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

AND IN THE MATTER OF an application for recovery of amounts related to Conservation and Demand Management activities.

TORONTO HYDRO-ELECTRIC SYSTEM LIMITED

APPLICATION FOR APPROVAL AND RECOVERY OF AMOUNTS RELATED TO CDM IN 2009 RATES

MANAGER'S SUMMARY

OEB File No. EB-2008-XXXX
Filed: December 15, 2008

MANAGER'S SUMMARY

1. Introduction

Toronto Hydro-Electric System Limited ("THESL") herewith submits an application ("Application") to the Ontario Energy Board ("OEB" or "Board") for the approval and recovery of historical Lost Revenue Adjustment Mechanism ("LRAM") and Shared Savings Mechanism ("SSM") amounts related to new and ongoing Conservation and Demand Management ("CDM") activities in 2007, to be recovered by way of a rate rider effective for the 2009 rate year over a 12-month period commencing May 1, 2009.

On a combined basis, the proposals set out in this Application would result in a 0.45% total bill increase ($0.49 per month) for residential customers consuming 1,000 kilowatt-hours per month.

1.1. LRAM and SSM Amounts

All of the CDM programs for which SSM amounts are sought were undertaken in connection with THESL's Third Tranche CDM spending obligations in the 2007 calendar year. No SSM amount is sought in relation to the activities of other parties. The total SSM amount sought for recovery is $586,011.

The requested LRAM relief is composed of the 2007 calendar year savings resulting from:

1. Third Tranche CDM programs implemented in 2005 and 2006;
2. New Third Tranche CDM programs implemented in 2007;
3. Ontario Power Authority ("OPA") CDM programs implemented in 2007.

None of the load reductions produced were factored in to the load forecast underpinning 2006 and 2007 rates. Therefore, THESL proposes for recovery the LRAM amounts related to the entire load reductions, net of free rider quantities.

The total LRAM amount sought from Third Tranche programs is $1,837,481 for 2005 and 2006 initiatives, and $143,134 for 2007 initiatives. The LRAM amount resulting from OPA Programs is $923,196. Combined carrying charges amount to $212,414. The total requested recovery related to all CDM activities for the 2007 calendar year is therefore $3,702,235.

1.2. Additional LRAM Recovery

THESL also intends to request LRAM for savings related to OPA programs implemented by third parties within THESL's service territory. This LRAM component, however, is not part of this application, and THESL intends to file for its recovery at a later date.

1.3. Authorization for LRAM/SSM Recovery

The authorization to file an application seeking recovery of LRAM and SSM amounts is found in its most recent form in the Board's EB-2008-0037 Guidelines for Electricity Distributor Conservation and Demand Management ("CDM Guidelines"). In preparing this Application, THESL has relied on and conformed to these guidelines.

2. Summary of Application – LRAM and SSM Amounts

THESL seeks authorization for the recovery of the LRAM and SSM amounts by way of volumetric rate riders effective for the 2009 rate year over a period of 12 months commencing May 1, 2009. The total LRAM amount, including carrying charges, is $3,116,225. The total SSM amount, is $586,011. Table 1 sets out the LRAM and SSM amounts by class, as well as the corresponding rate riders.

Table 1
LRAM and SSM Amounts and Rate Riders by Class

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11	Col. 12
1	Rate Class	Amounts								Rate Riders		
2		LRAM - 05/06 OEB Programs	LRAM - 2007 OEB Programs	LRAM - 2007 OPA Programs	LRAM - Carrying Costs	LRAM TOTAL	SSM TOTAL	Billing Units		LRAM	SSM	Total
3		$	$	$	$	$	$			$/unit (kWh or kVA)	$/unit (kWh or kVA)	$/unit (kWh or kVA)
4	Residential	1,565,947	74,180	438,986	152,087	2,231,200	308,393	5,193,268,381	kWh	0.00043	0.00006	0.00049
5	GS < 50 kW	15,069	6,181	166,748	13,752	201,750	60,753	2,505,206,926	kWh	0.00008	0.00002	0.00010
6	GS 50 - 1000 kW (NI)	13,719	33,842	93,935	10,350	151,847	13,112	25,062,727	kVA	0.0121	0.0077	0.0198
7	GS 50 - 1000 kW (I)	62,579	9,929	67,716	10,257	150,481	179,349					
8	GS 1000 - 5000 kW	107,729	10,128	78,241	14,345	210,442	17,754	11,526,464	kVA	0.0183	0.0015	0.0198
9	Large Users	40,139	8,874	62,289	8,142	119,444	6,648	5,360,901	kVA	0.0223	0.0012	0.0235
10	Unmetered Scattered Load	32,299	0	15,281	3,480	51,061	0	57,420,003	kWh	0.00089	0.00000	0.00089
11	Total	1,837,481	143,134	923,196	212,414	3,116,225	586,011					
	Notes:											
	NI = Non-Interval	I = Interval										
	As THESL no longer has a separate rate for the GS 50-1000 kW Interval and Non-Interval classes, rate riders will be applied to the new combined GS 50-1000 kW class.											

In accordance with the Board's decision in EB-2007-0096, THESL proposes that the rate rider amounts for the LRAM and SSM be recovered separately through a variable rate component for each class.

The most recent Board-approved load quantities are those that underpin 2009 rates. THESL has used those quantities for the calculation of the class rate riders.

2.1. Determination of LRAM Amount

THESL has determined the LRAM amounts by class in a manner consistent with the Board's CDM Guidelines and the Board's decision in THESL's EB-2007-0096 application.

By definition, an LRAM accounts for variances between actual CDM results and the corresponding quantities used to set class rates. For the 2006 and 2007 rate years, no

forecast or other adjustment for the effects of CDM programs was made to the load quantities used to calculate the rates. Therefore, the entire actual load reduction net of free ridership achieved by the eligible CDM programs is subject to LRAM treatment.

Tables 2, 3, and 4 summarize the CDM load impacts by program and rate class, adjusted for free ridership. In the case of some programs, results expressed in kWh have been converted to kVA to correspond to the billing basis for customers in the applicable rate classes. This conversion was based on the most recent available information on load factor by rate class.

Table 2
2007 Load Impacts from 2005 & 2006 Third Tranche Initiatives by Program and Class

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7
1	**Rate Class/Program**	**Jan 1 - Apr 30**		**May 1 - Dec 31**		**Total**	
2		**kWh**	**kVA**	**kWh**	**kVA**	**kWh**	**kVA**
3	**Residential**						
4	Mass Market	28,767,060		57,534,119		86,301,179	
5	Enbridge TAPS	3,102,710		6,003,441		9,106,150	
6	Social Housing	902,803		1,805,606		2,708,408	
7	Great Refrigerator Roundup	1,056,377		2,074,967		3,131,344	
8	**Sub-Total**	**33,828,949**		**67,418,132**		**101,247,082**	
9	**GS < 50 kW**						
10	Mass Market	79,228		158,457		237,685	
11	Leveraging Energy Conservation - CI&I	580,394		-		580,394	
12	**Sub-Total**	**659,622**		**158,457**		**818,079**	
13	**General Service 50-1000 kW (NI)**						
14	Leveraging Energy Conservation - CI&I		3,154		-		3,154
15	**Sub-Total**		**3,154**		**-**		**3,154**
16	**General Service 50-1000 kW (I)**						
17	Leveraging Energy Conservation - CI&I		4,791		9,583		14,374
18	Load displacement		1		-		1
19	**Sub-Total**		**4,792**		**9,583**		**14,375**
20	**General Service 1000-5000 kW**						
21	Leveraging Energy Conservation - CI&I		1,553		2,911		4,464
22	Load displacement		8,666		17,331		25,997
23	**Sub-Total**		**10,218**		**20,242**		**30,461**
24	**Large Users >5000 kW**						
25	Leveraging Energy Conservation - CI&I		1,612		-		1,612
26	Load displacement		4,036		8,071		12,107
27	**Sub-Total**		**5,648**		**8,071**		**13,719**
28	**Unmetered Scattered Load**						
29	LED Traffic Lights	693,923		1,104,342		1,798,265	
30	**Sub-Total**	**693,923**		**1,104,342**		**1,798,265**	
31							
32	**TOTAL**	**35,182,494**	**23,812**	**68,680,931**	**37,896**	**103,863,426**	**61,708**

Table 3
2007 Load Impacts from 2007 Third Tranche Initiatives by Program and Class

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7
1	**Rate Class/Program**	**Jan 1 - Apr 30**		**May 1 - Dec 31**		**Total**	
2		**kWh**	**kVA**	**kWh**	**kVA**	**kWh**	**kVA**
3	**Residential**						
4	Enbridge TAPS	1,206,890		2,413,780		3,620,670	
5	Social and Low Income Housing	218,034		956,285		1,174,319	
6	**Sub-Total**	**1,424,924**		**3,370,065**		**4,794,988**	
7	**GS < 50 kW**						
8	Leveraging Energy Conservation - CI&I	111,578		223,157		334,735	
9	**Sub-Total**	**111,578**		**223,157**		**334,735**	
10	**General Service 50-1000 kW (NI)**						
11	Leveraging Energy Conservation - CI&I		2,428		5,339		7,768
12	**Sub-Total**		**2,428**		**5,339**		**7,768**
13	**General Service 50-1000 kW (I)**						
14	Leveraging Energy Conservation - CI&I		663		1,609		2,272
15	Load displacement		3		6		9
16	**Sub-Total**		**666**		**1,615**		**2,280**
17	**General Service 1000-5000 kW**						
18	Leveraging Energy Conservation - CI&I		493		2,369		2,862
19	**Sub-Total**		**493**		**2,369**		**2,862**
20	**Large Users >5000 kW**						
21	Leveraging Energy Conservation - CI&I		337		2,693		3,030
22	**Sub-Total**		**337**		**2,693**		**3,030**
23							
24	**TOTAL**	**1,536,502**	**3,924**	**3,593,222**	**12,016**	**5,129,724**	**15,940**

Table 4
2007 Load Impacts from 2007 OPA Initiatives by Program and Class

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7
1	**Rate Class/Program**	**Jan 1 - Apr 30**		**May 1 - Dec 31**		**Total**	
2		**kWh**	**kVA**	**kWh**	**kVA**	**kWh**	**kVA**
3	**Residential**						
4	Enbridge TAPS	231,513		6,594,641		6,826,154	
5	Social and Low Income Housing	62,825		1,966,064		2,028,889	
6	Summer Savings	-		12,643,000		12,643,000	
7	Great Refrigerator Roundup	-		853,625		853,625	
8	Mass Market	-		2,114,562		2,114,562	
9	Every kilowatt Counts	-		3,857,362		3,857,362	
10	**Sub-Total**	**294,338**		**28,029,254**		**28,323,592**	
11	**GS < 50 kW**						
12	Leveraging Energy Conservation - CI&I	334,878		675,229		1,010,107	
13	Mass Market	1,520,199		3,040,398		4,560,597	
14	Business Summer Savings	-		3,452,719		3,452,719	
15	**Sub-Total**	**1,855,077**		**7,168,346**		**9,023,423**	
16	**General Service 50-1000 kW (NI)**						
17	Leveraging Energy Conservation - CI&I		162		6,353		6,516
18	Commercial Dryers		241		627		868
19	Business Summer Savings		-		13,464		13,464
20	Business Incentive Program		-		699		699
21	**Sub-Total**		**403**		**21,142**		**21,546**
22	**General Service 50-1000 kW (I)**						
23	Leveraging Energy Conservation - CI&I		517		5,769		6,287
24	Load displacement		-		-		-
25	Business Summer Savings		-		9,113		9,113
26	Business Incentive Program		-		134		134
27	**Sub-Total**		**517**		**15,016**		**15,533**
28	**General Service 1000-5000 kW**						
29	Leveraging Energy Conservation - CI&I		646		6,761		7,407
30	Business Summer Savings		-		11,128		11,128
31	Load displacement		-		3,569		3,569
32	**Sub-Total**		**646**		**21,458**		**22,104**
33	**Large Users >5000 kW**						
34	Leveraging Energy Conservation - CI&I		1,118		2,899		4,017
35	Load displacement		-		3,499		3,499
36	Stand-by Generators		-		8,196		8,196
37	Business Summer Savings		-		5,550		5,550
38	**Sub-Total**		**1,118**		**20,145**		**21,263**
39	**Unmetered Scattered Load**						
40	LED Traffic Lights	283,503		567,006		850,508	
41	**Sub-Total**	**283,503**		**567,006**		**850,508**	
42							
43	**TOTAL**	**2,432,917**	**2,685**	**35,764,606**	**77,761**	**38,197,524**	**80,446**

Foregone revenue amounts corresponding to the load reductions by class were calculated for each rate year using the applicable variable distribution rates. For rate classes where the Transformer Allowance applies, the Transformer Allowance amount was deducted from the foregone revenue amount calculated using the variable distribution rate per kVA.

The load reductions were adjusted for free riders, as per the CDM Guidelines and the Board's Decision in THESL's EB-2007-0096 application. Tables 5, 6 and 7 summarize the calculation of foregone revenue by rate class.

Table 5
2007 Foregone Revenue from 2005 & 2006 Third Tranche Initiatives by Program and Class

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9
1	**Rate Class**		**Jan 1 - Apr 30**			**May 1 - Dec 31**			
2		**Free Rider Rate**	**Load Units (kWh or kVA)**	**Rate ($ per kWh or kVA)**	**Revenue $**	**Load Units (kWh or kVA)**	**Rate ($ per kWh or kVA)**	**Revenue $**	**Total Revenue $**
3	**Residential**								
4	Mass Market	10%	28,767,060	0.0154	443,013	57,534,119	0.0155	891,779	1,334,792
5	Enbridge TAPS	10%	3,102,710	0.0154	47,782	6,003,441	0.0155	93,053	140,835
6	Social Housing	1%	902,803	0.0154	13,903	1,805,606	0.0155	27,987	41,890
7	Great Refrigerator Roundup	10%	1,056,377	0.0154	16,268	2,074,967	0.0155	32,162	48,430
8	**Sub-Total**		**33,828,949**		**520,966**	**67,418,132**		**1,044,981**	**1,565,947**
9	**GS < 50 kW**								
10	Mass Market	10%	79,228	0.0184	1,458	158,457	0.0185	2,931	4,389
11	Leveraging Energy Conservation - CI&I	30%	580,394	0.0184	10,679	-	0.0185	-	10,679
12	**Sub-Total**		**659,622**		**12,137**	**158,457**		**2,931**	**15,069**
13	**General Service 50-1000 kW (NI)**								
14	Leveraging Energy Conservation - CI&I	30%	3,154	4.3500	13,719	-	4.3600	-	13,719
15	**Sub-Total**		**3,154**		**13,719**	-		-	**13,719**
16	**General Service 50-1000 kW (I)**								
17	Leveraging Energy Conservation - CI&I	30%	4,791	4.3400	20,795	9,583	4.3600	41,781	62,576
18	Load displacement	30%	1	4.3400	3		4.3600	-	3
19	**Sub-Total**		**4,792**		**20,798**	**9,583**		**41,781**	**62,579**
20	**General Service 1000-5000 kW**								
21	Leveraging Energy Conservation - CI&I	30%	1,553	3.5300	5,481	2,911	3.5400	10,305	15,786
22	Load displacement	30%	8,666	3.5300	30,590	17,331	3.5400	61,353	91,943
23	**Sub-Total**		**10,218**		**36,071**	**20,242**		**71,658**	**107,729**
24	**Large Users >5000 kW**								
25	Leveraging Energy Conservation - CI&I	30%	1,612	2.9200	4,708	-	2.9300	-	4,708
26	Load displacement	30%	4,036	2.9200	11,784	8,071	2.9300	23,648	35,432
27	**Sub-Total**		**5,648**		**16,491**	**8,071**		**23,648**	**40,139**
28	**Unmetered Scattered Load**								
29	LED Traffic Lights	30%	693,923	0.0179	12,421	1,104,342	0.0180	19,878	32,299
30	**Sub-Total**		**693,923**		**12,421**	**1,104,342**		**19,878**	**32,299**
31									
32	**TOTAL**				**632,603**			**1,204,878**	**1,837,481**

Table 6
2007 Foregone Revenue from 2007 Third Tranche Initiatives by Program and Class

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9
1	**Rate Class**		**Jan 1 - Apr 30**			**May 1 - Dec 31**			
2		**Free Rider Rate**	**Load Units (kWh or kVA)**	**Rate ($ per kWh or kVA)**	**Revenue $**	**Load Units (kWh or kVA)**	**Rate ($ per kWh or kVA)**	**Revenue $**	**Total Revenue $**
3	**Residential**								
4	Enbridge TAPS	10%	1,206,890	0.0154	18,586	2,413,780	0.0155	37,414	56,000
5	Social and Low Income Housing	1%	218,034	0.0154	3,358	956,285	0.0155	14,822	18,180
6	**Sub-Total**		**1,424,924**		**21,944**	**3,370,065**		**52,236**	**74,180**
7	**GS < 50 kW**								
8	Leveraging Energy Conservation - CI&I	30%	111,578	0.0184	2,053	223,157	0.0185	4,128	6,181
9	**Sub-Total**		**111,578**		**2,053**	**223,157**		**4,128**	**6,181**
10	**General Service 50-1000 kW (NI)**								
11	Leveraging Energy Conservation - CI&I	30%	2,428	4.3500	10,563	5,339	4.3600	23,279	33,842
12	**Sub-Total**		**2,428**		**10,563**	**5,339**		**23,279**	**33,842**
13	**General Service 50-1000 kW (I)**								
14	Leveraging Energy Conservation - CI&I	30%	663	4.3400	2,877	1,609	4.3600	7,015	9,891
15	Load displacement	30%	3	4.3400	12	6	4.3600	25	38
16	**Sub-Total**		**666**		**2,889**	**1,615**		**7,040**	**9,929**
17	**General Service 1000-5000 kW**								
18	Leveraging Energy Conservation - CI&I	30%	493	3.5300	1,740	2,369	3.5400	8,387	10,128
19	**Sub-Total**		**493**		**1,740**	**2,369**		**8,387**	**10,128**
20	**Large Users >5000 kW**								
21	Leveraging Energy Conservation - CI&I	30%	337	2.9200	983	2,693	2.9300	7,891	8,874
22	**Sub-Total**		**337**		**983**	**2,693**		**7,891**	**8,874**
23									
24	**TOTAL**				**40,172**			**102,962**	**143,134**

