Lost Revenue Adjustment Mechanism ("LRAM")

1. Introduction

On May 31, 2004, the Minister of Energy granted approval to all distributors in Ontario to apply to the Ontario Energy Board (the "Board") for an increase in their 2005 rates by way of the third installment of their incremental market adjusted revenue requirement ("MARR"). This approval was conditional upon a commitment to reinvest in conservation and demand management ("CDM") an equivalent of one year's return. Consequently, in 2005 distributors, including London Hydro, brought forward, and the Board approved, $163 million in CDM funding for distributors, an amount related to the third tranche of their MARR.

In 2006 and through to 2011, London Hydro has received CDM funding from the Ontario Power Authority (the "OPA"). By partnership with the OPA, combined with London Hydro's significant commitment to both CDM Programs and the achieving for customer efficiency in the use of energy, has resulted in energy savings of 178 gWh.

London Hydro has not applied for CDM funding through distribution rates as part of the 2006 through 2010 Rate Applications.

In the London Hydro 2009 Cost of Service Rate Application, London Hydro forwarded to the OEB that London Hydro would not be seeking LRAM or SSM dispositions for programs in the years 2006, 2007, and 2008. Therefore, this Application will *not include any recoveries for lost distribution revenues for either due to CDM programs funded from 3rd tranche MARR funding, or 2006, 2007, and 2008 CDM programs that were funded by the OPA.*

In preparing this recovery of LRAM, London Hydro has been guided by the *Board's Guidelines for Electricity Distributor Conservation and Demand Management issued on March 28, 2008* (the "Board Guidelines", EB-2008-0037). The Ontario Energy Board ("Board") Guidelines provide information on the Board's policies relating to Conservation and Demand Management ("CDM") activities undertaken by electricity distributors in Ontario, including the review and approval of claims for the Lost Revenue Adjustment Mechanism ("LRAM") recovery associated with distributors' CDM activities. Further, guidance was obtained by relying on the September 22, 2009 Decision and Order related to Toronto Hydro-Electric System Limited LRAM/ SSM application (the "Toronto Hydro 2007 Decision") granting approval and recovery of amount related to CDM activated in 2007 (EB-2008-0401).

The purpose of the 2012 requested LRAM riders would be to recover lost distribution revenue due to 2009 and 2010 CDM programs funded by the OPA. London Hydro is not applying for a Shared Savings Mechanism ("SSM") rate rider as the Board's Guidelines indicate SSM is only available for programs that are funded through distribution rates. This is London Hydro's first application seeking approval for LRAM recoveries. In this Application, London Hydro is applying to the Board for the approval to recover an LRAM amount of $468,172, including carrying costs.

2. 2009 OPA Programs

The OPA has provided London Hydro with the verified results for all OPA funded programs for 2009. Details are provided in Attachment E: London Hydro LRAM 2012 IRM Spreadsheet, Tab OPA CDM Savings 2006-2009. For efficiency purposes, only the results applicable to 2009 through 2011 are shown in the attached spreadsheet, although 25 years were provided.

The Board's Guidelines states "The LRAM applies to programs implemented by the distributor, within its licensed service area, including programs delivered by the distributor itself and/or programs delivered for the distributor by a third party" (Pg. 18, Board's Guidelines for Electricity Distributor Conservation and Demand Management issued on March 28, 2008).

The CDM programs that London Hydro delivered through the OPA in 2009 in the London Hydro service territory were:

- The Great Refrigerator Roundup Program ("GRRP"),
- Every Kilowatt Counts ("EKC") Power Savings Event,
- Cool Savings Rebate Program ("CSRP"),
- High Performance New Construction,
- Demand Response Programs,
- Energy Retrofit Incentive "ERIP", and
- Power Savings Blitz.

A brief description of each program is provided below:

• GRRP was a province-wide energy efficiency initiative designed to act as the catalyst for the removal of older, inefficient appliances from the homes of residential electricity consumers. The removal of second full sized refrigerators or freezers was the GRRP's primary focus, with a secondary focus on room air conditioners and smaller "bar" style refrigerators or freezers.

