)	Activity Results (t)	Gross Summer Peak Demand Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifetime Energy Savings (kWh)	Net Summer Peak Demand Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifetime Energy Savings (kWh)													
129	21	Cool Savings Rebate	Consumer	2009	Final	2009	2009 Energy Star® Central Air Conditioner, Tier 1	0.137	125	2,255	0.078	72	1,290	572	18.0	0.000	0.00	0	0.00	0	0	0	0													
130	21	Cool Savings Rebate	Consumer	2009	Final	2009	2009 Efficient Furnace with ECM	0.485	839	14,766	0.287	83	1,713	583	18.0	0.000	0.00	0	0.00	0	0	0	0													
131	21	Cool Savings Rebate	Consumer	2009	Final	2009	2009 Programmable Thermostat	0.038	54	967	0.008	15	265	275	6.0	0.000	0.00	0	0.00	0	0	0	0													
132	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Energy Star® Qualified Compact Fluorescent Light Bulbs	0.000	0	0	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0														
133	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Energy Star® Qualified Incandescent CFLs	0.003	98	587	0.001	37	221	377	18.0	0.000	0.00	0	0.00	0	0	0	0													
134	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Energy Star® Qualified Compact CFLs	0.003	80	123	0.000	12	47	38	6.0	0.000	0.00	0	0.00	0	0	0	0													
135	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Energy Star® Qualified Compact Fluorescent Floods (Indoor & Outdoor)	0.003	88	613	0.000	230	230	230	2.0	0.000	0.00	0	0.00	0	0	0	0													
136	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Energy Star® Qualified Light Fixtures	0.004	133	2,136	0.003	45	713	314	16.0	0.000	0.00	0	0.00	0	0	0	0													
137	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Fluorescent Ballasts	0.000	17	0.000	0.000	12	196	12	16.0	0.000	0.00	0	0.00	0	0	0	0													
138	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Lighting Control Devices	0.000	13	1,027	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0	0													
139	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Power Bars with Timers	0.004	53	533	0.002	22	217	407	10.0	0.000	0.00	0	0.00	0	0	0	0	0												
140	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Air Stock Heater Blenders	0.000	0	0	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0	0													
141	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Heavy Duty Timers	0.017	301	3,012	0.006	100	1,002	333	10.0	0.000	0.00	0	0.00	0	0	0	0	0												
142	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Programmable Thermostats - Baseboard	0.000	84	955	0.000	30	444	465	15.0	0.000	0.00	0	0.00	0	0	0	0	0												
143	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Air Conditioner/Furnace Filters	0.011	38	8	0.007	13	13	13	1.0	0.000	0.00	0	0.00	0	0	0	0	0												
144	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Drawings	0.000	0	0	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0	0	0												
145	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Window Films	0.000	0	0	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0	0	0												
146	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Electric Water Heater Standards	0.000	0	0	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0	0	0												
147	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Pipe Wraps	0.003	38	228	0.001	18	107	45	6.0	0.000	0.00	0	0.00	0	0	0	0	0	0											
148	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Dry-Stack Toilet	0.000	0	0	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0	0	0	0											
149	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Keep Cool Pilot - Dehumidifier	0.290	500	5,998	0.302	175	2,099	35	12.0	0.000	0.00	0	0.00	0	0	0	0	0	0	0										
150	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Keep Cool Pilot - Room Air Conditioner	0.142	141	1,266	0.060	50	532	426	9.0	0.000	0.00	0	0.00	0	0	0	0	0	0	0										
151	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Rewards for Recycling - Dehumidifier	0.250	400	5,998	0.338	220	2,439	442	12.0	0.000	0.00	0	0.00	0	0	0	0	0	0	0										
152	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Rewards for Recycling - Room Air Conditioner	0.142	141	1,266	0.062	62	557	440	9.0	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0									
153	22	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	2009	2009 Rewards for Recycling - Airless Lamp	0.000	235	4,403	0.004	132	2,114	482	16.0	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0									
154	23	peakaware	Consumer, Business	2009	Final	2009	2009 Residential Air Conditioner - Switch	0.865	17	255	0.779	35	205	130	13.0	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0								
155	23	peakaware	Consumer, Business	2009	Final	2009	2009 Residential Air Conditioner - Thermostat	0.865	17	225	0.779	16	202	130	13.0	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0							
156	23	peakaware	Consumer, Business	2009	Final	2009	2009 Residential Electric Water Heater	0.000	78	0.000	0.000	78	0.000	0.000	0.000	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0								
157	23	peakaware	Consumer, Business	2009	Final	2009	2009 Commercial Air Conditioner - Switch	1.700	74	962	1.330	67	866	903	13.0	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0							
158	23	peakaware	Consumer, Business	2009	Final	2009	2009 Commercial Air Conditioner - Thermostat	1.700	74	962	1.330	67	866	903	13.0	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0						
159	23	peakaware	Consumer, Business	2009	Final	2009	2009 Commercial Electric Water Heater	0.000	17	0.000	0.000	17	0.000	0.000	0.000	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0						
160	24	Summer Sweepsakes	Consumer	2009	Final	2009	2009 Registered qualified active households	0.111	421	2,302	0.086	327	1,709	778	5.2	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0					
161	24	Summer Sweepsakes	Consumer	2009	Final	2009	2009 Registered qualified active households	0.111	421	2,302	0.086	327	1,709	778	5.2	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0				
162	24	Summer Sweepsakes	Consumer	2009	Final	2009	2009 Registered qualified inactive households	0.111	421	2,302	0.086	327	1,709	778	5.2	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
163	24	Summer Sweepsakes	Consumer	2009	Final	2009	2009 Registered qualified inactive households	0.111	421	2,302	0.086	327	1,709	778	5.2	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
164	24	Summer Sweepsakes	Consumer	2009	Final	2009	2009 Registered qualified inactive households	0.111	421	2,302	0.086	327	1,709	778	5.2	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
165	25	Electricity Rebate Incentive	Consumer, Business	2009	Final	2009	2009 Ag-Business ENERGY STAR® Rated CFL, Screw In, All sizes < 40 W - Commercial Sector	0.000	0	0	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
166	25	Electricity Rebate Incentive	Consumer, Business	2009	Final	2009	2009 Ag-Business ENERGY STAR® Rated CFL, Screw In, All sizes < 40 W - Commercial Sector	0.000	0	0	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
167	25	Electricity Rebate Incentive	Consumer, Business	2009	Final	2009	2009 Ag-Business ENERGY STAR® Rated CFL, Screw In, All sizes < 40 W - Commercial Sector	0.000	0	0	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
168	25	Electricity Rebate Incentive	Consumer, Business	2009	Final	2009	2009 Ag-Business ENERGY STAR® Rated CFL, Screw In, All sizes < 40 W - Commercial Sector	0.000	0	0	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
169	25	Electricity Rebate Incentive	Consumer, Business	2009	Final	2009	2009 Ag-Business ENERGY STAR® Rated CFL, Screw In, All sizes < 40 W - Commercial Sector	0.000	0	0	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	25	Electricity Rebate Incentive	Consumer, Business	2009	Final	2009	2009 Ag-Business ENERGY STAR® Rated CFL, Screw In, All sizes < 40 W - Commercial Sector	0.000	0	0	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171	25	Electricity Rebate Incentive	Consumer, Business	2009	Final	2009	2009 Ag-Business ENERGY STAR® Rated CFL, Screw In, All sizes < 40 W - Commercial Sector	0.000	0	0	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
172	25	Electricity Rebate Incentive	Consumer, Business	2009	Final	2009	2009 Ag-Business ENERGY STAR® Rated CFL, Screw In, All sizes < 40 W - Commercial Sector	0.000	0	0	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
173	25	Electricity Rebate Incentive	Consumer, Business	2009	Final	2009	2009 Ag-Business ENERGY STAR® Rated CFL, Screw In, All sizes < 40 W - Commercial Sector	0.000	0	0	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
174	25	Electricity Rebate Incentive	Consumer, Business	2009	Final	2009	2009 Ag-Business ENERGY STAR® Rated CFL, Screw In, All sizes < 40 W - Commercial Sector	0.000	0	0	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175	25	Electricity Rebate Incentive	Consumer, Business	2009	Final	2009	2009 Ag-Business ENERGY STAR® Rated CFL, Screw In, All sizes < 40 W - Commercial Sector	0.000	0	0	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
176	25	Electricity Rebate Incentive	Consumer, Business	2009	Final	2009	2009 Ag-Business ENERGY STAR® Rated CFL, Screw In, All sizes < 40 W - Commercial Sector	0.000	0	0	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
177	25	Electricity Rebate Incentive	Consumer, Business	2009	Final	2009	2009 Ag-Business ENERGY STAR® Rated CFL, Screw In, All sizes < 40 W - Commercial Sector	0.000	0	0	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
178	25	Electricity Rebate Incentive	Consumer, Business	2009	Final	2009	2009 Ag-Business ENERGY STAR® Rated CFL, Screw In, All sizes < 40 W - Commercial Sector	0.000	0	0	0.000	0	0	0	0.000	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
179	25	Electricity Rebate Incentive	Consumer, Business	2009	Final	2009	2009 Ag-Business ENERGY STAR® Rated CFL, Screw In, All sizes < 40 W - Commercial Sector	0.000	0																											

Number	Activity Name	Program Name	Program Year	Results Status	#	Measure Name	Unit Savings Calculations							Aggregate Net Annual Demand Adjustment (%)	Effective Useful Life (EUL)	Activity Responsible	LDC Specific Results					
							Gross Summer Energy Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifetime Energy Savings (kWh)	Net Summer Peak Demand Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifetime Energy Savings (kWh)	Gross Summer Peak Demand Savings (kW)				Gross Annual Energy Savings (kWh)	Gross Lifetime Energy Savings (kWh)	Net Summer Peak Demand Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifetime Energy Savings (kWh)	
261	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	97	Agricultures ENERGY STAR® Rated Chl. Hardw. All sizes < 40 W - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
262	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	98	Agricultures Standard Performance TB, Single lamp standard TB fixture - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
263	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	99	Agricultures Standard Performance TB, Double lamp standard TB fixture - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
264	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	100	Agricultures Standard Performance TB, Triple lamp standard TB fixture - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
265	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	101	Agricultures High Performance TB, Quaduple lamp standard TB fixture - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
266	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	102	Agricultures High Performance TB Consortium for Energy Efficiency qualifying list compliance, Double lamp high performance TB fixture - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
267	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	103	Agricultures High Performance TB Consortium for Energy Efficiency qualifying list compliance, Quaduple lamp high performance TB fixture - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
268	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	104	Agricultures High Performance TB Consortium for Energy Efficiency qualifying list compliance, Double lamp high performance TB fixture - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
269	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	105	Agricultures High Performance TB Consortium for Energy Efficiency qualifying list compliance, Quaduple lamp high performance TB fixture - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
270	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	106	Agricultures Metal Halide, T5 fixtures with 1, 2 or 3 lamps and 1 electronic ballast - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
271	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	107	Agricultures T5 Fixtures, High Bay T- Maximum 8 lamps/fixtures - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
272	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	108	Agricultures Metal Halide, T5 20 W Ceramic pulse start - Industrial Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
273	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	109	Agricultures Metal Halide, Switch plate mounted occupancy sensor - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
274	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	110	Agricultures Occupancy Sensors, Ceiling mounted occupancy sensor - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
275	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	111	Agricultures Creeg Heat Pads, up to 200W maximum - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
276	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	112	Agricultures Creeg Heat Pads, up to 200W maximum - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
277	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	113	Agricultures High Temperature Cutoff Thermostat - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
278	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	114	Agricultures Creeg Heat Controller - Industrial Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
279	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	115	Agricultures Energy Efficient Ventilation Exhaust Fans - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
280	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	116	Agricultures Low Energy Leaking Waterfountains - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
281	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	117	Agricultures Photocell and Timer for Lighting Control - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
282	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	118	Lighting System Exit Signs, 5 W or less - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
283	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	119	Lighting System ENERGY STAR® Rated CFL, Screw In, All sizes < 40 W - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
284	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	120	Lighting System ENERGY STAR® Rated CFL, Hardwired, All sizes < 40 W - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
285	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	121	Lighting System Standard Performance TB, Single lamp standard TB fixture - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
286	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	122	Lighting System Standard Performance TB, Double lamp standard TB fixture - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
287	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	123	Lighting System Standard Performance TB, Triple lamp standard TB fixture - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
288	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	124	Lighting System Standard Performance TB, Quaduple lamp standard TB fixture - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
289	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	125	Lighting System High Performance TB Consortium for Energy Efficiency qualifying list compliance, Single lamp high performance TB fixture - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
290	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	126	Lighting System High Performance TB Consortium for Energy Efficiency qualifying list compliance, Double lamp high performance TB fixture - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
291	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	127	Lighting System High Performance TB Consortium for Energy Efficiency qualifying list compliance, Triple lamp high performance TB fixture - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
292	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	128	Lighting System High Performance TB Consortium for Energy Efficiency qualifying list compliance, Quaduple lamp high performance TB fixture - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
293	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	129	Lighting System T5 Fixtures, T5 fixtures with 1, 2 or 3 lamps and 1 electronic ballast - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
294	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	130	Lighting System T5 Fixtures, High Bay T5 - Maximum 8 lamps/fixtures - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
295	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	131	Lighting System Metal Halide, T5 20 W Ceramic pulse start - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
296	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	132	Lighting System Occupancy Sensors, Switch plate mounted occupancy sensor - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
297	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	133	Lighting System Occupancy Sensors, Ceiling mounted occupancy sensor - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
298	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	134	Motor Oper. On-Off Proport (OOP), 1/4 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
299	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	135	Motor Oper. On-Off Proport (OOP), 1/2 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
300	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	136	Motor Oper. On-Off Proport (OOP), 3/4 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
301	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	137	Motor Oper. On-Off Proport (OOP), 1 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
302	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	138	Motor Oper. On-Off Proport (OOP), 1 1/2 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
303	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	139	Motor Oper. On-Off Proport (OOP), 2 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
304	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	140	Motor Oper. On-Off Proport (OOP), 2 1/2 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
305	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	141	Motor Oper. On-Off Proport (OOP), 3 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
306	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	142	Motor Oper. On-Off Proport (OOP), 3 1/2 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
307	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	143	Motor Oper. On-Off Proport (OOP), 4 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
308	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	144	Motor Oper. On-Off Proport (OOP), 5 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
309	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	145	Motor Oper. On-Off Proport (OOP), 6 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
310	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	146	Motor Oper. On-Off Proport (OOP), 7 1/2 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
311	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	147	Motor Oper. On-Off Proport (OOP), 10 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
312	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	148	Motor Oper. On-Off Proport (OOP), 15 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
313	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	149	Motor Oper. On-Off Proport (OOP), 20 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
314	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	150	Motor Oper. On-Off Proport (OOP), 25 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
315	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	151	Motor Oper. On-Off Proport (OOP), 30 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
316	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	152	Motor Oper. On-Off Proport (OOP), 40 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
317	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	153	Motor Oper. On-Off Proport (OOP), 50 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
318	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	154	Motor Oper. On-Off Proport (OOP), 60 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
319	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	155	Motor Oper. On-Off Proport (OOP), 75 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
320	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	156	Motor Oper. On-Off Proport (OOP), 100 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
321	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	157	Motor Oper. On-Off Proport (OOP), 125 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
322	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	158	Motor Oper. On-Off Proport (OOP), 150 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a	n/a	n/a	n/a	n/a	n/a	
323	25/Electricity Retrofit Incentive	Consumer, Business	2008	Final	159	Motor Oper. On-Off Proport (OOP), 175 HP - Multi-Family Sector	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	Qual Prescriptive	41.0	15.3	n/a						