Table 7
2007 Foregone Revenue from 2007 OPA Initiatives by Program and Class

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9
1	**Rate Class**		**Jan 1 - Apr 30**			**May 1 - Dec 31**			
2		**Free Rider Rate**	**Load Units (kWh or kVA)**	**Rate ($ per kWh or kVA)**	**Revenue $**	**Load Units (kWh or kVA)**	**Rate ($ per kWh or kVA)**	**Revenue $**	**Total Revenue $**
3	**Residential**								
4	Enbridge TAPS	10%	231,513	0.0154	3,565	6,594,641	0.0155	102,217	105,782
5	Social and Low Income Housing	1%	62,825	0.0154	968	1,966,064	0.0155	30,474	31,442
6	Summer Savings	78%	-	0.0154	-	12,643,000	0.0155	195,967	195,967
7	Great Refrigerator Roundup	10%	-	0.0154	-	853,625	0.0155	13,231	13,231
8	Mass Market	30%	-	0.0154	-	2,114,562	0.0155	32,776	32,776
9	Every kilowatt Counts	30%	-	0.0154	-	3,857,362	0.0155	59,789	59,789
10	**Sub-Total**		**294,338**		**4,533**	**28,029,254**		**434,453**	**438,986**
11	**GS < 50 kW**								
12	Leveraging Energy Conservation - CI&I	30%	334,878	0.0184	6,162	675,229	0.0185	12,492	18,653
13	Mass Market	30%	1,520,199	0.0184	27,972	3,040,398	0.0185	56,247	84,219
14	Business Summer Savings	78%	-	0.0184	-	3,452,719	0.0185	63,875	63,875
15	**Sub-Total**		**1,855,077**		**34,133**	**7,168,346**		**132,614**	**166,748**
16	**General Service 50-1000 kW (NI)**								
17	Leveraging Energy Conservation - CI&I	30%	162	4.3500	706	6,353	4.3600	27,700	28,406
18	Commercial Dryers	30%	241	4.3500	1,049	627	4.3600	2,733	3,781
19	Business Summer Savings	78%	-	4.3500	-	13,464	4.3600	58,701	58,701
20	Business Incentive Program	30%	-	4.3500	-	699	4.3600	3,046	3,046
21	**Sub-Total**		**403**		**1,755**	**21,142**		**92,180**	**93,935**
22	**General Service 50-1000 kW (I)**								
23	Leveraging Energy Conservation - CI&I	30%	517	4.3400	2,246	5,769	4.3600	25,154	27,400
24	Load displacement	30%		4.3400	-		4.3600	-	-
25	Business Summer Savings	78%	-	4.3400	-	9,113	4.3600	39,731	39,731
26	Business Incentive Program	30%	-	4.3400	-	134	4.3600	585	585
27	**Sub-Total**		**517**		**2,246**	**15,016**		**65,470**	**67,716**
28	**General Service 1000-5000 kW**								
29	Leveraging Energy Conservation - CI&I	30%	646	3.5300	2,280	6,761	3.5400	23,934	26,214
30	Business Summer Savings	78%	-	3.5300	-	11,128	3.5400	39,394	39,394
31	Load displacement	30%	-	3.5300	-	3,569	3.5400	12,633	12,633
32	**Sub-Total**		**646**		**2,280**	**21,458**		**75,961**	**78,241**
33	**Large Users >5000 kW**								
34	Leveraging Energy Conservation - CI&I	30%	1,118	2.9200	3,265	2,899	2.9300	8,494	11,759
35	Load displacement	30%	-	2.9200	-	3,499	2.9300	10,253	10,253
36	Stand-by Generators	30%	-	2.9200	-	8,196	2.9300	24,015	24,015
37	Business Summer Savings	78%	-	2.9200	-	5,550	2.9300	16,263	16,263
38	**Sub-Total**		**1,118**		**3,265**	**20,145**		**59,025**	**62,289**
39	**Unmetered Scattered Load**								
40	LED Traffic Lights	30%	283,503	0.0179	5,075	567,006	0.0180	10,206	15,281
41	**Sub-Total**		**283,503**		**5,075**	**567,006**		**10,206**	**15,281**
42									
43	**TOTAL**				**53,286**			**869,910**	**923,196**

2.2. Allocation and Manner of Recovery for LRAM Amounts

THESL proposes that the total foregone revenue for each class be allocated to that class for recovery through a class-specific 2009 rate rider. THESL also proposes that the class-specific rate riders be expressed as amounts per kWh or per kVA as applicable, and be applied to the variable distribution rate component for each class. This approach most closely matches program eligibility and potential for benefits to customers in each class with the corresponding program costs, is consistent with the approach approved in THESL's EB-2007-0096 application, and is administratively the most simple.

2.3. Determination of SSM Amount

THESL's calculations of the SSM amounts, per program and in total, follow the methodology set out in the TRC Guide, as contained in Appendix A of the CDM Guidelines, and the Board's ruling in THESL's 2007 CDM Application (EB-2007-0096). Accordingly, an SSM rate of 5% has been applied to the net TRC benefits (or in the case of program support, costs) for each program. The sum of these, $586,011, represents THESL's pre-tax SSM claim in this Application.

Table 8 summarizes the calculation of the SSM amounts, net of free riders, by program, and in total. A detailed summary of program results, included as part of THESL's third party verification, is contained in Exhibit 1.

Table 8
SSM Amounts by Program and Class

	Col. 1	Col. 2
1	**Rate Class/Program**	**SSM Amount $**
2	**Residential**	
3	Residential Load Control Initiative	271,785
4	TAPS Program	58,005
5	Social Housing Program	-6,185
6	Support Costs	-15,213
7	**Sub-Total**	**308,393**
8	**GS < 50 kW**	
9	Commercial Load Control Initiative	64,083
10	Leveraging Energy Conservation - CI&I	-817
11	Design Advisory Program	484
12	Support Costs	-2,997
13	**Sub-Total**	**60,753**
14	**GS 50 - 1000 kW (NI)**	
15	Leveraging Energy Conservation - CI&I	12,886
16	Design Advisory Program	874
17	Support Costs	-647
18	**Sub-Total**	**13,112**
19	**GS 50 - 1000 kW (I)**	
20	Leveraging Energy Conservation - CI&I	3,264
21	Design Advisory Program	186,589
22	Load Displacement	-1,657
23	Support Costs	-8,847
24	**Sub-Total**	**179,349**
25	**GS 1000 - 5000 kW**	
26	Leveraging Energy Conservation - CI&I	17,397
27	Design Advisory Program	1,233
28	Support Costs	-876
29	**Sub-Total**	**17,754**
30	**Large Use**	
31	Leveraging Energy Conservation - CI&I	6,976
32	Support Costs	-328
33	**Sub-Total**	**6,648**
34	**Programs Total**	**614,918**
35	**Support Costs Total**	**-28,908**
36	**Total**	**586,011**

2.4. Allocation and Manner of Recovery for SSM Amounts

Consistent with the proposed approach for the LRAM amounts and the methodology approved by the Board in EB-2007-0096, THESL proposes that the SSM amounts arising from CDM programs in each rate class be allocated to that class for recovery. In cases where programs span more than one rate class, the SSM amounts per class are proportional to the load savings in that class relative to the total program load savings. Program support costs are allocated back to individual classes according to the proportion of total SSM benefits accounted for by that class.

In accordance with the Board's decision in EB-2007-0096, THESL proposes that the rate rider amounts for the LRAM and SSM be recovered separately through a variable rate component for each class. THESL also proposes that the corresponding one-year rate riders be expressed per unit of variable consumption (kWh or kVA).

2.5. Verification and Evaluation of Results

THESL has adhered to the Board's CDM Guidelines with respect to the requirement for third party verification and evaluation of both LRAM and SSM results.

The SSM and LRAM claim for 2007 Third Tranche programs was reviewed and audited by the SeeLine Group Ltd., which found that THESL's approach and calculation are accurate and consistent with the Board-approved decision in EB-2007-0096 and the CDM Guidelines. Complete audit results are contained in Exhibit 1. THESL is also submitting its 2007 CDM Annual Report, contained in Exhibit 2. As the report fully covers the entire 2007 calendar year, it satisfies the evaluation reporting requirement of this application.

The 2005 and 2006 Third Tranche programs have been extensively reviewed and the assumptions underpinning LRAM calculations approved in EB-2007-0096. In calculating the 2007 LRAM component for these programs, THESL used the same assumptions and methodology, as no update to the OEB Assumptions and Measures List has since been released. The CDM Guidelines do not require additional third party verification of results for programs funded prior to 2007, as noted in section 7.5, "This independent third party review applies to LRAM or SSM claims made in relation to programs funded in 2007 and beyond."

In calculating the LRAM claim for 2007 OPA programs, THESL has relied on savings data obtained directly from the OPA, as contained in Exhibit 3. This savings data matches the values used by THESL in calculating the OPA program LRAM component. In the case of some specific programs where THESL felt it had a more accurate estimate of realized savings (the Great Refrigerator Round-Up, for example), THESL used values lower than those reported by the OPA for the calculation of its LRAM claim. Exhibits 4 and 5 contain THESL's "New Programs 2007 Annual Report" and it's "Transition Plan 2007 Annual Report", respectively. Both documents contain program details and program evaluation. For the purposes of clarification, the results provided in Exhibits 4 and 5 are gross savings values.

2.6. Carrying Costs

The CDM Guidelines and the Board's decision in THESL's 2007 CDM Application (EB-2007-0096) indicate that carrying costs should be included in the amounts sought for recovery in an LRAM application. Table 9 details the carrying charge

calculation by LRAM component, using Board-approved carrying cost rates with simple interest applied to the monthly opening balances. They are calculated to the end of April 2009, when the recovery of the LRAM amounts will begin.

Table 9
LRAM Carrying Costs

	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10
1		2005/2006 Third Tranche Program LRAM			2007 Third Tranche Program LRAM			2007 OPA Program LRAM		
2										
3		$1,837,481			$ 143,134			$ 923,196		
4										
5		Monthly Amt ($)	Monthly Interest Rate (%)	Carrying Cost ($)	Monthly Amt ($)	Monthly Interest Rate (%)	Carrying Cost ($)	Monthly Amt ($)	Monthly Interest Rate (%)	Carrying Cost ($)
6	Jan-07	$ 0	0.383	$ 0	$ 0	0.383	$ 0	$ 0	0.383	$ 0
7	Feb-07	153,123	0.383	586	11,928	0.383	46	76,933	0.383	294
8	Mar-07	306,247	0.383	1,171	23,856	0.383	91	153,866	0.383	589
9	Apr-07	459,370	0.383	1,757	35,784	0.383	137	230,799	0.383	883
10	May-07	612,494	0.383	2,343	47,711	0.383	182	307,732	0.383	1,177
11	Jun-07	765,617	0.383	2,928	59,639	0.383	228	384,665	0.383	1,471
12	Jul-07	918,741	0.383	3,514	71,567	0.383	274	461,598	0.383	1,766
13	Aug-07	1,071,864	0.383	4,100	83,495	0.383	319	538,531	0.383	2,060
14	Sep-07	1,224,987	0.383	4,686	95,423	0.383	365	615,464	0.383	2,354
15	Oct-07	1,378,111	0.428	5,903	107,351	0.428	460	692,397	0.428	2,966
16	Nov-07	1,531,234	0.428	6,559	119,278	0.428	511	769,330	0.428	3,295
17	Dec-07	1,684,358	0.428	7,215	131,206	0.428	562	846,263	0.428	3,625
18	Jan-08	1,837,481	0.428	7,871	143,134	0.428	613	923,196	0.428	3,954
19	Feb-08	1,837,481	0.428	7,871	143,134	0.428	613	923,196	0.428	3,954
20	Mar-08	1,837,481	0.428	7,871	143,134	0.428	613	923,196	0.428	3,954
21	Apr-08	1,837,481	0.340	6,247	143,134	0.340	487	923,196	0.340	3,139
22	May-08	1,837,481	0.340	6,247	143,134	0.340	487	923,196	0.340	3,139
23	Jun-08	1,837,481	0.340	6,247	143,134	0.340	487	923,196	0.340	3,139
24	Jul-08	1,837,481	0.279	5,130	143,134	0.279	400	923,196	0.279	2,577
25	Aug-08	1,837,481	0.279	5,130	143,134	0.279	400	923,196	0.279	2,577
26	Sep-08	1,837,481	0.279	5,130	143,134	0.279	400	923,196	0.279	2,577
27	Oct-08	1,837,481	0.279	5,130	143,134	0.279	400	923,196	0.279	2,577
28	Nov-08	1,837,481	0.279	5,130	143,134	0.279	400	923,196	0.279	2,577
29	Dec-08	1,837,481	0.279	5,130	143,134	0.279	400	923,196	0.279	2,577
30	Jan-09	1,837,481	0.279	5,130	143,134	0.279	400	923,196	0.279	2,577
31	Feb-09	1,837,481	0.279	5,130	143,134	0.279	400	923,196	0.279	2,577
32	Mar-09	1,837,481	0.279	5,130	143,134	0.279	400	923,196	0.279	2,577
33	Apr-09	1,837,481	0.279	5,130	143,134	0.279	400	923,196	0.279	2,577
34										
35										
36				$ 134,412			$ 10,470			$ 67,532
37										
38			Total Carrying Costs		$ 212,414					

2.7. Rate Implementation and Rate Impacts

THESL proposes that the LRAM and SSM amounts be recovered through rate riders effective for the 2009 rate year commencing May 1, 2009 and expiring April 30, 2010.

Exhibit 6 provides a summary of LRAM and SSM rate impacts expressed as the percentage changes in the total distribution cost and total bill. All comparisons are made against existing approved 2008 THESL distribution rates, and for the purposes of the total bill comparison, using the commodity and transmission rates in place at the time of this application.

THESL submits that the rate impacts arising from recovery of the LRAM and SSM amounts as proposed are modest and do not warrant mitigation by way of an extended period of recovery. THESL views the impacts as reasonable given the policy context for, and necessity of, the CDM activities and corresponding amounts.

Independent Third Party Review

OF

Toronto Hydro's 2007 CDM Results Using Third Tranche of Market Adjusted Revenue Requirement Funding

Prepared By:
SeeLine Group Ltd.
416-703-8695

September 15, 2008

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Executive Summary

As part of its reporting commitment to the Ontario Energy Board (OEB), Toronto Hydro Electric System Limited (THESL) engaged SeeLine Group Ltd. (SeeLine) to perform an independent third party review of its 2007 reported Conservation and Demand Management (CDM) results. These results constitute the basis for its Shared Savings Mechanism (SSM) and Lost Revenue Adjustment Mechanism (LRAM) claims attributable to CDM achievements made using the Third Tranche of Market Adjustment Revenue Requirement (MARR) funding.

Following guidelines set forth by the OEB in its 'Guidelines for Electricity Distributor Conservation and Demand Management – Board File No. EB-2008-0037', SeeLine closely examined all Total Resource Cost (TRC) Test inputs and assumptions relating to the reported 2007 TRC results, focusing on verifying the assumptions and assessing the accurateness of the assigned values.

Findings from this effort prove that THESL has made best efforts to accurately claim and report savings according to the OEB guidelines. Where appropriate, TRC input assumptions are consistent with the OEB Measure and Assumption List. In the case of custom projects where there are specialized equipment not included on the OEB's Measure List, THESL has obtained adequate documentation to support its claim.

In the case of the Residential peaksaver™ program, SeeLine recognizes that since the original development of the OEB's Measure List, new research and technology development has been available to support a higher peak demand savings estimate for an air conditioner control unit. Along with THESL's current Monitoring and Verification (M&V) efforts in support of the Ontario Power Authority's (OPA) peaksaver™ program, this information should be considered in the adoption of a new peak demand savings estimate.

Given that the programs have ended and the review indicates that the savings claims are justified, no further evaluation efforts are recommended.

1.0 Introduction

In 2007 THESL completed its final year CDM activity with funding made available through the third installment of MARR. This marked the end of a three-year effort resulting in over 68.5 MW of peak demand and 262 MWh annual energy savings.

With most new CDM funding now made available through the OPA[1], THESL continues its support of CDM and the development of a 'culture of conservation' in the province of Ontario through its enrollment in the OPA standard[2] and Toronto regional programs.

2.0 Scope

On March 28th 2007, the OEB established its ongoing role in electrical distributors (LDCs) CDM activities through its 'Guidelines for Electrical Distributor Conservation and Demand Management – Board File No.: EB-2008-0037. These guidelines provide the framework for the review and approval of CDM spending, reporting guidelines, program evaluation, and the review and recovery of LRAM and SSM claims.

The policies set out in the Board's guidelines lay the foundation for providing accurate CDM program reporting and has been used to guide THESL in the evaluation of its 2007 achievements.

On March 31st 2007 THESL filed its 2007 CDM Annual Report. Highlights from this report include:

- Peak demand reduction of 6,161 kW;
- Annual energy savings of 15,027,576 kWh;
- Gross CDM expenditure of $3,009,622;
- Portfolio net TRC value of $11,720,212;
- Portfolio TRC benefit/cost ratio of 3.04 and
- Expenditure per kW saved ($/kW) of $488.47

SeeLine was contracted by THESL to undertake an independent third party review of its 2007 CDM program activity related to third tranche funds. This review is intended to include the activities outlined by the OEB in its guidelines which state that the following be conducted by a third party:

- Provide an opinion on the cost effectiveness results that are material to the LRAM and SSM amounts proposed;
- Verify the participant levels;

[1] In a 2006 government directive issued to the OPA, $400 million of new funding was established for the continued delivery of CDM programs throughout Ontario.
[2] Appliance Retirement, Business Incentive, Summer Savings and Residential and Small Commercial Demand Response

- Confirm that the inputs are those posted on the Board's website. Where any inputs assumptions have changed in previous years, confirm that the input assumptions were implemented consistent with section 7.3;
- Where the distributor has varied from the input assumptions posted on the Board's website, review the reasonableness for the input assumptions used;
- Recommend any forward looking evaluation work to be considered; and,
- Recommend any improvements to the program to enhance program design, performance and uptake by customers.

3.0 Review of Total Resource Cost Test Results and Input Assumptions

3.1 Reported Savings

Table 1 provides a summary of THESL's 2007 CDM reported savings. These claimed savings were established using reported participation levels and a combination of OEB prescribed savings and custom project estimated savings.

Table 1 – Summary of Reported Net Savings[3]

Program	Project	kW Savings	kWh Savings
Residential Load Control Initiative	peaksaver™ (residential)	3,805	0
TAPS Program	Enbridge TAPS	16	3,621,438
Social Housing Program	SHSC & TCHC	122	1,434,427
Leveraging Energy Conservation	Project #1 - WHCC	48	295,871
	PBIP	392	1,717,958
	Project #2 - IT	233	1,945,092
	Project #3 - UTS	7	95,000
	Project #4 - TI	5	44,208
	Project #5 - THESI	9	63,240
	Project #6 - AC	271	1,083,600
	Project #7 - TDSB	0	2,423,129
Commercial Load Control	peaksaver™ (commercial)	750	0
Design Advisory Program	Enbridge (DAP)	500	2,298,149
Load Displacement	Project #8 - BD	3	5,463
Total		**6,161**	**15,027,576**

[3] Net of free riders.

3.2 Reported TRC Results

As part of this review process, THESL provided SeeLine with all relevant TRC input and output data. In the first part of this review, SeeLine examined TRC results generated by THESL to ensure consistency with TRC reported results as shown in Table 2.

