



March 31, 2008

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

Re: 2007 Annual Report, CDM Third Tranche Funding, London Hydro Inc.

In accordance with the Boards instructions of March 3, 2008, please find enclosed 3 hard copies and 2 electronic copies (1 in PDF of the entire report and 1 Excel format of the appendices only) of the 2007 Annual Report, CDM Third Tranche Funding, London Hydro Inc.

Please direct any questions or inquiries to myself.

Sincerely,

Dave Williamson
Director Finance and Regulatory Affairs
Bus. (519) 661-5800 ext. 5745
Fax (519) 661-2596
williamd@londonhydro.com



London Hydro Inc -
(RP-2004-0203 / EB-2005-0206-2007)
*Conservation and Demand Management
2007 Annual Report*

Submitted: March 31, 2008

TABLE OF CONTENTS

1	INTRODUCTION	1
1.1	Background.....	1
1.2	Purpose.....	1
1.3	Scope.....	1
1.4	Program Evaluation Methodology.....	1
1.5	Local Context for CDM Programs.....	2
1.6	References.....	2
2	EVALUATION OF THE CDM PLAN	4
3	DISCUSSION OF PROGRAMS.....	5
3.1	Municipal Traffic & Pedestrian Signals Upgrade Project	5
3.2	Residential Power Cost Monitor.....	5
3.3	Residential Appliance Recycling Program	5
3.4	Program to Increase Commercial Sector Energy Efficiency	6
3.4.1	Cool Shops – London (2005) Program	6
3.4.2	Lockable CFL / LED Exit Lights for Apartment / Social Housing Buildings.....	7
3.4.3	Other Custom Lighting Upgrade Programs	7
3.4.4	Vending Miser Program.....	7
3.5	Distribution Shunt Capacitor Program.....	7
3.6	Combined Heat & Power (CHP) Opportunities for Dispersed Generation	7
3.7	Energy Awareness in the Classroom Program.....	8
3.8	LCBO Warehouse Makeover Project	8
3.9	Residential Summer Comfort Program.....	8
3.10	Demand Response Enabling Technologies Program.....	8
3.11	The Heat and Warmth (THAW) Plus Program.....	8
3.12	Putting Our Own House in Order Program.....	8
3.13	Community One-Tonne Challenge Plus Program	9
3.14	Public Education Program	9
4	LESSONS LEARNED	10
5	CONCLUSIONS.....	11

Appendices:

- A. Evaluation of the CDM Plan
- B. Discussion of the Programs
 - B.1 Traffic & Pedestrian Signals Upgrade
 - B.2 Residential Power Cost Monitor
 - B.3 Residential Appliance Recycling Program
 - B.4A Cool Shops – London

- B.4B Lockable CFL / LED Exit Lights for Apartment / Social Housing Buildings
- B.4C Other Custom Lighting Upgrade Programs
- B.4D Vending Machine Energy Efficiency Program
- B.4E Jones Packaging Retrofit
- B.5 Distribution Shunt Capacitor Program
- B.6 Combined Heat & Power (CHP) Opportunities
- B.7 Energy Awareness in the Classroom Program
- B.8 LCBO Warehouse Makeover Project
- B.9 Residential Summer Comfort Program
- B.10 Demand Response Enabling Technologies Program
- B.11 THAW Plus Program
- B.12 Putting Our Own House in Order Program
- B.13 Community One-Tonne Challenge Plus Program
- B.14 Public Education Campaign

1 INTRODUCTION

1.1 Background

On May 31, 2004, the Minister wrote to electricity distributors pursuant to section 79.6 of the Ontario Energy Board Act, 1998 to allow them to proceed to the Ontario Energy Board with applications to establish deferral accounts within which to track expenditures on conservation and demand management initiatives. Pursuant to the Minister's letter, the Board has allowed distributors to recover funds from ratepayers to be invested in conservation and demand management initiatives.

On October 5, 2004, the Ontario Energy Board issued a procedural order to electricity distributors regarding distributor conservation and demand management activities and deferral accounts, and the procedure to be used for approval of expenditures related to these activities.

In January of 2005, London Hydro submitted its CDM Plan [1] for pre-approval of the fourteen (14) described initiatives. A decision and final order was received March 17th, 2005 [2].

Overall, distributors received approval to invest \$163 million in conservation and demand management initiatives over a three year period. Included in this value is the \$2.8 million approved for London Hydro Inc.

1.2 Purpose

The Ontario Energy Board's orders approving electricity distributor conservation and demand management plans [2] includes a provision that each distributor both report quarterly on their CDM programs and annually to file an report that incorporates a cost benefit analysis.

1.3 Scope

This document reports on London Hydro's investment progress in energy conservation and demand-side management initiatives, and resulting energy conservation achievements, for projects that were carried out in calendar year 2007.

1.4 Program Evaluation Methodology

Within London Hydro's CDM Plan, the *Levelized Cost of Saved Energy* was advanced as straightforward methodology for gauging the effectiveness of each conservation / demand-management initiative. The methodology is detailed in Section 2.3.2, *Prioritization Methodology*, of this CDM Plan [1], and is simply used to ensure an investment in energy conservation will be less costly than the historic market price of generation.

In September 2005, the Ontario Energy Board published its *Total Resource Cost* methodology [6] for evaluating conservation / demand-management initiatives. The guideline was subsequently revised in October 2006 [7]. The TRC Test uses projections of avoided electricity costs (marginal cost) to express benefits in a standard benefit-cost test calculation. Costs represent the incremental cost of the energy efficient equipment and any associated program support costs. The TRC results are expressed either as an \$NPV value or as a benefit/cost ratio. For the Ontario context, the Ontario Energy Board directed Hydro One to develop a set of avoided costs to be used in a TRC evaluation framework. The resulting sets of avoided costs accommodate generation, transmission and distribution costs and reflect a “societal” perspective for the province of Ontario. Results expressed in this framework do not represent either the LDC’s or the end user’s perspective on cost effectiveness.¹

In order to carryout the TRC calculations London Hydro invested in the EnerSpectrum Group’s *Total Resource Cost Calculator* computer program².

Pursuant to the OEB’s requirements [5] [9], individual total resource costs are reported herein for each program that is either complete or has measurable results. A levelized cost of saved energy is also reported herein for information purposes.

1.5 Local Context for CDM Programs

London Hydro’s service territory is essentially islanded in southwestern Ontario. There are no other large LDC’s that have information that cross pollinates into our service territory, i.e. our customers do not get the chance to compare our program to another LDC’s easily. This allows London Hydro to create and execute programs that can be readily measured and evaluated, as spillover from advertising of other LDC programs does not directly influence our customers.

Note: The “powerWISE[®]” brand is being seen by Londoners on Toronto stations and the London newspaper but there has been less than a handful of inquiries to our call center even though we do not participate in that program. This also tells us that LDC branding is most important as the powerWISE brand is not directly associated with the local LDC. All of London Hydro’s programs are branded with our logo and messaging.

1.6 References

Reference is made in this Annual Report to the following publications and correspondence:

¹ *Technology Assessment Study and TRC Analysis*; a report prepared for The Ontario Power Authority by SeeLine Group Inc; December 2005; pg 1. Report available online at URL:

http://www.conservationbureau.on.ca/Storage/12/1722_OPA_Technology_Study_12_08_Final.pdf

² See URL: http://www.enerspectrum.com/products_services.php#calculator for a high level description of this software product.

- [1] London Hydro System Planning Report SP04-05, *Towards a Sustainable Energy Future: Master Plan of Strategies and Approaches for Energy Conservation and Demand-Side Management Investments*; January 2005.
- [2] Ontario Energy Board Decision and Order RP-2004-0203 / EB-2005-0206; re: *an Application by London Hydro Inc. for an Order Pre-approving its Conservation and Demand Management Plan*; March 17, 2005.
- [3] Letter of November 1, 2005, to Peter O’Dell, Ontario Energy Board, from Ian McKenzie, London Hydro Inc; re: *Energy Conservation & Demand-Management Plan – Application to Transfer Monies between Initiatives*.
- [4] Letter of November 22, 2005, to Ian McKenzie, London Hydro, from John Zych, Ontario Energy Board; re: *Application to Transfer Funds between Initiatives within a Conservation and Demand Management Plan, Board File No RP-2004-0203 / EB-2005-0206*.
- [5] Ontario Energy Board publication “*Guideline for Annual Reporting of CDM Initiatives*”, December 21, 2005.³
- [6] Ontario Energy Board publication: *Total Resource Cost Guide*; September 2005.⁴
- [7] Ontario Energy Board publication: *Revision to the Total Resource Cost Guide*; October 2, 2006.⁵
- [8] Letter of January 17th, 2007, to Kirsten Walli, Ontario Energy Board, from Ian McKenzie, London Hydro Inc; re: *RP-2004-0203 / EB-2005-0206 – Approved CDM Programs – London Hydro*.
- [9] Letter of March 1, 2007, to all Licensed Electricity Distributors from Ontario Energy Board; re: *Amended Requirements for Annual Reporting of Conservation and Demand Management (“CDM”) Initiatives*.