[illegible]

#	Initiative Number	Initiative Name	Program Name	Program Year	Results Basis	#	Measure Name	Unit	2009 Peak Demand (kW)	2009 Annual Energy Savings (kWh)	2009 Lifetime Energy Savings (kWh)	2009 Net Savings Peak Demand (kW)	2009 Net Savings Annual Energy Savings (kWh)	2009 Net Savings Lifetime Energy Savings (kWh)	2009 Aggregate Net-to-Gross Adjustment (%)	2009 Effective Useful Life (EUL)	Activity Results (%)	2009 Gross Summer Peak Demand (kW)	2009 Gross Annual Energy Savings (kWh)	2009 Gross Lifetime Energy Savings (kWh)	2009 Net Summer Peak Demand (kW)	2009 Net Annual Energy Savings (kWh)	2009 Net Lifetime Energy Savings (kWh)	
657	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		63	Replaced my old furnace with a high efficiency furnace. - Autumn Campaign - Participant Splitover		0.152	352	5,280	0.038	69	1,052	192	15.0	8.181	1.57	2,880	43,195	0.31	563	8,442	
658	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		64	Replaced a new energy efficient appliance - clothes washing machine. - Autumn Campaign - Participant Splitover		0.048	142	2,127	0.030	22	337	124	15.0	7.492	0.37	1,062	15,903	0.07	268	3,288	
659	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		65	Energy Star Qualified Compact Fluorescent - Autumn Campaign - Non Participant Related		0.002	24	189	0.000	3	26	137	0.0	80	514.786	0.38	12,180	97,518	0.05	1,672	13,372
660	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		66	Energy Star Qualified CFLs - Autumn Campaign - Non Participant Related		0.000	0	36	0.000	0	27	21	6.0	40	14.766	0.00	26,400	26,400	0.00	0	0
661	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		67	ENERGY STAR Fluorescents - Autumn Campaign - Non Participant Related		0.003	36	568	0.000	0	137	21	15.6	40	15,577	0.05	1,662	25,301	0.03	401	6,155
662	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		68	Weatherstripping - door frame etc. - Autumn Campaign - Non Participant Related		0.005	15	218	0.000	3	16	73	15.0	177.466	0.17	2,575	18,628	0.03	189	2,828	
663	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		69	Weatherstripping - door frame etc. - Autumn Campaign - Non Participant Related		0.000	0	260	0.000	4	14	6.0	40	14.766	0.00	26,400	26,400	0.00	0	0	
664	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		70	Programmable Thermostat - Autumn Campaign - Non Participant Related		0.000	83	1,249	0.000	15	218	174	15.0	26.777	0.00	2,228	33,435	0.00	189	5,813	
665	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		71	Power Window - Autumn Campaign - Non Participant Related		0.000	0	107	0.000	1	4	10.0	0.0	152.127	0.00	774	4,444	0.01	82	972	
666	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		72	Power Window - Autumn Campaign - Non Participant Related		0.000	0	107	0.000	1	4	10.0	0.0	152.127	0.00	774	4,444	0.01	82	972	
667	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		73	Lighting Appliance Controls - Autumn Campaign - Non Participant Related		0.005	42	723	0.000	4	73	103	17.0	114.168	0.16	5,695	96,952	0.02	174	9,746	
668	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		74	Energy Star Qualified Indirect LED Lights - Autumn Campaign - Non Participant Promoted		0.000	14	89	0.000	0	92	5.0	239.425	0.00	1,066	14,444	0.00	1,062	5,363		
669	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		75	Dimmer Switches - Autumn Campaign - Non Participant Promoted		0.005	24	237	0.000	6	64	27.1	10.0	99.220	0.05	1,641	26,005	0.03	444	4,443	
670	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		76	Door Powered Products - Autumn Campaign - Non Participant Promoted		0.000	5	18	0.000	2	8	43.7	4.0	111.094	0.04	154	1,005	0.03	214	893	
671	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		77	Working Room Air Conditioner Retirement - Rewards for Recycling Campaign - Incented		0.012	12	185	0.012	1	181	5.8	5.955	0.17	171	990	0.07	65	177		
672	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		78	Working Room Dehumidifier Retirement - Rewards for Recycling Campaign - Incented		0.304	300	2,312	0.142	140	1,081	46.8	7.7	4,869	1.48	1,482	11,258	0.08	684	5,263	
673	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		79	Working Hvac Unit Retirement - Rewards for Recycling Campaign - Incented		0.000	58	662	0.000	30	580	58.8	10.3	1,637	0.00	80	961	0.00	40	500	
674	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		80	Non-Working Room Air Conditioner Retirement - Rewards for Recycling Campaign - Incented		0.000	0	0	0.000	0	0	0.0	0.0	0.000	0.00	0	0	0.00	0	0	
675	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		81	Non-Working Room Dehumidifier Retirement - Rewards for Recycling Campaign - Incented		0.000	0	0	0.000	0	0	45.8	7.7	0.541	0.00	0	0	0.00	0	0	
676	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		82	Non-Working Hvac Unit Retirement - Rewards for Recycling Campaign - Incented		0.000	0	0	0.000	0	0	59.8	10.3	0.865	0.00	0	0	0.00	0	0	
677	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		83	Recycled Second Refrigerator - Rewards for Recycling Campaign - Splitover		0.127	1,238	17,333	0.046	446	6,242	36.0	14.0	1,123	0.14	1,390	19,457	0.05	500	7,007	
678	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		84	Recycled Additional Room Air Conditioner - Rewards for Recycling Campaign - Splitover		0.036	30	174	0.011	11	63	36.0	5.8	0.955	0.05	28	152	0.04	10	58	
679	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		85	Recycled Central Air Conditioner - Rewards for Recycling Campaign - Splitover		0.079	72	1,256	0.028	24	86.0	15.0	10.7	0.973	0.07	63	1,131	0.02	23	407	
680	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		86	Recycled Additional Room Dehumidifier - Rewards for Recycling Campaign - Splitover		0.313	309	2,385	0.113	111	859	36.0	7.7	0.977	0.31	302	2,331	0.31	109	839	
681	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		87	Recycled Energy Star Windows - Rewards for Recycling Campaign - Splitover		0.087	1,516	30,603	0.010	282	5,445	6.0	20.0	0.176	0.08	473	47,025	0.01	434	8,613	
682	17	Every KiloWatt Counts Power Savings Event	Consumer	2009/Final		88	Recycled Energy Star CFLs - Rewards for Recycling Campaign - Splitover		0.000	45	673	0.000	3	114	18.0	8.0	0.176	0.00	231	1,846	0.00	43	360	
683	18	peakaware	Consumer, Business	2009/Final		89	Residential Air Conditioner - Switch		0.127	1	13	0.474	1	11	10.0	13.0	8.996	4.73	1	144	4.26	8	503	
684	18	peakaware	Consumer, Business	2009/Final		90	Residential Air Conditioner - Thermostat		0.127	1	13	0.474	1	11	10.0	13.0	8.996	4.73	1	144	4.26	8	503	
685	18	peakaware	Consumer, Business	2009/Final		91	Residential Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
686	18	peakaware	Consumer, Business	2009/Final		92	Commercial Air Conditioner - Switch		0.040	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
687	18	peakaware	Consumer, Business	2009/Final		93	Commercial Air Conditioner - Thermostat		0.040	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
688	18	peakaware	Consumer, Business	2009/Final		94	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
689	18	peakaware	Consumer, Business	2009/Final		95	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
690	18	peakaware	Consumer, Business	2009/Final		96	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
691	18	peakaware	Consumer, Business	2009/Final		97	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
692	18	peakaware	Consumer, Business	2009/Final		98	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
693	18	peakaware	Consumer, Business	2009/Final		99	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
694	18	peakaware	Consumer, Business	2009/Final		100	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
695	18	peakaware	Consumer, Business	2009/Final		101	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
696	18	peakaware	Consumer, Business	2009/Final		102	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
697	18	peakaware	Consumer, Business	2009/Final		103	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
698	18	peakaware	Consumer, Business	2009/Final		104	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
699	18	peakaware	Consumer, Business	2009/Final		105	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
700	18	peakaware	Consumer, Business	2009/Final		106	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
701	18	peakaware	Consumer, Business	2009/Final		107	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
702	18	peakaware	Consumer, Business	2009/Final		108	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
703	18	peakaware	Consumer, Business	2009/Final		109	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
704	18	peakaware	Consumer, Business	2009/Final		110	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
705	18	peakaware	Consumer, Business	2009/Final		111	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
706	18	peakaware	Consumer, Business	2009/Final		112	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
707	18	peakaware	Consumer, Business	2009/Final		113	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
708	18	peakaware	Consumer, Business	2009/Final		114	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
709	18	peakaware	Consumer, Business	2009/Final		115	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
710	18	peakaware	Consumer, Business	2009/Final		116	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
711	18	peakaware	Consumer, Business	2009/Final		117	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
712	18	peakaware	Consumer, Business	2009/Final		118	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
713	18	peakaware	Consumer, Business	2009/Final		119	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
714	18	peakaware	Consumer, Business	2009/Final		120	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
715	18	peakaware	Consumer, Business	2009/Final		121	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
716	18	peakaware	Consumer, Business	2009/Final		122	Commercial Electric Water Heater		0.000	0	0	0.774	0	0	90.0	13.0	0.000	0.00	0	0	0.00	0	0	
717	18	peakaware	Consumer, Business	2009/Final		123	Commercial Electric Water Heater																	

Attachment F - OPA Assumptions

#	Initiative Number	Initiative Name	Program Name	Program Year	Results Basis	#	Measure Name	Net Savings Peak Net Annual	Gross Summer Peak Demand (kW)	Gross Annual Energy Savings (kWh)	Gross Lifetime Energy Savings (kWh)	Unit Savings Assumptions	Net Lifetime Energy Savings (kWh)	Aggregate Net-to-Gross Adjustment (%)	Effective Useful Life (EUL)	Activity Results (#)	Gross Summer Peak Demand Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifetime Energy Savings (kWh)	Net Summer Peak Demand Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifetime Energy Savings (kWh)
789	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	102	Ag-Commercial Deep Heat Pads, 200W - Commercial Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
790	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	103	Ag-Commercial High Temperature Cabinet Thermostat - Commercial Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
791	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	104	Ag-Commercial Deep Heat Control - Commercial Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
792	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	105	Ag-Commercial Energy Efficient Ventilation Exhaust Fans - Commercial Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
793	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	106	Ag-Commercial Low Energy Livestock Waterers - Commercial Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
794	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	107	Ag-Commercial Photocell and Timer for Lighting Control - Commercial Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
795	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	108	Ag-Commercial High Speed Low Volume Fans - Commercial Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
796	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	109	Ag-Commercial Water Collectors - Commercial Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
797	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	110	Non-Electric Storage Tank Hot Water Heaters - Commercial Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
798	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	111	Electric Tankless Instantaneous Hot Water Heaters - Commercial Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
799	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	112	Drain Water Heat Recovery Systems - Commercial Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	113	Control Project - Commercial Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
801	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	114	Lighting System ENERGY STAR® Rated Exit Signs - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
802	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	115	Lighting System Retrofit Display Case LED Strip Lights - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
803	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	116	Lighting System Screw-In 6 to 24 base CFLs - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
804	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	117	Lighting System PAR CFLs, <=13W - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
805	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	118	Lighting System PAR CFLs, 14-20W - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
806	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	119	Lighting System PAR CFLs, 21-39W - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
807	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	120	Lighting System 2 Pin CFLs, <14W - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
808	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	121	Lighting System 2 Pin CFLs, 14-20W - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
809	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	122	Lighting System 2 Pin CFLs, 21-39W - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
810	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	123	Lighting System 4 Pin CFLs, <14W - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
811	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	124	Lighting System 4 Pin CFLs, 14-20W - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
812	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	125	Lighting System 4 Pin CFLs, 21-39W - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
813	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	126	Lighting System Dimmable CFLs, <14W - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
814	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	127	Lighting System Dimmable CFLs, 14-20W - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
815	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	128	Lighting System Dimmable CFLs, 21-39W - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
816	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	129	Lighting System Standard Performance T8, Single Lamp - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
817	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	130	Lighting System Standard Performance T8, Double Lamp - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
818	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	131	Lighting System Standard Performance T8, Triple Lamp - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
819	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	132	Lighting System Standard Performance T8, Quad/Lamp - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
820	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	133	Lighting System High Performance T8, Single Lamp - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
821	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	134	Lighting System High Performance T8, Double Lamp - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
822	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	135	Lighting System High Performance T8, Triple Lamp - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
823	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	136	Lighting System High Performance T8, Quad/Lamp - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
824	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	137	Lighting System Standard Performance Medium Bay T8, 4-Lamp - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
825	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	138	Lighting System Standard Performance Medium Bay T8, 8-Lamp - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
826	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	139	Lighting System Standard Performance Medium Bay T8, 16-Lamp - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
827	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	140	Lighting System High Performance Medium Bay T8, 4-Lamp - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
828	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	141	Lighting System High Performance Medium Bay T8, 8-Lamp - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
829	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	142	Lighting System High Performance Medium Bay T8, 16-Lamp - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
830	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	143	Lighting System T8, 3-Lamps - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
831	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	144	Lighting System Medium and High Bay T5, 4-Lamps - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
832	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	145	Lighting System Medium and High Bay T5, 8-Lamps - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
833	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	146	Lighting System Medium and High Bay T5, 16-Lamps - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
834	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	147	Lighting System Medium and High Bay T5, 3-Lamps - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
835	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	148	Lighting System Medium and High Bay T5, 8-Lamps - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
836	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	149	Lighting System 320W Pulse-Start Ceramic Metal Halide Lamp - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
837	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	150	Lighting System 320W Pulse-Start Ceramic Metal Halide Lamp - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
838	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	151	Lighting System 150W Metal Halide Lamp - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
839	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	152	Lighting System 300W Metal Halide Lamp - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
840	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	153	Lighting System 220W High Pressure Sodium Lamp - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
841	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	154	Lighting System 220W Metal Halide Electronic Ballast - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
842	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	155	Lighting System 220W Metal Halide Electronic Ballast - Multi-Family Sector	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
843	29	Electricity NetRoof Incentive	Consumer, Business	2009	Final	156	Lighting System 220W Metal Halide Electronic Ballast - Multi-Family Sector	0.00	0.00	0.00												

