June 23, 2009

Ms. Kirsten Walli, Board Secretary
Ontario Energy Board
2300 Yonge Street
27th Floor
Toronto, Ontario
M4P 1E4

By RESS and Courier

Re: Electricity Distribution Licence ED-2006-0031
Application for Approval and Recovery of Amounts Related to CDM

Horizon Utilities Corporation is making an Application to the Ontario Energy Board for the approval and recovery of amounts related to Lost Revenue Adjustment Mechanism ("LRAM") and Shared Savings Mechanism ("SSM") as they relate to Horizon Utilities third tranche CDM programs and OPA programs.

Please find attached the application for the above-captioned request.

Two hard copies of this Application are being submitted by courier.

Yours truly,

Original signed by Cameron McKenzie

Cameron McKenzie
Director, Regulatory Services

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

AND IN THE MATTER OF an Application by Horizon Utilities Corporation to the Ontario Energy Board for an Order or Orders approving the recovery of amounts related to Conservation and Demand Management activities.

HORIZON UTILITIES CORPORATION

APPLICATION FOR APPROVAL AND RECOVERY OF AMOUNTS RELATED TO CDM

MANAGER'S SUMMARY

Filed: June 23, 2009

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MANAGER'S SUMMARY

1. Introduction

Horizon Utilities Corporation ("Horizon Utilities") is submitting an Application ("Application") to the Ontario Energy Board ("OEB") for the approval and recovery of historical Lost Revenue Adjustment Mechanism ("LRAM") and Shared Savings Mechanism ("SSM") amounts related to its third tranche and Ontario Power Authority Conservation and Demand Management ("CDM") activities for the years 2007 and 2008. Horizon Utilities is requesting recovery by way of a rate rider effective September 1, 2009 for a seven month period ending April 30, 2010.

On a combined basis, the proposals set out in this Application would result in a 0.5% total bill increase ($0.60 per month) for residential customers consuming 1,000 kilowatt-hours per month.

1.1. LRAM and SSM Amounts

Horizon Utilities requested LRAM relief is composed of the 2007 and 2008 calendar year savings resulting from:

1. Third Tranche CDM programs implemented in 2005 and 2006;

2. Third Tranche CDM programs implemented in 2007;

3. Ontario Power Authority ("OPA") CDM programs implemented in 2007.

Horizon Utilities has not factored in the impacts of CDM in its 2008 approved load forecast and therefore, Horizon Utilities proposes for recovery the LRAM amounts related to the entire load reductions, net of free rider quantities. The total LRAM amount sought from Third Tranche programs is $909,395 (2007 claim is $465,846 and 2008 claim is $443,549) for 2005 and 2006 initiatives, and a total of $51,448 (2007 claim is $6,786 and 2008 claim is $44,631) for the 2007 Third Tranche initiatives. The LRAM amount resulting from 2007 OPA Programs is $146,940. Combined carrying charges on Third Tranche programs only amounts to $89,292. The total requested LRAM recovery

related to all CDM activities for the 2007 and 2008 calendar years is therefore $1,197,045.

All of the CDM programs for which SSM amounts are sought were undertaken in connection with Horizon Utilities' Third Tranche CDM spending obligations in the 2007 calendar year. No SSM amount is sought in relation to the activities of other parties. The total SSM amount sought for recovery is $14,582.

1.2. Additional LRAM Recovery

Horizon Utilities also intends to request LRAM related to OPA programs implemented by third parties within Horizon Utilities' service territory during 2007 and 2008 once the supporting documentation is received from the OPA for the fully effective saving for 2007 and partially effective savings for 2008. This LRAM component therefore, is not part of this application, and Horizon Utilities intends to file for recovery at a later date.

1.3. Authorization for LRAM/SSM Recovery

The authorization to file an application seeking recovery of LRAM and SSM amounts is found in its most recent form in the Board's EB-2008-0037 Guidelines for Electricity Distributor Conservation and Demand Management ("CDM Guidelines") and in the Board's EB-2008-0352 Conservation and Demand Management ("CDM") Input Assumptions.

In preparing this Application, Horizon Utilities has relied on and conformed to these guidelines.

2. Summary of Application – LRAM and SSM Amounts

Horizon Utilities seeks authorization for the recovery of the LRAM and SSM amounts by way of volumetric rate riders effective for the 2009 rate year over a period of 7 months commencing September 1, 2009. The total LRAM amount, including carrying charges, is $1,196,030. The total SSM amount is $14,582.

Table 1 below sets out the LRAM and SSM amounts by class, as well as the corresponding rate riders.