³ Document available electronically on OEB website at URL: http://www.oeb.gov.on.ca/html/en/industryrelations/ongoingprojects_distconservation.htm

⁴ Document available electronically on OEB website at URL: http://www.oeb.gov.on.ca/documents/cases/RP-2004-0203/cdm_trcguide_141005.pdf

⁵ Document available electronically on OEB website at URL: http://www.oeb.gov.on.ca/documents/cases/RP-2004-0203/cdm_trcguide_021006.pdf

2 EVALUATION OF THE CDM PLAN

Amongst the overall portfolio of energy conservation / demand-side management initiatives outlined in London Hydro's CDM Plan, some planned for execution in 2007 were far more successful than the initial aggressive targets, whilst others failed to gain traction and were scaled back or canceled. Many of the larger commercial and industrial lighting upgrade projects commenced in the latter half of 2006 and carried over into early 2007. The specific programs for which effectiveness metrics are being reported are:

- Residential Appliance Recycling Program;
- Program to Increase Commercial Sector Energy Efficiency (sub-programs *custom lighting upgrades* that completed only);
- Public Education Program (sub-program *energy conservation kits* only).

The requisite matrix presentation of the effectiveness parameters is included as Appendix A herein.

London Hydro's CDM Plan was intended as a strategic planning document. Simply put, strategic planning determines where an organization is going over the next year or more, how it's going to get there and how it'll know if it got there or not. Any such document only exists as a guideline and should change as the world changes. Such is the case with London Hydro's CDM Plan. As circumstances have changed, it has been necessary to scale back or defer some programs while expanding other programs.

3 DISCUSSION OF PROGRAMS

Highlights for each program within London Hydro’s portfolio of energy conservation and demand-side management initiatives are outlined herein. The requisite total resource cost analysis for each program is included herein as Appendix B in the required format.

3.1 Municipal Traffic & Pedestrian Signals Upgrade Project

This initiative was completed and the program highlights included in London Hydro’s *Conservation and Demand Management 2005 Annual Report*.

3.2 Residential Power Cost Monitor

Description:	Refer to Section 4 of London Hydro’s CDM Plan
Status:	Field portion complete –
<u>Effectiveness:</u>	
• Total Resource Cost:	(refer to Appendix B.2)
• Cost of Saved Energy:	
Comments:	Analysis of the data suggests that a savings of up to 8% is possible with the use of real time consumption information.

3.3 Residential Appliance Recycling Program

Description:	Refer to Section 5 of London Hydro’s CDM Plan
Status:	Program complete – Case study being finalized
<u>Effectiveness:</u>	
• Total Resource Cost:	\$7,655,177. ⁰⁰ (refer to Appendix B.3)
• Cost of Saved Energy:	1.7 to 10.8 ¢/kwh – see below ☺
Comments:	The <i>Chill Out – London</i> residential appliance recycling program, with an uptake of 14,439 units (or 11% of the residential customer base) was the most successful all-encompassing program ever run in North America. The <i>Chill Out</i> program was necessarily terminated before there was a slow-down in interest only because additional program funding could not be obtained.

A complete Case Study of the *Chill Out – London* residential appliance recycling program has been prepared and will be made available to the industry in the summer of 2008.

The cost of saved energy varied by sector, program, and appliance. The findings that are reported in the case study are:

- ❖ Early retirement program for apartment refrigerators:

- Apartment Buildings1.7 ¢/kW·h
- Social Housing Units2.7 ¢/kW·h
- ❖ Chill Out homeowner segment:
 - Replace It (upgrade program for primary fridges)..... 2.8 ¢/kW·h
 - Replace It (right-sizing program for beer fridges) 2.8 ¢/kW·h
 - Replace It (right-sizing program for freezers) 9.1 ¢/kW·h
 - Retire It (fridges) 5.5 ¢/kW·h
 - Retire It (freezers) 10.8 ¢/kW·h
 - Room Air Conditioner (RAC) Turn-In Event.....8.5 ¢/kW·h

Although one might conclude that one shouldn't include freezers and RAC's in future programs, the cost-effectiveness of the refrigerator right-sizing and upgrade programs combined with their greater volumes will offset some of the higher costs associated with freezers and RAC's and allow greater numbers of customers to participate in a comprehensive *Chill Out* program.

Note: One shouldn't read too much into the TRC measure assessed for the *Chill Out* program. There are really two issues with the defined methodology – some of the assumptions aren't reflective of the actual process, whilst the other problem is a matter of interpretation. For upgrading and right-sizing energy actions, the TRC model instructions require attribution of the purchase price of the new refrigerated appliance as a cost in the overall cost-benefit assessment. In reality, appliances have limited service lifetimes, and in the absence of the *Chill Out* program, the customer would have replaced the refrigerator at some point in time. All the *Chill Out* program has done is advance sure customer expenditure by some time period. As such, the proper attribution would only have been the carrying cost of the customer advancing expenditure. But here is where “*perspectives*” enter into the TRC cost-benefit analysis. In its present state, the TRC analysis simply shows that it is not worthwhile to spend tax dollars to go forth and replace all the vintage refrigerators in the province as an alternative to constructing new generation. However, by modifying the instructions to consider that simply advancing an inevitable procurement, the TRC outcome changes entirely, i.e. it is a program that benefits the customer and society as one might intuitively deduce.

3.4 Program to Increase Commercial Sector Energy Efficiency

3.4.1 Cool Shops – London (2005) Program

This initiative was completed and the program highlights included in London Hydro's *Conservation and Demand Management 2005 Annual Report*.

3.4.2 Lockable CFL / LED Exit Lights for Apartment / Social Housing Buildings

Description:	Refer to Section 6.1.4 of London Hydro’s CDM Plan
Status:	Ongoing
<u>Effectiveness:</u>	
• Total Resource Cost:	\$ 82,955.00 (refer to Appendix B.4B)
• Cost of Saved Energy:	
Comments:	Under London Hydro’s “CFL for Incandescent Exchange” program, lighting conversions within several apartment buildings and social housing complexes was completed in 2007 with great success. A follow up program was operated in late 2007.

3.4.3 Other Custom Lighting Upgrade Programs

Description:	Refer to Section 6.1.5 of London Hydro’s CDM Plan
Status:	Ongoing
<u>Effectiveness:</u>	
• Total Resource Cost:	\$910,698.00 (refer to Appendix B.4C)
• Cost of Saved Energy:	3.1 ¢/kW·h ☺
Comments:	There are numerous lighting upgrade projects with a variety of technologies (e.g. HID dimming, daylight harvesting, etc), but only two were started and completed in 2007

3.4.4 Vending Miser Program

This program was collapsed and monies transferred to other programs.

3.5 Distribution Shunt Capacitor Program

This program has been collapsed and monies transferred to the *Residential Appliance Recycling* program. Refer to references [3], [4] and [8].

3.6 Combined Heat & Power (CHP) Opportunities for Dispersed Generation

This program has been collapsed and monies transferred to the *Residential Appliance Recycling* program. Refer to references [3], [4] and [8].

3.7 Energy Awareness in the Classroom Program

Description:	Refer to Section 9 of London Hydro’s CDM Plan
Status:	Program pilot tested in 2007.
<u>Effectiveness:</u>	
• Total Resource Cost:	(refer to Appendix B.7)
• Cost of Saved Energy:	
Comments:	Pilot testing was very positive in 2007 over 1000 children were included in the program with multiyear follow planned.