Table 2. – Reported TRC Results for 2007 CDM Activity[4]

Program	Project	TRC Costs	TRC Benefits	TRC Net Benefits	Proposed SSM Amount
Residential Load Control Initiative	peaksaver™ (residential)	$1,453,918	$6,889,628	$5,435,710	$271,785
TAPS Program	Enbridge TAPS	$146,043	$1,306,152	$1,160,109	$58,005
Social Housing Program	SHSC & TCHC	$881,309	$757,611	$(123,698)	$(6,185)
Leveraging Energy Conservation	Project #1 - WHCC	$93,183	$407,422	$314,240	$15,712
	PBIP	$388,994	$610,686	$221,692	$11,085
	Project #2 - IT	$421,129	$560,652	$139,523	$6,976
	Project #3 - UTS	$11,199	$54,751	$43,552	$2,178
	Project #4 - TI	$2,732	$37,712	$34,980	$1,749
	Project #5 - THESI	$16,157	$9,212	$(6,946)	$(347)
	Project #6 - AC	$352,926	$314,457	$(38,469)	$(1,923)
	Project #7 - TDSB	$779,007	$864,568	$85,561	$4,278
Commercial Load Control	peaksaver™ (commercial)	$76,920	$1,358,587	$1,281,667	$64,083
Design Advisory Program	Enbridge (DAP)	$512,331	$4,295,915	$3,783,584	$189,179
Load Displacement	Project #8 - BD	$42,000	$8,862	$(33,138)	$(1,657)
Program Support		$578,153	$-	$(578,153)	$(28,908)
Total		**$5,756,002**	**$17,476,214**	**$11,720,212**	**$586,011**

Findings from the review indicate that THESL has accurately reported TRC results for all its 2007 third tranche related CDM activity.

In addition to this effort, SeeLine selected a sample of the 2007 programs and re-calculated TRC results using its own TRC calculator[5]. Results from this exercise indicate that the values generated by THESL's TRC model are consistent with results from SeeLine's version of SeeTool™.

[4] Assumed discount rate of 5.36%.
[5] SeeLine's commercially available software model SeeTool™.

3.3 TRC Inputs

The second stage of the review process involved a thorough examination of TRC inputs for each program. As shown in Table 3, programs were categorized by program type: prescriptive and custom. Prescriptive programs were reviewed for consistency with the OEB Measures List[6] and custom programs reviewed to ensure that adequate supporting documentation (i.e. applications forms, engineering reports, paid invoices etc.) for claimed savings were available.

Table 3. – Program Type

Program	Component	Prescriptive	Custom
Residential Load Control Initiative	peaksaver™ (residential)	**X**	
TAPS Program	Enbridge TAPS	**X**	
Social Housing Program	SHSC & TCHC	**X**	**X**
Leveraging Energy Conservation	Project #1 - WHCC		**X**
	PBIP		**X**
	Project #2 - IT		**X**
	Project #3 - UTS	**X**	
	Project #4 - TI		**X**
	Project #5 - THESI		**X**
	Project #6 - AC		**X**
	Project #7 - TDSB		**X**
Commercial Load Control	peaksaver™ (commercial)	**X**	
Design Advisory Program	Enbridge (DAP)		**X**
Load Displacement	Project #8 - BD		**X**

3.3.1 Prescriptive Measure Assumptions and Consistency with OEB Measure List Assumptions

According to the OEB guidelines[7], LDCs must evaluate CDM programs using the best available information at the time of evaluation. In the case of an SSM, this means assumptions available in 2006. For LRAM purposes however, the OEB has directed that any updated input assumptions made available throughout 2007 be used.

For the 2007 SSM and LRAM claims relating to CDM activities funded through MARR, the appropriate savings estimates are those provided by the OEB in its Assumption and Measure List[8]. Following THESL's 2005 and 2006 SSM/LRAM application, updates to the list were made by the Board in its EB-2007-0096 order. Changes relevant to this 2007 SSM and LRAM claim include:

[6] See OEB Assumptions and Measure List (updated October 14, 2005)
[7] Pg. 26 OEB – Guidelines for Electricity Distributor Conservation and Demand Management – Board File No.: EB-2008-0037
[8] IBID

- A free ridership rate of 1 percent be adopted for the Low Income/Social Housing sector and;
- A default free ridership rate of 30% be used for all custom programs including; LED Traffic Lights, Leveraging Energy Conservation and Load Displacement.

In Table 4 shown below, prescriptive programs were reviewed and identified for consistency with the OEB Assumption and Measure List[9] input assumptions.

Table 4. – Summary of Prescriptive Program TRC Inputs Consistent with OEB Measure List

Program	Project	Measure(s)	Free Ridership	Measure Life	Demand Savings	Energy Savings
Residential Load Control Initiative	peaksaver™ (residential)	Load Control Switch	X	X	Based on Third Party Study	X
TAPS Program	Enbridge - TAPS	Efficient Showerhead, Pipe Wrap, CFLs (14W and 23W), Aerators, Programmable Thermostats	X	X	X*	X
Social Housing Program	SHSC & TCHC	Energy Star Refrigerators, Energy Star Stoves	Toronto Hydro EB 2007-0096 OEB Decision	X	X	X
Leveraging Energy Conservation	Project #3 UTS	Fuel Switching – Gas Water Heater	X	X	X	X
Commercial Load Control	peaksaver™ (commercial)	Load Control Switch	X	X	Based on Third Party Study	X

X Consistent with OEB Measure List
***** 14W and 23W CFL Savings Derived from OEB Measure List

In the opinion of SeeLine, THESL has used the appropriate OEB input assumptions. The only assumption different from the Board's assumptions is the demand savings for residential and commercial load control. The load control unit is a small remotely controlled switch used to reduce the load cycle of air

[9] IBID

conditioners. By remotely controlling the cycling time of thousands of air conditioners during peak demand on a hot summer day, the province's system load could be significantly reduced.

As stated in its 2007 Annual CDM Report, THESL believes the potential load reduction from remotely controlled units is slightly above 1 kW for residential and as high as 4.1 kW for a small commercial unit, as referenced in a US study. This differs from the Board's assumption of 0.5 kW for residential units. THESL also notes that the OEB Measures List did not provide a savings estimate for commercial sector applications.

SeeLine understands that it is difficult to determine peak load reduction of any one air conditioning unit. Weather conditions, unit compressor size and zone location all play a role in determining the savings. A recent study conducted by Lawrence Berkeley National Laboratories and RWL Analytics, suggests that the average gross unit load impact is anywhere between 0.72 kW and 1.19 kW[10]. Load control for a program such as peaksaver™ is typically dispatched when there is system emergency, and this usually occurs during extreme temperatures (i.e. 35 degrees or higher), which would likely result in higher savings.

Demand response has become a viable resource option for addressing the growing peak demand in Ontario. The on-going M&V efforts made by THESL will only serve to provide a more accurate estimate for demand savings potential from air conditioning load control switches.

3.3.2 Custom Program Free Ridership and Supporting Documentation

Custom projects or programs are those initiatives where an LDC facilitates the implementation of specialized equipment and technology not identified in the Board's Assumption and Measures List. As outlined in Table 3 THESL had three custom programs in 2007; Leveraging Energy Conservation and Demand Management, DAP and Load Displacement.

SeeLine's review of custom projects was two fold. First, the TRC input data was reviewed to ensure that the appropriate free ridership rate of 30% was used for the TRC analysis and second that the remaining TRC inputs had adequate supporting documentation.

Findings from this exercise indicate that THESL has used the appropriate free ridership rate for all its custom project TRC analysis and that adequate documentation in the form of completed application forms, engineering reports and paid invoices is available.

[10] Lawrence Berkeley National Laboratory and RWL Analytics: Presentation May 2007, Regional Approaches to Monitoring and Verification of Load Management Programs.

4.0 Evaluation Considerations

2007 marked the end of Toronto Hydro's CDM programs that relied on the third installment of MARR. With the OPA now facilitating the majority of CDM funding in Ontario, the programs identified in this review no longer exist.

Good evaluation practices are critical to the success of any CDM program and have been identified as a necessary part of earning funding approval from either the OPA or OEB. Program evaluations can provide important information for improving the overall cost and market effectiveness.

Given that the programs have ended and the review indicates that the savings claims are justified, no further evaluation efforts are recommend.

EB-2008-XXXX
Toronto Hydro-Electric System Limited
Recovery of Amounts Related to CDM
Filed: December 15, 2008
Exhibit 2 (29 pages)

Toronto Hydro-Electric System Limited

Conservation and Demand Management

2007 Annual Report

Ontario Energy Board File No. RP-2004-0203/EB-2004-0485

March 31, 2008

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1. Introduction

On December 10, 2004 the Ontario Energy Board ("Board") issued its Decision in the RP-2004-0203 proceeding, with respect to six (6) applications filed by the Coalition of Large Distributors ("CLD") comprising Enersource Hydro Mississauga, Horizon Utilities Corporation, Hydro Ottawa Limited, PowerStream Inc., Toronto Hydro-Electric System Limited and Veridian Connections. This report is a requirement of that Decision. In respect of the application filed by Toronto Hydro-Electric System Limited ("Toronto Hydro"), the Board issued its Final Order on February 3, 2005 under docket number RP-2004-0203 / EB-2004-0485.

The Board's Decision indicated that annual reporting "should be done on a calendar year and should be filed with the Board no later than March 31st of the following year" and would be subject to a public review. On December 21, 2005 the Board issued a Guideline for Annual Reporting of CDM Initiatives that explained more fully the requirements. On March 8, 2008 the Board issued the "Requirements for Annual Reporting of CDM Initiatives". This report has been prepared in accordance with those guidelines and requirements.

The third year (2007) of Conservation and Demand Management was a transition year for Toronto Hydro, as funding from the Third Tranche budget was almost exhausted by the end of 2006. Many projects originally signed under the OEB's Third Tranche were transitioned to Ontario Power Authority (OPA) funding. Programs and initiatives were developed to engage employees, stakeholders, and all customer classes of electricity users within Toronto Hydro's boundaries. The key thrusts of the program were to reduce the summer peak demand and help promote a conservation culture in Ontario. Highlights from 2007 include the following:

- Achieved peak demand reductions of 6,161 kW and energy savings of 15,027,576 kWh.
- By the end of February 2007, enrolled more than 38,000 customers and installed more than 27,000 load control switches in the peaksaver program (cumulative).
- Received the 2007 Environment Achievement Award from the City of Toronto for the Summer Challenge program run in 2006.
- Won the 2007 Platts Global Energy Award in the Energy Efficiency category for the peaksaver program.

These programs and many others are described further in this report.

2. Evaluation of the CDM Plan

Refer to Appendix A, B and C for an evaluation of Toronto Hydro's CDM activities during 2007.

Some components of Toronto Hydro's CDM plan relate to the deployment of SMART meters, which was undertaken to support Provincial government policy direction. The impact of SMART meters on kWh consumption or kW demand has not yet been assessed.

3. Discussion of the Programs

Residential and Small Commercial (< 50 kW)

Residential Load Control Initiative

Description
Load control uses a real time communications link to enable or disable customer loads at the discretion of the utility. These controls are usually engaged during system peak periods or when required to relieve pressure on the system grid and may include such "dispatchable" loads as electric hot water tanks, pool pumps, lighting, air conditioners, etc.

Target users
Direct load control applies to all market segments. Though the control systems and technologies may vary by market segment, the methodology remains the same.

Benefits
Load control allows customers to respond quickly to external price signals. This also provides a mechanism for utilities to relieve pressure on constrained areas within the distribution grid and reduces the need to bring on large peaking generators.

Description of 2007 Activities

Direct Load Control – peaksaver Program Residential

Action

- Enrolled more than 35,000 residential customers and installed more than 26,000 load control switches by the end of February 2007 (cumulative). The remainder of the year was under OPA funding.
- Performed M&V study for the peaksaver program.
- Activated load control on one occasion during the summer of 2007 along with commercial peaksaver program, resulting in peak demand reductions of approximately 26 MW.

Results to Date

- Installed demand response capacity of more than 29 MW (at 35 degrees C) under the OEB's Third Tranche.
- peaksaver was selected by the Government for roll out throughout the rest of Ontario in the middle of 2007.

Next Steps

- Continue with deployment in 2008 under OPA funding.
- Extend dispatch operation service to other Local Distribution Companies (LDCs) in the CLD group to facilitate the roll out of peaksaver program in Ontario.

TAPS Program

Description
This initiative is a partnership with Enbridge in their highly successful TAPS program. Enbridge is distributing CFLs and installing energy savings measures in homes that they would not normally consider (i.e. homes with electric water heaters and electric heating).
Target users
Residential customers
Benefits
This program is simple in concept and highly effective, since CFLs use 75% less energy than incandescent bulbs and fit into standard sockets. Although a single change-out makes a very small difference, wide-scale use of CFLs has a significant impact.

Description of 2007 Activities

Enbridge - TAPS

Action

- Partnering with Enbridge Gas Distribution Inc., Toronto Hydro continued the project in 2007 that delivered efficient showerheads and CFL bulbs to Toronto Hydro customers.
- The sub-contractors of Enbridge visited customers' residences and performed the following services:
  - Install pipe wrap on water heater lines
  - Conduct a test to determine if showerheads are already low-flow
  - Replace up to two showerheads
  - Provide the home owner with two faucet aerators
  - Drop off four CFL bulbs
  - Install a programmable thermostat (for low income customer only)
  - Provide literature containing energy efficiency tips

Results to Date

- 446 efficient showerheads and 41 programmable thermostats were installed.
- 33,944 CFL bulbs and 838 aerators were delivered.
- 399 pipe wraps and 447 bag tests were performed
- Peak demand reductions of 16 kW and energy savings of 3,621,438 kWh were achieved in 2007.

Social Housing Program

Description
Due to aging housing stock, financial constraints and high incidences of electric heating, the Social Housing Sector is a prime candidate for CDM incentives.
Target users
Local social housing corporations, non-profit homes and co-operative housing.
Benefits
Synergies can be created through the combined initiatives of various agencies.

Description of 2007 Activities

Toronto Community Housing Corporation (TCHC)

Action

- Old, inefficient refrigerators and stoves were replaced with new Energy Star appliances.
- Monthly results were sent to Toronto Hydro for verification and incentive payment.

Results to Date

- 3,350 old refrigerators and 4,501 old stoves were removed and replaced with new Energy Star appliances in 2007.
- Peak demand reductions of 56 kW and energy savings of 490,500 kWh were achieved in 2007.

Social Housing Services Corporation (SHSC)

Action

- Social Housing Services Corporation is the provincial umbrella agency representing social and low income housing.
- Lighting retrofit was done at seven SHSC locations.

Results to Date

- Peak demand reductions of 66 kW and energy savings of 943,927 kWh were achieved in 2007.

Leveraging Energy Conservation and/or Load Management Programs

Description
Existing energy conservation and/or load management programs such as NRCan's Energy Innovators initiative, Enbridge initiatives etc. will be promoted and incentives may be provided to advance market uptake of these programs and implementation of their recommendations. The LDCs are well positioned to introduce such programs to their customer base. Work will be conducted with the existing program providers to maximize leverage opportunities. Promotion will potentially include face-to-face meetings, conferences and seminars.

Target users
Large consumers over 50 kW including schools, large commercial, institutional, industrial, and municipal facilities.

Benefits
Customer awareness and additional incentives will help advance market uptake of audit services, feasibility studies and retrofit opportunities already established within the government program framework.

Description of 2007 Activities

West Park Healthcare Centre

Action
- An energy saving device (PowerKure) was installed in 2007.
- Post-implementation audit was performed after project completion.

Results to Date
- Peak demand reductions of 48 kW and energy savings of 295,871 kWh were achieved in 2007.

Irving Tissue

Action
- The major initiative at 1551 Weston Road consisted of changing existing lighting from T12 fluorescent with magnetic ballast, metal halide fixtures and incandescent lamps to new and more efficient T8 lighting and CFL technology.
- The installation began in January 2007 and was completed in March 2007.

Results to Date
- 2,669 fixtures were converted.
- Peak demand reductions of 233 kW and energy savings of 1,945,092 kWh were achieved in 2007.

U of T Scarborough Campus – Student Residences

Action
- The program included conversion of the interior incandescent lighting to compact fluorescents, conversion of the outdoor lighting to a new form of compact

fluorescent technology, and the conversion of electric domestic hot water heating to natural gas.

Results to Date

- 19 water heaters have been converted from electricity to natural gas.
- Peak demand reductions of 7 kW and energy savings of 95,000 kWh were achieved in 2007.

The Indigo – 50 Lombard Street

Action

- This major initiative consisted of: (1) Modernizing the Ice Storage System which was designed to work in conjunction with the Chiller, this system has never been utilized due to a design flaw; (2) Lighting retrofit for garage, elevator valence, stairwell and exit signs from existing T8 lamps or CFL's to higher efficiency lighting.

Results to Date

- The Ice Storage System is still not operational as further complications have been encountered.
- The lighting retrofit is complete and has resulted in a peak demand reduction of 5 kW and energy savings of 44,208 kWh for 2007.

Atria Complex

Action

- The project included a lighting retrofit at Atria I, Atria II, and Atria III located at 2255, 2235 and 2225 Sheppard Avenue East respectively.
- This retrofit involved the replacement of 14,937 fixtures among the 3 buildings. The majority of the replacements were from T12 to the more energy efficient T8 lighting fixtures.

Results to Date

- The project was completed in January, February and April of 2007 for the order of buildings listed above.
- The peak demand reduction associated with this project is 271 kW and an energy savings of 1,083,600 kWh.

Toronto Hydro Energy Service Inc. (THESI)

Action

- THESI completed a lighting retrofit project at MTCC No. 661 (85 Skymark).
- This project involved the replacement of lighting fixtures from Strip, Wrap, Lay-in and incandescent to T8 and CFL lighting.

Results to Date

- There was a peak demand reduction of 9 kW and energy savings of 63,240 kWh in 2007.

Toronto District School Board

Action

- The project consisted of lighting retrofits at 45 Toronto District School Board locations. Various energy efficient lighting measures were targeted.

Results to Date

- The various locations had completion dates throughout 2007.
- The project resulted in an energy savings of 2,423,129 kWh.

PowerWise Business Incentive Program (PBIP)

Action

- The project consisted of lighting retrofits at 7 business locations. Various energy efficient lighting measures were targeted.

Results to Date

- The aggregate peak demand reduction associated with this project is 392 kW and an energy savings of 1,717,958 kWh.

Commercial Industrial & Institutional (CI&I) Load Control Initiative

Description
Load control uses a real time communications link to enable or disable customer loads at the discretion of the utility. These controls are usually engaged during system peak periods or when required to relieve pressure on the system grid.
Target Users
Larger commercial, industrial and institutional customers.
Benefit
Demand control provides lower costs and increased stability for customers and utilities.

Description of 2007 Activities

Direct Load Control – peaksaver Program Small Commercial

Action

- Enrolled more than 2,700 small commercial customers and installed more than 1,200 load control switches by the end of February 2007. The rest of the year was under OPA funding.
- Performed M&V study for the peaksaver program.
- Operated the demand response dispatch control center with the necessary systems and processes to respond to the ELRP dispatch notification.
- Activated load control on one occasion in the summer of 2007 along with residential peaksaver program, resulting in peak demand reductions of about 26 MW.

Results to Date

- By the end of February 2007, more than 2,700 small commercial customers were enrolled and more than 1,200 participants were installed with the load control switches (cumulative).
- Installed demand response capacity of more than 29 MW (at 35 degrees C) by the end of February 2007 including residential customers.
- peaksaver was selected by the Government for rolling out to the rest of Ontario.

Next Steps

- Continue with deployment in 2008 under OPA funding.
- Extend dispatch operation service to other LDCs in the CLD group to facilitate the rolling out of peaksaver program in Ontario.