Table 1

Summary of 2007 & 2008 LRAM and SSM Amounts and Rate Riders by Class

	Amounts								Rate Riders		
	Total 2007 LRAM	Total 2008 LRAM	Carrying Charges on 2007 and 2008 LRAM to June 2009	LRAM Total	SSM Total 2007 only	OEB Approved Billing Units 2008 EDR	OEB Approved Billing Units over 7 months		LRAM – 7 months	SSM – 7 months	Total over 7 months
	$	$		$	$				$/unit (kWh/kW)	$/unit (kWh/kW)	$/unit (kWh/kW)
Residential and Small Commercial <50kW	$ 607,895	$ 443,269	$ 84,731	$ 1,135,894	$ 11,047	2,331,909,033	1,360,280,269	kWh	0.0008	0.0000	0.0008
Commercial, Industrial and Institutional	$ 10,878	$ 15,669	$ 2,140	$ 28,687	$ (74,441)	5,535,480	3,229,030	kW	0.0089	-	0.0089
Unmetered Scattered Load	$ 799	$ 29,243	$ 2,422	$ 32,464	$ 77,976	18,237,718	10,638,669	kWh	0.0031	0.0073	0.0104
Total	**$ 619,572**	**$ 488,181**	**$ 89,292**	**$ 1,197,045**	**$ 14,582**						

In accordance with the Board's decision in Horizon Utilities 2008 EDR Application EB-2007-0697, Horizon Utilities proposes that the rate rider amounts for the LRAM and SSM be recovered separately through a variable rate component for each class.

The most recent Board-approved load quantities are those approved in Horizon Utilities 2008 EDR Application EB-2007-0697. Horizon Utilities has used those quantities for the calculation of the class rate riders.

2.1. Determination of LRAM Amount

Horizon Utilities has determined the LRAM amounts by class in a manner consistent with the Board's CDM Guidelines and the Board's decision in Horizon Utilities' EB-2007-0697 Application including any revisions required to its third tranche CDM program savings carried over into 2007 as a result of the OEB's endorsement of the OPA's Measures and Assumptions List ("the OPA List").

By definition, an LRAM accounts for variances between actual CDM results and the corresponding quantities used to set class rates. For the 2006 to 2009 rate years, no forecast or other adjustment for the effects of CDM programs were made to the load quantities used to calculate the rates. Therefore, the entire actual load reduction net of free ridership achieved by the eligible CDM programs is subject to LRAM treatment.

Tables 2 and 3 below provide the LRAM amounts for the years 2007 and 2008 respectively by customer class and Table 1 also provides the SSM amount by customer class.

Table 2

2007 LRAM and SSM Amounts

	Amounts				
	LRAM - 05/06 OEB Approved Third Tranche Programs	LRAM 2007 OEB Third Tranche Programs	LRAM 2007 OPA Programs	LRAM Total	SSM Total*
	$	$	$	$	$
Residential and Small Commercial <50kW	$ 464,790	$ 1,295	$ 141,809	$ 607,895	$ 11,047
Commercial, Industrial and Institutional	$ 780	$ 4,967	$ 5,131	$ 10,878	$ (74,441)
Unmetered Scattered Load	$ 276	$ 524	$ -	$ 799	$ 77,976
Total	**$ 465,846**	**$ 6,786**	**$ 146,940**	**$ 619,572**	**$ 14,582**

Table 3

2008 LRAM Amounts

	Amounts			
	LRAM - 05/06 OEB Approved Third Tranche Programs	LRAM 2007 OEB Third Tranche Programs	LRAM 2007 OPA Programs	LRAM Total
	$	$	$	$
Residential and Small Commercial <50 kW	$ 441,372	$ 1,896	$ -	$ 443,269
Commercial, Industrial and Institutional	$ 949	$ 14,720	$ -	$ 15,669
Unmetered Scattered Load	$ 1,228	$ 28,015	$ -	$ 29,243
Total	**$ 443,549**	**$ 44,631**	**$ -**	**$ 488,181**

The following tables 4, 5, and 6 summarize the load impacts for Horizon Utilities Third Tranche CDM initiatives by program, by year and by rate class, adjusted for free ridership. In the case of some programs, results expressed in kWh have been converted to kW to correspond to the billing basis for customers in the applicable rate classes. These load impacts support the LRAM amounts provided in Table 2 and 3 above.