• EKC was a province-wide education and incentive program targeted at Ontario's residential households. The goal of the program was to provide Ontario homeowners and tenants with the necessary tools and information to save electricity and to have a positive impact on the environment by inducing customers to implement 'easy to do' and 'low cost' energy saving measures. London Hydro delivered both the spring and fall campaigns in its service territory. The products for which discount coupons were provided in the Spring campaign included Energy Star® Specialty compact fluorescent lights ("CFLs"), clothes lines, plug-in pool timers, Energy Star® light fixtures, window film, pipe wrap,

Energy Star® ceiling fans and water heater blankets. The products for which coupons were provided in the Fall campaign were Energy Star® Specialty CFLs electric baseboard programmable thermostats, Energy Star® light fixtures, lighting and appliance controls, water heater blankets, pipe wrap and weather stripping.

• ERIP provides a substantial financial incentive to businesses for replacing existing equipment with high efficiency equipment and for installing new control systems that improve the efficiency for operational procedures and processes.

• The Power Savings Blitz program is designed to install energy efficient equipment (lighting and water heating upgrades) in small businesses at no cost to the owners, up to $1,000.

• CSRP, managed by the Heating, Refrigeration and Air Conditioning Institute of Canada, offered incentives to motivate consumer purchases of ENERGY STAR® qualified central air conditioning, furnaces and programmable thermostats.

• The High Performance New Construction program provides design assistance and financial incentives for building owners and architects who exceed the electricity efficiency standards specified in the Ontario Building Code.

• Demand Response programs compensate industrial and commercial businesses for reducing their energy demand at specific time of power system need.

In Table 1, OPA CDM Load Impacts (2009 and 2010), reflects the OPA Programs for which London Hydro is seeking a LRAM recovery in 2012. The table indicates the kWh and Kw impacts (both in gross and net of free riders) for the years 2009 and 2010.

Although many of the OPA energy conservation and demand management programs are specific to a rate class, the Electricity Retrofit Incentive Programs (ERIP, and its successor the saveONenergy RETROFIT Program) does span several customer classes, namely general service less than 50 kW, general service greater than 50 kW, and large user.

Reviewing our records and the information as submitted to the OPA, for ERIP projects carried within our service territory during 2009 and 2010, the division of gross kW reductions amongst customer classes was:

Table 1, 2009 ERIP Gross Demand Reduction (within London)

Customer Classification	Gross kW Demand Reduction	Percentage
General Service Less Than 50 kW	215.7	5.4%
General Service Greater Than 50 kW	3,627.91	91.5%
Large User	122.36	3. 0%
Total:	**3,965.98**	**99.9%**

Table 2, 2010 ERIP Gross Demand Reduction (within London)

Customer Classification	Gross kW Demand Reduction	Percentage
General Service Less Than 50 kW	316	8.2%
General Service Greater Than 50 kW	3,554	91.7%
Large User	0	0%
Total:	**3,874**	**99.9%**

For the purposes of reflecting 100% totals for the above allocations, the 0.1% balance will be allocated to general service greater than 50 kW.

TABLE 1 – kWh and Kw Allocation of ERIP Program to Customer Classes for 2009 and 2010

Allocation of Retrofit kWh (GS 50 and Kw Demand)	2009	11,850,437	1,602.4	17,747,350	2,444.4					
GS < 50	5.4%	639,924	86.5	958,357	132.0					
Other Demand	94.6%	11,210,513	1,515.8	16,788,994	2,312.4					
		11,850,437	1,602.4	17,747,350	2,444.4					
	2010	-		-			11,850,437	1,602.4	17,747,350	2,444.4
GS < 50	8.2%	-	-	-	-		971,736	131.4	1,455,283	200.4
Other Demand	91.8%	-	-	-	-		10,878,701	1,471.0	16,292,068	2,244.0
							11,850,437	1,602.4	17,747,350	2,444.4
Allocation amongst Demand	2009	11,210,513	1,515.8	16,788,994	2,312.4		-		-	
GS 50- 4,999 kW	75%	8,443,048	1,141.5	12,644,213	1,741.5		-		-	
GS 1,000 to 4,999 kW Co Gen	0%	-	-	-	0.0		-		-	
Large User	25%	2,768,028	374.3	4,145,431	571.0		-		-	
		11,211,076	1,515.8	16,789,644	2,312.4	-	-	-	-	-
Allocation amongst Demand	2010	-	-	-	0.0		10,878,701	1,471.0	16,292,068	2,244.0
GS 50- 4,999 kW	92%	-	-	-	0.0		8,192,602	1,107.8	12,269,335	1,689.9
GS 1,000 to 4,999 kW Co Gen	0%	-	-	-	0.0		-	-	-	-
Large User	0%	-	-	-	0.0		-	-	-	-
		-	-	-	0.0	-	8,192,602	1,107.8	12,269,335	1,689.9