3.8 LCBO Warehouse Makeover Project

This program has been collapsed and monies transferred to the *Commercial Energy Efficiency* program (of which the LCBO warehouse was initially a special showcase project within the portfolio of commercial lighting upgrade initiatives). Refer to reference [8].

3.9 Residential Summer Comfort Program

This program has been collapsed due financial constraints due to successful uptake of other programs.

3.10 Demand Response Enabling Technologies Program

This program has been collapsed and monies transferred to the *Residential Appliance Recycling* and *Energy Awareness in the Classroom* programs. Refer to references [3], [4] and [8].

3.11 The Heat and Warmth (THAW) Plus Program

This program has been collapsed and monies transferred to the *Residential Appliance Recycling* and *Energy Awareness in the Classroom* programs. Refer to references [3], [4] and [8].

3.12 Putting Our Own House in Order Program

Description:	Refer to Section 14 of London Hydro’s CDM Plan
Status:	Ongoing
<u>Effectiveness:</u>	
• Total Resource Cost:	\$80,366.00 (refer to Appendix B.12)
• Cost of Saved Energy:	
Comments:	The retrofit was completed in 2007 with an approximately reduction of 55% in energy usage by office lighting with no reduction in lighting quality.

3.13 Community One-Tonne Challenge Plus Program

This program has been collapsed and monies transferred to the *Residential Appliance Recycling* and *Energy Awareness in the Classroom* programs. Refer to references [3], [4] and [8].

3.14 Public Education Program

Description:	Refer to Section 16 of London Hydro's CDM Plan
Status:	In-progress
<u>Effectiveness:</u>	
• Total Resource Cost:	\$157,020. ⁰⁰ (refer to Appendix B.14)
• Cost of Saved Energy:	0.000 ¢/kW·h ☺
Comments:	The major element of this program was the distribution of kits and CFL bulbs in various programs and conservation events.

4 LESSONS LEARNED

Aside from the general “lessons learned” that were reported last year in London Hydro’s *Conservation and Demand Management 2005 Annual Report*, there are numerous valuable lessons learned and recommendations that came forth from London Hydro’s *Chill Out* residential appliance recycling program. These are contained in the published case study⁶ for this project and won’t be repeated herein.

Note: The Case Study includes a specific discussion of the Total Resource Cost (TRC) analysis, the differences between the OEB’s pre-defined assumptions for refrigerator programs and what is really happening in the marketplace (for the *Chill Out* program), and the need to understand what a particular analysis is telling the reader before jumping to an incorrect conclusion. For example, the Cost of Saved Energy (CSE) analysis indicates that *Chill Out* was a great energy conservation program (i.e. energy conservation was attained at a cost less than the blended market price of generation), whilst the TRC analysis indicates the opposite.

⁶ London Hydro System Planning Report SP06-01, *Energy Conservation and Demand-Side Management: Case Study of the Chill Out – London Residential Appliance Recycling Program*; March 2007.

5 CONCLUSIONS

In 2007 London Hydro finished the execution of its third tranche CDM program. London Hydro encountered some unexpected lead time delays associated with certain program development, the scaling back or deferral of some programs either due to reasons beyond London Hydro's control or that weren't envisioned at the time the CDM Plan was created, but also at least one resounding success story and early signs of a few other success stories to follow in coming years.



Appendices

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	Institutional	Industrial	Agricultural	LDC System	⁴ Smart Meters	Other #1	Other #2
<i>Net TRC value (\$):</i>	-\$ 2,489,956	\$ 47,800	\$ (48,506)	\$ 105,549	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
<i>Benefit to cost ratio:</i>	0.78	1.05	2.32	1.10	0.00	0.00	0.00	0.00		0.00	0.00
<i>Number of participants or units delivered:</i>	64,918	10,953	10,791	162	-						
<i>Lifecycle (kWh) Savings:</i>	150,767,845	77,471,762	49,746,528	15,649,022	12,076,212	0	0	0		0	0
<i>Report Year Total kWh saved (kWh):</i>	77,471,762	32,060,163	18,019,872	10,014,887	4,025,404	0	0	0		0	0
<i>Total peak demand saved (kW):</i>	14,491	6,519	2,817	2,782	920	0	0	0		0	0
<i>Total kWh saved as a percentage of total kWh delivered (%):</i>	1.10%	0.92%	1.57%	0.43%	16.48%						
<i>Peak kW saved as a percentage of LDC peak kW load (%):</i>	1.01%	0.90%	0.39%	0.38%	0.13%						
¹ <i>Report Year Gross C&DM expenditures (\$):</i>	\$ 2,907,457	\$ 242,820	-\$ 3,543	\$ 246,363	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
² <i>Expenditures per kWh saved (\$/kWh):</i>	\$ 0.02	\$ 0.00	-\$ 0.00	\$ 0.02	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
³ <i>Expenditures per KW saved (\$/kW):</i>	\$ 200.64	\$ 37.25	-\$ 1.26	\$ 88.56	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
<i>Utility discount rate (%):</i>	7.35%										

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, 2006 CDM Annual report for third tranche will include 2005 and 2004 numbers, if any).

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. Name of the Program: Traffic & Pedestrian Signals Upgrade

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

The municipal traffic & pedestrian signals upgrade project was an undertaking by the City of London (with funding support from London Hydro's EC/DSM Plan) to convert the traffic and pedestrian signals at 394 intersections from incandescent lamps to state-of-the-art energy-efficient light emitting diode (LED) modules. Under the program 11,329 incandescent bulbs (with electrical input ratings ranging from 60 to 135 W) were replaced with LED modules (with input ratings ranging from 5 to 22 W).

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	Incandescent Bulbs	0	0
Efficient technology:	Light-Emitting Diode Modules	0	0
Number of participants or units delivered for reporting year:	394 intersections	0	0
Measure life (years):	6	0	0
Number of Participants or units delivered life to date	394	0	0

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ -	\$ 3,342,998
² TRC Costs (\$):		
Utility program cost (excluding incentives):		\$ 5,872
Incremental Measure Costs (Equipment Costs)		\$ 1,844,839
Total TRC costs:	\$ -	\$ 1,850,711
Net TRC (in year CDN \$):	\$ -	\$ 1,492,287
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	-	1.81

C. Results: (one or more category may apply)	Cumulative Results:			
Conservation Programs:				
Demand savings (kW):	Summer	460	0	1380
	Winter	460	0	1380
	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	24,152,424	4,025,404	12,076,212	12,076,212
Other resources saved :				
Natural Gas (m3):				
Other (specify):				
Demand Management Programs:				
Controlled load (kW)				
Energy shifted On-peak to Mid-peak (kWh):				
Energy shifted On-peak to Off-peak (kWh):				
Energy shifted Mid-peak to Off-peak (kWh):				
Demand Response Programs:				
Dispatchable load (kW):				
Peak hours dispatched in year (hours):				
Power Factor Correction Programs:				
Amount of KVar installed (KVar):				

Distribution system power factor at beginning of year (%):

Distribution system power factor at end of year (%):

--	--

Line Loss Reduction Programs:

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
Energy savings (kWh):			

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kWh):		
Fuel type:		

Other Programs (specify):

Metric (specify):		
-------------------	--	--

D. Actual Program Costs:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>	\$ -	\$ 5,872
	<i>Incentive:</i>		\$ 526,664
	<i>Total:</i>	\$ -	\$ 532,536
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>		
	<i>Total:</i>		

E. Assumptions & Comments:

From the City's perspective, this project represents more than simply an energy conservation opportunity (with the inherent recurring energy cost savings). Because the expected service life for an LED module is at least six years (and probably greater), the City can suspend its annual group relamping preventive maintenance program (with annual costs understood to be on the order of \$65K) and may expect to see a decline in call-out costs in response to burned-out incandescent lamps.

For example, for an "advance arrow" signal, the customer would have required almost \$225 in per module incentives to achieve a three-year return-on-investment strictly considering energy savings, but London Hydro limited the incentive to \$4.75 so as not to exceed a levelized cost-of-saved energy of 4.1 ¢/kWh. The upgrade was carried out none-the-less based on maintenance cost savings.

The calculated levelized Cost of Saved Energy (CSE) for this project was just over 2.6 ¢/kWh.

The TRC for this project is likely less attractive than if it had been carried out considering only energy savings (i.e. conversion of red and green signals to LED technology, and leaving amber and advance signals as incandescent bulbs).