Table 4

2007 Load Impacts from OEB Approved 2005 & 2006 Third Tranche Initiatives by Program and Class

Rate Class/Program	2005 Programs		2006 Programs		Total	
	kWh	kW	kWh	kW	kWh	kW
Residential and Small Commercial (<50kW)						
Mass Market	1,881,624		23,711,356		25,592,980	0
Energy Audit	491,512		785,834		1,277,346	0
Social Housing	4,500,353		2,195,710		6,696,063	0
Load Control	-		126,138		126,138	0
Sub-Total	**6,873,490**		**26,819,037**		**33,692,527**	0
Commercial, Industrial and Institutional						
Energy Audit & Feasibility Studies	0	0	0	0	0	0
Leveraging Energy Conservation	0	25	0	23	0	48
Distributed Energy	0	0	0	0	0	0
Distribution Loss Reduction	0	0	0	0	0	0
Stand-By Generators	0	0	0	0	0	0
Sub-Total	**0**	**25**	**0**	**23**	0	**48**
Unmetered / Scattered Load						
LED Traffic Lights	-	0	114,812	0	114,812	0
Sub-Total	-	**0**	**114,812**	**0**	**114,812**	**0**
Total	**6,873,490**	**25**	**26,933,849**	**23**	**33,807,339**	**48**

Table 5

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

Rate Class/Program	2007 Programs	
	kWh	kW
Residential and Small Commercial (<50kW)		
Mass Market	29,101	-
Energy Audit	-	-
Social Housing	-	-
Load Control	64,926	-
Sub-Total	**94,026**	-
Commercial, Industrial and Institutional		
Energy Audit & Feasibility Studies	-	0
Leveraging Energy Conservation	-	463
Distributed Energy	-	0
Distribution Loss Reduction	-	0
Stand-By Generators	-	0
Sub-Total	-	**463**
Unmetered / Scattered Load		
LED Traffic Lights	218,183	0
Sub-Total	**218,183**	**0**
Total	**312,209**	**463**

Table 6

2008 Load Impacts from 2007 Third Tranche Initiatives by Program and Class

Rate Class/Program	2007 Programs	
	kWh	kW
Residential and Small Commercial (<50kW)		
Mass Market	58,201	-
Energy Audit	-	-
Social Housing	-	-
Load Control	86,567	-
Sub-Total	**144,769**	-
Commercial, Industrial and Institutional		
Energy Audit & Feasibility Studies	-	-
Leveraging Energy Conservation	-	463
Distributed Energy	-	280
Distribution Loss Reduction	-	-
Stand-By Generators	-	-
Sub-Total	-	**743**
Unmetered / Scattered Load		
LED Traffic Lights	2,618,193	-
Sub-Total	**2,618,193**	-
Total	**2,762,961**	**743**

The following table 7 summarizes the load impacts for the OPA initiatives by program, by year and by rate class. The 2007 OPA Conservation Program Results allocated to Horizon Utilities service area is supported by correspondence received from the OPA and attached as Appendix 2. Horizon Utilities has not received the OPA confirmation of the 2007 fully effective savings and as such will file for the LRAM recovery at a later date.

Table 7

2007 Load Impacts from 2007 OPA Initiatives by Program and Class

Rate Class/Program	First Year (2007) Energy Savings	
	kWh	kW
Residential and Small Commercial (<50kW)		
The Great Refrigerator Roundup	502,000	-
Every Kilowatt Counts	5,353,000	-
Cool Savings Rebate	1,225,000	-
peaksaver	-	-
Summer Savings	3,196,000	
Sub-Total	**10,276,000**	-
Commercial, Industrial and Institutional		
Affordable Housing	195,000	-
Social Housing	483,000	-
Energy Efficiency Assistance for Houses - Pilot	13,000	-
ERIP	71,000	0
Demand Response 1	-	18
Demand Response - Non Program	-	1
Demand Response - Carry Forward	-	1
Sub-Total	**762,000**	**19**
Total	**11,038,000**	**19**

Foregone revenue amounts corresponding to the load reductions by class were calculated for each rate year using the weighted average for the applicable variable distribution rates. The load reductions were adjusted for free riders, as per the CDM Guidelines. The following tables 8, 9, 10, 11 and 12 summarize the calculation of foregone revenue by rate class for each applicable year for both Horizon Utilities Third Tranche programs and the OPA programs.