ID	Initiative Name	Program Name	Year	Status	Measure Name	LDC Specific Results										Activity Results (H)	Gross Demand Savings (kW)	Peak Demand Savings (kW)	Gross Annual Energy Savings (kWh)	Net Annual Energy Savings (kWh)	Net Lifetime Energy Savings (kWh)
						Gross Summer Peak Demand Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifetime Energy Savings (kWh)	Net Summer Peak Demand Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifetime Energy Savings (kWh)	Aggregated Adjustment (%)	Effective Useful Life (EOL)								
921	40) Toronto Comprehensive	Consumer/Consumer Low-Income	2009/2010	Final	9 Building Owners & Managers Association Project (BOMA) - Conservation & Demand Management (CDM)	Custom	Custom	Custom	Custom	Custom	Custom	66.0	10.3	0.000	7.60	17,429	348,581	0.50	12,200	244,007	
922	41) High Performance New Construction	Business	2009/2010	Final	1) Custom Project	Custom	Custom	Custom	Custom	Custom	Custom	66.0	10.3	0.087	0.00	0	0	0	0	0	
923	42) Power Saving Bldg	Business	2009/2010	Final	110) From: 4 Lamps of T12 75W Magnetic Ballasts to: 4 Lamps, 4 end to end 12 watt with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
924	42) Power Saving Bldg	Business	2009/2010	Final	129) From: 1 Lamp of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
925	42) Power Saving Bldg	Business	2009/2010	Final	131) From: 1 Lamp of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
926	42) Power Saving Bldg	Business	2009/2010	Final	132) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
927	42) Power Saving Bldg	Business	2009/2010	Final	133) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
928	42) Power Saving Bldg	Business	2009/2010	Final	134) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
929	42) Power Saving Bldg	Business	2009/2010	Final	135) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
930	42) Power Saving Bldg	Business	2009/2010	Final	136) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
931	42) Power Saving Bldg	Business	2009/2010	Final	137) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
932	42) Power Saving Bldg	Business	2009/2010	Final	138) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
933	42) Power Saving Bldg	Business	2009/2010	Final	139) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
934	42) Power Saving Bldg	Business	2009/2010	Final	140) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
935	42) Power Saving Bldg	Business	2009/2010	Final	141) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
936	42) Power Saving Bldg	Business	2009/2010	Final	142) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
937	42) Power Saving Bldg	Business	2009/2010	Final	143) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
938	42) Power Saving Bldg	Business	2009/2010	Final	144) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
939	42) Power Saving Bldg	Business	2009/2010	Final	145) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
940	42) Power Saving Bldg	Business	2009/2010	Final	146) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
941	42) Power Saving Bldg	Business	2009/2010	Final	147) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
942	42) Power Saving Bldg	Business	2009/2010	Final	148) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
943	42) Power Saving Bldg	Business	2009/2010	Final	149) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
944	42) Power Saving Bldg	Business	2009/2010	Final	150) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
945	42) Power Saving Bldg	Business	2009/2010	Final	151) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
946	42) Power Saving Bldg	Business	2009/2010	Final	152) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
947	42) Power Saving Bldg	Business	2009/2010	Final	153) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
948	42) Power Saving Bldg	Business	2009/2010	Final	154) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
949	42) Power Saving Bldg	Business	2009/2010	Final	155) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
950	42) Power Saving Bldg	Business	2009/2010	Final	156) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
951	42) Power Saving Bldg	Business	2009/2010	Final	157) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
952	42) Power Saving Bldg	Business	2009/2010	Final	158) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
953	42) Power Saving Bldg	Business	2009/2010	Final	159) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
954	42) Power Saving Bldg	Business	2009/2010	Final	160) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
955	42) Power Saving Bldg	Business	2009/2010	Final	161) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
956	42) Power Saving Bldg	Business	2009/2010	Final	162) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
957	42) Power Saving Bldg	Business	2009/2010	Final	163) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
958	42) Power Saving Bldg	Business	2009/2010	Final	164) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
959	42) Power Saving Bldg	Business	2009/2010	Final	165) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
960	42) Power Saving Bldg	Business	2009/2010	Final	166) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
961	42) Power Saving Bldg	Business	2009/2010	Final	167) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
962	42) Power Saving Bldg	Business	2009/2010	Final	168) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
963	42) Power Saving Bldg	Business	2009/2010	Final	169) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
964	42) Power Saving Bldg	Business	2009/2010	Final	170) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
965	42) Power Saving Bldg	Business	2009/2010	Final	171) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
966	42) Power Saving Bldg	Business	2009/2010	Final	172) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
967	42) Power Saving Bldg	Business	2009/2010	Final	173) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
968	42) Power Saving Bldg	Business	2009/2010	Final	174) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
969	42) Power Saving Bldg	Business	2009/2010	Final	175) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
970	42) Power Saving Bldg	Business	2009/2010	Final	176) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
971	42) Power Saving Bldg	Business	2009/2010	Final	177) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
972	42) Power Saving Bldg	Business	2009/2010	Final	178) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
973	42) Power Saving Bldg	Business	2009/2010	Final	179) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
974	42) Power Saving Bldg	Business	2009/2010	Final	180) From: 2 Lamps of T12 75W Magnetic Ballasts to: 2 4' end to end 12 watt lamp with 80% ballast factor T8 Electronic Ballast - Retail Sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	95.0	8.								

[illegible]

[illegible]

[illegible]

[illegible]

Initiative Number	Initiative Name	Program Name	Program Year	Results Status	#	Measure Name	Unit Savings Assumptions										LDC Specific Results					
							Gross Summer Peak Demand Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifetime Energy Savings (kWh)	Net Summer Peak Demand Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifetime Energy Savings (kWh)	Aggregate Net-to-Gross Adjustment (%)	Effective Useful Life (EUL)	Activity Results (#)	Gross Summer Peak Demand Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifetime Energy Savings (kWh)	Net Summer Peak Demand Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifetime Energy Savings (kWh)	
1581	43/Multi-Family Energy Efficiency Rebates	Consumer, Consumer Low-Income	2009	Final	458	Non-ElectricChillers - Retail / Common Area Savings application - Low-Income sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	100.0	12.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1582	43/Multi-Family Energy Efficiency Rebates	Consumer, Consumer Low-Income	2009	Final	459	ElectricWaterHeater - Retail / Common Area Savings application - Low-Income sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	100.0	12.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1583	43/Multi-Family Energy Efficiency Rebates	Consumer, Consumer Low-Income	2009	Final	460	NaturalGasDryer - In-Suite - Retail / Common Area Savings application - Low-Income sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	100.0	12.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1584	43/Multi-Family Energy Efficiency Rebates	Consumer, Consumer Low-Income	2009	Final	461	NaturalGasDryer - In-Suite - Common Area Savings application - Low-Income sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	100.0	12.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1585	43/Multi-Family Energy Efficiency Rebates	Consumer, Consumer Low-Income	2009	Final	462	EnergyStar Dishwasher - Retail / Common Area Savings application - Low-Income sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	100.0	12.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1586	43/Multi-Family Energy Efficiency Rebates	Consumer, Consumer Low-Income	2009	Final	463	EnergyStar Fridge - Retail / Common Area Savings application - Low-Income sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	100.0	12.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1587	43/Multi-Family Energy Efficiency Rebates	Consumer, Consumer Low-Income	2009	Final	464	EnergyStar CeilingFan - Retail / Common Area Savings application - Low-Income sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	100.0	12.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1588	43/Multi-Family Energy Efficiency Rebates	Consumer, Consumer Low-Income	2009	Final	465	Non-ElectricWaterHeater - Retail / Common Area Savings application - Low-Income sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	100.0	12.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1589	43/Multi-Family Energy Efficiency Rebates	Consumer, Consumer Low-Income	2009	Final	466	SolarHotWaterCollector - Retail / Common Area Savings application - Low-Income sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	100.0	12.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1590	43/Multi-Family Energy Efficiency Rebates	Consumer, Consumer Low-Income	2009	Final	467	Non-ElectricCoolingWater - Retail / Common Area Savings application - Low-Income sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	100.0	12.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1591	43/Multi-Family Energy Efficiency Rebates	Consumer, Consumer Low-Income	2009	Final	468	DrainWaterHeaterRecovery - Retail / Common Area Savings application - Low-Income sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	100.0	12.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1592	43/Multi-Family Energy Efficiency Rebates	Consumer, Consumer Low-Income	2009	Final	469	DomesticWaterHeater - Retail / Common Area Savings application - Low-Income sector	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	Quasi-Prescriptive	100.0	12.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1593	43/Multi-Family Energy Efficiency Rebates	Consumer, Consumer Low-Income	2009	Final	470	Custom Project - Custom Project application - Low-Income sector	Custom	Custom	Custom	Custom	Custom	Custom	100.0	Custom	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1594	44/Demand Response 1	Business, Industrial	2009	Final	1	Voluntary Load Shedding Project	Custom	Custom	Custom	Custom	Custom	Custom	100.0	1.0	0.024	243.61	10.616	10.616	243.61	10.616	10.616	
1595	45/Demand Response 2	Business, Industrial	2009	Final	1	Contractual Load Shifting Project	Custom	Custom	Custom	Custom	Custom	Custom	100.0	1.0	0.004	144.04	101.054	101.054	144.04	101.054	101.054	
1596	46/Demand Response 3	Business, Industrial	2009	Final	1	Contractual Load Shedding Project	Custom	Custom	Custom	Custom	Custom	Custom	100.0	1.0	0.168	234.37	1.930	1.930	234.37	1.930	1.930	
1597	47/Loblaw & York Region Demand Response	Business, Industrial	2009	Final	1	Basin Contract	0	0	19,210,000	0	0	19,210,000	0	0	0.001	26.46	0	0	26.46	0	0	
1598	47/Loblaw & York Region Demand Response	Business, Industrial	2009	Final	2	Subsea Contract	10,000,000	0	0	10,000,000	0	0	0	0	0.001	13.79	0	0	13.79	0	0	
1599	48/LDC Custom - Thunder Bay Hydro - Phantom Load	Consumer	2009	Final	1	Power Bar with Integrated Timer	0.096	347	347	0.096	326	326	94.0	1.0	0.000	0.000	0	0	0.000	0	0	
1600	49/LDC Custom - Toronto Hydro - Summer Chiller	Consumer	2009	Final	1	HeatExchanger	0.345	748	748	0.345	560	560	76.0	1.0	0.000	0.000	0	0	0.000	0	0	
1601	50/LDC Custom - PowerStream - Data Centers	Business	2009	Final	1	Data Centers	Custom	Custom	Custom	Custom	Custom	Custom	100.0	20.0	0.000	0.000	0	0	0.000	0	0	
1602	51/Toronto Comprehensive Adjustment	Consumer, Business	2008	Final	1	Toronto Hydro-Electric System Limited - Business Incentive Program (BIP) - Commercial	Custom	Custom	Custom	Custom	Custom	Custom	59.0	5.2	0.000	0.000	0	0	0.000	0	0	
1603	51/Toronto Comprehensive Adjustment	Consumer, Business	2008	Final	2	Toronto Hydro-Electric System Limited - Business Incentive Program (BIP) - Multi-Family	Custom	Custom	Custom	Custom	Custom	Custom	59.0	6.6	0.000	0.000	0	0	0.000	0	0	
1604	52/LDC Custom - Hydro One Networks Inc. - Double Return Adjustment	Business, Industrial	2008	Final	1	Custom Project	Custom	Custom	Custom	Custom	Custom	Custom	100.0	1.0	0.000	0.000	0	0	0.000	0	0	

VECC Question 11a

a) Please provide the following details by year for the OPA Every Kilowatt Counts and Every Kilowatt Counts Power Savings Event that adds to the data shown in Attachment A: # units, unit and total kWh savings, operating hours, lifetime, and free ridership rate. Reconcile to the lost revenues by year and total lost revenues shown in Attachment B.

OPA Conservation & Demand Management Programs

For: Centre Wellington Hydro Ltd.