Design Advisory Program

Description
This initiative helps to create an integrated approach to the design process for new buildings, and involves architects, engineers, building owners and Toronto Hydro design advisors, with the goal of creating more energy efficient buildings.

Target users
Commercial, industrial and institutional customers.

Benefits
This program results in cost effective improvements to the energy efficiency of a building without adversely affecting other performance requirements stipulated by the owner. More specifically, the Advisor can develop an energy performance model to demonstrate achievable energy savings and provide a breakdown of energy end uses. Through the installation of energy efficient equipment during construction, the customer benefits by avoiding stranded costs incurred with equipment upgrades.

Description of 2007 Activities

Design Advisory Program – Enbridge

Action

- The initiative focused on New Building Construction Program (NBCP). NBCP offers incentives to an owner of a building to build a more energy efficient building. In this turnkey project, on a monthly basis in 2007, Enbridge Gas Distribution (EGD) submitted to Toronto Hydro a list of potential projects in the City of Toronto, with their expected completion dates. Upon completion of the design of the building/project, EGD forwarded to Toronto Hydro, a summary report showing kW and kWh savings. Energy savings were determined by an Approved Energy Simulation Program, which could be any of the following: EE4-CBIP, EE4-Code, or CBIP 33-Wizard.

Results to Date

- Peak demand reductions of 500 kW and energy savings of 2,298,149 kWh were achieved in 2007.

Distributed Energy

Load Displacement

Description

Distributed generation behind the customer's meter provides an excellent opportunity to displace load from the local distribution system's grid in a very effective manner. Load displacement technology, such as combined heat and power systems, provides increased power efficiency and thermal systems. Combined with an existing or new district heating distribution system this technology contributes to the development of sustainable energy networks within Ontario's communities.

Other technologies such as micro-turbine, wind, biomass fuels and solar provide additional options to meet the customer's needs. This initiative will facilitate the development and implementation of these opportunities. Financial incentives will be considered based on the project's viability.

Development of educational and technology programs in conjunction with local colleges and universities may be considered. Small pilots or demonstration projects to promote alternative and renewable energy sources may also be considered.

Target users

Commercial, industrial, and residential, schools, colleges and universities.

Benefits

Benefits include additional capacity within the grid. Cleaner technologies result in reductions in green house gas (GHG) emissions. Other benefits include improved system reliability, reduced harmonics, backup power possibilities, education and skills development.

Description of 2007 Activities

1 Avondale – Baghai Developments

Action

- The project consisted of the installation of two renewable forms of energy (wind turbine and solar photo-voltaic panels) to supplement power requirements for common areas.

Results to Date

- The peak demand reduction associated with this project is 3 kW and an energy savings of 5,463 kWh for 2007.

Overall Program Support

Description
Project review, approval, tracking and results verification as well as development of contracts with CDM Partners.
Target Users
All customer classes.
Benefits
Supports existing programs and drives energy conservation awareness that will facilitate the culture change in Ontario.

Description of 2007 Activities

Regulatory Reporting and Program Support

Action

- Successfully filed 2006 CDM Annual Report to the OEB.
- Filed SSM & LRAM application to the OEB for 2005 & 2006 projects
- Worked with business units and kept track of project status and results.

Next Steps

- Conclude all program projects and report funding expenditures under the OEB's Third Tranche.
- All but $200,000 from the $39.7 million budget has been utilized and the remainder of these funds will be used to close trailing projects, as well as outstanding reporting costs.

4. Lessons Learned

Working Together

In 2007 the members of the CLD continued working together on the execution of their individual CDM plans. A Steering Committee provided oversight and coordinated joint actions, and program-specific working committees promoted the sharing of ideas, experiences and costs. The benefits of this joint action are numerous and over the past three years have provided the following advantages:

Purchasing power:

- Together, the CLD group represents about 40% of the Province's electricity load. Accordingly, the group commands the attention of the marketplace when seeking vendors to support its CDM programs. The joint purchasing power of the CLD has provided it with access to the most innovative products and services available, at very competitive costs.

Consistent messaging:

- The adoption and promotion of the powerWISE brand by the CLD members has provided significant benefits. The development of this single brand that is recognized by consumers and synonymous with energy efficiency was leveraged to maximize the reach and penetration of CDM initiatives, in a way that could not be achieved by each member LDC on its own. Consistency of branding and messaging contributed to program credibility and consumer's willingness to engage in conservation and demand management programs.

Cost Sharing:

- While local electricity markets and customer contacts often deserve and demand customized treatment, other aspects of CDM programs are common and lend themselves to cost sharing. The CLD members agreed early on to a standard cost sharing formula to ensure that benefits were fairly allocated. Sharing costs has enabled individual CLD members to help minimize program costs through the life of the project to the end of 2007.

Exchange of Ideas/Approaches:

- Customers' attitudes towards energy use are not homogeneous. Achieving a conservation culture in Ontario required experimentation with varied and diverse approaches. Working in partnership, the CLD members have learned from each other's successes and setbacks. For example, Toronto Hydro's launch of its peaksaver program in late 2005 offered proof that many customers were willing to participate in an air conditioner load control program for a nominal financial reward. This success translated into a broader scale program across all CLD service areas in 2006 and continued into 2007.

Market Conditions

The lessons learned about market conditions, and reported in 2006, continued into 2007 as the program achieved its maximum potential under the Third Tranche funding and transitioned into an OPA funding model. One of the key findings for all market segments is the need for LDCs to continue to communicate, educate and engage customers and be a provider of information to their local market. Emerging technologies and an increase in service providers have created the need and opportunity for LDC's to work with and assist customers in understanding the technologies and the impact and value these technologies can have on their businesses. As reported previously the following lessons were reaffirmed and expanded in 2007:

- It was evident, particularly from the Home Depot and Fridge Unplugged programs that residential customers are eager to learn about, and install, more energy efficient measures. It is important to educate residential customers on the financial impact and quick return provided by conservation solutions. Future use of real time, in home, energy monitors will offer customers an effective tool to better understand and manage their energy consumption, particularly when time of use pricing comes into effect.

- In the commercial, industrial and institutional sectors it was surprising to learn that many companies have not installed energy savings measures in order to reduce power costs. It was found that capital investment decisions must have a very fast payback, typically less than two years. The CDM incentive made energy efficiency projects viable for a significant number of customers.

- A key lesson learned from the powerWISE Business Incentive Program (now the Business Incentive Program) is that it takes significant and direct interaction with commercial customers for this type of program to flourish.

- There are a number of larger customers that have generators used for back-up power requirements. Working with these customers we were able to retrofit these installations to make the generators available for dispatch on peak. This capability can significantly reduce summer peak loads.

- We were able to design and install the peaksaver load management system whereby customers' air conditioning units can be managed to reduce summer peak demand. Effective promotion of the program resulted in approximately 20 per cent implementation of this program in the marketplace.

- In the Social Housing Program, it became very evident that the needs of low income housing tenants must be addressed. Social and low income housing customers are typically spending a greater percentage of their income on utilities or rent and can least afford to retrofit their unit or purchase efficient appliances. Education in this sector is critical. Fortunately we were able to commit CDM incentives to Toronto Community Housing Corporation & Social Housing Service Corporation in order specifically address these issues, but there is much more that can be done.

- CDM program development does take time. In particular, legal and environmental issues must be thoroughly addressed up front in order to ensure long-term sustainable conservation success.

- Public education is a critical element as we build a culture of conservation. We must continue to balance the need for short-term results while fostering a long-term conservation attitude.

Regulatory Environment

The regulatory environment in 2007, compared to 2006, was a period of transition.

It is clear that CDM programs require and will benefit from continuity and consistency of funding. The funding transition that occurred in 2007 created a period of uncertainty which disrupted programs at the beginning of the year followed by a ramping up in mid year. The result was a loss of momentum in conservation programs savings and customer confusion.

The energy industry must coordinate the individual efforts of its many organizations to ensure that program delivery is efficient, readily available and understood by all customers. Most customers don't understand the relationship among the various organizations within the hydro industry. Any attempt to deliver programs to the end customer by different groups only confuses the customer and suggests a lack of industry coordination. Clarity regarding the roles of the LDCs, Electricity Distributors Association (EDA), The Board, OPA and the Independent Electricity System Operator (IESO) would be beneficial in this regard.

Total Resource Cost (TRC) analysis has become more complicated with the introduction of new TRC Analysis tools and measures lists. There are two sets of standards, one from the OEB and one from the OPA. We recommend the use of a single financial standard set by the OEB.

OEB's new proposed CDM regulatory structure dealing with pilot programs is supported. In addition to pilot programs, consideration should be given to R&D funding to support program development. This would encourage development of new ideas and control any potential risks involving new technologies.

5. Conclusions

Toronto Hydro-Electric System Limited developed and ramped up an effective conservation and demand management program and generated impressive results using Third Tranche of MARR funding. In addition, the experience provided considerable amount of learning which led to process and program design improvements which in turn contributed to the conservation achievements.

Results for 2007 are significantly lower than in previous years as programs originally launched in 2005 were wound down as the Third Tranche funding was exhausted.

Toronto Hydro was able to maximize results by working with the CLD, which provided a significant advantage in knowledge and resource sharing, efficiency and cost effectiveness. As we gained market experience, we were able to fine-tune our individual CDM plans for mutual benefit.

Toronto Hydro enjoyed highly recognized successes with two particular programs developed by Toronto Hydro. The peaksaver program and the Summer Challenge program both proved to be very popular with our customers and were since adopted by other LDCs and the OPA for implementation across the Province in 2007.

The constraints facing the Provincial electricity distribution system are well known and have created a heightened sense of urgency for all users to contribute to better management of our electricity demand. Our customers are recognizing the value of conserving electricity and Toronto Hydro's role in delivering CDM programs locally is well established. Toronto Hydro is committed to helping lead the evolution to a culture of conservation in this Province and will work with the regulator, the OPA and other members of the CLD to make this happen.

Appendix A - Evaluation of the CDM Plan

Highlighted boxes are to be completed manually, white boxes are linked to Appendix C and will be brought forward automatically.

	[5] Cumulative Totals Life-to-date	Total for 2007	Residential	Commercial	Distributed Energy	[4] Smart Meters	Overall Program Support
Net TRC value ($):	*$ 98,432,860*	**$ 11,720,212**	**$ 6,472,120**	**$ 5,859,383**	**$ (33,138)**		**$ (578,153)**
Benefit to cost ratio:	*2.44*	3.04	3.61	3.21	0.21		0.00
Number of participants or units delivered:	*n/a*	*n/a*	667,760-number of residential & small commercial customers	269	2		n/a
Lifecycle (kWh) Savings:	*1,670,986,691*	136,658,037	29,158,570	107,398,616	100,851		0
Report Year Total kWh saved (kWh):	*262,371,278*	15,027,576	5,055,865	9,966,248	5,463		0
Total peak demand saved (kW):	*68,520*	6,161	3,942	2,216	3		0
Total kWh saved as a percentage of total kWh delivered (%):	*0.51%*	0.06%	0.02%	0.04%	0.00%		n/a
Peak kW saved as a percentage of LDC peak kW load (%):	*n/a*	0.13%	0.08%	0.05%	0.00%		n/a
[1] *Report Year Gross C&DM expenditures ($):*	*$ 39,983,087*	$ 3,009,622	$ 1,841,803	$ 589,018	$ 648	$ -	$ 578,153
[2] *Expenditures per KWh saved ($/kWh):*	*$ 0.02*	$ 0.02	$ 0.06	$ 0.01	$ 0.01		$ -
[3] *Expenditures per KW saved ($/kW):*	*583.53*	$ 488.47	$ 467.18	$ 265.84	$ 197.80		$ -

Utility discount rate (%):	5.36%

[1] Expenditures are reported on accrual basis.
[2] Expenditures include all utility program costs (direct and indirect) for all programs which primarily generate energy savings.
[3] Expenditures include all utility program costs (direct and indirect) for all programs which primarily generate capacity savings.
[4] Please report spending related to 3rd tranche of MARR funding only. TRC calculations are not required for Smart Meters. Only actual expenditures for the year need to be reported.
[5] Includes total for the reporting year, plus prior year, if any (for example, 2007 CDM Annual report for third tranche will include 2006, 2005 and 2004 numbers, if any.

Appendix B - Discussion of the Program

A. **Name of the Program:** **Residential Load Control Initiative**

Description of the program (including intent, design, delivery, partnerships and evaluation):

Load control uses a real time communications link to enable or disable customer loads at the discretion of the utility. These controls are usually engaged during system peak periods or when required to relieve pressure on the system grid and may include such "dispatchable" loads as electric hot water tanks, pool pumps, lighting, air conditioners, etc.

Target Users

Direct load control applies to all market segments. Though the control systems and technologies may vary by market segment, the methodology remains the same.

Benefits

Load control allows customers to respond quickly to external price signals. This also provides a mechanism for utilities to relieve pressure on constrained areas within the distribution grid and also reduces the need to bring on large peaking generators.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	none		
Efficient technology:	load control switch		
Number of participants or units delivered for reporting year:	3,459		
Measure life (years):	15		
Number of Participants or units delivered life to date	26,421		

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ 6,889,628	$ 47,941,761
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 169,920	$ 3,466,568
Incremental Measure Costs (Equipment Costs)	$ 1,283,998	$ 10,902,376
Total TRC costs:	$ 1,453,918	$ 14,368,943
Net TRC (in year CDN $):	$ 5,435,710	$ 33,572,818
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	$ 4.74	3.34

C. **Results:** (one or more category may apply)

	Reporting Year	Cumulative Results:
Demand Response Programs:		
Dispatchable load (kW):	3,805	29,063
Peak hours dispatched in year (hours):		

D. **Actual Program Costs:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ 1,283,998	$ 11,680,807
	Incremental O&M:	$ 169,920	$ 2,688,137
	Incentive:		
	Total:	$ 1,453,918	$ 14,368,943
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

1. Average peak demand reduction per participant is 1.1 kW according to a consulting study from U.S.
2. Zero percent of free ridership is used as the program is technology driven and enrollment based.
3. No kWh savings have been recognized as the program is one of the Demand Response programs.

[1] Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit benefit specified in the TRC Guide.

[2] For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made to a third party service provider to run an incentives program are program costs, and are to be included as TRC costs under the "Utility Program Costs" line.

Appendix B - Discussion of the Program

A. **Name of the Program:** **TAPS Program**

Description of the program (including intent, design, delivery, partnerships and evaluation):

This initiative is a partnership with Enbridge in their highly successful TAPS program. Enbridge is distributing CFLs and installing energy savings measures in homes that they would not normally consider (i.e. homes with electric water heaters and electric heating).

Target Users

Residential customers

Benefits

This program is simple in concept and highly effective, since CFL's use 75% less energy than incandescent bulbs and fit into standard sockets. Although a single change-out makes a very small difference, wide-scale use of CFL's could have a significant impact.

Measure(s):

	Measure 1	Measure 2	Measure 3	Measure 4	Measure 5
Base case technology:	average existing stock	average existing stock	average existing stock	average existing stock	average existing stock
Efficient technology:	Efficient Shower Heads	Pipe Wrap	CFL's 14W & 23W	Aerators	Prog. Thermostats
Number of participants or units delivered for reporting year:	446	399	33,944	838	41
Measure life (years):	12	6	4	12	18
Number of Participants or units delivered life to date	2,004	1,863	114,652	3,916	103

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ 1,306,152.30	4,395,839.96
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 43,771	$ 623,473
Incremental Measure Costs (Equipment Costs)	$ 102,272	$ 257,148
Total TRC costs:	$ 146,043	$ 880,620
Net TRC (in year CDN $):	$ 1,160,109	$ 3,515,220
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	8.94	4.99

C. **Results:** (one or more category may apply)

Conservation Programs:

		Cumulative Results:
Demand savings (kW):	*Summer*	16	84
	Winter		

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*17,252,360*	3,621,438	61,482,912	12,626,599
Other resources saved :				
Natural Gas (m3):				
Water (m3):	158,676	13,223	718,305	59,859

D. **Actual Program Costs:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ 112,504	$ 284,588
	Incremental O&M:	$ 43,771	$ 623,473
	Incentive:		
	Total:	$ 156,275	$ 908,061
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Actual equipment costs are used in TRC calculation.

[1] Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit benefit specified in the TRC Guide.

[2] For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made to a third party service provider to run an incentives program are program costs, and are to be included as TRC costs under the "Utility Program Costs" line.

Appendix B - Discussion of the Program

A. **Name of the Program:** **Social Housing Program**

Description of the program (including intent, design, delivery, partnerships and evaluation):

Due to aging housing stock, financial constraints and high incidences of electric heating, the Social Housing Sector is a prime candidate for CDM incentives.

Target Users

Local social housing corporations, non-profit homes and co-operative housing.

Benefits

Synergies will be created though the combined initiatives of the various agencies.

Measure(s):

	Measure 1	Measure 2	Measure 3
Base case technology:	Current standard for refridgerator	Current standard stove	Current standard lighting
Efficient technology:	Energy Star Refrigerators	Energy Star Stoves	Various EE Lighting Measures
Number of participants or units delivered for reporting year:	3,350	4,501	7
Measure life (years):	19	18	3
Number of Participants or units delivered life to date	27,381	29,330	7

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ 757,611	$ 4,117,187
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 44,528	$ 245,813
Incremental Measure Costs (Equipment Costs)	$ 836,782	$ 4,265,472
Total TRC costs:	$ 881,309	$ 4,511,285
Net TRC (in year CDN $):	($123,698)	($394,098)
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	$ 0.86	0.91

C. **Results:** (one or more category may apply) **Cumulative Results:**

Conservation Programs:

Demand savings (kW):	*Summer*	122	525
	Winter		

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*11,906,210*	1,434,427	70,274,506	4,578,316
Other resources saved :				
Natural Gas (m3):				
Other (specify):				

D. **Actual Program Costs:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*		
	Incremental O&M:	$ 44,528	$ 245,813
	Incentive:	$ 187,082	$ 1,155,170
	Total:	$ 231,609	$ 1,400,983
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. **Assumptions & Comments:**

[1] Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit benefit specified in the TRC Guide.

[2] For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made to a third party service provider to run an incentives program are program costs, and are to be included as TRC costs under the "Utility Program Costs" line.

Appendix B - Discussion of the Program

A. **Name of the Program:** **Leveraging Energy Conservation**

Description of the program (including intent, design, delivery, partnerships and evaluation):

Existing energy conservation and/or load management programs such as NRCan's Energy Innovators initiative, Enbridge initiatives etc. will be promoted and incentives may be provided to advance market uptake of these programs and implementation of the recommendations. The LDC's are well positioned to introduce such programs to their customer base. Work will be conducted with the existing program providers to maximize leverage opportunities. Promotion will potentially include face-to-face meetings, conferences and seminars.

Target Users

Large consumers over 50 kW including schools, large commercial facilities, institutional facilities, industrial, and municipal facilities.

Benefits

Customer awareness and additional incentives will help advance market uptake of audit services, feasibility studies and retrofit opportunities already established within the government program framework.