Table 8

2007 Foregone Revenue from 2005 & 2006 OEB Approved Third Tranche Initiatives by Program and Class

Rate Class/Program	2005 Programs				2006 Programs				Total Revenue
	Load Impacts		2007 Rate ($ per kWh or kW)	Revenue			2007 Rate ($ per kWh or kW)	Revenue	
	kWh	kW			kWh	kW			
Residential and Small Commercial (<50kW)									
Mass Market	1,881,624	-	$ 0.0138	$ 25,966	23,711,356		$ 0.0138	$ 327,217	$ 353,183
Energy Audit	491,512	-	$ 0.0138	$ 6,766	785,834		$ 0.0138	$ 10,845	$ 17,611
Social Housing	4,500,353	-	$ 0.0138	$ 61,955	2,195,710		$ 0.0138	$ 30,301	$ 92,256
Load Control	-	-	$ 0.0138	$ -	126,138		$ 0.0138	$ 1,741	$ 1,741
Sub-Total	**6,873,490**	-		**$ 94,688**	**26,819,037**			**$ 370,103**	**$ 464,790**
Commercial, Industrial and Institutional									
Energy Audit & Feasibility Studies	-	-	n/a	0	-	-	n/a	0	$ -
Leveraging Energy Conservation	-	25	$ 1.3562	$ 407	-	23	$ 1.3562	$ 373	$ 780
Distributed Energy	-	-	n/a	0	-	-	n/a	$ -	$ -
Distribution Loss Reduction	-	-	n/a	0	-	-	n/a	$ -	$ -
Stand-By Generators	-	-	n/a	0	-	-	n/a	$ -	$ -
Sub-Total	**-**	**25**		**$ 407**	**-**	**23**		**$ 373**	**$ 780**
Unmetered / Scattered Load									
LED Traffic Lights		-	n/a	0	114,812		0.0024	$ 276	$ 276
Sub-Total		-		**0**	**114,812**			**$ 276**	**$ 276**
Total	**6,873,490**	**25**		**$ 95,095**	**26,933,849**	**23**			**$ 465,846**

Table 9

2008 Foregone Revenue from 2005 & 2006 OEB Approved Third Tranche Initiatives by Program and Class

Rate Class/Program	2005 Programs				2006 Programs				Total Revenue
	Load Impacts		2008 Rate ($ per kWh or kW)	Revenue			2008 Rate ($ per kWh or kW)	Revenue	
	kWh	kW			kWh	kW			
Residential and Small Commercial (<50kW)									
Mass Market	1,881,624	-	$ 0.0131	$ 24,649	23,711,356		$ 0.0131	$ 310,619	$ 335,268
Energy Audit	491,512	-	$ 0.0131	$ 6,439	785,834		$ 0.0131	$ 10,294	$ 16,733
Social Housing	4,500,353	-	$ 0.0131	$ 58,955	2,195,710		$ 0.0131	$ 28,764	$ 87,718
Load Control	-	-	$ 0.0131	$ -	126,138		$ 0.0131	$ 1,652	$ 1,652
Sub-Total	**6,873,490**	-		**$ 90,043**	**26,819,037**			**$ 351,329**	**$ 441,372**
Commercial, Industrial and Institutional									
Energy Audit & Feasibility Studies	-	-	n/a	0	-	0	n/a	0	$ -
Leveraging Energy Conservation	-	25	$ 1.6508	$ 495	-	23	$ 1.6508	$ 454	$ 949
Distributed Energy	-	-	n/a	0	-	0	n/a	0	$ -
Distribution Loss Reduction	-	-	n/a	0	-	0	n/a	0	$ -
Stand-By Generators	-	-	n/a	0	-	0	n/a	0	$ -
Sub-Total	-	**25**		**$ 495**	-	**23**		**$ 454**	**$ 949**
Unmetered / Scattered Load									
LED Traffic Lights		-	n/a	0	114812		0.0107	$ 1,228	$ 1,228
Sub-Total		-		**0**	**114812**			**$ 1,228**	**$ 1,228**
Total	**6,873,490**	**25**		**$ 90,538**	**26,933,849**	**23**		**$ 353,012**	**$ 443,549**

Table 10

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

Rate Class/Program	2007 Programs			
	Load Impacts		2007 Rate ($ per kWh or kW)	Revenue
	kWh	kW		
Residential and Small Commercial (<50kW)				
Mass Market	29,101	-	$ 0.0138	$ 402
Energy Audit	-	-	$ 0.0138	$ -
Social Housing	-	-	$ 0.0138	$ -
Load Control	64,926	-	$ 0.0138	$ 894
Sub-Total	**94,026**	-		**$ 1,295**
Commercial, Industrial and Institutional				
Energy Audit & Feasibility Studies	-	-	n/a	0
Leveraging Energy Conservation[1]	-	463	$ 1.3562	$ 4,967
Distributed Energy	-	-	n/a	0
Distribution Loss Reduction	-	-	n/a	0
Stand-By Generators	-	-	n/a	0
Sub-Total	-	**463**		**$ 4,967**
Unmetered / Scattered Load				
LED Traffic Lights	218,183	-	0.0024	$ 524
Sub-Total	**218,183**	-		**$ 524**
Total	**312,209**	**463**		**$ 6,786**