[illegible]

#	Initiative Number	Initiative Name	Program Name	Program Year	Results Status
---	-------------------	-----------------	--------------	--------------	----------------

[illegible]

1634	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Energy Star Specialty CFLs-Spring Campaign (Rebated)
1635	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Energy Star Specialty CFLs-Spring Campaign (Rebated)
1636	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Energy Star Specialty CFLs-Spring Campaign (Rebated)
1637	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Energy Star Specialty CFLs-Spring Campaign (Rebated)
1638	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Smart Power Bars-Spring Campaign (Promoted)
1639	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Lighting Controls-Spring Campaign (Rebated)
1640	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Energy Star Qualified Window Air Conditioners-Spring Campaign (Promoted)
1641	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Energy Star Qualified Dehumidifiers-Spring Campaign (Promoted)
1642	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Programmable Thermostat-Spring Campaign (Promoted)
1643	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Solar Power Products-Spring Campaign (Promoted)
1644	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Window Blinds and Awnings-Spring Campaign (Promoted)
1645	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Turned off / reduced use of lights-Spillover Actions - Spring
1646	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Corrected off / reduced use of power to electronics-Spillover Actions - Spring
1647	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Washed laundry with cold water-Spillover Actions - Spring
1648	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Turned down the thermostat on my furnace-Spillover Actions - Spring
1649	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Installed compact fluorescent lights that were not related to Spillover Actions - Spring
1650	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Dried clothes inside on a rack-Spillover Actions - Spring
1651	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Unplugged devices usually plugged in-Spillover Actions - Spring
1652	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Sealed around windows / doors-Spillover Actions - Spring
1653	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Installed a programmable thermostat-Spillover Actions - Spring
1654	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Installed LED lights-Spillover Actions - Spring
1655	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	22/Energy Star Specialty CFLs-Fall Campaign (Rebated)
1656	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Energy Star Qualified Fall Campaign (Rebated)
1657	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	24/Waatherstopping - adhesive foam or V-strip-Fall Campaign (Rebated)
1658	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	25/Waatherstopping - door frame kits-Fall Campaign (Rebated)
1659	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Basicboard Programmable Thermostat-Non-Participant Campaign Products
1660	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	27/Pipe Wrap-Fall Campaign (Rebated)
1661	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	25/Water Blanket-Fall Campaign (Rebated)
1662	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Lighting Controls-Fall Campaign (Rebated)
1663	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	30/Power Bar-Fall Campaign (Rebated)
1664	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Programmable Thermostat-Non-Participant Campaign Products
1665	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	32/Solar Powered Products-Fall Campaign (Promoted)
1666	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	33/Window Sealing Kits-Fall Campaign (Promoted)
1667	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	34/Turned off / reduced use of lights-Spillover Actions - Fall
1668	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	35/Washed off / reduced use of power to electronics-Spillover Actions - Fall
1669	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	36/Washed laundry with cold water-Spillover Actions - Fall
1670	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	37/Turned down the thermostat settings on my furnace-Spillover Actions - Fall
1671	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	38/Sealed around windows / doors-Spillover Actions - Fall
1672	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	39/Unplugged devices usually plugged in-Spillover Actions - Fall
1673	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	40/Installed compact fluorescent lights that were not those rebated by the Power Savings Events-Spillover Actions - Fall
1674	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	41/Dried clothes inside on a rack-Spillover Actions - Fall
1675	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Energy Star Specialty CFLs-Non-Participant Campaign Products
1676	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	43/Energy Star Fluorescent Non-Participant Campaign Products
1677	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	44/Waatherstopping - adhesive foam or V-strip-Non-Participant Campaign Products
1678	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	45/Waatherstopping - door frame kits-Non-Participant Campaign Products
1679	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	46/Basicboard Programmable Thermostat-Non-Participant Campaign Products
1680	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	27/Pipe Wrap-Non-Participant Campaign Products
1681	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	25/Water Blanket-Non-Participant Campaign Products
1682	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	32/Solar Powered Products-Non-Participant Campaign Products
1683	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	30/Power Bar-Non-Participant Campaign Products
1684	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	51/Programmable Thermostat-Fall Campaign (Non-Participant Promoted)
1685	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	1/Solar Powered Products-Fall Campaign (Non-Participant Promoted)
1686	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	53/Window Sealing Kits-Fall Campaign (Non-Participant Promoted)
1687	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	54/Energy Star 4.0 & 5.0 Television Program
1688	65	Every KiloWatt Counts Power Savings Event	Consumer	2010/Final	55/Energy Star 4.0 & 5.0 Television Program - Spillover Actions

[illegible]

Unit Savings Assumptions							
Gross Energy Savings Peak Demand \$/kW	Gross Energy Savings \$/kW	Gross Energy Savings \$/kW	Net Energy Savings Peak Demand \$/kW	Net Energy Savings \$/kW	Assumed Net Energy Savings \$/kW	Aggregate Net Gross Adjustment	Effective Unit Value (EU)
0.00	36.48	56.28	0.00	8.61	13.22	24.25	15.58
0.00	45.81	217.67	0.00	1.06	15.94	7.32	10.60
0.00	17.31	259.39	0.00	1.11	16.58	6.39	15.00
0.00	38.86	186.96	0.00	0.85	31.17	10.58	6.00
0.00	38.86	186.96	0.00	0.85	31.17	10.58	6.00
0.00	42.45	722.62	0.00	4.28	22.79	10.07	17.02
0.00	13.70	66.50	0.00	0.49	23.95	34.07	6.00
0.00	32.00	120.70	0.00	0.51	24.18	34.07	6.00
0.00	4.82	14.85	0.00	1.50	7.70	41.70	39.00
0.00	0.00	0.00	0.00	0.00	0.00	56.30	56.30
0.00	300.28	232.16	0.14	34.38	1080.96	46.75	7.70
0.00	58.42	601.76	0.00	29.05	325.43	56.30	10.30
0.00	0.00	0.00	0.00	0.00	0.00	56.30	56.30
0.00	0.00	0.00	0.00	0.00	0.00	46.75	7.70
0.00	0.00	0.00	0.00	0.00	0.00	56.30	56.30
0.13	1238.09	1733.29	0.00	40.84	2614.81	36.01	14.00
0.30	30.01	173.80	0.00	11.61	62.52	36.01	8.00
0.30	30.01	173.80	0.00	11.61	125.04	36.01	8.00
0.11	309.22	2396.44	0.11	111.35	899.00	36.01	7.71
0.00	309.22	2396.44	0.00	111.35	1798.00	36.01	7.71
0.00	443.37	356.57	0.00	8.52	86.77	18.44	8.00

[illegible]

67.97	0.04	1420.48	8622.85	0.02	588.18	3689.09
na	0.00	0.00	0.00	0.00	0.00	0.00
68.06	0.01	3444.04	3444.04	0.00	129.79	129.79
7.93	0.09	790.92	7909.20	0.02	190.61	1906.12
na	0.00	0.00	0.00	0.00	0.00	0.00
7.01	0.02	762.22	7622.19	0.01	250.01	2500.18
7.73	0.82	806.86	7254.70	0.04	408.68	4078.13
na	0.00	0.00	0.00	0.00	0.00	0.00
8.23	0.43	968.89	14983.28	0.15	236.67	2366.73
na	0.00	0.00	0.00	0.00	0.00	0.00
34.50	1.52	1400.69	14006.91	0.45	417.26	4172.67
na	0.00	0.00	0.00	0.00	0.00	0.00
na	0.00	0.00	0.00	0.00	132.22	132.22
na	0.00	0.00	0.00	0.00	68.16	68.16
na	0.00	0.00	0.00	0.00	16.25	16.25
na	0.00	0.00	0.00	0.00	26.18	26.18
na	0.00	0.00	0.00	0.00	54.75	438.01
na	0.00	0.00	0.00	0.00	31.12	31.12
na	0.00	0.00	0.00	0.00	0.38	0.38
na	0.00	0.00	0.00	0.00	1.86	284.39
na	0.00	0.00	0.00	0.00	0.88	89.14
na	0.00	0.00	0.00	0.00	66.46	66.46
105.24	0.07	2344.65	13467.91	0.04	1370.73	6224.40
na	0.00	0.00	0.00	0.00	0.00	0.00
24.13	0.01	232.25	3348.73	0.01	80.99	1244.65
15.78	0.01	232.27	3490.05	0.01	102.80	180.00
na	0.00	0.00	0.00	0.00	2014.00	2014.00
11.30	0.01	80.58	483.49	0.00	26.83	77.92
26.92	0.01	141.12	141.12	0.00	1.00	1.00
26.20	0.02	680.72	6807.21	0.01	398.22	398.22
21.40	0.04	43.98	899.62	0.02	31.04	620.74
na	0.00	0.00	0.00	0.00	1313.33	1313.33
23.33	0.03	42.87	45.86	0.00	10.96	11.65
23.94	0.00	725.11	725.11	0.00	13.18	13.18
na	0.00	0.00	0.00	0.00	669.69	669.69
na	0.00	0.00	0.00	0.00	137.30	137.30
na	0.00	0.00	0.00	0.00	248.83	248.83
na	0.00	0.00	0.00	0.00	246.41	246.43
na	0.00	0.00	0.00	0.00	88.71	1296.15
na	0.00	0.00	0.00	0.00	17.74	84.73
na	0.00	0.00	0.00	0.00	61.73	61.73
na	0.00	0.00	0.00	0.01	256.69	69.82
na	0.00	0.00	0.00	0.00	20.70	20.70
na	0.00	0.00	0.00	0.00	12.17	162.22
na	0.00	0.00	0.00	0.00	0.00	0.00
na	0.00	0.00	0.00	0.00	0.00	0.00
na	0.00	0.00	0.00	0.00	0.00	0.00
na	0.00	0.00	0.00	0.00	0.00	0.00
na	0.00	0.00	0.00	0.00	18.78	17.75
na	0.00	0.00	0.00	0.00	0.22	395.39
155.25	0.17	25962.43	129113.13	0.06	8761.96	4380.78
na	0.00	0.00	0.00	0.00	6.20	6.20

Activity Description (#)	LDC Specific Results					
	Gross Energy Savings Peak Demand kW	Gross Energy Savings kWh	Gross Energy Savings kWh	Net Energy Savings Peak Demand kW	Net Energy Savings kWh	Net Energy Savings kWh
45.58	1.05	1661.92	2290.58	0.00	34.34	6254.71
177.47	0.17	2578.203	3862.45	0.01	188.53	2827.94
125.31	0.15	2341.66	3342.89	0.01	148.58	2243.76
136.62	0.06	77.26	86.88	0.01	61.93	98.15
134.17	0.16	5695.08	9695.98	0.02	573.68	9766.23
219.62	0.30	5068.86	15046.29	0.01	1520.10	5260.68
111.09	0.08	53.75	205.35	0.00	44.44	244.44
111.09	0.08	53.75	205.35	0.00	44.44	244.44
4.87	1.48	1462.10	11558.15	0.69	683.55	5123.32
1.64	0.40	95.61	984.79	0.00	48.53	499.84
0.54	0.00	0.00	0.00	0.00	0.00	0.00
0.54	0.00	0.00	0.00	0.00	0.00	0.00
0.54	0.00	0.00	0.00	0.00	0.00	0.00
1.12	0.14	1389.80	1847.05	0.05	500.47	7066.59
0.04	0.03	28.97	162.51	0.00	10.11	58.98
0.04	0.03	28.97	162.51	0.00	10.11	58.98
0.98	0.31	302.12	2330.61	0.11	108.79	839.26
0.98	0.31	302.12	2330.61	0.11	108.79	839.26
0.51	0.01	230.70	1845.64	0.00	42.55	340.40

67.97	0.04	1420.48	8622.85	0.02	588.18	3689.09
na	0.00	0.00	0.00	0.00	0.00	0.00
68.06	0.01	3444.04	3444.04	0.00	129.79	129.79
7.93	0.09	790.92	7909.20	0.02	190.61	1906.12
na	0.00	0.00	0.00	0.00	0.00	0.00
7.01	0.02	762.22	7622.19	0.01	250.01	2500.18
7.73	0.82	806.86	7254.70	0.04	408.68	4078.13
na	0.00	0.00	0.00	0.00	0.00	0.00
8.23	0.43	968.89	14983.28	0.15	236.67	2366.73
na	0.00	0.00	0.00	0.00	0.00	0.00
34.50	1.52	1400.69	14006.91	0.45	417.26	4172.67
na	0.00	0.00	0.00	0.00	0.00	0.00
na	0.00	0.00	0.00	0.00	132.22	132.22
na	0.00	0.00	0.00	0.00	68.16	68.16
na	0.00	0.00	0.00	0.00	16.25	16.25
na	0.00	0.00	0.00	0.00	26.18	26.18
na	0.00	0.00	0.00	0.00	54.75	438.01
na	0.00	0.00	0.00	0.00	31.12	31.12
na	0.00	0.00	0.00	0.00	0.38	0.38
na	0.00	0.00	0.00	0.00	1.86	284.39
na	0.00	0.00	0.00	0.00	0.88	89.14
na	0.00	0.00	0.00	0.00	66.46	66.46
105.24	0.07	2344.65	13467.91	0.04	1370.73	6224.40
na	0.00	0.00	0.00	0.00	0.00	0.00
24.13	0.01	232.25	3348.73	0.01	80.99	1244.65
15.78	0.01	232.27	3490.05	0.01	102.80	180.00
na	0.00	0.00	0.00	0.00	2014.00	2014.00
11.30	0.01	80.58	483.49	0.00	26.83	77.92
26.92	0.01	141.12	141.12	0.00	1.00	1.00
26.20	0.02	680.72	6807.21	0.01	398.22	398.22
21.40	0.04	43.98	899.62	0.02	31.04	620.74
na	0.00	0.00	0.00	0.00	1313.33	1313.33
23.33	0.03	42.87	45.86	0.00	10.96	11.65
23.94	0.00	725.11	725.11	0.00	13.18	13.18
na	0.00	0.00	0.00	0.00	669.69	669.69
na	0.00	0.00	0.00	0.00	137.30	137.30
na	0.00	0.00	0.00	0.00	248.83	248.83
na	0.00	0.00	0.00	0.00	246.41	246.43
na	0.00	0.00	0.00	0.00	88.71	1296.15
na	0.00	0.00	0.00	0.00	17.74	84.73
na	0.00	0.00	0.00	0.00	61.73	61.73
na	0.00	0.00	0.00	0.01	256.69	69.82
na	0.00	0.00	0.00	0.00	20.70	20.70
na	0.00	0.00	0.00	0.00	12.17	162.22
na	0.00	0.00	0.00	0.00	0.00	0.00
na	0.00	0.00	0.00	0.00	0.00	0.00
na	0.00	0.00	0.00	0.00	0.00	0.00
na	0.00	0.00	0.00	0.00	0.00	0.00
na	0.00	0.00	0.00	0.00	18.78	17.75
na	0.00	0.00	0.00	0.00	0.22	395.39
155.25	0.17	25962.43	129113.13	0.06	8761.96	4380.78
na	0.00	0.00	0.00	0.00	6.20	6.20