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 b

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Residential Power Cost Monitor

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

The residential PowerCost Monitor project involved the installation of BlueLine's PowerCost Monitors in homes of 500 Hydro One Networks customers in the Peterborough, Timmins, Lincoln and Brampton areas for a period of twelve months. As a project participant, 70 PowerCost Monitors were also installed within London Hydro's service territory in March of 2005. The hypothesis being tested is that immediate and specific electricity end-use feedback (via an in-home display) will result in energy conservation behaviour.

Note: The program is completely described in Section 4, Residential Power Cost Monitor - Pilot Project, of London Hydro's CDM Plan.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	No feedback		
Efficient technology:	In-home display		
Number of participants or units delivered for reporting year:	70		
Measure life (years):			
Number of Participants or units delivered life to date	70	0	0

B. TRC Results:

	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ -	\$ -
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ -	\$ -
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	\$ -	\$ -
Net TRC (in year CDN \$):	\$ -	\$ -
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	-	-

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	Summer	0	0	0
	Winter	0	0	0
Energy saved (kWh):	lifecycle	0	0	0
Other resources saved :	in year			
Natural Gas (m3):				
Other (specify):				

Demand Management Programs:

Controlled load (kW)		
Energy shifted On-peak to Mid-peak (kWh):		
Energy shifted On-peak to Off-peak (kWh):		
Energy shifted Mid-peak to Off-peak (kWh):		

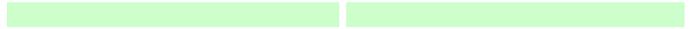
Demand Response Programs:

Dispatchable load (kW):	
Peak hours dispatched in year (hours):	

Power Factor Correction Programs:

Amount of KVar installed (KVar):	
Distribution system power factor at beginning of year (%):	

Distribution system power factor at end of year (%):



Line Loss Reduction Programs:

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
Energy savings (kWh):			

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kWh):		
Fuel type:		

Other Programs (specify):

Metric (specify):		
-------------------	--	--

D. Actual Program Costs:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:	\$ 2,110	\$ 33,844
	Incremental O&M:		
	Incentive:		
	Total:	\$ 2,110	\$ 33,844
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

In 2007 the Residential Power Cost Monitor project was completed. Data for this project was gathered and analyzed for research purposes. This project was operated in conjunction with a project executed by Hydro One. The results of the projects were assumed to be similar and that residential customers with real time information may be able to conserve up to 8 % of their usage. This is primarily due to the timing of the information. The promising results have led London Hydro to include the option of including Real Time Monitors in their 2007 Smart Meter Deployment Plan. The next generation of these devices may provide even greater opportunities for conservation by residents. TRC calculations are not possible on a project such as this.

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 b

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Residential Appliance Recycling Program (Interim Achievements for an Ongoing Program)

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

There are two distinct segments, approaches and timeframes for the Chill Out – London residential appliance recycling program:

- the Replacement segment, directed customers to upgrade early existing fridges to Energy Star refrigerators and Freezers
- the Retirement segment, encouraged customers to retire or dispose of their dated secondary fridges and unneeded freezers, as well as old room air conditioners

Note: The program is completely described in Section 5, Residential Appliance Recycling Program, of London Hydro's CDM Plan.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)	
<i>Base case technology:</i>	Vintage apartment refrigerators	Normal OEB Residential Program	Chillout - Old Fridges	
<i>Efficient technology:</i>	EnergyStar refrigerators		Energy Star Fridge	
<i>Number of participants or units delivered for reporting year:</i>	6603	2790		2433
<i>Measure life (years):</i>	5	14 (19 -5)		19
<i>Number of Participants or units delivered life to date</i>	9216	2790		2433

B. TRC Results:

	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	-\$ 85,146	\$ 3,684,800
² TRC Costs (\$):		
<i>Utility program cost (excluding incentives):</i>	\$ 64,535	\$ 220,624
<i>Incremental Measure Costs (Equipment Costs)</i>	\$ -	\$ 7,434,553
<i>Total TRC costs:</i>	\$ 64,535	\$ 7,655,177
Net TRC (in year CDN \$):	-\$ 149,681	-\$ 3,970,377
<i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>	-	0.48

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

Cumulative Results:

Conservation Programs:

<i>Demand savings (kW):</i>	<i>Summer</i>	939	2611
	<i>Winter</i>	939	2611

	<i>lifecycle</i>	<i>in year</i>	<i>Cumulative Lifecycle</i>	<i>Cumulative Annual Savings</i>
<i>Energy saved (kWh):</i>	90,099,360	18,019,872	49,746,528	49,746,528
<i>Other resources saved :</i>				
<i>Natural Gas (m3):</i>				
<i>Other (specify):</i>				

Demand Management Programs:

<i>Controlled load (kW)</i>	
<i>Energy shifted On-peak to Mid-peak (kWh):</i>	
<i>Energy shifted On-peak to Off-peak (kWh):</i>	
<i>Energy shifted Mid-peak to Off-peak (kWh):</i>	

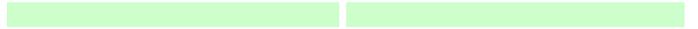
Demand Response Programs:

<i>Dispatchable load (kW):</i>	
<i>Peak hours dispatched in year (hours):</i>	

Power Factor Correction Programs:

<i>Amount of KVar installed (KVar):</i>	
<i>Distribution system power factor at beginning of year (%):</i>	

Distribution system power factor at end of year (%):



Line Loss Reduction Programs:

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
Energy savings (kWh):			

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kWh):		
Fuel type:		

Other Programs (specify):

Metric (specify):		
-------------------	--	--

<u>D. Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 64,535	\$ 220,624
	Incentive:	\$ 20,612	\$ 1,465,775
	Total:	\$ 85,147	\$ 1,686,399
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

In 2007 London Hydro completed the final deliveries and payments of the Chill Out program. Payments in 2007 related to the final deliveries for apartment units and a few residential units. The program was deemed a remarkable success by several Provincial and Federal entities> London Hydro received awards from Natural Resources Canada and the American Council for Energy Efficient Economy. London Hydro has also prepared an exhaustive Case Study on the complete Chill Out Program. This was prepared in order to satisfy requests from interested parties as to how to obtain such successes in an appliance recycling program. The most relevant findings from the Case Study point to the early replacement of primary fridges and freezers is more valuable than a regular "beer fridge" pick up.

1

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Cool Shops - London (Summer of 2005 Program)

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

London Hydro partnered with the Clean Air Foundation's multi-city Cool Shops program to deliver turnkey energy conservation measures to small retail businesses (e.g. restaurants, clothing, gift stores, small grocery stores, dry cleaner / Laundromats, etc.) within London Hydro's service territory throughout the summer of 2005. Initial customer contact was established via local business (and business improvement) associations.

Note: The program is better described in Section 6.3.4, Execution Methodology for Small Businesses, of London Hydro's CDM Plan.

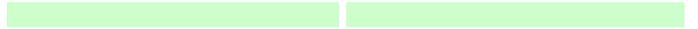
Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	Incandescent bulbs		
Efficient technology:	Compact fluorescent lamps		
Number of participants or units delivered for reporting year:	646 stores		
Measure life (years):	8,000 hrs		
Number of Participants or units delivered life to date	646		

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ -	\$ 37,221
² TRC Costs (\$):		
Utility program cost (excluding incentives):		\$ 35,156
Incremental Measure Costs (Equipment Costs)		\$ 24,405
Total TRC costs:	\$ -	\$ 59,561
Net TRC (in year CDN \$):	\$ -	-\$ 22,340
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	-	0.62

C. Results: (one or more category may apply)	Cumulative Results:			
Conservation Programs:				
Demand savings (kW):	Summer	33		99
	Winter	33		99
	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	571,968	142,992	428,976	428,976
Other resources saved :				
Natural Gas (m3):				
Other (specify):				
Demand Management Programs:				
Controlled load (kW)				
Energy shifted On-peak to Mid-peak (kWh):				
Energy shifted On-peak to Off-peak (kWh):				
Energy shifted Mid-peak to Off-peak (kWh):				
Demand Response Programs:				
Dispatchable load (kW):				
Peak hours dispatched in year (hours):				
Power Factor Correction Programs:				
Amount of KVar installed (KVar):				
Distribution system power factor at beginning of year (%):				

Distribution system power factor at end of year (%):



Line Loss Reduction Programs:

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
Energy savings (kWh):			

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kWh):		
Fuel type:		

Other Programs (specify):

Metric (specify):		
-------------------	--	--

D. Actual Program Costs:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>	\$ -	\$ 35,156
	<i>Incentive:</i>		\$ 358
	<i>Total:</i>	\$ -	\$ 35,514
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>		
	<i>Total:</i>		

E. Assumptions & Comments:

At the conclusion of the project, Clean Air Foundation (CAF) prepared a report entitled "2005 Cool Shops Final Report" (dated November 2005) reflecting experiences and results from programs run in Toronto, London, Ottawa, Markham, Peterborough, and Milton. For the London program, the levelized cost of saved energy (CSE) was calculated to be just over 13 cents per kWh, which greatly exceeds our program threshold of 4 cents per kWh.