TABLE 2 – OPA CDM Program Load Impacts (2009 to 2010)

London Hydro Inc.

OPA CDM Program Load Impacts (2009 and 201(2009 Data from OPA Verified Results -per link

http://www.powerauthority.on.ca/evaluation-measurement-and-verification/measures-assumptions-lists

*London Hydro is not requesting LRAM /SSM for Programs in 2006, 2007, and 2008

		2009 NET		2009 GROSS		2010 NET		2010 GROSS		TOTAL NET		TOTAL GROSS	
Class/ Program	Year Program Implements	kWh	Kw	kWh	Kw	kWh	Kw	kWh	Kw	kWh	Kw	kWh	Kw
RESIDENTIAL													
Great Refrigerator Roundup	2009	1,243,000	186.5	2,333,000	362.2	1,243,000	186.5	2,333,000	362.2	2,486,000	373.0	4,666,000	724.4
Cool Savings Rebate	2009	778,000	512.4	1,821,000	1,172.1	778,000	512.4	1,821,000	1,172.1	1,556,000	1,024.8	3,642,000	2,344.2
Every Kilowatt Counts Power Savings Event	2009	1,353,000	137.0	3,687,000	374.1	1,297,000	134.7	3,334,000	358.9	2,650,000	271.7	7,021,000	733.0
Great Refrigerator Roundup	2010	0	0.0	0	0.0	1,243,000	186.5	2,333,000	362.2	1,243,000	186.5	2,333,000	362.2
Cool Savings Rebate	2010	0	0.0	0	0.0	778,000	512.4	1,821,000	1,172.1	778,000	512.4	1,821,000	1,172.1
Every Kilowatt Counts Power Savings Event	2010	0	0.0	0	0.0	1,297,000	134.7	3,334,000	358.9	1,297,000	134.7	3,334,000	358.9
Residential Total		**3,374,000**	**835.9**	**7,841,000**	**1,908.4**	**6,636,000**	**1,667.2**	**14,976,000**	**3,786.4**	**10,010,000**	**2,503.1**	**22,817,000**	**5,694.8**
General Service < 50 kW													
OPA Energy Retrofit Incentive Program (ERIP)	2009	639,924	86.5	958,357	132	639,924	86.5	958,357	132.0	1,279,847	173.1	1,916,714	264.0
High Performance New Construction	2009	235,000	102.9	335,000	147.1	235,000	102.9	335,000	147.1	470,000	205.8	670,000	294.2
Power Savings Blitz	2009	3,260,000	835.7	3,432,000	879.7	3,260,000	835.7	3,432,000	879.7	6,520,000	1,671.4	6,864,000	1,759.4
OPA Energy Retrofit Incnetive Program (ERIP)	2010	0	0.0	0	0.0	971,736	131.4	1,455,283	200.4	971,736	131.4	1,455,283	200.4
High Performance New Construction	2010	0	0.0	0	0.0	235,000	102.9	335,000	147.1	235,000	102.9	335,000	147.1
Power Savings Blitz	2010	0	0.0	0	0.0	3,260,000	835.7	3,432,000	879.7	3,260,000	835.7	3,432,000	879.7
Total General Service < 50 kW		**4,134,924**	**1,025.1**	**4,725,357**	**1,158.8**	**8,601,659**	**2,095.1**	**9,947,640**	**2,386.0**	**12,736,583**	**3,120.2**	**14,672,997**	**3,544.8**
kW													
OPA Energy Retrofit Incentive Program (ERIP)	2009	8,443,048	1,141.5	12,644,213	1,741.5	8,443,048	1,141.5	12,644,213	1,741.5	16,886,096	2,283.1	25,288,426	3,482.9
Demand Response 1	2009	204,000	4,647.7	204,000	4,647.7	0	0.0	0	0.0	204,000	4,647.7	204,000	4,647.7
Demand Response 2	2009	1,944,000	3,155.9	1,944,000	3,155.9	0	0.0	0	0.0	1,944,000	3,155.9	1,944,000	3,155.9
Demand Response 3	2009	37,000	4,508.4	37,000	4,508.4	0	0.0	0	0.0	37,000	4,508.4	37,000	4,508.4
Loblaw & York Region Demand Response	2009	0	774.7	0	774.7	0	0.0	0	0.0	0	774.7	0	774.7
OPA Energy Retrofit Incentive Program (ERIP)	2010	0	0.0	0	0.0	8,192,602	1,107.8	12,269,335	1,690	8,192,602	1,107.8	12,269,335	1,689.9
Demand Response 1	2010	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Demand Response 2	2010	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Demand Response 3	2010	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Loblaw & York Region Demand Response	2010	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total General Service 50 to 4,999 kW		**10,628,048**	**14,228.2**	**14,829,213**	**14,828.2**	**16,635,650**	**2,249.3**	**24,913,548**	**3,431.4**	**27,263,698**	**16,477.6**	**39,742,761**	**18,259.6**
General Service 1,000 to 4,999 kW (Co-													
OPA Energy Retrofit Incentive Program (ERIP)	2009	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
OPA Energy Retrofit Incentive Program (ERIP)	2010	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total General Service 50 to 4,999 kW (Co-Generation)		**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**
Large User													
OPA Energy Retrofit Incentive Program (ERIP)	2009	2,768,028	374.3	4,145,431	571.0	0	0.0	0	0.0	2,768,028	374.3	4,145,431	571.0
OPA Energy Retrofit Incentive Program (ERIP)	2010	0	0.0	0	0.0	2,768,028	374.3	4,145,431	571.0	2,768,028	374.3	4,145,431	571.0
Large User		**2,768,028**	**374.3**	**4,145,431**	**571.0**	**2,768,028**	**374.3**	**4,145,431**	**571.0**	**5,536,056**	**748.6**	**8,290,861**	**1,142.0**
Total Load Impacts from OPA programs		**20,905,000**	**16,464**	**31,541,000**	**18,466**	**34,641,337**	**6,386**	**53,982,618**	**10,175**	**55,546,337**	**22,849**	**85,523,619**	**28,641**