Table 11

2008 Foregone Revenue from 2007 Third Tranche Initiatives by Program and Class

Rate Class/Program	2007 Programs			
	Load Impacts		2008 Rate ($ per kWh or kW)	Revenue
	kWh	kW		
Residential and Small Commercial (<50kW)				
Mass Market	58,201	-	$ 0.0131	$ 762
Energy Audit	-	-	n/a	$ -
Social Housing	-	-	n/a	$ -
Load Control	86,567	-	$ 0.0131	$ 1,134
Sub-Total	**144,769**	-		**$ 1,896**
Commercial, Industrial and Institutional				
Energy Audit & Feasibility Studies	-	-	n/a	0
Leveraging Energy Conservation	-	463	$ 1.6508	$ 9,173
Distributed Energy	-	280	$ 1.6508	$ 5,547
Distribution Loss Reduction	-	-	n/a	$ -
Stand-By Generators	-	-	n/a	$ -
Sub-Total	-	**743**		**$ 14,720**
Unmetered / Scattered Load				
LED Traffic Lights	2,618,193	-	$ 0.0107	$ 28,015
Sub-Total	**2,618,193**	-		**$ 28,015**
Total	**2,762,961**	**743**		**$ 44,631**

Table 12

2007 Foregone Revenue from 2007 OPA Initiatives by Program and Class

Rate Class/Program	First Year (2007) Energy Savings		2007 Rate ($ per kWh or kW)	Revenue
	kWh	kW		
Residential and Small Commercial (<50kW)				
The Great Refrigerator Roundup	502,000	-	$ 0.01380	$ 6,928
Every Kilowatt Counts	5,353,000	-	$ 0.01380	$ 73,871
Cool Savings Rebate	1,225,000	-	$ 0.01380	$ 16,905
peaksaver	-	-	$ 0.01380	$ -
Summer Savings	3,196,000		$ 0.01380	$ 44,105
Sub-Total	**10,276,000**	-		**$ 141,809**
Commercial, Industrial and Institutional				
Affordable Housing	195,000	-	$ 0.00670	$ 1,307
Social Housing	483,000	-	$ 0.00670	$ 3,236
Energy Efficiency Assistance for Houses - Pilot	13,000	-	$ 0.00670	$ 87
ERIP	71,000	0.03	$ 0.00670	$ 476
Demand Response 1	-	18	$ 1.3562	$ 24
Demand Response - Non Program	-	1	$ 1.3562	$ 1
Demand Response - Carry Forward	-	1	$ 1.3562	$ 0.98
Sub-Total	**762,000**	**19**		**$ 5,131**
Total	**11,038,000**	**19**		**$ 146,940**

2.2. Allocation and Manner of Recovery for LRAM Amounts

Horizon Utilities proposes that the total foregone revenue for each class be allocated to that class for recovery through a class-specific 2009 rate rider. Horizon Utilities also proposes that the class-specific rate riders be expressed as amounts per kWh or per kW as applicable, and be applied to the variable distribution rate component for each class.

This approach most closely matches program eligibility and potential for benefits to customers in each class with the corresponding program costs, is consistent with the approach approved in Horizon Utilities' EB-2007-0697 Application, and is administratively the most simple.

2.3. Determination of SSM Amount

Horizon Utilities' calculations of the SSM amounts, per program and in total, follow the methodology set out in the TRC Guide, as contained in Appendix A of the CDM Guidelines. Accordingly, an SSM rate of 5% has been applied to the net TRC benefits (or in the case of program support, costs) for each program. The calculated amount of $14,582 represents Horizon Utilities' pre-tax SSM claim in this Application.

Table 13 summarizes the calculation of the SSM amounts, net of free riders, by program, and in total. A detailed summary of program results is included as part of Horizon Utilities' third party review and attached as Appendix 1.

Table 13

SSM Amounts from 2007 Third Tranche Initiatives by Program and Class

Rate Class/Program	2007 Programs			
	TRC Costs	TRC Benefits	TRC Net Benefits	SSM Amount $
Residential and Small Commercial (<50kW)				
Mass Market	176,356	$ 38,035	$ (138,321)	$ (6,916)
Energy Audit	-	0	$ -	$ -
Social Housing	10,444	0	$ (10,444)	$ (522)
Load Control	$ 426,111	$ 803,245	$ 377,134	$ 18,857
Commercial, Industrial and Institutional				
Energy Audit & Feasibility Studies	$ 54,875	$ -	$ (54,875)	$ (2,744)
Leveraging Energy Conservation	$ 2,752,531	$ 1,172,465	$ (1,580,066)	$ (79,003)
Distributed Energy	$ 340,474	$ 1,030,489	$ 690,015	$ 34,501
Distribution Loss Reduction	$ 5,208	$ -	$ (5,208)	$ (260)
Stand-By Generators	$ 1,065,518	$ 642,548	$ (422,969)	$ (21,148)
Unmetered / Scattered Load				
LED Traffic Lights	$ 1,350,438	$ 2,997,860	$ 1,647,422	$ 82,371
Other Support Costs	$ 211,047	$ -	$ (211,047)	$ (10,552)
Total	**6,393,001**	**$ 6,684,642**	**$ 291,641**	**$ 14,582**

2.4. Allocation and Manner of Recovery for SSM Amounts

Consistent with the proposed approach for the LRAM amounts and the methodology approved by the Board in Horizon Utilities 2008 EDR Application EB-2007-0697, Horizon Utilities proposes that the SSM amounts arising from CDM programs in each rate class be allocated to that class for recovery. Horizon Utilities also proposes that the class-specific rate riders be expressed as amounts per kWh or per kW as applicable, and be applied to the variable distribution rate component for each class. Program support costs are allocated across rate class by weighted net kWh savings.