Measure(s):

	Measure 1	Measure 2	Measure 3
Base case technology:	Old lighting measures	n/a	Electric Water Heater
Efficient technology:	Energy efficient lighting	PowerKure	Gas Water Heater
Number of participants or units delivered for reporting year:	56	1	19
Measure life (years):	Varies with project	20	18
Number of Participants or units delivered life to date	65	1	30

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	*$ 2,859,460*	6,298,773
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	*$ 19,568*	$ 865,902
Incremental Measure Costs (Equipment Costs)	$ 2,045,760	$ 4,669,969
Total TRC costs:	$ 2,065,327	$ 5,535,871
Net TRC (in year CDN $):	$794,132	$762,902
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	$ 1.38	1.14

C. **Results:** (one or more category may apply)

Conservation Programs:

		Reporting Year	Cumulative Results:
Demand savings (kW):	*Summer*	966	2,473
	Winter		

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*38,454,146*	7,668,099	85,875,479	15,634,132
Other resources saved :				
Natural Gas (m3):	(232,560.00)	(12,920.00)	(232,560.00)	(12,920.00)
Water (m3):				

D. **Actual Program Costs:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*		$ 282,355
	Incremental O&M:	$ 19,568	$ 472,971
	Incentive:	$ 447,305	$ 769,835
	Total:	$ 466,873	$ 1,525,161
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

1. There are 8 projects included in this program that delivered kW savings in 2007: Westpark Healthcare Centre, Powerwise Business Incentive Program (7 Participants), Irving Tissue, U of T Scarborough (Residence), The Indigo-50 Lombard St., THESI, Atria Complex and Toronto District School Board (45 Participants).
2. PowerKure is an energy saving device.

[1] Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit benefit specified in the TRC Guide.

[2] For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made to a third party service provider to run an incentives program are program costs, and are to be included as TRC costs under the "Utility Program Costs" line.

Appendix B - Discussion of the Program

A. **Name of the Program:** **Commercial, Industrial & Institutional (CI&I) Load Control Initiative**

Description of the program (including intent, design, delivery, partnerships and evaluation):

Load control uses a real time communications link to enable or disable customer loads at the discretion of the utility. These controls are usually engaged during system peak periods or when required to relieve pressure on the system grid.

Target Users

Larger commercial, industrial and institutional customers.

Benefits

Demand control provides lower costs and increased stability for customers and utilities.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	none		
Efficient technology:	load control switch		
Number of participants or units delivered for reporting year:	183		
Measure life (years):	15		
Number of Participants or units delivered life to date	1,227		

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ 1,358,587	$ 8,315,518
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 8,990	$ 110,427
Incremental Measure Costs (Equipment Costs)	$ 67,931	$ 74,297
Total TRC costs:	$ 76,920	$ 184,724
Net TRC (in year CDN $):	$ 1,281,667	$ 8,130,793
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	17.66	45.02

C. **Results:** (one or more category may apply)

	Reporting Year	Cumulative Results:
Demand Response Programs:		
Dispatchable load (kW):	750	5,031
Peak hours dispatched in year (hours):		

D. **Actual Program Costs:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ 67,931	$ 74,297
	Incremental O&M:	$ 8,990	$ 110,427
	Incentive:		
	Total:	$ 76,920	$ 184,724
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

1. Average peak demand reduction per participant is 4.1 kW according to a consulting study from U.S.
2. Zero percent of free ridership is used as the program is technology driven and enrollment based.
3. No kWh savings have been recognized as the program is one of the Demand Response programs.

[1] Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit benefit specified in the TRC Guide.

[2] For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made to a third party service provider to run an incentives program are program costs, and are to be included as TRC costs under the "Utility Program Costs" line.

Appendix B - Discussion of the Program

A. **Name of the Program:** **Design Advisory Program**

Description of the program (including intent, design, delivery, partnerships and evaluation):

This initiative helps to create an integrated approach to the design process for new buildings, and involves architects, engineers, building owners and Toronto Hydro design advisors, with the goal of creating more energy efficient buildings.

Target Users

Commercial, Industrial and Institutional customers.

Benefits

This program results in cost effective improvements to the energy efficiency of a building without adversely affecting other performance requirements stipulated by the owner. An energy performance model can be created to demonstrate achievable energy savings and can provide a breakdown of energy use. Through the installation of energy efficient equipment during construction, the customer benefits by avoiding the stranded costs incurred with equipment upgrades.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	Conventional building design		
Efficient technology:	Integrated design		
Number of participants or units delivered for reporting year:	10		
Measure life (years):	30		
Number of Participants or units delivered life to date	17		

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ 4,295,915	$ 4,989,596
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):		$ 23,467
Incremental Measure Costs (Equipment Costs)	$ 512,331	$ 562,978
Total TRC costs:	$ 512,331	$ 586,445
Net TRC (in year CDN $):	$ 3,783,584	$ 4,403,151
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	$ 8.39	8.51

C. **Results:** (one or more category may apply)

Conservation Programs:

		Cumulative Results:
Demand savings (kW):	*Summer* 500	697
	Winter	

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*68,944,470*	2,298,149	81,434,108	2,714,470
Other resources saved :				
Natural Gas (m3):				
Other (specify):				

D. **Actual Program Costs:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*		
	Incremental O&M:		$ 23,467
	Incentive:	$ 45,225	$ 117,577
	Total:	$ 45,225	$ 141,044
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

1. The program includes 10 locations that obtained an occupancy permit by the end of 2007.
2. A 30% free ridership rate has been used in the TRC calculation, consistent with what's been used in the gas industry.
3. kW and kWh savings are based on model results provided by CDM partner.

[1] Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit benefit specified in the TRC Guide.

[2] For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made to a third party service provider to run an incentives program are program costs, and are to be included as TRC costs under the "Utility Program Costs" line.

Appendix B - Discussion of the Program

A. **Name of the Program:** **Load Displacement**

Description of the program (including intent, design, delivery, partnerships and evaluation):

Distributed generation behind the customer's meter provides an excellent opportunity to displace load from the local distribution system's grid in a very effective manner. Load displacement technology, such as combined heat and power systems, provides increased power efficiency and thermal systems.
Other technologies such as micro-turbines, wind, biomass fuels and solar provide additional options to meet the customer's needs. This initiative will facilitate the development and implementation of these opportunities. Financial incentives will be considered based on the project's viability.
Development of educational and technology programs in conjunction with local colleges and universities may be considered. Small pilots or demonstration projects to promote alternative and renewable energy sources may also be considered.

Target Users:

Commercial, industrial, and residential, schools, colleges and universities.

Benefits

Benefits include additional capacity within the grid. Cleaner technologies result in reductions in green house gas (GHG) emissions. Other benefits include improved system reliability, reduced harmonics, backup power possibilities, education

Measure(s):

	Measure 1	Measure 2	Measure 3
Base case technology:	Electrical load from LDC's grid	Electrical load from LDC's grid	Previous year (Enwave)
Efficient technology:	Solar Panels	Wind Turbine	Deep Lake Water Cooling
Number of participants or units delivered for reporting year:	1	1	
Measure life (years):	20	15	
Number of Participants or units delivered life to date	1	1	7

B. **TRC Results:**

		Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*		$ 8,862	$ 39,536,294
[2] *TRC Costs ($):*			
Utility program cost (excluding incentives):			$ 202,983
Incremental Measure Costs (Equipment Costs)		$ 42,000	$ 10,135,819
Total TRC costs:		$ 42,000	$ 10,338,803
Net TRC (in year CDN $):		-$ 33,138	$ 29,197,492
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		$ 0.21	3.82

C. **Results:** (one or more category may apply)

Cumulative Results:

Conservation Programs:

Demand savings (kW):	*Summer*	3	11,520
	Winter		

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*100,851*	5,463	563,499,881	22,541,424
Other resources saved :				
Natural Gas (m3):				
Other (specify):				

D. **Actual Program Costs:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*		$ -
	Incremental O&M:	$ -	$ 202,983
	Incentive:	$ 648	$ 1,837,948
	Total:	$ 648	$ 2,040,931
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

1. The program contains one location with solar panels and a wind turbine.

[1] Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit benefit specified in the TRC Guide.

[2] For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made to a third party service provider to run an incentives program are program costs, and are to be included as TRC costs under the "Utility Program Costs" line.

Appendix B - Discussion of the Program

A. **Name of the Program:** **Regulatory Reporting and Program Support**

Description of the program (including intent, design, delivery, partnerships and evaluation):

Project review, approval, tracking and results verification. Development of contracts with CDM Partners.

Target Users

All customer classes.

Benefits

Supports existing programs and drives energy conservation awareness that will facilitate the culture change in Ontario.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:			
Measure life (years):			
Number of Participants or units delivered life to date			

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*		
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 578,153	$ 1,787,754
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	$ 578,153	$ 1,787,754
Net TRC (in year CDN $):	$ (578,153)	$ (1,787,754)
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	n/a	n/a

D. **Actual Program Costs:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*		
	Incremental O&M:	$ 578,153	$ 1,787,754
	Incentive:		
	Total:	$ 578,153	$ 1,787,754
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

[1] Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit benefit specified in the TRC Guide.

[2] For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made to a third party service provider to run an incentives program are program costs, and are to be included as TRC costs under the "Utility Program Costs" line.

Appendix C - Program and Portfolio Totals

Report Year:

1. Residential Programs

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
Resdential Load Control Initiative	$ 6,889,628	$ 1,453,918	$ 5,435,710	4.74			3,805	$ 1,453,918
TAPS Program	$ 1,306,152	$ 146,043	$ 1,160,109	8.94	3,621,438	17,252,360	16	$ 156,275
Social Housing Program	$ 757,611	$ 881,309	-$ 123,698	0.86	1,434,427	11,906,210	122	$ 231,609
Totals App. B - Residential	$ 8,953,391	$ 2,481,270	$ 6,472,120	3.61	5,055,865	29,158,570	3,942	$ 1,841,803
Residential Indirect Costs not attributable to any specific program	→							
Total Residential TRC Costs		$ 2,481,270						
****Totals TRC - Residential**	**$ 8,953,391**	**$ 2,481,270**	**$ 6,472,120**	**3.61**				

2. Commercial Programs

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
Leveraging Energy Conservation & Load Control Management	$ 2,859,460	$ 2,065,327	$ 794,132	1.38	7,668,099	38,454,146	966	$ 466,873
Institutional Load Control Initiative	$ 1,358,587	$ 76,920	$ 1,281,667	17.66			750	$ 76,920
Design Advisory Program	$ 4,295,915	$ 512,331	$ 3,783,584	8.39	2,298,149	68,944,470	500	$ 45,225
Totals App. B - Commercial	$ 8,513,962	$ 2,654,579	$ 5,859,383	3.21	9,966,248	107,398,616	2,216	$ 589,018
Commercial Indirect Costs not attributable to any specific program	→							
Total TRC Costs		$ 2,654,579						
****Totals TRC - Commercial**	**$ 8,513,962**	**$ 2,654,579**	**$ 5,859,383**	**3.21**				

3. Distributed Energy Programs

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
Load Displacement	$ 8,862	$ 42,000	-$ 33,138	0.21	5,463	100,851	3	$ 648
Totals App. B - Distributed Energy	$ 8,862	$ 42,000	-$ 33,138	0.21	5,463	100,851	3	$ 648
Distributed Energy Indirect Costs not attributable to any specific program	→							
Total TRC Costs		$ 42,000						
****Totals TRC - Distributed Energy**	**$ 8,862**	**$ 42,000**	**-$ 33,138**	**0.21**				

→

7. Smart Meters Program

Only spending information that was authorized under the 3rd tranche of MARR is required to be reported for Smart Meters.

Report Year Gross C&DM Expenditures ($) →	

9. Overall Program Support

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
Regulatory Reporting & Program Support		$ 578,153	-$ 578,153	0.00				$ 578,153
***Totals App. B - Overall Program Support**	$ -	$ 578,153	-$ 578,153	0.00	0	0	0	$ 578,153
Overall Program Support Indirect Costs not attributable to any specific program →								
Total TRC Costs		$ 578,153						
****Totals TRC - Overall Program Support**	**$ -**	**$ 578,153**	**-$ 578,153**	**0.00**				

LDC's CDM PORTFOLIO TOTALS

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
***TOTALS FOR ALL APPENDIX B**	$ 17,476,214	$ 5,756,002	$ 11,720,212	3.04	$ 15,027,576	$ 136,658,037	$ 6,161	$ 3,009,622
*Any **other** Indirect Costs not attributable to any specific program* →								
TOTAL ALL LDC COSTS		$ 5,756,002						
****LDC' PORTFOLIO TRC**	$ 17,476,214	$ 5,756,002	$ 11,720,212	3.04				

* The savings and spending information from this row is to be carried forward to Appendix A.
** The TRC information from this row is to be carried forward to Appendix A.

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December 5, 2008

Blair Peberdy
Vice President
Marketing Communications & Public Affairs
Chief Conservation Officer
14 Carlton Street
Toronto, ON M5B 1K5

RE: 2007 OPA Program Conservation Results - estimated allocation to Toronto Hydro service territory

Dear Blair:

As per your request of July 28th 2008 attached are the 2007 energy and demand saving results for OPA funded conservation programs that were allocated to Toronto Hydro service area. The allocation of savings was based on the same regional allocation methodology as was used in the IPSP, with the exception of programs that were run solely within Toronto, in which case 100% of savings were attributed to Toronto Hydro.

These results represent the best available information for programs delivered in 2007. Six of these programs underwent comprehensive third-party evaluations, in accordance with the OPA's Evaluation, Measurement and Verification (EM&V) framework developed in 2007. In 2008, every in-market conservation program has an evaluation plan and will undergo evaluation and this will continue for 2009 programs as well.

We do not anticipate any further adjustment to the 2007 conservation program results.

We hope this meets Toronto Hydro LRAM claim requirements.

Yours truly,

R. Paul Shervill
Vice President
Conservation and Sector Development

OPA
Ontario Power Authority

2007 OPA Conservation Program Results - estimated allocation to City of Toronto

Program	Net Summer Peak Savings (MW)	Net First Year Energy Savings (MWh)	Notes
The Great Refrigerator Roundup Program	0.3	2,093	
Every Kilowatt Counts	0.8	20,603	
Cool Savings Rebate Program	3.1	4,714	
peaksaver®	2.3	0	No province wide curtailments in 2007
Summer Savings	7.0	12,643	
Aboriginal Conservation Initative	0.0	0	No aboriginal EE kits were delivered within City of Toronto
Affordable Housing	0.2	2,016	City of Toronto specific energy savings derived from available geographic data
Social Housing	0.2	1,857	
Energy Efficiency Assistance for Houses – Pilot	n/a	80	City of Toronto specific energy savings derived from available geographic data
Toronto Comprehensive (Tor Hydro)	135.4	163,073	Program run exclusively in Toronto
Toronto Comprehensive (BOMA)	0.7	5,663	Program run exclusively in Toronto
Electricity Retrofit Incentive Program	0.0	0	TH BIP covers City of Toronto, ERIP covers rest of province
Demand Response 1	49.5	0	
Demand Response - Non Program	2.1	0	
Demand Response - Carry Forward	2.0	0	
Self generation	0.3	948	
Total	**204**	**213,690**	

Prepared on: Dec 1, 2008
Prepared by: Portfolio Development & Planning (PDP)

Toronto Hydro 2007 results					Estimated lifetime savings		
		Programs	kW	kWh	Measures	Life	Lifetime kWh
Q2 - Existing							
City	Arenas	1	447	1787200	lighting	5	8,936,000.00
City	Exhibition - Power Gen	1	100	120000	photovoltaic power gen	5	600,000.00
City	Exhibition - Buildings	1	95	379200	lighting	5	1,896,000.00
City	Fire Stations	1	248	991760	lighting	5	4,958,800.00
City	LED Trafic Lights	1	139	1215012	LED lighingt	5	6,075,060.00
City	NationalTrade Centre	1	482	1928000	lighting	5	9,640,000.00
City	Design Advisory Program	1	190	760400	lighting retrofits	5	3,802,000.00
Enbridge - TAPS		1	2233	4936647	showerhead/bulbs/wrap	5	24,683,235.00
Granite Club		1	213	1245380	lighting	5	6,226,900.00
Home Depot		1	617	2469579	lighting	5	12,347,895.00
U of T - St. George		1	856	3425200	chiller upgrade & lighting	10	34,252,000.00
Powerwisw Busines Incentive Program		1	129	516788	lighting	5	2,583,940.00
Peaksaver Extension		1	4000	-	load control		
Total Q2			**9,749**	**19,775,166**			**116,001,830**
Q3 - Existing							
Home Depot			4362	2399192	airconditioners	15	35,987,880.00
Enbridge - TAPS			1377	3135197	showerhead/bulbs/wrap	5	15,675,985.00
Design Advisory - Enbridge		1	251	1051974	design	1	1,051,974.00
TCHC Proj 2		1	2518	5956773	lighting	5	29,783,865.00
Powerwisw Busines Incentive Program			605	2420152	lighting	5	12,100,760.00
THESI Phase 2		1	630	2518960	lighting	5	12,594,800.00
U of T Scarborough		1	96	160000	gas water heaters	12	1,920,000.00
The Indigo		1	242	968000	ice storage	10	9,680,000.00
Hospital fopr Sick Kids		1	279	1114000	lighting	5	5,570,000.00
McDonalds Restaurants		1	350	1400000	lighting	5	7,000,000.00
Direct Energy - 22 southport st		1	261	1044000	lighting	5	5,220,000.00
Enwave	Queens Park	1	3167	7600800	deepwater cooling	20	152,016,000.00
Enwave	226 King 7 200 Wellington	1	1667	4000800	deepwater cooling	20	80,016,000.00
Enwave	390 Bay	1	735	1764000	deepwater cooling	20	35,280,000.00
Enwave	College Park	1	2261	5426400	deepwater cooling	20	108,528,000.00
MSR inc		1	400	-			
peaksaver extension 4			3966	-			
Total Q3			**23,167**	**40,960,248**			**512,425,264**
Q4 - Existing							
Enbridge - TAPS			3023	5324043	showerhead/bulbs/wrap	5	26,620,215.00
Design Advisory - Enbridge			4183	4070894	design	1	4,070,894.00
TCHC Proj 2			744	391680	fridges/stoves	20	7,833,600.00
Powerwisw Busines Incentive Program			768	3071650	lighting	5	15,358,250.00
THESI Phase 2			34	136000	lighting	5	680,000.00
U of T St Georges			2257	9026400	lighting&chiller	5	45,132,000.00
York University		1	519	2076000	lighting	5	10,380,000.00
Toronto Western Hospital		1	166	664000	chiller	20	13,280,000.00
Aventis Pasteur		1	6000	-	cogen		
City	ExhibitionPlace	1	1609	-	cogen		
Enwave	john St Pumping Stn	1	11000	-	stanby generator		
Total Q4			**30,303**	**24,760,667**			**123,354,959**
Total programs		31					
Q4 - New Programs							
Mass Market SLED			1803	279390	seasonal lights	5	1,396,950.00
Low Income Program			1024	2375680	CFLs	5	11,878,400.00
Bussines Incentive Program - New			1312	5247998	Assume same as ERIP	5	26,239,990.00
Summer /savings - Commercial			83102	87792670		1	87,792,670.00
Total Q4			**87,241**	**95,695,738**			**127,308,010**
Total (gross)			150,460	181,191,819			879,090,063
NTG	0.9						
Total (net)			135,414	163,072,637			791,181,057

EB-2008-XXXX
Toronto Hydro-Electric System Limited
Recovery of Amounts Related to CDM
Filed: December 15, 2008
Exhibit 4 (23 pages)

Toronto Hydro-Electric System Ltd.