3. Forgone Revenues

For the 2012 LRAM resulting from actual 2009 and proxy 2010 OPA programs, London Hydro has reflected the OPA confirmed energy savings by OPA program and by customer class and valued these savings using the appropriate variable distribution charge (per kWh or kW, as applicable), and not including any Regulatory Asset Recovery rate rider.

TABLE 3 – Forgone Revenue by Program and Class

Forgone Revenue by Program and Class
(2009-2010 OPA Programs Only)

*London Hydro is not requesting LRAM /SSM for Programs in 2006, 2007, and 2008

		2009				2010				Total Revenue
Class/ Program	Year Program Implemented	Load Impact	kWh or kW	Rate per Unit	Revenue	Load Impact	kWh or kW	Rate per Unit	Revenue	
RESIDENTIAL										
Great Refrigerator Roundup	2009	1,243,000	kWh	$ 0.0143	$ 17,774.90	1,243,000	kWh	$ 0.0142	$ 17,650.60	$ 35,425.50
Cool Savings Rebate	2009	778,000	kWh	$ 0.0143	$ 11,125.40	778,000	kWh	$ 0.0142	$ 11,047.60	$ 22,173.00
Every Kilowatt Counts Power Savings Event	2009	1,353,000	kWh	$ 0.0143	$ 19,347.90	1,297,000	kWh	$ 0.0142	$ 18,417.40	$ 37,765.30
Great Refrigerator Roundup	2010					1,243,000	kWh	$ 0.0142	$ 17,650.60	$ 17,650.60
Cool Savings Rebate	2010					778,000	kWh	$ 0.0142	$ 11,047.60	$ 11,047.60
Every Kilowatt Counts Power Savings Event	2010					1,353,000	kWh	$ 0.0142	$ 19,212.60	$ 19,212.60
Residential Total		**3,374,000**			**$ 48,248.20**	**6,692,000**			**$ 95,026.40**	**$ 143,274.60**
General Service < 50 kW										
OPA Energy Retrofit Incetive Program (ERIP)	2009	639,924	kWh	$ 0.0094	$ 6,015.28	639,924	kWh	$ 0.0091	$ 5,823.30	$ 11,838.59
High Performance New Construction	2009	235,000	kWh	$ 0.0094	$ 2,209.00	235,000	kWh	$ 0.0091	$ 2,138.50	$ 4,347.50
Power Savings Blitz	2009	3,260,000	kWh	$ 0.0094	$ 30,644.00	3,260,000	kWh	$ 0.0091	$ 29,666.00	$ 60,310.00
OPA Energy Retrofit Incetive Program (ERIP)	2010	0	kWh	$ 0.0094	$ -	639,924	kWh	$ 0.0091	$ 5,823.30	$ 5,823.30