This approach is consistent with the method approved in Horizon Utilities' EB-2007-0697 Application, and is administratively the most simple.

2.5. Verification and Evaluation of Results

The OEB's letter of January 27, 2009 states the "The Board has determined that it will endorse the OPA List for use by distributors for the purposes of applications for new distribution rate-funded CDM programs, Lost Revenue Adjustment Mechanism ("LRAM") and Shared Savings Mechanism ("SSM") at this time." The Guidelines for Electricity

Distributor Conservation and Demand Management, EB-2008-0037 ("the CDM Guidelines"), Section 7.5 further reiterate the same requirements. Horizon Utilities has not initiated any new distribution rate-funded CDM programs. Horizon Utilities' LRAM and SSM Application relates to third tranche CDM programs as approved in the OEB' Final Order EB-2004-0488 and EB-2004-0523 and subsequently in the OEB' Decision on Horizon Utilities' 2008 EDR Application EB-2007-0697. Based on the OEB's letter, the filing Guidelines and that Horizon Utilities CDM programs relate to 2005 third tranche programs as approved by the OEB, it is Horizon Utilities understanding that an independent third party review is not required.

The SSM and LRAM claim for third tranche programs carried over into 2007 was prepared by the SeeLine Group Ltd., which found that Horizon Utilities' approach and calculation are accurate and consistent with the Board CDM Guidelines. Furthermore, Horizon Utilities has complied with the OPA Measures and Assumptions List in accordance with the OEB's endorsement of the OPA List. Horizon Utilities 2005 and 2006 programs were approved by the OEB in Horizon Utilities 2008 EDR Application, EB-2007-0697. The results for Horizon Utilities third tranche programs carried over into 2007 have been prepared in accordance with the OPA List. SeeLine's review of Horizon Utilities 2008 LRAM and SSM Application is provided in Appendix 1. Horizon Utilities is also submitting its 2007 and 2008 CDM Annual Reports at Appendix 3 and 4. As both reports fully cover the calendar years for 2007 and 2008, they satisfy the evaluation reporting requirement of this Application.

The CDM Guidelines further state that "The Board would consider an evaluation by the OPA or a third party designated by the OPA to be sufficient." As mentioned above, Horizon Utilities has provided the OPA verification as Appendix 2.

2.6. Carrying Costs

Horizon Utilities has included carrying costs in the amount of $89,292, in the total sought for recovery for the LRAM portion of this Application. As the LRAM amounts are annualized Horizon Utilities has used the annual average of the OEB approved carrying cost rates and applied the average rate to the total annual LRAM amounts. Table 14 below provides the carrying cost rates and explanatory notes to the calculations used by

Horizon Utilities. Carrying costs are calculated to the end of August 2009 as Horizon Utilities is requesting approval for September 1, 2009

Table 14

LRAM Carrying Costs Rates & Calculations

2007	619,572	0.0473	29,290	note 1
Jan-08	619,572	0.0043	2,654	note 2
Feb-08	619,572	0.0043	2,654	
Mar-08	619,572	0.0043	2,654	
Apr-08	619,572	0.0034	2,107	
May-08	619,572	0.0034	2,107	
Jun-08	619,572	0.0034	2,107	
Jul-08	619,572	0.0028	1,730	
Aug-08	619,572	0.0028	1,730	
Sep-08	619,572	0.0028	1,730	
Oct-08	619,572	0.0028	1,730	
Nov-08	619,572	0.0028	1,730	
Dec-08	619,572	0.0028	1,730	
Jan-09	619,572	0.0020	1,265	
Feb-09	619,572	0.0020	1,265	
Mar-09	619,572	0.0020	1,265	
Apr-09	619,572	0.0008	516	
May-09	619,572	0.0008	516	
Jun-09	619,572	0.0008	516	
2008	488,181	0.0398	19,430	note 3
Jan-09	1,107,753	0.0020	2,262	note 4
Feb-09	1,107,753	0.0020	2,262	
Mar-09	1,107,753	0.0020	2,262	
Apr-09	1,107,753	0.0008	923	
May-09	1,107,753	0.0008	923	
Jun-09	1,107,753	0.0008	923	
Jul-09	1,107,753	0.0005	508	
Aug-09	1,107,753	0.0005	508	
			89,292	
note 1:	Monthly opening balances are not available for 2007 therefore the carrying charges are calcualted on the total 2007 LRAM at the average annual carrying charge rate			
note 2:	The 2007 Closing LRAM balance is used as the opening balance for each month of 2008 at the appropriate carrying charge rate for the month			
note 3:	Monthly opening balances are not available for 2008 therefore the carrying charges are calcualted on the total 2008 LRAM at the average annual carrying charge rate			
Note 4:	The 2007 and 2008 Closing LRAM balance is used as the opening balance for each month of 20098 at the appropriate carrying charge rate for the month			