City of Toronto Directive
Conservation and Demand Management
New Programs
2007 Annual Report

Submitted to:

Ontario Power Authority

Submitted on April 30, 2008

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1 Introduction

On May 7, 2007, Toronto Hydro-Electric System Limited (THESL) signed the Master CDM Agreement with the Ontario Power Authority (OPA). According to the Agreement, THESL will deliver up to 163 MW of demand reduction in Toronto by December 31, 2010, of which up to 65 MW will be achieved through new programs, as summarized below.

Summary of Overall 2007 – 2010 Plan

Program	Demand Savings (kW)	Customer Incentive ($)	Marketing ($)	Administration ($)	Margin ($)	Total **($)**
Mass Market Program	1,577	3,781,458	1,000,000	843,787	157,697	5,782,942
Summer Challenge – Business	42,000	6,483,863	1,400,000	600,000	2,100,000	10,583,863
Low Income Program	1,246	2,711,739	348,879	111,007	124,637	3,296,262
Business Incentive Program	20,000	7,000,000	625,000	375,000	1,000,000	9,000,000
CDM Program Support				2,500,000		2,500,000
SubTotal	**64,823**	**$19,977,060**	**$3,373,879**	**$4,429,794**	**$3,382,334**	**$31,163,067**
Contingency $550/kW)	10,000					$5,500,000
TOTAL	**74,823**					**$36,663,067**

This report is prepared as per the requirements in the Master Agreement with respect to new programs implemented by THESL in 2007.

2 Program Summary as Approved in 2007 Work Plan

Program	Demand Savings (kW)	Fixed Costs	Customer Incentive	Margin	Total
Mass Market	263	$ 211,518	$ 55,778	$ 26,300	**$ 293,596**
Summer Challenge - Business	42,000	$ 1,793,908	$ 6,483,863	$ 2,100,000	**$10,377,771**
Low Income	208	$ 76,648	$ 451,957	$ 20,773	**$ 549,377**
Business Incentive Program	3,333	$ 466,544	$ 1,166,667	$ 166,650	**$ 1,799,861**
Program Support	-	$ 416,667	$ -	$ -	**$ 416,667**
Total	**45,804**	**$ 2,965,284**	**$ 8,158,265**	**$ 2,313,723**	**$13,437,272**

Note:

The above Fixed Costs include approximately $1.5 million in third party costs for marketing and promotion activities for the following programs:

Program	3rd Party Costs
Mass Market	$ 150,000
Summer Challenge - Business	$ 1,130,930
Low Income	$ -
Business Incentive Program	$ 229,000
Program Support	$ -
Total	**$ 1,509,930**

3 Summary of Program Results

The table below summarizes the actual results of the new programs implemented in 2007

Project	Demand Savings (kW)	Net TRC Benefits	Fixed Costs	Customer Incentive	Margin	Total
Mass Market	1,803	$ 223,558	$ 31,422	$ 160,772	$ 180,300	**$ 372,494**
Summer Challenge - Business	83,102	$ 4,952,174	$ 1,383,640	$ 3,670,512	$ 4,155,100	**$ 9,209,252**
Low Income	1,024	$ 99,448	$ 12,198	$ 358,316	$ 102,376	**$ 472,890**
Business Incentive Program	1,312	$ (105,325)	$ 345,897	$ 169,883	$ 65,600	**$ 581,379**
Program Support	n/a	$ (1,908)	$ 1,908	$ -	n/a	**$ 1,908**
Total	**87,240**	**$ 5,167,948**	**$ 1,775,065**	**$ 4,359,483**	**$ 4,503,376**	**$ 10,637,924**

The overall program achieved 87.2 MW of demand savings compared to the planned 45.8 MW and net TRC benefits of $5.2 million.

The total actual expenditures for the 2007 program, including margin for performance, were $10.6 million compared to the planned $13.4 million.

Details of the program achievements are outlined in the following sections of this report.

4 Program Details

4.1 Mass Market Program

Working with Toronto Association of Business Improvement Areas (TABIA), THESL held the Festive Light Exchange Program from November 8 to December 2 of 2007.

4.1.1 Target Market

Toronto residents were invited to join the launch of festive lighting displays in various Business Improvement Areas (BIAs) across the City of Toronto. At these events, Torontonians were encouraged to exchange two (2) strings of old, incandescent holiday lights for one (1) string of energy-efficient Seasonal Light Emitting Diode (SLED) lights. The offer was extended to Toronto residents only, one set of SLEDs per family/household for the first 500 participants per event. The collected old strings were disposed of in an environmentally-friendly manner and material was recycled where possible.

The purpose of this project was to reduce peak demand for electricity by encouraging the use of SLED lights, as opposed to continuing to use the traditional incandescent light sets (including C7, C9 and mini-light sets) for holiday lighting purposes. It also gave people the opportunity to try out the LED technology.

4.1.2 Program Results

The program achieved 1,803 kW of demand reduction.

4.1.3 Incentive Level

THESL paid $5.00 per string of old lights collected.

4.1.4 Application Process

There was no application or registration process for participation in the Festive Light Exchange program. Participants had to attend the events and bring two (2) strings of incandescent lights.

4.1.5 Evaluation, Measurement & Verification (EM&V) Plan

The kW savings were calculated by TABIA using the actual number of festive lights collected and distributed and were based on the following assumptions:

- LEDs use a fraction of the electricity of incandescent bulbs. Traditional Christmas lights can consume up to 15 watts per light bulb or hundreds of watts of electricity per string of light bulbs. Christmas lights that use light emitting diodes consume 90% less electricity.

- One string of SLED lights consumes 1.8 W of electricity.
- One string of C7 incandescent lights consumes 125 W of electricity.
- One string of C9 incandescent lights consumes 175 W of electricity.
- One string of mini-lights consumes 15 W of electricity.

The submitted reports from TABIA were verified by Toronto Hydro for accuracy.

For TRC analysis and reporting purposes the OEB "Assumptions and Measures List (updated Oct 14, 2006)" for free ridership (10%) and hours of operation was applied:

http://www.oeb.gov.on.ca/html/en/industryrelations/ongoingprojects_distconservation.htm

4.1.6 Customer Service

Call Centre staff were provided with briefing materials, program details and dates.

4.1.7 Marketing and public relations plan

Advertising

- Print advertisements in community newspapers in participating BIA areas
- Radio advertisements on Toronto stations were used.

Media relations

- Press release, from the City of Toronto, with a Toronto Hydro mention
- Media alerts, with event locations and details were sent to the news wire each week of the program

Government Relations

- Toronto City Councillors were invited to attend events in their wards
- Along with the invitation, matte stories featuring the exchanges and the energy-efficient LED technologies and samples of the advertisements were sent to the Toronto City Councillors' offices
- The Minister of Energy requested a festive light exchange event to be held in his riding and the Minister attended the event

Online promotion

- Program details and LED information were available at: www.torontohydro.com/sled
- The program was also promoted on: Individual BIA sites, the TABIA site, and the City of Toronto's Cavalcade of Lights site

Direct Mail

- Participating BIAs were provided with copies of a generic advertisement for door-to-door distribution
- The direct mail piece was distributed a few days before the event in a particular neighbourhood

Collateral Materials

Toronto Hydro collateral was available for program participants. The materials featured Toronto Hydro programs and conservation tips.
Samples of collateral material included:

- Powerwise tips
- OPA Every Kilowatt Counts coupons
- City of Toronto's Cavalcade of Lights program
- ***peaksaver*** brochures
- Great Refrigerator Roundup materials

4.1.8 Data Collection and Tracking

On-site staff maintained a record of old strings collected and new strings distributed. The plugs were cut off the end of the old strings and counted by TABIA. TABIA provided THESL with a report on the results of the events. This data was verified and retained for audit and payment purposes.

4.1.9 IT Requirements

There were no IT requirements for the Festive Light Exchange program

4.1.10 Program Administration

Administration of the Festive Light Exchange Program consisted of adhering to corporate accounting policies and practices and verification of results. TABIA provided Toronto Hydro with a written report in respect to the project and the achievement of the target.

4.2 Summer Challenge for Business Program

The Summer Challenge for Business program was an extension of THESL's successful 2006 Residential Summer Challenge program. The residential program was rolled out provincially by the OPA in 2007 under the name of Summer Savings.

The Summer Challenge for Business program seeked to engage all business customers to reduce electricity consumption during summer months (between July 1st and August 31st) by at least 10 percent compared with their consumption during same period in 2006. If this reduction was achieved, customers received a 10% financial incentive on their next bill following the measurement period.

* The program allowed for a 0.5% tolerance, so customers actually qualified if they reduced by 9.5% or higher.

The credit applied to all of the consumption-driven items as follows:

- Energy
- Transmission
- Distribution
- wholesale operations charge
- debt retirement
- customer charge
- market transition (sub rate of distribution)
- GST

The credit excluded any unpaid amounts from previous bills carried forward as well as un-metered energy charges (e.g. un-metered water heater charge).

4.2.1 Target Market

Customer Type	Size	Number of Accounts
General Service	<50 kW	67,017
General Service	50-1000 kW	11,445
General Service	1,000 – 5,000 kW	516
General Service	>5,000 kW	49

Note: Business Segmentation (Annual Report 2006)

4.2.2 Program Results and Methodology

The program achieved 83,102 kW of demand reduction. The methodology as stated in the approved 2007 Work Plan was used for converting kWh to kW.

The table below summarizes the results by customer class:

Rate Class	kWh Reduction	kW Reduction
GS < 50 kW	15,738,199	18,320
GS 50-1000 kW	37,046,579	35,011
GS 1000-5000kW	22,826,099	19,953
GS > 5000 kW	12,181,792	9,817
Total	**87,792,670**	**83,102**

Further details on the results of this program are provided in the "2007 Summer Challenge for Business Program Final Report" issued to the OPA on January 24, 2008.

4.2.3 Incentive Level

An eligible customer accounts qualified for the incentive if the account achieved 9.5% or greater in savings compared to the 2006 energy consumption. The incentive amount was calculated as a 10% reduction in the bills for the consumption period of July and August 2007. The 10% was applied to the customer's total bill including commodity and non-commodity amounts but excluded unpaid amounts from previous bills and un-metered energy charges.

4.2.4 Application Process

The Summer Challenge for Business program was available to all business customers regardless of size or ownership of the building. No customer sign-up was required; all customers were automatically enrolled in program if they met the qualifying criteria. To qualify business customers had to have an active account with THESL since July 1, 2006.

Third parties were used to develop Business Summer Saving program marketing creative for the Toronto market including collateral and advertising materials. Third party resources were also used to purchase advertising media for the Business Summer Savings program and to implement public relations tactics, media events, call centre and face-to-face outreach activities.

4.2.5 Evaluation, Measurement & Verification (EM&V) Plan

Customers' electricity consumption during the two-month period in the summer was compared to their 2006 consumption and uniformly corrected for variations in the weather. Those who reduced their consumption by at least 10% automatically qualified for the 10% credit.

This program aligned with the Residential Summer Savings standard program offered by the OPA. A 10% free ridership was applied for TRC analysis and reporting purposes.

Participation Criteria:

Base Year and Savings Year Bi-Monthly Meter Reads for Consumption Calculations were based on:

- An actual meter reading within a 75 day window prior to July 1st 2006.
- An actual meter reading within a 75 day window post August 31st 2006.
- An actual meter reading within a 75 day window prior to July 1st 2007.
- An actual as opposed to an estimated meter reading within a 75 day window post August 31st 2007.

Base Year and Savings Year Monthly Meter Reads for Consumption Calculations were based on:

- An actual meter reading within a 45 day window prior to July 1st 2006.
- An actual meter reading within a 45 day window post August 31st 2006.
- An actual meter reading within a 45 day window prior to July 1st 2007.
- An actual as opposed to an estimated meter reading within a 45 day window post August 31st 2007.

A correction mechanism (weather normalization) was applied to the baseline consumption and to the program consumption for each participant. Weather normalization corrections were used for both 2006 data and 2007 program consumption data.

For participants that were subject to Retailer Consolidated Billing (as defined in the OEB's Retail Settlement Code), the rebate was based on the applicable consumption as defined by the overall process. Because there was no electronic business transaction (EBT) cross reference for this transaction, the rebate amount was sent to the retailers via cheques.

4.2.6 Customer Service

Internal staff was allocated to launch, manage and monitor the program from within Marketing Communications, Customer Service, Program Management, Finance, IT and Call Centre departments.

Customer service representatives within THESL and its outsourced call centre required training regarding calculations, program overview and Interactive Voice Response (IVR) scripts. There were additional customer care employees that required a quick overview of the program. The Call Centre Manager allotted training time for the program. The Quality Specialists prepared training material and trained all Customer Service Representatives (CSRs). Summer Challenge for Business program training was conducted with Residential Summer Savings program training.

Call centre staff responded to Summer Challenge for Business customer inquiries.

4.2.7 Marketing and Public Relations Plan

Direct Mail

Four direct mail pieces were implemented for each market segment, which included:

- General Awareness/Introduction

- Program Overview
- Program Reminder
- Congratulations Letter recipients of 10%

On-Bill Promotional Message for Business Customers

Customer In-bill Newsletter
Key message included: Summer Challenge for Business program runs from July 1 to August 31, 2007 and is aimed at reducing energy usage. Reducing usage helps maintain a reliable supply of electricity and contributes to eliminating the need to purchase expensive and polluting energy from other sources such as coal-fired power generators.

Bill Inserts
Final message to small-medium customers outlines success of the program.

Website
THESL website section on business promoted the Summer Challenge for Business Program. A link to the Program Web Page was promoted on www.torontohydro.com. All Summer Challenge for Business print content was placed on the website in print ready format.

Interactive Voice Response
Customers were given the option to hear recorded information about the Summer Challenge for Business Program.

Collateral
Collateral materials describing the Summer Challenge for Business Program was developed for customers in the form of direct mail pieces, program brochures, testimonials and postcards. This collateral was distributed by direct mail and was also available for distribution at community events. Collateral materials were available on the website with a print ready option for customers. Targeted messages and collateral materials were developed based on segmentation.

Advertising
Local advertising ensured that awareness levels were high so that customers were advised of the Summer Challenge for Business program. The advertising was diverse and included a component to reach all market segments including the large ethnic population in Toronto. Advertising included newspapers – local, community, ethnic, trade journals, banner ads, POP advertising with partners, editorial/articles, radio advertising and co-op advertising.

Media Launch Event and Public Relations
THESL launched the Summer Challenge for Business program in tandem with the Residential Summer Savings program. An *Omnibus* poll was conducted which polled customers about energy efficiency and conservation behaviours. The launch included a special event focusing on the overarching conservation theme. There were also many

other tips promoted to create awareness around different ways customers could reduce their usage and achieve their 10% reduction for both business and residential savings.

4.2.8 Data Collection and Tracking

THESL collected, stored and reported program specific information including delivery of Quarterly Reports and Final Program Report.

4.2.9 IT Requirements

A number of modifications to the existing THESL information systems and new computer applications were implemented to support the Summer Challenge for Business program. The main application systems included the Customer Information System, the Summer Challenge for Business application System, the TH Web Site, the IVR System and Reporting applications.

Customer Information System (CIS)
The CIS system was modified to support the CSRs in responding to customer inquiries regarding their Summer Challenge for Business participation. The CSRs had on-line access to detailed information of the potential participants including program eligibility, program progress and final program results.

Business Summer Savings Application
This application determined the program eligibility, calculated the summer consumption saving target, calculated the summer saving progress when summer readings were available and calculated the program incentive for those customers who achieved the summer saving target.

Programming was tailored to meet specifics of Summer Challenge for Business program including; summer season dates, weather normalization factor, the eligibility criteria and the incentive calculation of the energy portion for RCB customers.

Program Web Page
The Program Web Page provided Summer Challenge for Business information to potential participants through the Web. After a proper authentication, customers were able to consult the status of their participation (eligibility) in the program. This Web Page was enhanced for the Business Summer Savings program.

Reporting
New computer reports were developed to feed the Quarterly and Final Program reports. These reports provided statistics of the web hits and in-bound telephone calls regarding the Business Summer Savings program.

Data Repositories
The following data repositories were maintained to hold the Summer Challenge for Business program information required by the application systems.

Summer Challenge for Business Program Data Repository

This data repository holds general information on the Summer Challenge for Business program. The program year, the summer season dates and the weather normalization factors are stored in it.

The Customer Incentive Data Repository

This repository contains detailed program information for each potential participant. It allowed THESL staff to determine if the customer is eligible or the reasons for ineligibility. For both the baseline period and the program period the database contained information on the reading period used to calculate the consumption for the summer period, the prorated summer consumption and the target and actual savings after weather normalization. For the participants who achieved the goal, the database stored the actual incentive amount with its application date.

This repository housed the details for the calculation of the incentive. Each bill that spanned over the summer season was tracked in this repository, along with the summer pro-rated charges included in the calculation of the incentive.

Web Site Tracking
Web site traffic was tracked.

Implementation

The system changes and new computer programs were implemented in three phases: baseline, program season and incentive phase.

a) Baseline Phase

In the baseline phase the potential participants were identified and their consumption saving target calculated. The consumption calculations included the weather normalization factor for the baseline period. The results were available to the CSRs via the CIS and the program web page. For the program participants, results were available through the program web page.

b) Program Season Phase

In this phase, the summer savings progress was calculated for the program participants. The results were made available in the same way as the previous phase. Also, in this phase, the Program Progress reports were done.

c) Incentive Phase

In this phase, the final savings were calculated. For those participants that achieved the target the final incentive were calculated. Information was available per previous phases. Program Progress and the Final Program reports were done in this phase.

4.2.10 Program Administration

Administration of the Summer Challenge for Business Program consisted of adhering to corporate accounting policies and practices. Administration also involved monthly financial reporting, verification as well as quarterly and final reporting.

4.3 Low Income Program

In 2007 Toronto Hydro collaborated with Social Housing Services Corporation (SHSC) to offer CDM programs to the residents of low income housing. Customers in these sectors require targeted communication messages and incentives to participate in CDM programs. The program targeted multi-residential housing units under the SHSC umbrella. Training was provided to contractors hired to change out the in-suite light bulbs. They were also provided with educational materials that were left behind during the change out process. In addition to replacing incandescent light bulbs with compact fluorescent light bulbs, a conservation awareness campaign was also launched to educate building managers and residents of the low income housing sector on the need for conservation. Multiple one day workshops were designed in collaboration with Seneca College. The workshops were offered to select building managers and residents.

4.3.1 Target Market

Residents of multi-residential units under the Social Housing Services Corporation

4.3.2 Program Results

The program achieved 1,024 kW of demand reduction.

4.3.3 Incentive Level

THESL paid $350 per kW of demand savings

4.3.4 Application Process

There was no application process for participation.

4.3.5 Evaluation, Measurement & Verification (EM&V) Plan

M&V involved ensuring the work was actually completed by the contractors, and the computation of the resulting kWh energy savings and kW reduction.

A Legal agreement was executed with SHSC which ensured the in-suite incandescent light bulbs were changed out. Detailed report was provided to verify the light replacement in each case.

Attendees of the educational workshop were asked to fill out an evaluation form. A feedback summary is attached.