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 b

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Lockable CFL / LED Exit Lights for Apartment / Social Housing Buildings

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

This initiative is specifically targeted to apartment buildings and social housing complexes. High quality compact fluorescent lamps (CFL's) with a special lockable-base design are used to replace traditional incandescent bulbs in common areas and within fixed fixtures within tenant suites. Similarly, light-emitting diode (LED) modules are used to replace incandescent or first-generation CFL's in Exit lighting fixtures.

Note: The program is better described in Section 6.1.4, Overview of Illuminated Exit Sign Program, of London Hydro's CDM Plan.

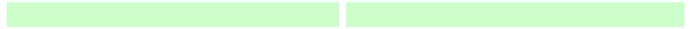
Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	60 Watt Incandescent Bulbs	0	
Efficient technology:	15 Watt CFL		
Number of participants or units delivered for reporting year:	38844	0	
Measure life (years):	4		
Number of Participants or units delivered life to date	38,844	0	

B. TRC Results:	<u>Reporting Year</u>		<u>Life-to-date TRC Results:</u>	
	¹ TRC Benefits (\$):	\$	98,668.00	\$
² TRC Costs (\$):				
Utility program cost (excluding incentives):	\$	1,361	\$	5,267
Incremental Measure Costs (Equipment Costs)	\$	77,688	\$	77,688
Total TRC costs:	\$	79,049.00	\$	82,955
Net TRC (in year CDN \$):	\$	19,619.00	\$	15,713
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		1.25		1.19

C. Results: (one or more category may apply)		<u>Cumulative Results:</u>			
Conservation Programs:					
Demand savings (kW):	Summer		787		787
	Winter		787		787
	<i>lifecycle</i>		<i>in year</i>	<i>Cumulative Lifecycle</i>	<i>Cumulative Annual Savings</i>
Energy saved (kWh):	17,479,800		4,039,776	4,039,776	4,039,776
Other resources saved :					
Natural Gas (m3):					
Other (specify):					
Demand Management Programs:					
Controlled load (kW)					
Energy shifted On-peak to Mid-peak (kWh):					
Energy shifted On-peak to Off-peak (kWh):					
Energy shifted Mid-peak to Off-peak (kWh):					
Demand Response Programs:					
Dispatchable load (kW):					
Peak hours dispatched in year (hours):					
Power Factor Correction Programs:					
Amount of KVar installed (KVar):					
Distribution system power factor at beginning of year (%):					

Distribution system power factor at end of year (%):



Line Loss Reduction Programs:

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
Energy savings (kWh):			

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kWh):		
Fuel type:		

Other Programs (specify):

Metric (specify):		
-------------------	--	--

D. Actual Program Costs:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	<i>Incremental capital:</i>		\$ -
	<i>Incremental O&M:</i>	\$ 1,361	\$ 5,267
	<i>Incentive:</i>		\$ -
	<i>Total:</i>	\$ 1,361	\$ 5,267
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>		
	<i>Total:</i>		

E. Assumptions & Comments:

London Hydro executed the CFL for Incandescent Bulb replacement program in first quarter 2007. The program was directed at the apartment owners and managers that participated in the Chill Out Program. The Incentive was funded through a special Ontario Power Authority grant. This grant was similar to the OPA Every Kilowatt Counts program for residential customers and was funded in order to determine if a commercial version would be viable in the future. The incentive funded by the OPA was for \$ 1.25 per bulb. In all 38,844 bulbs were distributed under the program. Extensive analysis determined that a further program is warranted and would obtain greater results. Note: in late 2007 London Hydro utilized the OPA ERIP program in order to relaunch the program in a Phase 2. The approach was fine tuned and lessons learned applied. In a span of 16 weeks over 350,000 Compact Fluorescent Bulbs were approved for incentives.

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 b

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. Name of the Program: Other Custom Lighting Upgrade Programs

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

Purolater Energy Audit - Audit performed in 2005 however cost saving measures not implemented until 2006. Minor spending in 2005. Energy savings will not be quantified until 2006. The 2006 annual report will have a TRC value for this program.

Volvo Dealership - Included in TRC and spending values below, please see comments section of this page for more info.

Beck

Manor - Included in TRC and spending values below, please see comments section of this page for more info.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	HID Lighting,T12, Halogen		
Efficient technology:	HID Dimming Controls		
Number of participants or units delivered for reporting year:	7 Companies		
Measure life (years):	3		
Number of Participants or units delivered life to date	7534		

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 987,645	\$ 1,099,201
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 206	\$ 3,723
Incremental Measure Costs (Equipment Costs)	\$ 875,698	\$ 906,975
Total TRC costs:	\$ 875,904	\$ 910,698
Net TRC (in year CDN \$):	\$ 111,741	\$ 188,503
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	1.13	1.21

C. Results: (one or more category may apply)	Cumulative Results:			
Conservation Programs:				
Demand savings (kW):	Summer	460	920	
	Winter	460	920	
	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	15,534,111	5,178,037	10,356,074	10,356,074
Other resources saved :				
Natural Gas (m3):				
Other (specify):				
Demand Management Programs:				
Controlled load (kW)				
Energy shifted On-peak to Mid-peak (kWh):				
Energy shifted On-peak to Off-peak (kWh):				
Energy shifted Mid-peak to Off-peak (kWh):				
Demand Response Programs:				
Dispatchable load (kW):				
Peak hours dispatched in year (hours):				
Power Factor Correction Programs:				
Amount of KVar installed (KVar):				
Distribution system power factor at beginning of year (%):				
Distribution system power factor at end of year (%):				

Line Loss Reduction Programs:

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
Energy savings (kWh):			

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kWh):		
Fuel type:		

Other Programs (specify):

Metric (specify):		
-------------------	--	--

<u>D. Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		\$ 4,428
	Incremental O&M:	\$ 206	\$ 3,723
	Incentive:	\$ 214,989	\$ 219,689
	Total:	\$ 215,194	\$ 227,839
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

The seven companies assisted via this segment achieved excellent conservation measures. These measures included upgrading older T12 fixture, installing HID dimming systems and replacing high bay HID lighting with new T8 and T5 Fluorescent technologies. Note: on our late 2007 OPA ERIP program, we transferred and communicated the success of the results to other customers and have exceed 200 applications for lighting upgrades in 2008.

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 b

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Vending Machine Energy Efficiency Program (Program Not Started)

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

Under this program, innovative intelligent controllers / occupancy sensor units (known by the tradename VendingMISER) are installed on coin-operated refrigerated vending machines.

Note: This program is detailed in Section 6.1.3, Overview of Vending Machine Energy Efficiency Program, of London Hydro's CDM Plan.