2.7. Rate Implementation and Rate Impacts

Horizon Utilities submits that the total LRAM and SSM in the amount of $1,197,045 is material to Horizon Utilities operations and therefore Horizon Utilities proposes that the LRAM and SSM amounts be recovered through rate riders effective for the 2009 rate year commencing September 1, 2009 and expiring April 30, 2010. Appendix 5 provides a summary of LRAM and SSM rate impacts expressed as the percentage changes in the total distribution cost and total bill. All comparisons are made against existing approved 2009 Horizon Utilities distribution rates, and for the purposes of the total bill comparison, using the commodity and transmission rates in place at the time of this application. The total per month bill impact for the Residential customer class is $0.60 or 0.5%; for the General Service customer class is $1.60 or 0.7%; and the Unmetered/Scattered load customer class impact is $5.25 or 8.8%.

Horizon Utilities submits that the rate impacts arising from recovery of the LRAM and SSM over the 7 month period as proposed are minimal and do not warrant mitigation by way of an extended period of recovery. Horizon Utilities views the impacts as reasonable given the necessity of the CDM activities.

In accordance with the Board's decision in EB-2007-0697, Horizon Utilities proposes that the rate rider amounts for the LRAM and SSM be recovered separately through a variable rate component for each class at the applicable billing determinant.

3.0. Relief Requested

Horizon Utilities seeks recovery of its total LRAM and SSM in the amount or $1,197,045 by customer class through a variable rate rider. Horizon Utilities proposes that the LRAM and SSM rate riders be combined into, and recovered through a single distribution rate rider as provided in Table 15 below and that the total LRAM and SSM rate rider be implemented effective September 1, 2009 for a period of seven months ending April 30, 2010.

Table 15

Proposed LRAM/SSM Rate Riders by Customer Class

	Rate Riders		
	LRAM - 7 months	SSM - 7 months	Total over 7 months
	$/unit (kWh/kW)	$/unit (kWh/kW)	$/unit (kWh/kW)
Residential and Small Commercial <50kW	0.0008	0.0000	0.0008
Commercial, Industrial and Institutional	0.0089	-	0.0089
Unmetered Scattered Load	0.0031	0.0073	0.0104
Total			

In order to ensure that neither Horizon Utilities' ratepayers nor shareholder is disadvantaged through the recovery of the LRAM and SSM, Horizon Utilities proposes that the recovery of the LRAM and SSM be tracked in a variance account for disposition at a date to be determined.

Respectfully submitted,

Original signed by Cameron McKenzie

Cameron McKenzie,
Director, Regulatory Services
Horizon Utilities Corporation

Appendix 1

SeeLine Group Ltd.
Review of Horizon Utilities Corporation – 2008 LRAM and SSM Application

REVIEW OF
HORIZON UTILITIES CORPORATION - 2008 SSM AND LRAM APPLICATION

PREPARED BY
SEELINE GROUP LTD.
416-703-8695

June 2009

BACKGROUND

In 2007, Horizon Utilities Corp. ("Horizon") completed its final year CDM activity with funding made available through the third installment of MARR. This marked the end of a three-year effort resulting in over 4.626 MW of peak demand and 40.466 MWh annual energy savings[1].

With most new CDM funding now made available through the OPA[2], Horizon continues its support of Conservation and Demand Management (CDM) and the development of a 'culture of conservation' in the province of Ontario through its enrollment in the OPA standard[3] programs.

Having filed its first Shared Savings Mechanism (SSM) and Lost Revenue Adjustment Mechanism (LRAM) application as part of its 2008 Electricity Distribution Rate Application in 2007, Horizon has prepared its second SSM/LRAM application to the Ontario Energy Board (OEB) based upon the performance of its 2007 and 2008 CDM activity along with the impacts from its 2005 and 2006 CDM achievements.

In light of this effort, Horizon contracted SeeLine Group Ltd. (SeeLine) to review and comment on its 2008 LRAM and SSM estimate.

SCOPE

Over the past several months, OEB guidelines with respect to LRAM and SSM applications have evolved. On January 27th 2009, the Board released a letter to all Licensed Electricity Distributors (LDCs) announcing its endorsement of the Ontario Power Authority's Measure and Assumptions List. On page 2 of this letter the Board states that, 'it endorses the OPA list for use by distributors for the purposes of applications for new distribution rate-funded CDM programs, LRAM and SSM at this time.'