For TRC analysis and reporting purposes the OEB “Assumptions and Measures List (updated Oct 14, 2006)” for free ridership (10%) and hours of operation will be applied:

http://www.oeb.gov.on.ca/html/en/industryrelations/ongoingprojects_distconservation.htm

The program saved 1.024 megawatts in 2007.

4.3.6 Customer Service

There was no customer service requirement from Toronto Hydro's perspective.

4.3.7 Marketing and public relations plan

SHSC was responsible for the development of marketing and public relations plan.

4.3.8 Data Collection and Tracking

SHSC managed the function of data collection and tracking and in turn submitted the information to Toronto Hydro.

4.3.9 IT Requirements

There were no IT requirements for the Low Income program.

4.3.10 Program Administration

SHSC submitted a detailed program report to Toronto Hydro after the completion of the program. The report was verified by CDM program support team at Toronto Hydro.

4.4 Business Incentive Program

The Business Incentive Program (BIP) provides financial incentives to encourage the implementation of energy efficiency improvement projects. Participants can apply for financial incentives using THESL's application process and will be granted financial incentives based on pre-determined measures with set financial incentives.

The THESL BIP program followed THESL's existing program process.

4.4.1 Target Market

Customer Type	Size	Number of Accounts
General Service	<50 kW	67,017
General Service	50-1000 kW	11,445
General Service	1,000 – 5,000 kW	516
General Service	>5,000 kW	49

Note: Business Segmentation (Annual Report 2006)

The above market segmentation was designed to target new CDM energy initiatives from the commercial, retail, industrial, multi-residential and private institution sectors to reduce kilowatt demand. The overall demand reduction for the City will also reap environmental benefits from base load reductions. The financial incentive assisted customers in reducing the costs of their energy efficiency projects and reduces the payback periods of their initial investment.

The eligibility criteria for new program participants includes building owners and operators of multi-use, commercial, office, retail, private institution, grocery store and hotel properties, in each case, of a maximum size of less than 25,000 square feet and residential properties and industrial properties.

The THESL database was utilized to build a preliminary list of customers based on usage and industry segment codes. An external list of buildings under 25,000 square feet was purchased to supplement internal data.

4.4.2 Program Results

The program achieved 1,312 kW of demand reduction.

4.4.3 Eligibility

- The facility for which the project is proposed must be connected to the Toronto Hydro distribution grid and must have a sustained load that exhibits a substantial base and peak load in keeping with existing business practices for a period of at least (1) one year.

- The proposed project is a conservation or load management project that results in a minimum reduction of 3 kW of peak load or has a minimum total incentive value of $450.00.
- The project must not be signed up for conservation programs with other agencies however multiple projects from different agencies at one participant address are allowed provided there is no duplication of financial incentive.
- The proposed project must commence 90 days following the date stated on Toronto Hydro's project approval letter.
- Projects must remain in service and deliver the projected savings for a period of at least 36 months following implementation, failing which the applicant shall be deemed to be in default and Toronto Hydro may request repayment of a portion of the incentive.
- Multiple projects will be accepted from the same participant address however the kW reduction must be derived from different energy reduction technology.

Project Technical Eligibility is as follows:

- Lighting upgrades and controls
- Equipment replacement e.g. chillers, fans, pumps
- HVAC re-design e.g. free cooling or ice storage
- Variable speed drive motor controls
- Building envelope
- Building automation systems
- Deep lake water cooling
- Fuel Switching such as natural gas-fired generators and water heaters
- Addition of technologies or products that improve the energy efficiency of the building loads, or shift such loads to off peak periods, such as Combined Heat and Power (CHP), solar PV (photo-voltaic) and solar water heating.

4.4.4 Incentive Level

Participant incentives for demand kW reductions will be paid to customers based on acceptable logical formulas. Further sound engineering reports may be required as determined by Toronto Hydro.

Applicants are responsible to inform THESL of any changes or modifications that may result in lower kW savings and thus a change in the incentive indicated on the approved application.

- In general, savings are determined by the average difference between the base demand loads and the energy project demand loads.
- The amount of incentive will range from $150 per kW to $350 per kW as determined by Toronto Hydro.
- Smaller projects will follow OPA developed standard worksheets, which have predetermined kW reduction values based on the type of reduction.
- Larger projects will be evaluated on a case-by-case basis, where industry standards for energy reduction are not available.
- For greater clarification, a higher amount of incentive may be paid to projects with larger kW reductions.

- Multiple projects derived from the same participant address may not be awarded the same level of funding.

Incentive Level

kW	***< 100 kW***	***100 – 350 kW***	***> 350 kW***
Level	$150/kW	$250/kW	$350/kW
Value	< $15,000	$25,000 – $87,500	> $122,500

4.4.5 Application Process

Application materials with detailed instructions will be available to customers via www.torontohydro.com. For projects below 350 kW savings, completed applications can be faxed or emailed to Toronto Hydro. Once the application has been received an email or fax will be sent to the customer with a declaration of the project viability identifying the amount of incentive that is payable upon project completion. Further instructions may be provided. The application is based on Toronto Hydro's existing application process. The project will be reviewed by THESL's Conservation team for applicability and validated against OPA standard work sheets to determine the amount of incentive.

Projects with greater than 350 kW savings will use a more detailed process. The specific project application and approval processes will be as follows:

- Projects with an overall value of kW savings of less than 100kW:
  - Download off THESL web page and submit a one page application form
  - THESL will either fax or email approved one-page application form
- Projects with an overall kW savings between 100kW and 350 kW:
  - Download four-page application / contract form from the THESL web page
  - THESL will either fax or email signed four-page approved contract
- Projects greater than 350kW will require:
  - Signed non-disclosure agreement (NDA)
  - Project justification form (PJF) for evaluation and financial analysis
  - Formal legal contract

4.4.6 Evaluation, Measurement & Verification (EM&V) Plan

Rigour is applied to conservation projects to ensure true kW reductions are achieved as declared by customers. All documentation will be closely scrutinized for validity and accuracy.

Incentive payments will not be made to customers until all documentation has been received containing correct and accurate information with the required validation from industry professionals where required.

All projects were audited by THESL engineers for sustainable demand kW reduction before payment.

Customers are required to deliver a report validating demand reduction.

The following outlines the level of documentation and reporting for each tier of kW reduction:

- **< 100 kW**
  - Invoices & Receipts as proof of purchase and installation of materials or services commonly accepted by the conservation industry to reduce or by their nature lower electrical loads

- **100 – 350 kW**
  - Invoices & Receipts as proof of purchase and installation of materials or services commonly accepted by the conservation industry to reduce or by their nature lower electrical loads.
  - Industry & manufacture documentation and reports specific to the actual reduction in load by the use of such products, a dedicated report may be requested at the discretion of Toronto Hydro.

- **>350 kW**
  - Invoices & Receipts as proof of purchase and installation of materials or services commonly accepted by the conservation industry to reduce or by their nature lower electrical loads.
  - Detailed testing reports provided by the customer or an energy conservation consultant on behalf of the customer. The report shall be stamped by a professional engineer and contain details of sustained demand kW reductions as provided by the reduction measures undertaken.
  - Further documentation may be requested at the discretion of Toronto Hydro.

The savings for the 2007 program was 1.312 megawatts.

For TRC analysis and reporting purposes the OEB "Assumptions and Measures List (updated Oct 14, 2006)" for free ridership (10%) and hours of operation will be applied:

http://www.oeb.gov.on.ca/html/en/industryrelations/ongoingprojects_distconservation.htm

4.4.7 Customer Service

Customer Inquiries
Customers are directed to THESL's website as the first call to action and for all collateral materials. A dedicated BIP phone number is published on the site, which connects to a group of subject matter experts who are available to field calls and answer questions. The number has a mailbox for messages with a promise to call back within 24 hours.

IVR

A dedicated phone number connects the caller to the group of subject matter experts. On-line messaging will direct customers to:

- BIP website
- Subject matter experts
- Or voice mailbox (24 hours call back)

Training
Customer service representatives in Toronto Hydro's, or outsourced, call centre were given basic training for BIP program overview. Additional customer care employees were given a brief overview of the program. The Call Centre Manager provided training time for the program. The Quality Specialists prepared training material and trained all Customer Service Representatives (CSRs). Customers were directed to BIP website or subject matter expert phone line.

4.4.8 Marketing and Public Relations Plan

Targeted Customer List
The THESL database was utilized to build a preliminary list of customers based on usage and industry segment codes. An external list of customers was purchased to supplement internal data.

Direct Mailing
In 2007 one addressed direct mail piece was sent to customers and channel partners.

On-Bill Promotional Message for Business Customers:

> Toronto Hydro is offering financial incentives to help our customers increase their energy efficiency. Details at torontohydro.com

Customer In-bill Newsletter
An article messages included: Toronto Hydro's Business Incentive Program offers customers financial incentives to increase their energy efficiency through a reimbursement of a portion of the purchase costs for energy-efficient technology/products. Reducing usage helps maintain a reliable supply of electricity and eliminates the need to purchase expensive and polluting energy from other sources such as coal-fired power generators.

Website
Toronto Hydro website section on business promoted the Business Incentive Program. A link to the Program Web Page was promoted on www.torontohydro.com. All BIP instructions and documentation were available on the site, templates were created in both e-forms and print ready formats.

Collateral

Collateral material describing the Business Incentive Program was developed for the targeted customers in the form of a direct mail piece and program brochures. This collateral was distributed by direct mail and was available for distribution at tradeshows and through alternative 'channel partners' and as Free Standing inserts in magazines.

Advertising
Targeted advertising ensured customer and channel partner awareness. The advertising was diverse and included targeted messages to reach all market segments.

Launch
The BIP launch aligned with the Summer Challenge program timeframe to integrate with customer direct mail and advertising initiatives ensuring alignment of messaging.

Third party costs
Third parties were used to develop BIP program marketing creative including collateral and advertising materials. Third party resources were also be used to purchase advertising media program and to implement public relations tactics, media events and outreach activities.

4.4.9 Data Collection and Tracking

A data repository was set up to collect, track and store project information.

4.4.10 IT Requirements

Currently established IT tools and services were utilized to the extent possible. An online application tool was set up to simplify the application process.

4.4.11 Program Administration

Administration of BIP consisted of adhering to corporate accounting policies and practices. Administration also included verification of customer's reports, monthly financial reporting and auditing as well as quarterly and final reporting.

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EB-2008-XXXX
Toronto Hydro-Electric System Limited
Recovery of Amounts Related to CDM
Filed: December 15, 2008
Exhibit 5 (35 pages)

Toronto Hydro-Electric System Ltd.

City of Toronto Directive
Conservation and Demand Management
Transition Plan

2007 Annual Report

Submitted to:

Ontario Power Authority

Submitted on April 30, 2008

1 Introduction

On May 7, 2007, Toronto Hydro-Electric System Limited (THESL) signed the Master CDM Agreement (the Agreement) with the Ontario Power Authority (OPA). According to the Agreement, THESL will deliver up to 90 MW of demand reduction in Toronto by December 31, 2007 through existing projects. This annual report is prepared as per the requirements of the Agreement.

Table 1 below summarizes the approved 2007 CDM Transition Plan Contract List.

	Project	Variable Cost	Fixed Cost	kW Outstanding
1	City - Arenas	$ 71,489	$ -	447
2	City - Exhibition Place Buildings	$ 24,960	$ -	156
3	City - Fire Stations	$ 38,560	$ -	241
4	City - LED Traffic Lights	$ 110,720	$ -	692
5	City - National Trade Centre	$ 80,992	$ -	506
6	Direct Energy Project - Recreation Centre 22 Southport St.	$ 39,150	$ -	261
7	Enbridge - TAPS	$ 606,706	$ -	3,599
8	Granite Club - 2350 Bayview Street	$ 30,360	$ -	202
9	Home Depot	$ 1,147,672	$ -	3,000
10	Hospital for Sick Children	$ 57,800	$ -	386
11	McDonalds Restaurants - Conservation Prog.	$ 60,000	$ -	374
12	Power Diversion Metering - Transformer Smart Metering	$ 100,000	$ -	183
13	powerWISE Business Incentive Program	$ 376,953	$ -	1,615
14	TCHC - Project #2 - 19 Buildings	$ 656,160	$ -	4,101
15	TCHC - Project #4 - Appliance Retrofit	$ (66,440)	$ -	0
16	The Indigo - 50 Lombard Street	$ 36,000	$ -	240
17	THESI - Phase 2 Projects	$ 144,640	$ -	904
18	THESL - 6 Monogram Pl.	$ 11,100	$ -	74
19	U of T - St. Georges Camp. - Behaviour Change	$ 32,000	$ -	200
20	U of T - St. Georges Camp. - Chiller Upgrade	$ 29,440	$ -	184
21	U of T Scarborough Campus - Student Residences	$ 30,723	$ -	192
22	5800 Yonge St. - Install Solar Powered Lighting	$ 1,120	$ -	14
23	Aventis Pasteur - Co-gen	$ 796,000	$ -	6,000
24	City - Exhibition Place - PV Power Generation	$ 16,000	$ -	100
25	City - Exhibition Place - Tri - Gen	$ 256,000	$ -	1,600
26	Enwave - 145 King Street	$ 180,000	$ -	1,500
27	Enwave - 390 Bay	$ 102,000	$ -	850
28	Enwave - College Park	$ 228,000	$ -	1,900
29	Enwave - Queens Park	$ 417,600	$ -	3,480
30	Enwave - Steam Plant - John Street Pumping Station	$ 1,760,000	$ -	11,000
31	Enwave DLWC-226 King St. W. & 200 Wellington	$ 179,280	$ -	1,785
32	MSR Inc. - 2 Tippet Road	$ 35,000	$ -	250
33	Toronto Western Hospital - Chiller Installation	$ 50,400	$ -	504
34	peakSAVER - extension 4	$ 85,804	$ 6,657,392	22,000
35	Internal Fees (labor, legal etc.)	$ -	$ 1,105,000	
36	Bank of Nova Scotia	$ 114,000	$ -	760
37	Design Advisory Program - Enbridge	$ 539,225	$ -	3,562
38	York University	$ 646,350	$ -	4,309
39	U of T - St. Georges Campus - Various Bldgs.	$ 653,920	$ -	4,087
40	Design Advisory Program - City	$ 650,000	$ -	4,333
41	Villa Colombo/OZZ - Columbus Centre	$ 102,000	$ -	633
42	City of Toronto Humber Waste Treatment Plant	$ 368,000	$ -	2,300
43	Margin	$ 1,770,440	$ -	
44	Evaluation Fee	$ -	$ 237,608	
	TOTAL	**$ 12,570,124**	**$ 8,000,000**	**88,522**

Table 2 below summarizes the 2007 CDM Transition Plan results.

	Project	Variable Cost	Fixed Cost	Actual kW Achieved	TRC Net Benefits
1	City - Arenas	$ 71,481		447	$ (3,211,502)
2	City - Exhibition Place Retrofit	$ 15,168		95	$ (430,088)
3	City - Fire Stations	$ 39,666		248	$ (741,297)
4	City - LED Traffic Lights	$ 22,192		139	$ 346,932
5	City - National Trade Centre	$ 77,120		482	$ (28,350)
6	Direct Energy Project - Recreation Centre 22 Southport St.	$ 39,150		261	$ 562,239
7	Enbridge - TAPS	$ 613,503	$ 742	6,633	$ 4,065,094
8	Granite Club	$ 30,360		213	$ 143,854
9	Home Depot	$ 808,305		4,980	$ 2,736,053
10	The Hospital for Sick Children	$ 41,775		279	$ (723,941)
11	McDonald's Restaurants	$ 56,000		350	$ (685,444)
12	PowerWise Business Incentive Program Total	$ 139,353	$ 65,326	1,502	$ 357,420
13	Toronto Community Housing Corp.	$ 521,968	$ 1,271	3,262	$ (3,130,430)
14	The Indigo - 50 Lombard Street	$ 36,300		242	$ 267,545
15	THESI	$ 106,198		664	$ (137,082)
16	U of T, St. George Campus	$ 498,064		3,113	$ 2,325,795
17	U of T, Scarborough	$ 14,400		96	$ 73,012
18	Sanofi Pasteur Generator	$ 795,960		6,000	$ 10,977,555
19	City - Exhibition Place - PV Power Generation	$ 16,000		100	$ (173,054)
20	City - Exhibition Place - Tri Gen	$ 256,000		1,609	$ 4,002,305
21	Enwave - Metro Centre	$ 200,040		1,667	$ 3,226,274
22	Enwave - 390 Bay	$ 62,100		735	$ 1,358,896
23	Enwave - College Park	$ 214,320		2,261	$ 3,430,220
24	Enwave - Queens Park	$ 367,520		3,167	$ 2,421,355
25	Enwave - Steam Plant - John Street Pumping Station	$ 1,760,000	$ 6,360	11,000	$ 7,812,383
26	MSR Inc.	$ 56,000	$ 249	400	$ 268,334
27	Toronto Western Hospital - Chiller Installation	$ 16,600		166	$ 66,514
28	peakSAVER		$ 1,651,066	8,913	$ 14,055,416
29	Enbridge DAP	$ 584,671	$ 1,643	3,886	$ 1,908,474
30	York University	$ 77,852		519	$ 62,134
31	City DAP	$ 29,085		190	$ 876,464
32	Internal Fees (labor, legal ect.)		$ 243,285	n/a	$ (243,285)
33	Margin	$ 1,272,350		n/a	n/a
	Total	**$ 8,839,500**	**$ 1,969,942**	**63,617**	**$ 51,839,793**

The overall program achieved 63.6 MW of demand savings compared to the planned 88.5 MW and net TRC benefits of $51.8 million.

The total actual expenditures for the 2007 program, including margins for performance, were $10.8 million compared to the planned $20.6 million.

Details of the program achievements are outlined in the following sections of this report.