\$	7.84	\$	7.64
\$	26.97	\$	26.28
\$	1.69	\$	1.65
\$	2.50	\$	2.43
\$	0.15	\$	0.15
\$	3.28	\$	3.19
\$	5.35	\$	5.22
\$	7.65	\$	7.45
\$	3.93	\$	3.83
\$	0.91	\$	0.89
\$	5.47	\$	5.33
\$	2.40		
\$	0.26		
\$	0.21		
\$	1.25		
\$	0.72	\$	0.70
\$	0.41		
\$	0.70		
\$	0.25	\$	0.24
\$	0.60	\$	0.59
\$	0.11	\$	0.11
\$	17.96	\$	17.50
\$	5.69	\$	5.54
\$	1.09	\$	1.06
\$	1.35	\$	1.31
\$	2.56	\$	2.50
\$	0.38	\$	0.37
\$	0.84	\$	0.82
\$	5.22	\$	5.08
\$	0.41	\$	0.40
\$	4.54	\$	4.42
\$	0.14	\$	0.14
\$	0.17	\$	0.17
\$	0.77		
\$	1.80		
\$	0.56		
\$	3.23		
\$	1.13	\$	1.10
\$	3.74		
\$	1.54	\$	1.50
\$	0.89		
\$	2.60	\$	2.54
\$	3.40	\$	3.31
\$	0.27	\$	0.26
\$	0.16	\$	0.16
\$	0.16	\$	0.16
\$	0.01	\$	0.01
\$	0.01	\$	0.01
\$	0.15	\$	0.15
\$	0.25	\$	0.24
\$	5.18	\$	5.05
\$	0.21		
\$	0.08	\$	0.08
\$	114.78	\$	111.86
\$	15.94	\$	15.54

08/09/10 Total \$ 9,952.74

VECC Question 11b

List and confirm OPA's input assumptions for Every Kilowatt Counts (EKC) 2006 to 2010 including the measure life, unit kWh savings and free ridership for Compact Fluorescent Lights (CFLs) and Seasonal Light Emitting Diodes (LED). Confirm some of these assumptions were changed in 2007 and again in 2009 and compare the values.

OPA Conservation & Demand Management Programs

Measure Results at End-User Level

For: Centre Wellington Hydro Ltd.

#	Initiative Number	Initiative Name	Program Name	Program Year	Results Status
9	3	Every Kilowatt Count:	Consumer	2006	Final
13	3	Every Kilowatt Count:	Consumer	2006	Final
14	3	Every Kilowatt Count:	Consumer	2006	Final
40	8	Every Kilowatt Count:	Consumer	2007	Final
41	8	Every Kilowatt Count:	Consumer	2007	Final
42	8	Every Kilowatt Count:	Consumer	2007	Final
43	8	Every Kilowatt Count:	Consumer	2007	Final
44	8	Every Kilowatt Count:	Consumer	2007	Final
45	8	Every Kilowatt Count:	Consumer	2007	Final
132	22	Every Kilowatt Counts Power Savings Ever	Consumer	2008	Final
133	22	Every Kilowatt Counts Power Savings Ever	Consumer	2008	Final
134	22	Every Kilowatt Counts Power Savings Ever	Consumer	2008	Final
135	22	Every Kilowatt Counts Power Savings Ever	Consumer	2008	Final
136	22	Every Kilowatt Counts Power Savings Ever	Consumer	2008	Final
597	37	Every Kilowatt Counts Power Savings Ever	Consumer	2009	Final
598	37	Every Kilowatt Counts Power Savings Ever	Consumer	2009	Final
613	37	Every Kilowatt Counts Power Savings Ever	Consumer	2009	Final
623	37	Every Kilowatt Counts Power Savings Ever	Consumer	2009	Final
637	37	Every Kilowatt Counts Power Savings Ever	Consumer	2009	Final
638	37	Every Kilowatt Counts Power Savings Ever	Consumer	2009	Final
646	37	Every Kilowatt Counts Power Savings Ever	Consumer	2009	Final
659	37	Every Kilowatt Counts Power Savings Ever	Consumer	2009	Final
660	37	Every Kilowatt Counts Power Savings Ever	Consumer	2009	Final
668	37	Every Kilowatt Counts Power Savings Ever	Consumer	2009	Final
682	37	Every Kilowatt Counts Power Savings Ever	Consumer	2009	Final
1634	55	Every Kilowatt Counts Power Savings Ever	Consumer	2010	Final
1654	55	Every Kilowatt Counts Power Savings Ever	Consumer	2010	Final
1655	55	Every Kilowatt Counts Power Savings Ever	Consumer	2010	Final
1656	55	Every Kilowatt Counts Power Savings Ever	Consumer	2010	Final
1675	55	Every Kilowatt Counts Power Savings Ever	Consumer	2010	Final
1676	55	Every Kilowatt Counts Power Savings Ever	Consumer	2010	Final

#	Measure Name
1	Energy Star® Compact Fluorescent Light Bulb - Spring Campaign
5	Energy Star® Compact Fluorescent Light Bulb - Autumn Campaign
6	Seasonal Light Emitting Diode Light String - Autumn Campaign
11	15 W CFL
2	20+ W CFL
3	Energy Star® Light Fixture
4	T8 Fluorescent Tube
5	Seasonal LED Light String
6	Project Porchlight CFL
1	Energy Star® Qualified Compact Fluorescent Light Bulb
2	Energy Star® Qualified Dimmable CFL
3	Energy Star® Qualified Decorative CFL
4	Energy Star® Qualified Compact Fluorescent Floods (Indoor & Outdoor)
5	Energy Star® Qualified Light Fixture
1	Energy Star Qualified Compact Fluorescent - Spring Campaign - Participant Rebate
2	ENERGY STAR Decorative CFLs - Spring Campaign - Participant Rebate
17	Installed CFLs - Spring Campaign - Participant Spillover
27	ENERGY STAR Decorative CFLs - Spring Campaign - Non-Participant Rebate
41	Energy Star Qualified Compact Fluorescent - Autumn Campaign - Participant Rebate
42	ENERGY STAR Specialty CFLs - Autumn Campaign - Participant Rebate
50	Energy Star Qualified Holiday LED Lights - Autumn Campaign - Participant Promote
63	Energy Star Qualified Compact Fluorescent - Autumn Campaign - Non-Participant Rebate
64	ENERGY STAR Specialty CFLs - Autumn Campaign - Non-Participant Rebate
72	Energy Star Qualified Holiday LED Lights - Autumn Campaign - Non-Participant Promote
86	Installed Energy Star® CFL Bulbs - Rewards for Recycling Campaign - Spillover
1	ENERGY STAR Specialty CFLs-Spring Campaign (Rebate)
21	Installed LED lights-Spillover Actions - Spring
22	Energy Star Specialty CFLs-Fall Campaign (Rebate)
23	Energy Star Fixtures-Fall Campaign (Rebate)
42	Energy Star Specialty CFLs-Non-Participant Campaign Product
43	Energy Star Fixtures-Non-Participant Campaign Product

Unit Savings Assumptions							
Gross Summer Peak Demand Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifetime Energy Savings (kWh)	Net Summer Peak Demand Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifetime Energy Savings (kWh)	Aggregate Net-to-Gross Adjustment (%)	Effective Useful Life (EUL)
0.00	104.40	417.60	0.00	93.96	375.84	90.00	4.00
0.00	104.40	417.60	0.00	93.96	375.84	90.00	4.00
0.00	30.75	922.50	0.00	27.68	830.25	90.00	30.00
0.00	43.00	344.00	0.00	33.54	268.32	78.00	8.00
0.00	62.10	496.80	0.00	48.44	387.50	78.00	8.00
0.01	122.90	1966.40	0.00	67.60	1081.52	55.00	16.00
0.00	37.20	669.60	0.00	28.64	515.59	77.00	18.00
0.00	13.70	68.50	0.00	6.71	33.57	49.00	5.00
0.00	43.00	344.00	0.00	32.68	261.44	76.00	8.00
0.00	52.96	423.68	0.00	27.67	221.40	52.26	8.00
0.00	97.80	586.77	0.00	36.84	221.04	37.67	6.00
0.00	30.38	121.51	0.00	11.72	46.88	38.57	4.00
0.00	87.62	613.33	0.00	32.83	229.80	37.47	7.00
0.00	133.48	2135.63	0.00	44.55	712.75	33.37	16.00
0.00	23.17	185.33	0.00	15.92	127.38	68.73	8.00
0.00	25.84	155.04	0.00	19.91	119.45	77.04	6.00
0.00	101.42	811.39	0.00	13.30	108.41	13.11	8.00
0.00	26.18	157.08	0.00	10.42	62.54	39.81	8.00
0.00	26.50	203.98	0.00	17.69	141.55	69.39	8.00
0.00	20.81	124.85	0.00	14.87	89.24	71.48	6.00
0.00	13.70	68.50	0.00	8.05	40.26	58.78	5.00
0.00	23.68	189.45	0.00	3.25	25.98	13.71	8.00
0.00	29.97	179.81	0.00	4.51	27.09	15.06	6.00
0.00	13.70	68.50	0.00	4.79	23.95	34.97	5.00
0.00	44.57	356.57	0.00	8.22	65.77	18.44	8.00
0.00	18.22	109.31	0.00	7.67	46.03	0.42	6.00
0.00	0.00	0.00	0.00	1.82	14.58	0.00	8.00
0.00	21.33	127.97	0.00	13.02	78.15	0.61	6.00
0.00	140.60	2189.42	0.00	62.49	973.07	0.44	15.57
0.00	0.00	0.00	0.00	1.20	7.20	0.00	6.00
0.00	0.00	0.00	0.00	10.52	163.79	0.00	15.57

LDC Specific Results						
Activity Results (#)	Gross Summer Peak Demand Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifetime Energy Savings (kWh)	Net Summer Peak Demand Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifetime Energy Savings (kWh)
1474.57	0.00	153944.88	615779.52	0.00	138550.38	554201.57
2186.35	0.00	228254.74	913018.94	0.00	205429.26	821717.05
526.25	0.00	16182.27	485468.20	0.00	14564.05	436921.38
2697.85	3.51	116007.42	928059.40	2.74	90485.79	723886.33
439.18	0.83	27273.33	218186.63	0.65	21273.20	170185.57
10.48	0.06	1287.86	20605.72	0.03	708.32	11333.14
20.54	0.02	764.00	13752.04	0.02	585.28	10589.07
714.75	0.00	9792.11	48960.53	0.00	4798.13	23990.66
567.72	0.74	24411.79	195294.34	0.56	18552.96	148423.70
991.89	2.18	52530.40	420243.20	1.14	27450.08	219600.64
108.03	0.33	10564.89	63389.33	0.13	3979.92	23679.54
1675.67	1.60	55902.97	203611.88	0.62	19632.00	78528.00
465.23	1.28	40762.71	285338.94	0.48	15272.88	106910.19
721.99	3.04	96369.00	1541904.03	1.01	32162.50	514600.19
124.88	0.09	2893.10	23144.84	0.06	1988.41	15907.25
296.14	0.24	7652.13	45912.76	0.18	5895.56	35373.33
11.41	0.04	1157.11	9256.89	0.00	151.74	1213.95
47.20	0.04	1235.67	7414.01	0.02	491.98	2951.88
565.14	0.45	14409.44	115275.53	0.31	9999.14	79993.13
228.54	0.15	4755.40	28532.42	0.11	3399.13	20394.77
67.28	0.00	921.80	4409.02	0.00	641.80	2708.98
514.74	0.38	12189.55	97516.42	0.05	1671.52	13372.14
163.51	0.15	4899.92	29399.52	0.02	738.17	4429.02
219.62	0.00	3008.86	15044.29	0.00	1052.14	5260.68
5.18	0.01	230.70	1845.64	0.00	42.55	340.42
77.97	0.04	1420.48	8522.85	0.02	598.18	3589.09
n/a	0.00	0.00	0.00	0.00	8.31	66.49
105.24	0.07	2244.65	13467.91	0.04	1370.73	8224.40
6.95	0.03	976.61	15207.22	0.01	434.05	6758.77
n/a	0.00	0.00	0.00	0.01	198.64	1191.85
n/a	0.00	0.00	0.00	0.01	299.59	4042.22

VECC Question 11c

Demonstrate that savings for EKC 2006 Mass Market measures 13-15 W Energy Star CFLs & Seasonal LEDs have been removed from the LRAM claim beginning in 2010.