Measure(s):

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

B. TRC Results:	<u>Reporting Year</u>	<u>Life-to-date TRC Results:</u>
¹ TRC Benefits (\$):		
² TRC Costs (\$):		
Utility program cost (excluding incentives):		\$ -
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	\$ -	\$ -
<u>Net TRC (in year CDN \$):</u>	<u>\$ -</u>	<u>\$ -</u>
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	-	-

C. Results: (one or more category may apply)	<u>Cumulative Results:</u>	
<u>Conservation Programs:</u>		
Demand savings (kW):	Summer	0
	Winter	0
Energy saved (kWh):	lifecycle	0
Other resources saved :	in year	0
Natural Gas (m3):		Cumulative Lifecycle
Other (specify):		Cumulative Annual Savings
<u>Demand Management Programs:</u>		
Controlled load (kW)		
Energy shifted On-peak to Mid-peak (kWh):		
Energy shifted On-peak to Off-peak (kWh):		
Energy shifted Mid-peak to Off-peak (kWh):		
<u>Demand Response Programs:</u>		
Dispatchable load (kW):		
Peak hours dispatched in year (hours):		
<u>Power Factor Correction Programs:</u>		
Amount of KVar installed (KVar):		
Distribution system power factor at beginning of year (%):		
Distribution system power factor at end of year (%):		

Line Loss Reduction Programs:

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
Energy savings (kWh):			

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kWh):		
Fuel type:		

Other Programs (specify):

Metric (specify):		
-------------------	--	--

D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ -	\$ 2,083
	Incentive:		
	Total:	\$ -	\$ 2,083
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

A number of candidate customers for this technology (e.g. colleges, universities, schools, municipal recreation centres, Western Fair, etc) are currently inventorying their stock of refrigerated vending machines. Project rollout will likely be late Spring of 2006. Only minor spending on admin cost have been spent and TRC values are not available at this time.

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 b

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Jones Packaging Retrofit

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

Jones Packaging is a large printing and box making facility. This project at this company entailed updating and replacing their lighting system. Typical update included removing aged 400 watt Metal Halide HID lighting (consuming 458 watts) to High bay T8 fluorescent Lighting as well as older T12 task lighting to T8 task lighting. Energy consumption was markedly reduced and the quality of light improved within the plant. Also, a more efficient compressed air dryer was installed to replace a dated and less efficient model, also producing savings.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)	
Base case technology:	T 12	HID Fixture Retrofit	Compressor Dryer	
Efficient technology:	T8	6 T8 High Output	Comp Air CDR	
Number of participants or units delivered for reporting year:	165	294		1
Measure life (years):	3	3		10
Number of Participants or units delivered life to date	165	294		1

B. TRC Results:

	Reporting Year	Life-to-date TRC Results:	
¹ TRC Benefits (\$):	\$ -	\$ -	\$ 275,201
² TRC Costs (\$):			
Utility program cost (excluding incentives):	\$ -	\$ -	\$ 5,794
Incremental Measure Costs (Equipment Costs)	\$ -	\$ -	\$ 271,074
Total TRC costs:	\$ -		\$ 276,868
Net TRC (in year CDN \$):	\$ -		-\$ 1,667
Benefit to Cost Ratio (TRC Benefits/TRC Costs):			0.99

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	Summer	32	64					
	Winter	32	64					
Energy saved (kWh):	lifecycle	510,342	in year	170,114	Cumulative Lifecycle	340,228	Cumulative Annual Savings	340,228
Other resources saved :								
Natural Gas (m3):								
Other (specify):								

Demand Management Programs:

Controlled load (kW)		
Energy shifted On-peak to Mid-peak (kWh):		
Energy shifted On-peak to Off-peak (kWh):		
Energy shifted Mid-peak to Off-peak (kWh):		

Demand Response Programs:

Dispatchable load (kW):		
Peak hours dispatched in year (hours):		

Power Factor Correction Programs:

Amount of KVar installed (KVar):		
Distribution system power factor at beginning of year (%):		
Distribution system power factor at end of year (%):		

Line Loss Reduction Programs:

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
Energy savings (kWh):			

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kWh):		
Fuel type:		

Other Programs (specify):

Metric (specify):		
-------------------	--	--

D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ -	\$ 5,794
	Incentive:	\$ -	\$ 47,417
	Total:	\$ -	\$ 53,211
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 b

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Distribution Shunt Capacitor Program (Program Deferred & Monies Transferred)

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

This program has been collapsed and monies transferred to the Residential Appliance Recycling Program. Refer to November 1st letter to OEB, re: Application to Transfer Monies Between Initiatives, and OEB's letter of reply dated November 22, 2005.

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:	<u>Reporting Year</u>	<u>Life-to-date TRC Results:</u>
¹ TRC Benefits (\$):		
² TRC Costs (\$):		
Utility program cost (excluding incentives):		
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	\$ -	\$ -
Net TRC (in year CDN \$):	\$ -	\$ -
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	-	-

C. Results: (one or more category may apply)	<u>Cumulative Results:</u>		
<u>Conservation Programs:</u>			
Demand savings (kW):	Summer	0	0
	Winter	0	0
Energy saved (kWh):	lifecycle	0	0
Other resources saved :	in year	0	0
Natural Gas (m3):			
Other (specify):			
<u>Demand Management Programs:</u>			
Controlled load (kW)			
Energy shifted On-peak to Mid-peak (kWh):			
Energy shifted On-peak to Off-peak (kWh):			
Energy shifted Mid-peak to Off-peak (kWh):			
<u>Demand Response Programs:</u>			
Dispatchable load (kW):			
Peak hours dispatched in year (hours):			
<u>Power Factor Correction Programs:</u>			
Amount of KVar installed (KVar):			
Distribution system power factor at beginning of year (%):			
Distribution system power factor at end of year (%):			

Line Loss Reduction Programs:

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
Energy savings (kWh):			

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kWh):		
Fuel type:		

Other Programs (specify):

Metric (specify):		
-------------------	--	--

D. Actual Program Costs:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>	
Utility direct costs (\$):	Incremental capital:			
	Incremental O&M:			
	Incentive:			
	Total:	\$ -	\$ -	\$ -
Utility indirect costs (\$):	Incremental capital:			
	Incremental O&M:			
	Total:			

E. Assumptions & Comments:

this program was cancelled and a letter requesting funding transfers has been sent to the OEB.

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 b

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Combined Heat & Power (CHP) Opportunities

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

As per the Boards approved budget revisions (EB-2007-0017 Mar 22,2007) original budget amount of \$30,000 has been revised to \$0 and funds have been reallocated to other programs.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	Gas-fired boilers		
Efficient technology:	Microturbine		
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):		
Incremental Measure Costs (Equipment Costs)		
Total TRC costs: \$	-	\$ -
Net TRC (in year CDN \$):	\$ -	\$ -
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	-	-

C. Results: (one or more category may apply)	Cumulative Results:			
Conservation Programs:				
Demand savings (kW):	Summer	0		0
	Winter	0		0
	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	0		0	0
Other resources saved :				
Natural Gas (m3):				
Other (specify):				
Demand Management Programs:				
Controlled load (kW)				
Energy shifted On-peak to Mid-peak (kWh):				
Energy shifted On-peak to Off-peak (kWh):				
Energy shifted Mid-peak to Off-peak (kWh):				
Demand Response Programs:				
Dispatchable load (kW):				
Peak hours dispatched in year (hours):				
Power Factor Correction Programs:				
Amount of KVar installed (KVar):				

Distribution system power factor at beginning of year (%):

Distribution system power factor at end of year (%):

--	--

Line Loss Reduction Programs:

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
Energy savings (kWh):			

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kWh):		
Fuel type:		

Other Programs (specify):

Metric (specify):		
-------------------	--	--

D. Actual Program Costs:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>	
Utility direct costs (\$):	Incremental capital:			
	Incremental O&M:			
	Incentive:			
	Total:	\$ -	\$ -	
Utility indirect costs (\$):	Incremental capital:			
	Incremental O&M:			
	Incentive:			
	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 b

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Energy Awareness in the Classroom Program

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

Since elementary schools are the established institutions where succeeding generations do much of their learning, it seems like a logical place to introduce the energy conservation creed. This program, which is targeted to younger students in elementary schools, is intended to increase their awareness of energy resource issues and provide them with some basic information so that they can monitor the energy use within their home and school building.

Note: This program is described in Section 9, Energy Awareness in the Classroom Program, of London Hydro's CDM Plan.