High Performance New Construction	2010	0	kWh	$ 0.0094	$ -	235,000	kWh	$ 0.0091	$ 2,138.50	$ 2,138.50
Power Savings Blitz	2010	0	kWh	$ 0.0094	$ -	3,260,000	kWh	$ 0.0091	$ 29,666.00	$ 29,666.00
Total General Service < 50 kW		**4,134,924**			**$ 38,868.28**	**8,269,847**			**$ 75,255.61**	**$ 114,123.89**
General Service 50 kW to 4,999 kW										
OPA Energy Retrofit Incetive Program (ERIP)		1,142	kW	$ 1.6023	$ 1,829.10	1,142	kW	$ 1.6052	$ 1,832.41	$ 3,661.51
Demand Response 1	2009	4,648	kW	$ 1.6023	$ 7,447.01	0	kW	$ 1.6052	$ -	$ 7,447.01
Demand Response 2	2009	3,156	kW	$ 1.6023	$ 5,056.70	0	kW	$ 1.6052	$ -	$ 5,056.70
Demand Response 3	2009	4,508	kW	$ 1.6023	$ 7,223.81	0	kW	$ 1.6052	$ -	$ 7,223.81
Loblaw & York Region Demand Response	2009	775	kW	$ 1.6023	$ 1,241.30	0	kW	$ 1.6052	$ -	$ 1,241.30
OPA Energy Retrofit Incetive Program (ERIP)	2010	0	kW	$ 1.6023	$ -	1,108	kW	$ 1.6052	$ 1,778.17	$ 1,778.17
Demand Response 1	2010	0	kW	$ 1.6023	$ -	0	kW	$ 1.6052	$ -	$ -
Demand Response 2	2010	0	kW	$ 1.6023	$ -	0	kW	$ 1.6052	$ -	$ -
Demand Response 3	2010	0	kW	$ 1.6023	$ -	0	kW	$ 1.6052	$ -	$ -
Loblaw & York Region Demand Response	2010	0	kW	$ 1.6023	$ -	0	kW	$ 1.6052	$ -	$ -
Total General Service 50 to 4,999 kW		**14,228**			**$ 22,797.92**	**2,249**			**$ 3,610.58**	**$ 26,408.50**
Service 1,000 to 4,999 kW (Co-Generation)										
OPA Energy Retrofit Incetive Program (ERIP)	2009	0	kW	$ 4.6542	$ -	0	kW	$ 3.9642	$ -	$ -
OPA Energy Retrofit Incetive Program (ERIP)	2010	0	kW	$ 4.6542	$ -	0	kW	$ 3.9642	$ -	$ -
Total General Service 50 to 4,999 kW (Co-Generation)		**0**			**$ -**	**0**			**$ -**	**$ -**
Large User										
OPA Energy Retrofit Incetive Program (ERIP)	2009	374	kW	$ 1.9302	$ 722.43	0	kW	$ 2.2552	$ -	$ 722.43
OPA Energy Retrofit Incetive Program (ERIP)	2010	0	kW	$ 1.9302	$ -	374	kW	$ 2.2552	$ 844.07	$ 844.07
Large User		**374**			**$ 722.43**	**374**			**$ 844.07**	**$ 1,566.50**
Total Forgone Revenue OPA programs		**7,523,526**			**$ 110,636.83**	**14,964,471**			**$ 174,736.66**	**$ 285,373.49**