OPA Conservation & Demand Management Programs

Measure Results at End-User Level

For: **Centre Wellington Hydro Ltd.**

Initiative Name	Program	Program Year	Results Status	#	Measure Name	Unit Savings Assumptions								LDC Specific Results						
						Gross Summer Peak Demand Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifetime Energy Savings (kWh)	Net Summer Peak Demand Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifetime Energy Savings (kWh)	Aggregate Net-to-Gross Adjustme nt (%)	Effective Useful Life (EUL)	Activity Results (#)	Gross Summer Peak Demand Savings (kW)	Gross Annual Energy Savings (kWh)	Gross Lifetime Energy Savings (kWh)	Net Summer Peak Demand Savings (kW)	Net Annual Energy Savings (kWh)	Net Lifetime Energy Savings (kWh)
Every Kilowatt Counts	Consumer	2006	Final	1	Energy Star® Compact Fluorescent Light Bulb - Spring Campaign	0.00	104.40	417.60	0.00	93.96	375.84	90.00	4.00	1474.57	0.00	153944.88	615779.52	0.00	138550.39	554201.57
Every Kilowatt Counts	Consumer	2006	Final	2	Electric Timers - Spring Campaign	0.00	183.00	3660.00	0.00	164.70	3294.00	90.00	20.00	41.34	0.00	7565.02	151300.35	0.00	6808.52	136170.32
Every Kilowatt Counts	Consumer	2006	Final	3	Programmable Thermostats - Spring Campaign	0.05	216.00	3240.00	0.05	194.40	2916.00	90.00	15.00	17.98	0.90	3884.12	58261.86	0.81	3495.71	52435.67
Every Kilowatt Counts	Consumer	2006	Final	4	Energy Star® Ceiling Fans - Spring Campaign	0.01	141.00	2820.00	0.01	126.90	2538.00	90.00	20.00	13.68	0.19	1928.79	38575.81	0.17	1735.91	34718.23
Every Kilowatt Counts	Consumer	2006	Final	5	Energy Star® Compact Fluorescent Light Bulb - Autumn Campaign	0.00	104.40	417.60	0.00	93.96	375.84	90.00	4.00	2186.35	0.00	228254.74	913018.94	0.00	205429.26	821717.05
Every Kilowatt Counts	Consumer	2006	Final	6	Seasonal Light Emitting Diode Light String - Autumn Campaign	0.00	30.75	922.50	0.00	27.68	830.25	90.00	30.00	526.25	0.00	16182.27	485468.20	0.00	14564.05	436921.38
Every Kilowatt Counts	Consumer	2006	Final	7	Programmable Thermostats - Autumn Campaign	0.12	522.09	9397.70	0.11	469.89	8457.93	90.00	18.00	34.69	4.08	18111.62	326009.12	3.68	16300.46	293408.21
Every Kilowatt Counts	Consumer	2006	Final	8	Dimmers - Autumn Campaign	0.00	139.00	1390.00	0.00	125.10	1251.00	90.00	10.00	27.43	0.00	3812.82	38128.18	0.00	3431.54	34315.36
Every Kilowatt Counts	Consumer	2006	Final	9	Indoor Motion Sensors - Autumn Campaign	0.00	209.00	4180.00	0.00	188.10	3762.00	90.00	20.00	9.84	0.00	2057.14	41142.70	0.00	1851.42	37028.43
Every Kilowatt Counts	Consumer	2006	Final	10	Programmable Baseboard Thermostats - Autumn Campaign	0.00	1466.30	26393.40	0.00	1319.67	23754.06	90.00	18.00	2.07	0.00	3029.71	54534.80	0.00	2726.74	49081.32

Net Energy Savings (MWh)

Initiative Name	Program	Program Year	Results Status	2006	2007	2008	2009	2010	2011
Every Kilowatt Counts	Consumer	2006	Final	395	395	395	395	51	51

ATTACHMENT E**LRAM & SSM Input Assumptions**

2005		2006		2007		2008		2009		2010		2011	
kWh	0.0166	kWh	0.0151	kWh	0.0152	kWh	0.0153	kWh	0.0135	kWh	0.0129	kWh	0.0127

Class	Free Rider Rate		Number of Units		Table Applied		Discount Factor		Technology Life		Unit kWh	Lifetime kWh	2006 LRAM	2007 LRAM	2008 LRAM	2009 LRAM	2010 LRAM	2011 LRAM
Program	LRAM	SSM	LRAM	SSM	LRAM	SSM	LRAM	SSM	LRAM	SSM	Savings	savings	\$	\$	\$	\$	\$	\$
Third Tranche																		
RESIDENTIAL																		
Lighten Your Electricity Bill																		
CFL 15W	10%		213		OPA	OEB	8.57%		8	4	43.2	345.6	\$ 129.19	\$ 125.60	\$ 126.43	\$ 116.77	\$ 108.49	\$ 105.73
LED Christmas Lights - 5W	5%		101		OPA	OEB	8.57%			30	57.0	1710	\$ 85.32	\$ 82.95	\$ 83.50	\$ 77.12	\$ 71.65	\$ 69.82
LED Christmas Lights - Mini Lights	5%		100		OPA	OEB	8.57%			30	7.2	216.504	\$ 10.70	\$ 10.40	\$ 10.47	\$ 9.67	\$ 8.98	\$ 8.75
Decorative Lighting Efficiency																		
LED Decorative Lighting 5W SLED - 2005	5%		42		OPA	OEB	8.57%			30	57.0	1710	\$ 35.48	\$ 34.49	\$ 34.72	\$ 32.07	\$ 29.79	\$ 29.04
LED Decorative Lighting 5W SLED - 2006	5%		60		OPA	OEB	8.13%			30	57.0	1710		\$ 49.28	\$ 49.60	\$ 45.81	\$ 42.56	\$ 41.48
Energy Crunch Conservation Kits																		
CFL 15W	10%		1,500		OPA	OEB	8.13%		8	4	43.2	345.6			\$ 890.35	\$ 822.31	\$ 763.99	\$ 744.55

1Tables

OEB: OEB Total Resource Cost Guide, Section 5, Assumptions and Measures List September 8, 2005 - File: cdm_assumptionsmeasureslist_08092005.xls

OPA: 2009 Mass Market Measures and Assumptions, V1.02 April 2009, Ontario Power Authority - 16080_V_1_02_2009_MA_List_-_MM_14Apr_2009.pdf

ATTACHMENT E
LRAM & SSM Input Assumptions

2005		2006		2007		2008		2009		2010		2011	
kWh	0.0166	kWh	0.0151	kWh	0.0152	kWh	0.0153	kWh	0.0135	kWh	0.0129	kWh	0.0127

Class Program	Free Rider Rate		Number of Units		Table Applied		Discount Factor		Technology Life		Unit kWh Savings	Lifetime kWh savings	2006 LRAM \$	2007 LRAM \$	2008 LRAM \$	2009 LRAM \$	2010 LRAM \$	2011 LRAM \$
	LRAM	SSM	LRAM	SSM	LRAM	SSM	LRAM	SSM	LRAM	SSM								
Third Tranche																		
RESIDENTIAL																		
Lighten Your Electricity Bill																		
CFL 15W	10%		213		OPA	OEB	8.57%		8	4		0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LED Christmas Lights - 5W	5%		101		OPA	OEB	8.57%			30		0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LED Christmas Lights - Mini Lights	5%		100		OPA	OEB	8.57%			30		0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Decorative Lighting Efficiency																		
LED Decorative Lighting 5W SLED - 2005	5%		42		OPA	OEB	8.57%			30		0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LED Decorative Lighting 5W SLED - 2006	5%		60		OPA	OEB	8.13%			30		0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Energy Crunch Conservation Kits																		
CFL 15W	10%		1,500		OPA	OEB	8.13%		8	4		0			\$ -	\$ -	\$ -	\$ -

1Tables

OEB: OEB Total Resource Cost Guide, Section 5, Assumptions and Measures List September 8, 2005 - File: cdm_assumptionsmeasureslist_08092005.xls

OPA: 2009 Mass Market Measures and Assumptions, V1.02 April 2009, Ontario Power Authority - 16080_V_1_02_2009_MA_List_-_MM_14Apr_2009.pdf

EXHIBIT – 6

APPENDIX A

Summary TRC data for Centre Wellington Hydro 2011 LRAM/SSM Claim.

©Burman Energy Consultants Group Inc. 2011.

Net Present Value_{TRC}

Utility

Name of Utility:	Centre Wellington Hydro
Number of years in study:	4

Project Description

Name of Project:	2005 Lighten Your Electricity Bill
Description:	15W CFL

- ☒ OEB Residential Table
- ☐ OEB Commercial Table
- ☐ OEB Industrial Table
- ☐ Direct Input

- ☐ k\$
- ☒ \$

User Inputs

Discount rate	8.57%	
Unit Annual Energy Savings	0	kW/unit
Number of Units Delivered	213	
Free Ridership Rate	10%	

Output

NPV (\$)	4,383.89
----------	----------

LDC Avoided Costs		Present	2006	2007	2008	2009
Avoided Energy			1,395.51	1,383.82	1,438.91	1,377.74
Avoided Generation Capacity			-	-	-	-
Avoided Transmission Capacity			-	-	-	-
Avoided Distribution Capacity			-	-	-	-
Avoided Distribution Losses			-	-	-	-
Other Avoided Costs						
Other Benefits						
Total (undiscounted) Avoided Costs		-	1,395.51	1,383.82	1,438.91	1,377.74
LDC Program Costs						
LDC OM&A Costs						
LDC Capital Costs						
Incremental Equipment Costs	(383.4)	-383.40				
Participant Costs						
Total Program Costs		-383.40	-	-	-	-
Total Avoided Costs less Program Costs		-383.40	1,395.51	1,383.82	1,438.91	1,377.74

		2006	2007	2008	2009
Present value factor	8.6%	1.000	0.960	0.884	0.814
Present value of cash flows		-383.40	1,339.31	1,223.25	1,171.55
Accumulated present value of cash flows		-383.40	955.91	2,179.15	3,350.70

NPV TRC

4,383.89

Net Present Value_{TRC}

Utility

Name of Utility:	Centre Wellington Hydro
Number of years in study:	30

Project Description

Name of Project:	2005 Lighten Your Electricity Bill
Description:	SLED 5W

- ☒ OEB Residential Table
- ☐ OEB Commercial Table
- ☐ OEB Industrial Table
- ☐ Direct Input

- ☐ k\$
- ☒ \$

User Inputs

Discount rate	8.57%	
Unit Annual Energy Savings	0	kW/unit
Number of Units Delivered	101	
Free Ridership Rate	5%	

Output

NPV (\$)	1,615.32
----------	----------

LDC Avoided Costs		Present	2006	2007	2008	2009
Avoided Energy			137.00	139.03	138.29	132.88
Avoided Generation Capacity			-	-	-	-
Avoided Transmission Capacity			-	-	-	-
Avoided Distribution Capacity			-	-	-	-
Avoided Distribution Losses			-	-	-	-
Other Avoided Costs						
Other Benefits						
Total (undiscounted) Avoided Costs		-	137.00	139.03	138.29	132.88
LDC Program Costs						
LDC OM&A Costs						
LDC Capital Costs						
Incremental Equipment Costs	(191.9)	-191.90				
Participant Costs						
Total Program Costs		-191.90	-	-	-	-
Total Avoided Costs less Program Costs		-191.90	137.00	139.03	138.29	132.88

		2006	2007	2008	2009
Present value factor	8.6%	1.000	0.960	0.884	0.814
Present value of cash flows		-191.90	131.48	122.90	112.59
Accumulated present value of cash flows		-191.90	-60.42	62.48	175.07

NPV TRC

1,615.32

Net Present Value_{TRC}

Utility

Name of Utility:
Number of years in study:

Project Description

Name of Project:
Description:

<input checked="" type="radio"/> OEB Residential Table
<input type="radio"/> OEB Commercial Table
<input type="radio"/> OEB Industrial Table
<input type="radio"/> Direct Input

<input type="radio"/> k\$
<input checked="" type="radio"/> \$

User Inputs

Discount rate
Unit Annual Energy Savings
Number of Units Delivered
Free Ridership Rate

LDC Avoided Costs	2010	2011	2012	2013	2014
Avoided Energy	136.75	135.46	137.78	153.41	158.48
Avoided Generation Capacity	-	-	-	-	-
Avoided Transmission Capacity	-	-	-	-	-
Avoided Distribution Capacity	-	-	-	-	-
Avoided Distribution Losses	-	-	-	-	-
Other Avoided Costs					
Other Benefits					
Total (undiscounted) Avoided Costs	136.75	135.46	137.78	153.41	158.48
LDC Program Costs					
LDC OM&A Costs					
LDC Capital Costs					
Incremental Equipment Costs					
Participant Costs					
Total Program Costs	-	-	-	-	-
Total Avoided Costs less Program Costs	136.75	135.46	137.78	153.41	158.48

	2010	2011	2012	2013	2014
Present value factor	0.691	0.636	0.586	0.540	0.497
Present value of cash flows	94.46	86.18	80.74	82.80	78.78
Accumulated present value of cash flows	369.17	455.35	536.09	618.89	697.67

NPV TRC

Net Present Value_{TRC}

Utility

Name of Utility:	Centre Wellington Hydro
Number of years in study:	30

Project Description

Name of Project:	2005 Lighten Your Electricity Bill
Description:	SLED Mini Watt

- ☒ OEB Residential Table
- ☐ OEB Commercial Table
- ☐ OEB Industrial Table
- ☐ Direct Input

- ☐ k\$
- ☒ \$

User Inputs

Discount rate	8.57%	
Unit Annual Energy Savings	0	kW/unit
Number of Units Delivered	100	
Free Ridership Rate	5%	

Output

NPV (\$)	494.80
----------	--------

LDC Avoided Costs		Present	2006	2007	2008	2009
Avoided Energy			51.91	52.68	52.40	50.35
Avoided Generation Capacity			-	-	-	-
Avoided Transmission Capacity			-	-	-	-
Avoided Distribution Capacity			-	-	-	-
Avoided Distribution Losses			-	-	-	-
Other Avoided Costs						
Other Benefits						
Total (undiscounted) Avoided Costs		-	51.91	52.68	52.40	50.35
LDC Program Costs						
LDC OM&A Costs						
LDC Capital Costs						
Incremental Equipment Costs	(190.0)	-190.00				
Participant Costs						
Total Program Costs		-190.00	-	-	-	-
Total Avoided Costs less Program Costs		-190.00	51.91	52.68	52.40	50.35

		2006	2007	2008	2009
Present value factor	8.6%	1.000	0.960	0.884	0.814
Present value of cash flows		-190.00	49.82	46.57	42.66
Accumulated present value of cash flows		-190.00	-140.18	-93.61	-50.95

NPV TRC

494.80

Net Present Value_{TRC}**Utility**

Name of Utility:
Number of years in study:

Project Description

Name of Project:
Description:

- ☒ OEB Residential Table
☐ OEB Commercial Table
☐ OEB Industrial Table
☐ Direct Input