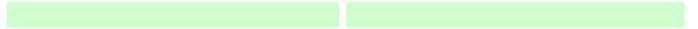
Measure(s):

	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):	\$ -	\$ -
Incremental Measure Costs (Equipment Costs)		\$ -
Total TRC costs:	\$ -	\$ -
Net TRC (in year CDN \$):	\$ -	\$ -
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	-	-

C. Results: (one or more category may apply)	Cumulative Results:			
Conservation Programs:				
Demand savings (kW):	Summer	0		0
	Winter	0		0
	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	0		0	0
Other resources saved :				
Natural Gas (m3):				
Other (specify):				
Demand Management Programs:				
Controlled load (kW)				
Energy shifted On-peak to Mid-peak (kWh):				
Energy shifted On-peak to Off-peak (kWh):				
Energy shifted Mid-peak to Off-peak (kWh):				
Demand Response Programs:				
Dispatchable load (kW):				
Peak hours dispatched in year (hours):				
Power Factor Correction Programs:				
Amount of KVar installed (KVar):				
Distribution system power factor at beginning of year (%):				

Distribution system power factor at end of year (%):



Line Loss Reduction Programs:

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
Energy savings (kWh):			

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kWh):		
Fuel type:		

Other Programs (specify):

Metric (specify):		
-------------------	--	--

D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 10,375	\$ 129,552
	Incentive:		\$ -
	Total:	\$ 10,375	\$ 129,552
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

The EAC program was executed with London teachers in 2007. In the first of the program over 450 students were engaged in the lessons. The majority of the expenditures were upfront and years of benefits from the program will ensue. This will occur as the teachers who have been trained in the delivery of Ontario Teaching Curriculum matched energy conservation strategies. Each teacher is supplied with materials that can be utilized yearly, typically at the grade 5 level. As this program is more tailored to many conservation education measures a relevant TRC is very difficult to perform. In the program students are supplied with CFIs, showerheads and home audit information. This information is shared with guardians and we believe results in some broader uptake in conservation measures. In early 2008 students in the program will almost double to 800 +/- participants and an additional 16 teachers were trained in the use of the program.

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 b

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** LCBO Warehouse Makeover Project

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

As per the Boards approved budget revisions (EB-2007-0017 Mar 22,2007) original budget amount of \$100,000 has been revised to \$0 and funds have been reallocated to other programs.

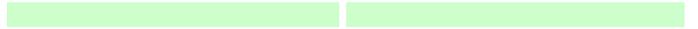
Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	HID High-Bay Lighting		
Efficient technology:	Improved bulb & dimming controls		
Number of participants or units delivered for reporting year:	1		
Measure life (years):			
Number of Participants or units delivered life to date	0		

B. TRC Results:	<u>Reporting Year</u>		<u>Life-to-date TRC Results:</u>
¹ TRC Benefits (\$):			
² TRC Costs (\$):			
Utility program cost (excluding incentives):			
Incremental Measure Costs (Equipment Costs)			
Total TRC costs:	\$ -		\$ -
Net TRC (in year CDN \$):	\$ -		\$ -
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	-		-

C. Results: (one or more category may apply)	<u>Cumulative Results:</u>	
Conservation Programs:		
Demand savings (kW):	Summer	0
	Winter	0
	lifecycle	0
Energy saved (kWh):	in year	0
Other resources saved :	Cumulative Lifecycle	0
Natural Gas (m3):	Cumulative Annual Savings	0
Other (specify):		
Demand Management Programs:		
Controlled load (kW)		
Energy shifted On-peak to Mid-peak (kWh):		
Energy shifted On-peak to Off-peak (kWh):		
Energy shifted Mid-peak to Off-peak (kWh):		
Demand Response Programs:		
Dispatchable load (kW):		
Peak hours dispatched in year (hours):		
Power Factor Correction Programs:		
Amount of KVar installed (KVar):		
Distribution system power factor at beginning of year (%):		

Distribution system power factor at end of year (%):



Line Loss Reduction Programs:

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
Energy savings (kWh):			

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kWh):		
Fuel type:		

Other Programs (specify):

Metric (specify):		
-------------------	--	--

D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>	
Utility direct costs (\$):	Incremental capital:			
	Incremental O&M:			
	Incentive:			
	Total:	\$ -	\$ -	\$ -
Utility indirect costs (\$):	Incremental capital:			
	Incremental O&M:			
	Incentive:			
	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 b

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Residential Summer Comfort Program (Under Development)

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

As per the Boards approved budget revisions (EB-2007-0017 Mar 22,2007) original budget amount of \$25,000 has been revised to \$62 and funds have been reallocated to other programs. This program was not undertaken at this time.

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			

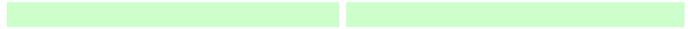
B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:	
¹ TRC Benefits (\$):			
² TRC Costs (\$):			
Utility program cost (excluding incentives):	\$ -	\$ -	
Incremental Measure Costs (Equipment Costs)			
Total TRC costs:	\$ -		\$ -
Net TRC (in year CDN \$):	\$ -		\$ -
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	-		-

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

	Cumulative Results:			
Conservation Programs:				
Demand savings (kW):	Summer	0		0
	Winter	0		0
	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	0		0	0
Other resources saved :				
Natural Gas (m3):				
Other (specify):				
Demand Management Programs:				
Controlled load (kW)				
Energy shifted On-peak to Mid-peak (kWh):				
Energy shifted On-peak to Off-peak (kWh):				
Energy shifted Mid-peak to Off-peak (kWh):				
Demand Response Programs:				
Dispatchable load (kW):				
Peak hours dispatched in year (hours):				
Power Factor Correction Programs:				
Amount of KVar installed (KVar):				
Distribution system power factor at beginning of year (%):				

Distribution system power factor at end of year (%):



Line Loss Reduction Programs:

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
Energy savings (kWh):			

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kWh):		
Fuel type:		

Other Programs (specify):

Metric (specify):		
-------------------	--	--

D. Actual Program Costs:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>	
Utility direct costs (\$):	Incremental capital:	\$ -	\$ -	\$ -
	Incremental O&M:	\$ -	\$ -	\$ 62
	Incentive:			
	Total:	\$ -	\$ -	\$ 62
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 b

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Demand Response Enabling Technologies Program (Under Development)

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

This program addresses one element of a comprehensive demand response program, and is directed to so-called "price notification customers" - those customers with interruptible load or existing emergency/backup generation systems that can respond to a constrained electric grid. IVR technology will be used to transfer advance market pricing information to the customer via facsimile, electronic mail, or to the customers telephone, according to the customer's stated preference with respect to message media, lead time, and price threshold.

Note: As per the Boards approved budget revisions (EB-2007-0017 Mar 22,2007) this program was cancelled and budget funds have been reallocated to other programs.

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):		
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	\$ -	\$ -
Net TRC (in year CDN \$):	\$ -	\$ -
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	-	-

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

	Cumulative Results:	
Conservation Programs:		
Demand savings (kW):	Summer	0
	Winter	0
	lifecycle	0
	in year	0
Energy saved (kWh):		0
Other resources saved :		0
Natural Gas (m3):		
Other (specify):		
Demand Management Programs:		
Controlled load (kW)		
Energy shifted On-peak to Mid-peak (kWh):		
Energy shifted On-peak to Off-peak (kWh):		
Energy shifted Mid-peak to Off-peak (kWh):		
Demand Response Programs:		
Dispatchable load (kW):		
Peak hours dispatched in year (hours):		
Power Factor Correction Programs:		

Amount of KVar installed (KVar):

Distribution system power factor at beginning of year (%):

Distribution system power factor at end of year (%):

Line Loss Reduction Programs:

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
Energy savings (kWh):			

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kWh):		
Fuel type:		

Other Programs (specify):

Metric (specify):		
-------------------	--	--

D. Actual Program Costs:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:		\$ 3,714
	Incentive:		\$ -
	Total:	\$ -	\$ 3,714
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 b

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** THAW Plus Program (Under Development)

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

As per the Boards approved budget revisions (EB-2007-0017 Mar 22,2007) original budget amount of \$50,000 has been revised to \$0 and funds have been reallocated to other programs.