4. Carrying Charges

In the Toronto Hydro Decision, the Board found that Toronto Hydro was entitled to carrying charges on the LRAM balances. London Hydro has calculated carrying charges as follows: interest has been applied to the ending balance of the annual LRAM for all of 2009 and 2010.The calculation of the carrying costs used the Board's prescribed interest rates for Q1 2010 – Q3 2011 (projected Q4 2011 and first 4 Months to April 30, 2012) as shown in Table 4.

Table 4 – Board's Prescribed Interest Rates and Calculated Interest

London Hydro Inc.
OPA CDM Program Load Impacts (2009 and 2010)

Boards's Prescribe Interest Rates and Calculated Interest

	Q1 2010	Q2 2010	Q3 2010	Q4 2010	Q1 2011	Q2 2011	Q3 2011	Q4 2011	4 Months to April 30, 2012	Total
%	0.55	0.55	0.89	1.2	1.47	1.47	1.47	1.47	1.47	
Residential ($)	$ 66	$ 66	$107	$145	$ 527	$ 527	$ 527	$ 349	$ 702	$ 3,015.65
GS < 50 kW ($)	$ 53	$ 53	$ 86	$117	$ 419	$ 419	$ 419	$ 277	$ 559	$ 2,403.96
GS 50 to 4,999 kW ($)	$ 31	$ 31	$ 51	$ 68	$ 97	$ 97	$ 97	$ 13	$ 129	$ 615.64
GS 1,000 to 4,999 kW Co (	$ -	$ -	$-	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Large User ($)	$ 1	$ 1	$ 2	$ 2	$ 6	$ 6	$ 6	$ 6	$ 8	$ 36.46

5. Calculation of Rate Rider

The amount of relief request for LRAM is an amount of $291,445.

The LRAM rate rider being applied, as calculated in Table 5 – LRAM Rate Riders, includes LRAM as reflected in Table 2 – Forgone Revenue by Program by Class, and Carrying Charges as reflected in Table 4 – Board's Prescribe Interest Rates and Calculated Interest. The Billing Determines is actual distribution energy quantities (kWh or kW) for 2010.

Table 5 – LRAM Rate Riders for 2012

London Hydro Inc.
OPA CDM Program Load Impacts (2009 and 2010)

LRAM Rate Riders

Class	Units	LRAM	Carrying Charges	Total	2010 Billing Determines	Rate Rider
Residential	kWh	$ 143,275	$ 3,016	$ 146,290	1,146,514,255	$ 0.0001
GS < 50 kW	kWh	$ 114,124	$ 2,404	$ 116,528	407,620,994	$ 0.0003
GS 50 to 4,999 kW	kW	$ 26,409	$ 616	$ 27,024	3,944,476	$ 0.0069
Large User	kW	$ 1,567	$ 36	$ 1,603	402,894	$ 0.0040

Billing Deteminates used 2010 Distribution Energy Quantities (Actual)

To minimize the bill impact on rates, London Hydro proposes that the LRAM to be recovered should be over a one year period. Therefore, London Hydro is requesting approval for a LRAM volumetric rate rider of $0.0001/kWh for the Residential class and $0.0003/kWh for General Service > 50 kW Class.

Bill impacts of the rate rider for the affected class are included in Attachment H of the 2012 3rd GIRM Electricity Distribution Rate Adjustment Application.

6. Third party Verification

Section 7.5 of the Board's Guidelines requires that distributors should engage an independent third party to review the program evaluations prepared for the purposes of LRAM claims filed with the Board. The Guidelines state "This independent third party review applies to LRAM and SSM claims made in relation to programs funded in 2007 and beyond", but goes on to say "The Board would consider an evaluation by the OPA or a third party designated by the OPA to be sufficient. For programs funded by the OPA, it will be the role of the third party to:

- Verify the participation levels, and,
- Confirm that input assumptions are those used by the OPA"