☐ k\$
☒ \$

User Inputs

	Discount rate				
	Unit Annual Energy Savings				
	Number of Units Delivered				
	Free Ridership Rate				
LDC Avoided Costs	2010	2011	2012	2013	2014
Avoided Energy	51.82	51.33	52.21	58.13	60.05
Avoided Generation Capacity	-	-	-	-	-
Avoided Transmission Capacity	-	-	-	-	-
Avoided Distribution Capacity	-	-	-	-	-
Avoided Distribution Losses	-	-	-	-	-
Other Avoided Costs					
Other Benefits					
Total (undiscounted) Avoided Costs	51.82	51.33	52.21	58.13	60.05
LDC Program Costs					
LDC OM&A Costs					
LDC Capital Costs					
Incremental Equipment Costs					
Participant Costs					
Total Program Costs	-	-	-	-	-
Total Avoided Costs less Program Costs	51.82	51.33	52.21	58.13	60.05

	2010	2011	2012	2013	2014
Present value factor	0.691	0.636	0.586	0.540	0.497
Present value of cash flows	35.79	32.66	30.59	31.38	29.85
Accumulated present value of cash flows	22.60	55.26	85.85	117.23	147.08

NPV TRC

Net Present Value_{TRC}

Utility

Name of Utility:	Centre Wellington Hydro
Number of years in study:	18

Project Description

Name of Project:	2005 Lighten Your Electricity Bill
Description:	Pstat - Space Cooling

- ☒ OEB Residential Table
- ☐ OEB Commercial Table
- ☐ OEB Industrial Table
- ☐ Direct Input

- ☐ k\$
- ☒ \$

User Inputs

Discount rate	8.57%	
Unit Annual Energy Savings	0	kW/unit
Number of Units Delivered	31	
Free Ridership Rate	10%	

Output

NPV (\$)	3,994.20
----------	----------

LDC Avoided Costs		Present	2006	2007	2008	2009
Avoided Energy			302.81	295.63	310.00	294.16
Avoided Generation Capacity			-	-	339.48	380.04
Avoided Transmission Capacity			-	-	25.56	26.19
Avoided Distribution Capacity			-	-	-	32.63
Avoided Distribution Losses			-	-	-	-
Other Avoided Costs						
Other Benefits						
Total (undiscounted) Avoided Costs		-	302.81	295.63	675.03	733.02
LDC Program Costs						
LDC OM&A Costs						
LDC Capital Costs						
Incremental Equipment Costs	(1,674.0)	-1,674.00				
Participant Costs						
Total Program Costs		-1,674.00	-	-	-	-
Total Avoided Costs less Program Costs		-1,674.00	302.81	295.63	675.03	733.02

		2006	2007	2008	2009	
Present value factor	8.6%	1.000	0.960	0.884	0.814	0.750
Present value of cash flows		-1,674.00	290.62	261.33	549.61	549.71
Accumulated present value of cash flows		-1,674.00	-1,383.38	-1,122.06	-572.45	-22.74

NPV TRC

3,994.20

Net Present Value_{TRC}

Utility

Name of Utility:	
Number of years in study:	

Project Description

Name of Project:	
Description:	

- ☒ OEB Residential Table
- ☐ OEB Commercial Table
- ☐ OEB Industrial Table
- ☐ Direct Input

- ☐ k\$
- ☒ \$

User Inputs

Discount rate
Unit Annual Energy Savings
Number of Units Delivered
Free Ridership Rate

LDC Avoided Costs	2010	2011	2012	2013	2014
Avoided Energy	298.80	297.48	315.87	333.72	355.59
Avoided Generation Capacity	325.11	388.45	369.26	280.13	212.05
Avoided Transmission Capacity	26.83	27.51	28.20	28.92	29.65
Avoided Distribution Capacity	33.44	34.28	35.14	36.02	36.92
Avoided Distribution Losses	-	-	-	-	-
Other Avoided Costs					
Other Benefits					
Total (undiscounted) Avoided Costs	684.18	747.73	748.47	678.79	634.21
LDC Program Costs					
LDC OM&A Costs					
LDC Capital Costs					
Incremental Equipment Costs					
Participant Costs					
Total Program Costs	-	-	-	-	-
Total Avoided Costs less Program Costs	684.18	747.73	748.47	678.79	634.21

	2010	2011	2012	2013	2014
Present value factor	0.691	0.636	0.586	0.540	0.497
Present value of cash flows	472.58	475.71	438.59	366.36	315.28
Accumulated present value of cash flows	449.84	925.54	1,364.13	1,730.50	2,045.78

NPV TRC

Net Present Value_{TRC}

Utility

Name of Utility:	Centre Wellington Hydro
Number of years in study:	18

Project Description

Name of Project:	2005 Lighten Your Electricity Bill
Description:	Pstat - Space Heating

- ☒ OEB Residential Table
- ☐ OEB Commercial Table
- ☐ OEB Industrial Table
- ☐ Direct Input

- ☐ k\$
- ☒ \$

User Inputs

Discount rate	8.57%	
Unit Annual Energy Savings	0	kW/unit
Number of Units Delivered	12	
Free Ridership Rate	10%	

Output

NPV (\$)	10,753.78
----------	-----------

LDC Avoided Costs		Present	2006	2007	2008	2009
Avoided Energy			1,062.25	1,059.33	1,100.49	1,053.36
Avoided Generation Capacity			-	-	-	-
Avoided Transmission Capacity			-	-	-	-
Avoided Distribution Capacity			-	-	-	-
Avoided Distribution Losses			-	-	-	-
Other Avoided Costs						
Other Benefits						
Total (undiscounted) Avoided Costs		-	1,062.25	1,059.33	1,100.49	1,053.36
LDC Program Costs						
LDC OM&A Costs						
LDC Capital Costs						
Incremental Equipment Costs	(648.0)	-648.00				
Participant Costs						
Total Program Costs		-648.00	-	-	-	-
Total Avoided Costs less Program Costs		-648.00	1,062.25	1,059.33	1,100.49	1,053.36

		2006	2007	2008	2009	
Present value factor	8.6%	1.000	0.960	0.884	0.814	0.750
Present value of cash flows		-648.00	1,019.46	936.41	896.01	789.94
Accumulated present value of cash flows		-648.00	371.46	1,307.87	2,203.88	2,993.82

NPV TRC	10,753.78
----------------	------------------

Net Present Value_{TRC}

Utility

Name of Utility:
Number of years in study:

Project Description

Name of Project:
Description:

- ☒ OEB Residential Table
- ☐ OEB Commercial Table
- ☐ OEB Industrial Table
- ☐ Direct Input

- ☐ k\$
- ☒ \$

User Inputs

Discount rate
Unit Annual Energy Savings
Number of Units Delivered
Free Ridership Rate

LDC Avoided Costs	2010	2011	2012	2013	2014
Avoided Energy	1,070.89	1,067.43	1,104.02	1,210.82	1,266.34
Avoided Generation Capacity	-	-	-	-	-
Avoided Transmission Capacity	-	-	-	-	-
Avoided Distribution Capacity	-	-	-	-	-
Avoided Distribution Losses	-	-	-	-	-
Other Avoided Costs					
Other Benefits					
Total (undiscounted) Avoided Costs	1,070.89	1,067.43	1,104.02	1,210.82	1,266.34
LDC Program Costs					
LDC OM&A Costs					
LDC Capital Costs					
Incremental Equipment Costs					
Participant Costs					
Total Program Costs	-	-	-	-	-
Total Avoided Costs less Program Costs	1,070.89	1,067.43	1,104.02	1,210.82	1,266.34

	2010	2011	2012	2013	2014
Present value factor	0.691	0.636	0.586	0.540	0.497
Present value of cash flows	739.69	679.10	646.94	653.51	629.53
Accumulated present value of cash flows	3,733.51	4,412.61	5,059.55	5,713.06	6,342.59

NPV TRC

Net Present Value_{TRC}

Utility

Name of Utility:	Centre Wellington Hydro
Number of years in study:	20

Project Description

Name of Project:	2005 Lighten Your Electricity Bill
Description:	Timer - Outdoor - Light

- ☒ OEB Residential Table
- ☐ OEB Commercial Table
- ☐ OEB Industrial Table
- ☐ Direct Input

- ☐ k\$
- ☒ \$

User Inputs

Discount rate	8.57%	
Unit Annual Energy Savings	0	kW/unit
Number of Units Delivered	17	
Free Ridership Rate	10%	

Output

NPV (\$)	3,209.77
----------	----------

LDC Avoided Costs		Present	2006	2007	2008	2009
Avoided Energy			311.52	308.91	321.21	307.55
Avoided Generation Capacity			-	-	-	-
Avoided Transmission Capacity			-	-	-	-
Avoided Distribution Capacity			-	-	-	-
Avoided Distribution Losses			-	-	-	-
Other Avoided Costs						
Other Benefits						
Total (undiscounted) Avoided Costs		-	311.52	308.91	321.21	307.55
LDC Program Costs						
LDC OM&A Costs						
LDC Capital Costs						
Incremental Equipment Costs	(306.0)	-306.00				
Participant Costs						
Total Program Costs		-306.00	-	-	-	-
Total Avoided Costs less Program Costs		-306.00	311.52	308.91	321.21	307.55

		2006	2007	2008	2009	
Present value factor	8.6%	1.000	0.960	0.884	0.814	0.750
Present value of cash flows		-306.00	298.97	273.06	261.52	230.64
Accumulated present value of cash flows		-306.00	-7.03	266.04	527.56	758.20

NPV TRC	3,209.77
----------------	-----------------

Net Present Value_{TRC}

Utility

Name of Utility:
Number of years in study:

Project Description

Name of Project:
Description:

<input checked="" type="radio"/> OEB Residential Table
<input type="radio"/> OEB Commercial Table
<input type="radio"/> OEB Industrial Table
<input type="radio"/> Direct Input

<input type="radio"/> k\$
<input checked="" type="radio"/> \$

User Inputs

Discount rate
Unit Annual Energy Savings
Number of Units Delivered
Free Ridership Rate

LDC Avoided Costs	2010	2011	2012	2013	2014
Avoided Energy	310.64	309.74	322.37	350.21	366.10
Avoided Generation Capacity	-	-	-	-	-
Avoided Transmission Capacity	-	-	-	-	-
Avoided Distribution Capacity	-	-	-	-	-
Avoided Distribution Losses	-	-	-	-	-
Other Avoided Costs					
Other Benefits					
Total (undiscounted) Avoided Costs	310.64	309.74	322.37	350.21	366.10
LDC Program Costs					
LDC OM&A Costs					
LDC Capital Costs					
Incremental Equipment Costs					
Participant Costs					
Total Program Costs	-	-	-	-	-
Total Avoided Costs less Program Costs	310.64	309.74	322.37	350.21	366.10

	2010	2011	2012	2013	2014
Present value factor	0.691	0.636	0.586	0.540	0.497
Present value of cash flows	214.57	197.06	188.90	189.02	182.00
Accumulated present value of cash flows	972.77	1,169.83	1,358.73	1,547.75	1,729.74

NPV TRC

Net Present Value_{TRC}

Utility

Name of Utility:	Centre Wellington Hydro
Number of years in study:	30

Project Description

Name of Project:	Decorative Lighting
Description:	5W SLED

- ☒ OEB Residential Table
- ☐ OEB Commercial Table
- ☐ OEB Industrial Table
- ☐ Direct Input

- ☐ k\$
- ☒ \$

User Inputs

Discount rate	8.57%	
Unit Annual Energy Savings	0	kW/unit
Number of Units Delivered	42	
Free Ridership Rate	5%	

Output

NPV (\$)	671.72
----------	--------

LDC Avoided Costs		Present	2006	2007	2008	2009
Avoided Energy			56.97	57.81	57.50	55.26
Avoided Generation Capacity			-	-	-	-
Avoided Transmission Capacity			-	-	-	-
Avoided Distribution Capacity			-	-	-	-
Avoided Distribution Losses			-	-	-	-
Other Avoided Costs						
Other Benefits						
Total (undiscounted) Avoided Costs		-	56.97	57.81	57.50	55.26
LDC Program Costs						
LDC OM&A Costs						
LDC Capital Costs						
Incremental Equipment Costs	(79.8)	-79.80				
Participant Costs						
Total Program Costs		-79.80	-	-	-	-
Total Avoided Costs less Program Costs		-79.80	56.97	57.81	57.50	55.26

		2006	2007	2008	2009
Present value factor	8.6%	1.000	0.960	0.884	0.814
Present value of cash flows		-79.80	54.68	51.11	46.82
Accumulated present value of cash flows		-79.80	-25.12	25.98	72.80

NPV TRC

671.72

Net Present Value_{TRC}**Utility**

Name of Utility:
Number of years in study:

Project Description

Name of Project:
Description:

- ☒ OEB Residential Table
- ☐ OEB Commercial Table
- ☐ OEB Industrial Table
- ☐ Direct Input

- ☐ k\$
- ☒ \$

User Inputs

Discount rate
Unit Annual Energy Savings
Number of Units Delivered
Free Ridership Rate

LDC Avoided Costs	2010	2011	2012	2013	2014
Avoided Energy	56.87	56.33	57.29	63.79	65.90
Avoided Generation Capacity	-	-	-	-	-
Avoided Transmission Capacity	-	-	-	-	-
Avoided Distribution Capacity	-	-	-	-	-
Avoided Distribution Losses	-	-	-	-	-
Other Avoided Costs					
Other Benefits					
Total (undiscounted) Avoided Costs	56.87	56.33	57.29	63.79	65.90
LDC Program Costs					
LDC OM&A Costs					
LDC Capital Costs					
Incremental Equipment Costs					
Participant Costs					
Total Program Costs	-	-	-	-	-
Total Avoided Costs less Program Costs	56.87	56.33	57.29	63.79	65.90

	2010	2011	2012	2013	2014
Present value factor	0.691	0.636	0.586	0.540	0.497
Present value of cash flows	39.28	35.84	33.57	34.43	32.76
Accumulated present value of cash flows	153.52	189.35	222.93	257.36	290.12

NPV TRC

Net Present Value_{TRC}

Utility

Name of Utility:	Centre Wellington Hydro
Number of years in study:	30

Project Description

Name of Project:	Decorative Lighting
Description:	5W SLEDs

- ☒ OEB Residential Table
- ☐ OEB Commercial Table
- ☐ OEB Industrial Table
- ☐ Direct Input