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			

TRC Results:	Reporting Year	Life-to-date TRC Results:	
¹ TRC Benefits (\$):			
² TRC Costs (\$):			
Utility program cost (excluding incentives):			
Incremental Measure Costs (Equipment Costs)			
Total TRC costs:	\$ -		\$ -
Net TRC (in year CDN \$):	\$ -		\$ -
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	-		-

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

Conservation Programs:

Demand savings (kW):	Summer	0		0
	Winter	0		0

	<i>lifecycle</i>	<i>in year</i>	<i>Cumulative Lifecycle</i>	<i>Cumulative Annual Savings</i>
Energy saved (kWh):	0		0	0
Other resources saved :				
Natural Gas (m3):				
Other (specify):				

Demand Management Programs:

Controlled load (kW)		
Energy shifted On-peak to Mid-peak (kWh):		
Energy shifted On-peak to Off-peak (kWh):		
Energy shifted Mid-peak to Off-peak (kWh):		

Demand Response Programs:

Dispatchable load (kW):		
Peak hours dispatched in year (hours):		

Power Factor Correction Programs:

Amount of KVar installed (KVar):		
Distribution system power factor at beginning of year (%):		
Distribution system power factor at end of year (%):		

Line Loss Reduction Programs:

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
Energy savings (kWh):			

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kWh):		
Fuel type:		

Other Programs (specify):

Metric (specify):		
-------------------	--	--

D. Actual Program Costs:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>	
Utility direct costs (\$):	Incremental capital:			
	Incremental O&M:			
	Incentive:			
	Total:	\$ -	\$ -	\$ -
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

(complete this Appendix for each program)

A. **Name of the Program:** Putting Our Own House in Order Program (Awaiting Technology)

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

For consistency and credibility, any organization promoting energy conservation products or services must strive for an impeccable conservation record. If London Hydro is to be successful motivating others to take energy conservation measures, it is important that the organization "practices what it preaches".

Note: This program is described in Section 14, Putting Our Own House in Order Program, of London Hydro's CDM Program.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	T12 Linear Fluorescent		
Efficient technology:	T8 with reflectors		
Number of participants or units delivered for reporting year:	2513 Fixtures		
Measure life (years):			
Number of Participants or units delivered life to date	2531		

	Reporting Year	Life-to-date TRC Results:
B. <u>TRC Results:</u>		
¹ TRC Benefits (\$):	\$ 54,555	\$ 54,555
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 76	\$ 76
Incremental Measure Costs (Equipment Costs)	\$ 80,290	\$ 80,290
Total TRC costs:	\$ 80,366	\$ 80,366
<u>Net TRC (in year CDN \$):</u>	<u>-\$ 25,811</u>	<u>-\$ 25,811</u>
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	0.68	0.68

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

Conservation Programs:

Demand savings (kW):	Summer	77		77
	Winter	81		81
Energy saved (kWh):	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Other resources saved :	2,419,840	483,968	483,968	483,968
Natural Gas (m3):				
Other (specify):				

Demand Management Programs:

Controlled load (kW)		
Energy shifted On-peak to Mid-peak (kWh):		
Energy shifted On-peak to Off-peak (kWh):		
Energy shifted Mid-peak to Off-peak (kWh):		

Demand Response Programs:

Dispatchable load (kW):		
Peak hours dispatched in year (hours):		

Power Factor Correction Programs:

Amount of KVar installed (KVar):		
Distribution system power factor at beginning of year (%):		
Distribution system power factor at end of year (%):		

Line Loss Reduction Programs:

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
Energy savings (kWh):			

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kWh):		
Fuel type:		

Other Programs (specify):

Metric (specify):		
-------------------	--	--

D. Actual Program Costs:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>	
Utility direct costs (\$):	Incremental capital:			
	Incremental O&M:	\$ -	\$ -	\$ 76
	Incentive:	\$ 29,808	\$ -	\$ 29,808
	Total:	\$ 29,808	\$ -	\$ 29,884
Utility indirect costs (\$):	Incremental capital:	\$ -		\$ -
	Incremental O&M:	\$ -		\$ -
	Total:			

E. Assumptions & Comments:

London Hydro performed an in house energy upgrade project for lighting. This project was meant to show customers that the LDC not only promotes energy conservation but also follows its own advice. The project encompassed all office and common area lighting in the administration parts of the London Hydro offices. London Hydro utilized new high performance T8 lighting retrofits and replaced older T12 technology. Included in the process was the reduction of lamps by 50% using new reflectors to increase the fixture light output. Our success was transferred to London Hydro customers for their upgrade projects.

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 b

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Community One-Tonne Challenge Plus Program (Project Scaled Back & Monies Transferred)

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

The City of London's One-Tonne Challenge (OTC) Community Demonstration Project was developed as a result of funding from the federal One-Tonne Challenge Program. While the overall project encompasses many issues, London Hydro's CDM initiative piggy-backed on the City initiative and focused on electrical energy. As a result of very disappointing community participation (17% of target participation levels), London Hydro's participation has been significantly scaled back. This program was cancelled and budgeted funds of \$45,000 were reallocated to other programs as per the Boards approved budget revisions (EB-2007-0017 Mar 22,2007).

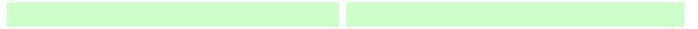
Measure(s):

	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):		
Incremental Measure Costs (Equipment Costs)		
Total TRC costs: \$	-	\$ -
Net TRC (in year CDN \$):	\$ -	\$ -
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	-	-

C. Results: (one or more category may apply)	Cumulative Results:			
Conservation Programs:				
Demand savings (kW):	Summer	0		0
	Winter	0		0
	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	0		0	0
Other resources saved :				
Natural Gas (m3):				
Other (specify):				
Demand Management Programs:				
Controlled load (kW)				
Energy shifted On-peak to Mid-peak (kWh):				
Energy shifted On-peak to Off-peak (kWh):				
Energy shifted Mid-peak to Off-peak (kWh):				
Demand Response Programs:				
Dispatchable load (kW):				
Peak hours dispatched in year (hours):				
Power Factor Correction Programs:				
Amount of KVar installed (KVar):				
Distribution system power factor at beginning of year (%):				

Distribution system power factor at end of year (%):



Line Loss Reduction Programs:

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
Energy savings (kWh):			

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kWh):		
Fuel type:		

Other Programs (specify):

Metric (specify):		
-------------------	--	--

<u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:		\$ 1,289
	Incentive:		\$ -
	Total:	\$ -	\$ 1,289
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 b

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Public Education Campaign

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

The public education campaign spans a portfolio of different initiatives, many of which complement and augment other conservation programs (e.g. Energy Awareness in the Classroom, Community One-Tonne Challenge, etc.).

Note: The program is described in Section 16, Public Education Campaign, of London Hydro's CDM Plan.

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):	-\$ 101,175	\$ -	\$ 157,020
Incremental Measure Costs (Equipment Costs)	\$ -		\$ -
Total TRC costs:	-\$ 101,175		\$ 157,020
Net TRC (in year CDN \$):	\$ 101,175		-\$ 157,020
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	-		-

C. Results: (one or more category may apply)	Cumulative Results:			
Conservation Programs:				
Demand savings (kW):	Summer	0	0	0
	Winter	0	0	0
	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	0	0	0	0
Other resources saved :				
Natural Gas (m3):				
Other (specify):				
Demand Management Programs:				
Controlled load (kW)				
Energy shifted On-peak to Mid-peak (kWh):				
Energy shifted On-peak to Off-peak (kWh):				
Energy shifted Mid-peak to Off-peak (kWh):				
Demand Response Programs:				
Dispatchable load (kW):				
Peak hours dispatched in year (hours):				
Power Factor Correction Programs:				
Amount of KVar installed (KVar):				
Distribution system power factor at beginning of year (%):				
Distribution system power factor at end of year (%):				

Line Loss Reduction Programs:

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
Energy savings (kWh):			

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kWh):		
Fuel type:		

Other Programs (specify):

Metric (specify):		
-------------------	--	--

D. Actual Program Costs:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>	
Utility direct costs (\$):	<i>Incremental capital:</i>			
	<i>Incremental O&M:</i>	-\$ 101,175		\$ 157,020
	<i>Incentive:</i>	\$ -		\$ -
	<i>Total:</i>	-\$ 101,175	\$ -	\$ 157,020
Utility indirect costs (\$):	<i>Incremental capital:</i>			
	<i>Incremental O&M:</i>			
	<i>Total:</i>			

E. Assumptions & Comments:

London Hydro committed to hold various events in 2007 that were cross pollinating with all of our programs. In these programs various energy conservation kits and Compact Fluorescents were used as handouts or rewards for participating. Some examples are Chill out, Energy Awareness in the Classroom, Corporate light project functions and key account seminars. TRC values are associated with CFL's that were distributed through various public energy conservation awareness events. Full life cycle energy conservation figures are difficult to tally as much of the savings would be through awareness.

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 b

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