2. Program Results for Transition Plan

	Description
Program:	City – Arenas
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Commercial
Measures installed:	Energy efficient lighting measures
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$71,481
Financial Incentives	$71,481
Program Incremental Costs	N/A
Program Savings	447 kW and 1,787,200 kWh, as per customer report
Net TRC Results	$(3,211,502)

	Description
Program:	City – Exhibition Place Retrofit
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Commercial
Measures installed:	Energy efficient commercial lighting
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$15,168
Financial Incentives	$15,168
Program Incremental Costs	N/A
Program Savings	95 kW and 379,200 kWh, as per customer report
Net TRC Results	$(430,088)

	Description

Program:	City – Fire Stations
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Institutional
Measures installed:	Energy efficient commercial lighting
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$39,666
Financial Incentives	$39,666
Program Incremental Costs	N/A
Program Savings	248 kW and 991,760 kWh, as per customer report
Net TRC Results	$(741,297)

	Description

Program:	City – LED Traffic Lights
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	N/A
Measures installed:	Energy efficient LED lights
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$22,192
Financial Incentives	$22,192
Program Incremental Costs	N/A
Program Savings	139 kW and 1,215,012 kWh, as per customer report
Net TRC Results	$346,932

	Description

Program:	City – National Trade Centre
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Commercial
Measures installed:	Energy efficient commercial lighting
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$77,120
Financial Incentives	$77,120
Program Incremental Costs	N/A
Program Savings	482 kW and 1,928,000 kWh, as per customer report
Net TRC Results	$(28,350)

	Description

Program:	Direct Energy Project – Recreation Centre 22 Southport St.
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Commercial
Measures installed:	Energy efficient commercial lighting and replacement of electric heat with gas
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$39,150
Financial Incentives	$39,150
Program Incremental Costs	N/A
Program Savings	261 kW and 1,044,000 kWh, as per customer report
Net TRC Results	$562,239

	Description

Program:	Enbridge - TAPS
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Residential
Measures installed:	Efficient showerheads, aerators, CFL bulbs, pipe wrap and thermostats
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$614,245
Financial Incentives	$613,503
Program Incremental Costs	N/A
Program Savings	6,633 kW and 13,395,887, as per customer report
Net TRC Results	$4,065,094

	Description

Program:	Granite Club
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Commercial
Measures installed:	Energy efficient commercial lighting
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$30,360
Financial Incentives	$30,360
Program Incremental Costs	N/A
Program Savings	213 kW and 1,245,380 kWh, as per customer report
Net TRC Results	$143,854

	Description

Program:	Home Depot
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Commercial
Measures installed:	Energy efficient commercial lighting
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$808,305
Financial Incentives	$808,305
Program Incremental Costs	N/A
Program Savings	4,980 kW and 4,868,771 kWh, as per customer report
Net TRC Results	$2,736,053

	Description

Program:	The Hospital for Sick Children
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Hospital
Measures installed:	Energy efficient commercial lighting
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$41,775
Financial Incentives	$41,775
Program Incremental Costs	N/A
Program Savings	279 kW and 1,114,000 kWh, as per customer report
Net TRC Results	$(723,941)

	Description

Program:	McDonald's Restaurants
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Commercial
Measures installed:	Energy efficient lighting
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$56,000
Financial Incentives	$56,000
Program Incremental Costs	N/A
Program Savings	350 kW and 1,400,000 kWh, as per customer report
Net TRC Results	$(685,444)

	Description

Program:	PowerWise Business Incentive Program
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Commercial
Measures installed:	Energy efficient lighting
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$204,678
Financial Incentives	$139,353
Program Incremental Costs	N/A
Program Savings	1,502 kW and 6,155,331 kWh, as per customer report
Net TRC Results	$(357,420)

	Description

Program:	Toronto Community Housing Corporation
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Residential
Measures installed:	Energy efficient lighting, fridges and stoves
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$523,239
Financial Incentives	$521,968
Program Incremental Costs	N/A
Program Savings	3,262 kW and 6,348,453 kWh, as per customer report
Net TRC Results	$(3,130,430)

	Description

Program:	The Indigo – 50 Lombard Street
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Commercial
Measures installed:	Ice Storage
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$36,300
Financial Incentives	$36,300
Program Incremental Costs	N/A
Program Savings	242 kW and 968,000 kWh, as per customer report
Net TRC Results	$267,545

	Description

Program:	THESI
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Commercial
Measures installed:	Energy efficient lighting
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$106,198
Financial Incentives	$106,198
Program Incremental Costs	N/A
Program Savings	664 kW and 2,654,960 kWh, as per customer report
Net TRC Results	$(137,082)

	Description

Program:	U of T, St. George Campus
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Institutional
Measures installed:	Chiller upgrade and energy efficient lighting
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$498,064
Financial Incentives	$498,064
Program Incremental Costs	N/A
Program Savings	3,113 kW and 12,451,600 kWh, as per customer report
Net TRC Results	$(2,325,795)

	Description

Program:	U of T, Scarborough Campus
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Student residences
Measures installed:	Gas water heaters
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$14,400
Financial Incentives	$14,400
Program Incremental Costs	N/A
Program Savings	96 kW and 160,000 kWh, as per customer report
Net TRC Results	$73,012

	Description

Program:	Sanofi Pasteur
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Industrial
Measures installed:	Co-gen gas turbine
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$795,960
Financial Incentives	$795,960
Program Incremental Costs	N/A
Program Savings	6,000 kW, as per customer report
Net TRC Results	$10,977,555

	Description

Program:	City – Exhibition Place – PV Power Generation
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Commercial
Measures installed:	Photovoltaic Power Generation
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$16,000
Financial Incentives	$16,000
Program Incremental Costs	N/A
Program Savings	100 kW, as per customer report
Net TRC Results	$(173,054)

	Description

Program:	City – Exhibition Place – Tri-Gen
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Commercial
Measures installed:	Co-generation
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$256,000
Financial Incentives	$256,000
Program Incremental Costs	N/A
Program Savings	1,609 kW, as per customer report
Net TRC Results	$4,002,305

	Description

Program:	Enwave – Metro Centre
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Commercial
Measures installed:	Deep lake water cooling
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$200,040
Financial Incentives	$200,040
Program Incremental Costs	N/A
Program Savings	1,667 kW and 4,000,800, as per customer report
Net TRC Results	$3,226,274

	Description

Program:	Enwave – 390 Bay
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Commercial
Measures installed:	Deep lake water cooling
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$62,100
Financial Incentives	$62,100
Program Incremental Costs	N/A
Program Savings	735 kW and 1,764,100, as per customer report
Net TRC Results	$1,358,896

	Description

Program:	Enwave – College Park
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Commercial
Measures installed:	Deep lake water cooling
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$214,320
Financial Incentives	$214,320
Program Incremental Costs	N/A
Program Savings	2,261 kW and 5,426,400, as per customer report
Net TRC Results	$3,430,220

	Description

Program:	Enwave – Queens Park
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Commercial
Measures installed:	Deep lake water cooling
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$367,520
Financial Incentives	$367,520
Program Incremental Costs	N/A
Program Savings	3,167 kW and 7,600,800, as per customer report
Net TRC Results	$2,421,355

	Description

Program:	Enwave – Steam Plant – John Street Pumping Station
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Industrial
Measures installed:	Standby generators
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$1,766,360
Financial Incentives	$1,760,000
Program Incremental Costs	N/A
Program Savings	11,000 kW, as per commissioning report
Net TRC Results	$7,812,383

	Description

Program:	MSR Inc.
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Commercial
Measures installed:	Standby generators
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$56,249
Financial Incentives	$56,000
Program Incremental Costs	N/A
Program Savings	400 kW, as per commissioning report
Net TRC Results	$268,334

	Description

Program:	Toronto Western Hospital – Chiller Installation
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Hospital
Measures installed:	Energy efficient chiller
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$16,600
Financial Incentives	$16,600
Program Incremental Costs	N/A
Program Savings	166 kW and 664,000 kWh, as per customer report
Net TRC Results	$66,514

	Description

Program:	peakSAVER
Date:	April 30, 2008
Period covered by the Report:	March 2007 to August 2007
Building type:	Residential and small commercial
Measures installed:	Load Control Devices
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$1,651,066
Financial Incentives	$0
Program Incremental Costs	N/A
Program Savings	8,913 kW, as per customer report
Net TRC Results	$14,055,116

	Description

Program:	Enbridge DAP
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Multi-residential and commercial
Measures installed:	Energy efficient lighting and gas dryers
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$586,314
Financial Incentives	$584,671
Program Incremental Costs	N/A
Program Savings	8,886 kW and 5,122,868 kWh, as per customer report
Net TRC Results	$1,908,474

	Description

Program:	York University
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Institutional
Measures installed:	Energy efficient lighting
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$77,852
Financial Incentives	$77,852
Program Incremental Costs	N/A
Program Savings	519 kW and 2,076,000 kWh, as per customer report
Net TRC Results	$62,134

	Description

Program:	Design Advisory Program – City
Date:	April 30, 2008
Period covered by the Report:	2007
Building type:	Commercial
Measures installed:	Lighting retrofits on new construction. 50% paid on building permits and 50% on occupancy permits
Program marketing activities that occurred during Report Period:	N/A
Include Samples of all Marketing Materials	N/A
Operational Issues that occurred during Report Period or that remain outstanding from Previous Reports	N/A
Summary of Participant Comments/ Concerns	N/A
Participant Contacts	N/A
Budget Costs Incurred during Report Period	$29,085
Financial Incentives	$29,085
Program Incremental Costs	N/A
Program Savings	190 kW and 760,400 kWh, as per customer report
Net TRC Results	$876,464

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Table 1 - 2008 Distribution and Rate Rider Bill Impact

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11
				2008 Rates			2008 Rates with Proposed Rate Riders			Impact	
1	kWh	kW	kVA	Distribution ($)	Rate Rider ($)	Total ($)	Distribution ($)	Rate Rider ($)	Total ($)	$	%
2	**Residential**										
3	100			16.40	1.36	17.76	16.40	1.41	17.81	**0.05**	**0.3%**
4	250			18.73	1.23	19.95	18.73	1.35	20.07	**0.12**	**0.6%**
5	500			22.60	1.00	23.60	22.60	1.25	23.85	**0.25**	**1.0%**
6	750			26.48	0.78	27.25	26.48	1.14	27.62	**0.37**	**1.3%**
7	1,000			30.35	0.55	30.90	30.35	1.04	31.39	**0.49**	**1.6%**
8	1,500			38.10	0.10	38.20	38.10	0.84	38.94	**0.73**	**1.9%**
9	2,000			45.85	-0.35	45.50	45.85	0.63	46.48	**0.98**	**2.2%**
10	**GS<50**										
11	1,000			39.27	1.25	40.52	39.27	1.35	40.62	**0.10**	**0.2%**
12	5,000			118.87	-0.75	118.12	118.87	-0.25	118.62	**0.50**	**0.4%**
13	10,000			218.37	-3.25	215.12	218.37	-2.25	216.12	**1.00**	**0.5%**
14	20,000			417.37	-8.25	409.12	417.37	-6.25	411.12	**2.00**	**0.5%**
15	**GS 50-1000**										
16	30,000	100	100	555.78	-25.00	530.78	555.78	-23.02	532.76	**1.98**	**0.4%**
17	40,000	100	100	555.78	-25.00	530.78	555.78	-23.02	532.76	**1.98**	**0.4%**
18	150,000	500	556	2,952.00	-148.00	2,804.00	2,952.00	-137.00	2,815.00	**11.00**	**0.4%**
19	200,000	500	556	2,952.00	-148.00	2,804.00	2,952.00	-137.00	2,815.00	**11.00**	**0.4%**
20	270,000	900	1,000	5,289.78	-268.00	5,021.78	5,289.78	-248.20	5,041.58	**19.80**	**0.4%**
21	360,000	900	1,000	5,289.78	-268.00	5,021.78	5,289.78	-248.20	5,041.58	**19.80**	**0.4%**
22	450,000	900	1,000	5,289.78	-268.00	5,021.78	5,289.78	-248.20	5,041.58	**19.80**	**0.4%**
23	**GS 1000-5000**										
24	300,000	1,000	1,111	5,625.80	-329.90	5,295.90	5,625.80	-307.90	5,317.90	**22.00**	**0.4%**
25	400,000	1,000	1,111	5,625.80	-329.90	5,295.90	5,625.80	-307.90	5,317.90	**22.00**	**0.4%**
26	500,000	1,000	1,111	5,625.80	-329.90	5,295.90	5,625.80	-307.90	5,317.90	**22.00**	**0.4%**
27	600,000	2,000	2,222	10,525.80	-663.24	9,862.56	10,525.80	-619.24	9,906.56	**44.00**	**0.4%**
28	800,000	2,000	2,222	10,525.80	-663.24	9,862.56	10,525.80	-619.24	9,906.56	**44.00**	**0.4%**
29	1,000,000	2,000	2,222	10,525.80	-663.24	9,862.56	10,525.80	-619.24	9,906.56	**44.00**	**0.4%**
30	**LU >5000**										
31	1,500,000	5,000	5,556	24,606.03	-2,513.62	22,092.42	24,606.03	-2,383.06	22,222.97	**130.56**	**0.6%**
32	2,000,000	5,000	5,556	24,606.03	-2,513.62	22,092.42	24,606.03	-2,383.06	22,222.97	**130.56**	**0.6%**
33	2,500,000	5,000	5,556	24,606.03	-2,513.62	22,092.42	24,606.03	-2,383.06	22,222.97	**130.56**	**0.6%**
34	3,000,000	10,000	11,111	46,328.25	-5,069.17	41,259.08	46,328.25	-4,808.06	41,520.19	**261.11**	**0.6%**
35	4,000,000	10,000	11,111	46,328.25	-5,069.17	41,259.08	46,328.25	-4,808.06	41,520.19	**261.11**	**0.6%**
36	5,000,000	10,000	11,111	46,328.25	-5,069.17	41,259.08	46,328.25	-4,808.06	41,520.19	**261.11**	**0.6%**
37	**Street Lighting**		Mthly kVA								
38	9,182,014	159,861	26,461	512,206.15	93,670.30	605,876.45	512,206.15	93,670.30	605,876.45	**0.00**	**0.0%**
39	365	1	1	16.03	3.67	19.70	16.03	3.67	19.70	**0.00**	**0.0%**
40	**Unmetered Scattered Loads**		Connections								
41	4,829,242	1,466	17,721	187,420.48	24,629.47	212,049.95	187,420.48	28,927.49	216,347.97	**4,298.03**	**2.0%**
42	365	1	1	16.69	2.19	18.88	16.69	2.52	19.20	**0.32**	**1.7%**

Table 2 - 2008 Total Bill Impact

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11	Col. 12	Col. 13	Col. 14
					2008 Rates				2008 Rates with Proposed Rate Riders				Impact	
1	kWh	kW	kVA		Distribution ($)	Rate Rider ($)	Non-Distribution ($)	Total ($)	Distribution ($)	Rate Rider ($)	Non-Distribution ($)	Total ($)	$	%
2	**Residential**													
3	100				16.40	1.36	7.81	25.57	16.40	1.41	7.81	25.62	**0.05**	**0.19%**
4	250				18.73	1.23	19.15	39.10	18.73	1.35	19.15	39.22	**0.12**	**0.31%**
5	500				22.60	1.00	38.04	61.64	22.60	1.25	38.04	61.89	**0.24**	**0.40%**
6	750				26.48	0.78	56.94	84.19	26.48	1.14	56.94	84.56	**0.37**	**0.44%**
7	1,000				30.35	0.55	77.97	108.87	30.35	1.04	77.97	109.36	**0.49**	**0.45%**
8	1,500				38.10	0.10	120.44	158.64	38.10	0.84	120.44	159.37	**0.73**	**0.46%**
9	2,000				45.85	-0.35	162.90	208.40	45.85	0.63	162.90	209.38	**0.98**	**0.47%**
10	**GS<50**													
11	1,000				39.27	1.25	77.70	118.22	39.27	1.35	77.70	118.32	**0.10**	**0.08%**
12	5,000				118.87	-0.75	414.49	532.61	118.87	-0.25	414.49	533.11	**0.50**	**0.09%**
13	10,000				218.37	-3.25	835.47	1,050.59	218.37	-2.25	835.47	1,051.59	**1.00**	**0.10%**
14	20,000				417.37	-8.25	1,677.45	2,086.57	417.37	-6.25	1,677.45	2,088.57	**2.00**	**0.10%**
23	**GS 50-1000**													
24	30,000	100	100		555.78	-25.00	2,560.05	3,090.83	555.78	-23.02	2,560.05	3,092.81	**1.98**	**0.06%**
25	40,000	100	100		555.78	-25.00	3,306.56	3,837.34	555.78	-23.02	3,306.56	3,839.32	**1.98**	**0.05%**
26	150,000	500	556		2,952.00	-148.00	12,826.23	15,630.23	2,952.00	-137.00	12,826.23	15,641.23	**11.00**	**0.07%**
27	200,000	500	556		2,952.00	-148.00	16,558.80	19,362.81	2,952.00	-137.00	16,558.80	19,373.81	**11.00**	**0.06%**
28	270,000	900	1,000		5,289.78	-268.00	23,092.41	28,114.19	5,289.78	-248.20	23,092.41	28,133.99	**19.80**	**0.07%**
29	360,000	900	1,000		5,289.78	-268.00	29,811.05	34,832.83	5,289.78	-248.20	29,811.05	34,852.63	**19.80**	**0.06%**
30	450,000	900	1,000		5,289.78	-268.00	36,529.68	41,551.46	5,289.78	-248.20	36,529.68	41,571.26	**19.80**	**0.05%**
31	**GS 1000-5000**													
32	300,000	1,000	1,111		5,625.80	-329.90	26,058.96	31,354.85	5,625.80	-307.90	26,058.96	31,376.85	**22.00**	**0.07%**
33	400,000	1,000	1,111		5,625.80	-329.90	33,524.11	38,820.00	5,625.80	-307.90	33,524.11	38,842.00	**22.00**	**0.06%**
34	500,000	1,000	1,111		5,625.80	-329.90	40,989.26	46,285.16	5,625.80	-307.90	40,989.26	46,307.16	**22.00**	**0.05%**
35	600,000	2,000	2,222		10,525.80	-663.24	52,124.41	61,986.98	10,525.80	-619.24	52,124.41	62,030.98	**44.00**	**0.07%**
36	800,000	2,000	2,222		10,525.80	-663.24	67,054.72	76,917.28	10,525.80	-619.24	67,054.72	76,961.28	**44.00**	**0.06%**
37	1,000,000	2,000	2,222		10,525.80	-663.24	81,985.02	91,847.58	10,525.80	-619.24	81,985.02	91,891.58	**44.00**	**0.05%**
38	**LU >5000**													
39	1,500,000	5,000	5,556		24,606.03	-2,513.62	128,822.36	150,914.78	24,606.03	-2,383.06	128,822.36	151,045.33	**130.56**	**0.09%**
40	2,000,000	5,000	5,556		24,606.03	-2,513.62	165,531.98	187,624.40	24,606.03	-2,383.06	165,531.98	187,754.95	**130.56**	**0.07%**
41	2,500,000	5,000	5,556		24,606.03	-2,513.62	202,241.60	224,334.02	24,606.03	-2,383.06	202,241.60	224,464.57	**130.56**	**0.06%**
42	3,000,000	10,000	11,111		46,328.25	-5,069.17	257,651.22	298,910.30	46,328.25	-4,808.06	257,651.22	299,171.41	**261.11**	**0.09%**
43	4,000,000	10,000	11,111		46,328.25	-5,069.17	331,070.46	372,329.54	46,328.25	-4,808.06	331,070.46	372,590.65	**261.11**	**0.07%**
44	5,000,000	10,000	11,111		46,328.25	-5,069.17	404,489.70	445,748.78	46,328.25	-4,808.06	404,489.70	446,009.89	**261.11**	**0.06%**
45	**Street Lighting**	Connections	Mthly kVA											
46	9,182,014	159,861	26,461		512,206.15	93,670.30	798,695.72	1,404,572.17	512,206.15	93,670.30	798,695.72	1,404,572.17	**0.00**	**0.00%**
47	365	1	1		16.03	3.67	28.37	48.07	16.03	3.67	28.37	48.07	**0.00**	**0.00%**
48	**Unmetered Scattered Loads**		Connections											
49	4,829,242	1,466	17,721		187,420.48	24,629.47	392,573.03	604,622.98	187,420.48	28,927.49	392,573.03	608,921.01	**4,298.03**	**0.71%**
50	365	1	1		16.69	2.19	26.51	45.39	16.69	2.52	26.51	45.71	**0.32**	**0.72%**