- ☐ k\$
- ☒ \$

User Inputs

Discount rate	8.13%	
Unit Annual Energy Savings	0	kW/unit
Number of Units Delivered	60	
Free Ridership Rate	5%	

Output

NPV (\$)	1,026.77
----------	----------

LDC Avoided Costs		Present	2007	2008	2009	2010
Avoided Energy			82.59	82.15	78.94	81.24
Avoided Generation Capacity			-	-	-	-
Avoided Transmission Capacity			-	-	-	-
Avoided Distribution Capacity			-	-	-	-
Avoided Distribution Losses			-	-	-	-
Other Avoided Costs						
Other Benefits						
Total (undiscounted) Avoided Costs		-	82.59	82.15	78.94	81.24
LDC Program Costs						
LDC OM&A Costs						
LDC Capital Costs						
Incremental Equipment Costs	(114.0)	-114.00				
Participant Costs						
Total Program Costs		-114.00	-	-	-	-
Total Avoided Costs less Program Costs		-114.00	82.59	82.15	78.94	81.24

		2007	2008	2009	2010	
Present value factor	8.1%	1.000	0.962	0.889	0.822	0.761
Present value of cash flows		-114.00	79.42	73.06	64.92	61.79
Accumulated present value of cash flows		-114.00	-34.58	38.49	103.41	165.20

NPV TRC

1,026.77

Net Present Value_{TRC}

Utility

Name of Utility:
Number of years in study:

Project Description

Name of Project:
Description:

- ☒ OEB Residential Table
- ☐ OEB Commercial Table
- ☐ OEB Industrial Table
- ☐ Direct Input

- ☐ k\$
- ☒ \$

User Inputs

Discount rate
Unit Annual Energy Savings
Number of Units Delivered
Free Ridership Rate

LDC Avoided Costs	2011	2012	2013	2014	2015
Avoided Energy	80.47	81.85	91.14	94.15	98.84
Avoided Generation Capacity	-	-	-	-	-
Avoided Transmission Capacity	-	-	-	-	-
Avoided Distribution Capacity	-	-	-	-	-
Avoided Distribution Losses	-	-	-	-	-
Other Avoided Costs					
Other Benefits					
Total (undiscounted) Avoided Costs	80.47	81.85	91.14	94.15	98.84
LDC Program Costs					
LDC OM&A Costs					
LDC Capital Costs					
Incremental Equipment Costs					
Participant Costs					
Total Program Costs	-	-	-	-	-
Total Avoided Costs less Program Costs	80.47	81.85	91.14	94.15	98.84

	2011	2012	2013	2014	2015
Present value factor	0.703	0.651	0.602	0.556	0.515
Present value of cash flows	56.61	53.25	54.83	52.38	50.86
Accumulated present value of cash flows	221.81	275.06	329.89	382.28	433.14

NPV TRC

Net Present Value_{TRC}

Utility

Name of Utility:	Centre Wellington Hydro
Number of years in study:	4

Project Description

Name of Project:	Energy Crunch Conservation Kit
Description:	15W CFL

- ☒ OEB Residential Table
- ☐ OEB Commercial Table
- ☐ OEB Industrial Table
- ☐ Direct Input

- ☐ k\$
- ☒ \$

User Inputs

Discount rate	8.13%	
Unit Annual Energy Savings	0	kW/unit
Number of Units Delivered	1500	
Free Ridership Rate	10%	

Output

NPV (\$)	31,166.77
----------	-----------

LDC Avoided Costs		Present	2008	2009	2010	2011
Avoided Energy			10,133.19	9,702.36	9,799.75	9,771.50
Avoided Generation Capacity			-	-	-	-
Avoided Transmission Capacity			-	-	-	-
Avoided Distribution Capacity			-	-	-	-
Avoided Distribution Losses			-	-	-	-
Other Avoided Costs						
Other Benefits						
Total (undiscounted) Avoided Costs		-	10,133.19	9,702.36	9,799.75	9,771.50
LDC Program Costs						
LDC OM&A Costs						
LDC Capital Costs						
Incremental Equipment Costs	(2,700.0)	-2,700.00				
Participant Costs						
Total Program Costs		-2,700.00	-	-	-	-
Total Avoided Costs less Program Costs		-2,700.00	10,133.19	9,702.36	9,799.75	9,771.50

		2008	2009	2010	2011	
Present value factor	8.1%	1.000	0.962	0.889	0.822	0.761
Present value of cash flows		-2,700.00	9,744.80	8,628.96	8,060.27	7,432.75
Accumulated present value of cash flows		-2,700.00	7,044.80	15,673.76	23,734.03	31,166.77

NPV TRC

31,166.77

Net Present Value_{TRC}

Utility

Name of Utility:	Centre Wellington Hydro
Number of years in study:	25

Project Description

Name of Project:	Low Income Housing
Description:	Below R 32 to R32 in Attic

- ☒ OEB Residential Table
- ☐ OEB Commercial Table
- ☐ OEB Industrial Table
- ☐ Direct Input

- ☐ k\$
- ☒ \$

User Inputs

Discount rate	8.13%	
Unit Annual Energy Savings	0	kW/unit
Number of Units Delivered	1	
Free Ridership Rate	10%	

Output

NPV (\$)	131.31
----------	--------

LDC Avoided Costs		Present	2008	2009	2010	2011
Avoided Energy			84.93	81.29	82.65	82.38
Avoided Generation Capacity			-	-	-	-
Avoided Transmission Capacity			-	-	-	-
Avoided Distribution Capacity			-	-	-	-
Avoided Distribution Losses			-	-	-	-
Other Avoided Costs						
Other Benefits						
Total (undiscounted) Avoided Costs		-	84.93	81.29	82.65	82.38
LDC Program Costs						
LDC OM&A Costs						
LDC Capital Costs						
Incremental Equipment Costs	(993.6)	-993.60				
Participant Costs						
Total Program Costs		-993.60	-	-	-	-
Total Avoided Costs less Program Costs		-993.60	84.93	81.29	82.65	82.38

		2008	2009	2010	2011	
Present value factor	8.1%	1.000	0.962	0.889	0.822	0.761
Present value of cash flows		-993.60	81.68	72.30	67.98	62.66
Accumulated present value of cash flows		-993.60	-911.92	-839.62	-771.65	-708.98

NPV TRC

131.31

Net Present Value_{TRC}

Utility

Name of Utility:
Number of years in study:

Project Description

Name of Project:
Description:

- ☒ OEB Residential Table
- ☐ OEB Commercial Table
- ☐ OEB Industrial Table
- ☐ Direct Input

- ☐ k\$
- ☒ \$

User Inputs

Discount rate
Unit Annual Energy Savings
Number of Units Delivered
Free Ridership Rate

LDC Avoided Costs	2012	2013	2014	2015	2016
Avoided Energy	85.20	93.45	97.73	103.49	105.96
Avoided Generation Capacity	-	-	-	-	-
Avoided Transmission Capacity	-	-	-	-	-
Avoided Distribution Capacity	-	-	-	-	-
Avoided Distribution Losses	-	-	-	-	-
Other Avoided Costs					
Other Benefits					
Total (undiscounted) Avoided Costs	85.20	93.45	97.73	103.49	105.96
LDC Program Costs					
LDC OM&A Costs					
LDC Capital Costs					
Incremental Equipment Costs					
Participant Costs					
Total Program Costs	-	-	-	-	-
Total Avoided Costs less Program Costs	85.20	93.45	97.73	103.49	105.96

	2012	2013	2014	2015	2016
Present value factor	0.703	0.651	0.602	0.556	0.515
Present value of cash flows	59.94	60.79	58.80	57.59	54.52
Accumulated present value of cash flows	-649.05	-588.25	-529.45	-471.87	-417.34

NPV TRC

Net Present Value_{TRC}

Utility

Name of Utility:	Centre Wellington Hydro
Number of years in study:	20

Project Description

Name of Project:	Low Income Housing
Description:	R-32 in Attic

- ☒ OEB Residential Table
- ☐ OEB Commercial Table
- ☐ OEB Industrial Table
- ☐ Direct Input

- ☐ k\$
- ☒ \$

User Inputs

Discount rate	8.13%	
Unit Annual Energy Savings	0	kW/unit
Number of Units Delivered	1	
Free Ridership Rate	10%	

Output

NPV (\$)	-466.14
----------	---------

LDC Avoided Costs		Present	2008	2009	2010	2011
Avoided Energy			84.93	81.29	82.65	82.38
Avoided Generation Capacity			-	-	-	-
Avoided Transmission Capacity			-	-	-	-
Avoided Distribution Capacity			-	-	-	-
Avoided Distribution Losses			-	-	-	-
Other Avoided Costs						
Other Benefits						
Total (undiscounted) Avoided Costs		-	84.93	81.29	82.65	82.38
LDC Program Costs						
LDC OM&A Costs						
LDC Capital Costs						
Incremental Equipment Costs	(1,477.8)	-1,477.80				
Participant Costs						
Total Program Costs		-1,477.80	-	-	-	-
Total Avoided Costs less Program Costs		-1,477.80	84.93	81.29	82.65	82.38

		2008	2009	2010	2011	
Present value factor	8.1%	1.000	0.962	0.889	0.822	0.761
Present value of cash flows		-1,477.80	81.68	72.30	67.98	62.66
Accumulated present value of cash flows		-1,477.80	-1,396.12	-1,323.82	-1,255.85	-1,193.18

NPV TRC

-466.14

Net Present Value_{TRC}

Utility

Name of Utility:
Number of years in study:

Project Description

Name of Project:
Description:

<input checked="" type="radio"/> OEB Residential Table
<input type="radio"/> OEB Commercial Table
<input type="radio"/> OEB Industrial Table
<input type="radio"/> Direct Input

<input type="radio"/> k\$
<input checked="" type="radio"/> \$

User Inputs

Discount rate
Unit Annual Energy Savings
Number of Units Delivered
Free Ridership Rate

LDC Avoided Costs	2012	2013	2014	2015	2016
Avoided Energy	85.20	93.45	97.73	103.49	105.96
Avoided Generation Capacity	-	-	-	-	-
Avoided Transmission Capacity	-	-	-	-	-
Avoided Distribution Capacity	-	-	-	-	-
Avoided Distribution Losses	-	-	-	-	-
Other Avoided Costs					
Other Benefits					
Total (undiscounted) Avoided Costs	85.20	93.45	97.73	103.49	105.96
LDC Program Costs					
LDC OM&A Costs					
LDC Capital Costs					
Incremental Equipment Costs					
Participant Costs					
Total Program Costs	-	-	-	-	-
Total Avoided Costs less Program Costs	85.20	93.45	97.73	103.49	105.96

	2012	2013	2014	2015	2016
Present value factor	0.703	0.651	0.602	0.556	0.515
Present value of cash flows	59.94	60.79	58.80	57.59	54.52
Accumulated present value of cash flows	-1,133.25	-1,072.45	-1,013.65	-956.07	-901.54

NPV TRC

Net Present Value_{TRC}

Utility

Name of Utility:	Centre Wellington Hydro
Number of years in study:	19

Project Description

Name of Project:	Low Income Housing
Description:	Energy Star Fridge

- ☒ OEB Residential Table
- ☐ OEB Commercial Table
- ☐ OEB Industrial Table
- ☐ Direct Input

- ☐ k\$
- ☒ \$

User Inputs

Discount rate	8.13%	
Unit Annual Energy Savings	0	kW/unit
Number of Units Delivered	1	
Free Ridership Rate	10%	

Output

NPV (\$)	0.60
----------	------

LDC Avoided Costs		Present	2008	2009	2010	2011
Avoided Energy			4.59	4.38	4.43	4.41
Avoided Generation Capacity			1.13	1.26	1.08	1.29
Avoided Transmission Capacity			0.08	0.09	0.09	0.09
Avoided Distribution Capacity			-	0.11	0.11	0.11
Avoided Distribution Losses			-	-	-	-
Other Avoided Costs						
Other Benefits						
Total (undiscounted) Avoided Costs		-	5.80	5.84	5.71	5.91
LDC Program Costs						
LDC OM&A Costs						
LDC Capital Costs						
Incremental Equipment Costs	(63.0)	-63.00				
Participant Costs						
Total Program Costs		-63.00	-	-	-	-
Total Avoided Costs less Program Costs		-63.00	5.80	5.84	5.71	5.91

		2008	2009	2010	2011	
Present value factor	8.1%	1.000	0.962	0.889	0.822	0.761
Present value of cash flows		-63.00	5.58	5.19	4.69	4.50
Accumulated present value of cash flows		-63.00	-57.42	-52.23	-47.54	-43.04

NPV TRC

0.60

Net Present Value_{TRC}

Utility

Name of Utility:
Number of years in study:

Project Description

Name of Project:
Description:

- ☒ OEB Residential Table
- ☐ OEB Commercial Table
- ☐ OEB Industrial Table
- ☐ Direct Input

- ☐ k\$
- ☒ \$

User Inputs

Discount rate
Unit Annual Energy Savings
Number of Units Delivered
Free Ridership Rate

LDC Avoided Costs	2012	2013	2014	2015	2016
Avoided Energy	4.63	4.99	5.27	5.70	5.81
Avoided Generation Capacity	1.23	0.93	0.70	0.35	0.41
Avoided Transmission Capacity	0.09	0.10	0.10	0.10	0.10
Avoided Distribution Capacity	0.12	0.12	0.12	0.13	0.13
Avoided Distribution Losses	-	-	-	-	-
Other Avoided Costs					
Other Benefits					
Total (undiscounted) Avoided Costs	6.07	6.14	6.19	6.28	6.45
LDC Program Costs					
LDC OM&A Costs					
LDC Capital Costs					
Incremental Equipment Costs					
Participant Costs					
Total Program Costs	-	-	-	-	-
Total Avoided Costs less Program Costs	6.07	6.14	6.19	6.28	6.45

	2012	2013	2014	2015	2016
Present value factor	0.703	0.651	0.602	0.556	0.515
Present value of cash flows	4.27	3.99	3.72	3.49	3.32
Accumulated present value of cash flows	-38.77	-34.78	-31.05	-27.56	-24.24

NPV TRC