The policies set out in this Board letter lays the foundation for preparing an LRAM and SSM application. On page 2 and 3, the Board states that "input assumptions used for the calculation of LRAM should be the best available information at the time of the third party assessment referred to in section 7.5", of its Guidelines for Electrical Distributor Conservation and Demand Management ("Guidelines"). The letter further states that SSM applications are required to use assumptions that were in existence in the immediate prior year.

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[1] Horizon Utilities Corp.'s 2008 Annual CDM Report.
[2] In a 2006 government directive issued to the OPA, $400 million of new funding was established for the continued delivery of CDM programs throughout Ontario.
[3] Appliance Retirement, Business Incentive, Summer Savings and Residential and Small Commercial Demand Response.

The guidelines outlined in section 7.5, were established to provide both the Board and the regulatory process with a level of confidence that CDM claims accurately reflect actual program results. It states that any distributor making a claim for LRAM in relation to programs funded by the OPA, or where the distributor is making a claim for LRAM and/or SSM in relation to programs funded through distribution rates in 2007 and beyond requires an independent third party review.

Based on these guidelines, it is understood by Horizon that an independent third party review is not required for any LRAM or SSM claims related to third tranche funded CDM program activity. As such, the purpose of this review of was to provide direction to Horizon on the input assumptions used in the computation of its LRAM savings relating to its 2007 programs.

As part of this review process, SeeLine examined Horizon's CDM savings claims for 2005, 2006 and 2007, outlining necessary adjustments required for Horizon's LRAM and SSM claim relating to its 2007 third tranche CDM activity, based on the Board's most recent guidelines.

FINDINGS

LRAM SAVINGS ESTIMATE

Results from this review process indicate that the 2005 and 2006 LRAM program savings claims are those based on the OEB Measure and Assumptions List, which at the time were made available on the Board's website. They are also consistent with Horizon's earlier EB-2007-0697 application as approved by the OEB.

Our review of the 2007 LRAM program savings claims indicate that updates to measure input assumptions would be required for measures highlighted in table shown below:

Table 1. Summary of Changes Required for Horizon's 2007 CDM Activity Measure Input and Assumptions.

Program	Measure	OEB per unit kWh Assumption	OEB per unit kW Assumption	OPA per unit kWh Assumption	OPA per unit kW Assumption
CFL Distribution	13 W CFL	109	0.00	43	0.0001
	Low Flow Showerhead	545.5	0.00	377	0.0290
Load Control	Res. Programmable Thermostat	159	0.163	138	0.163
	Comm. Programmable Thermostat	159	0.163	138	0.163

Further details from this review can be found in Appendix A.

Based on the above changes, SeeLine suggests the following adjustments shown in the tables below be made to Horizon's LRAM claim for its 2007 CDM program activity funded through third tranche.

Table 2. 2007 Load Impacts from 2007 Third Tranche Initiatives by Program and Class

Rate Class / Program	Programs Impacts with O Input Assumptions		Programs Impacts with OP Input Assumptions	
	kWh	kVa	kWh	kVa
Residential and Small Commercial (<50kW)				
Mass Market	64,285	-	29,101	-
Energy Audit	-	-	-	-
Social Housing	-	-	-	-
Load Control	74,845	-	64,926	-
Sub-Total	**139,130**	**-**	**94,026**	**-**
Commercial, Industrial and Institutional				
Energy Audit & Feasibility Studies	-	0	-	0
Leveraging Energy Conservation	-	463	-	463
Distributed Energy	-	0	-	0
Distribution Loss Reduction	-	0	-	0
Stand-By Generators	-	0	-	0
Sub-Total	**-**	**463**	**-**	**463**
Unmetered / Scattered Load				
LED Traffic Lights	218,183	0	218,183	0
Sub-Total	**218,183**	**0**	**218,183**	**0**
Total	**357,313**	**463**	**312,209**	**463**

Table 3. 2008 Load Impacts from 2007 Third Tranche Initiatives by Program and Class

Rate Class / Program	Programs Impacts with OEB Input Assumptions		Programs Impacts with OPA Input Assumptions	
	kWh	kVa	kWh	kVa
Residential and Small Commercial (<50kW)				
Mass Market	128,570	-	58,201	-
Energy Audit	-	-	-	-
Social Housing	-	-	-	-
Load Control	99,793	-	86,567	-
Sub-Total	**228,364**	**-**	**144,769**	**-**
Commercial, Industrial and Institutional				
Energy Audit & Feasibility Studies	-	-	-	-
Leveraging Energy Conservation	-	463	-	463
Distributed Energy	-	280	-	280
Distribution Loss Reduction	-	-	-	-
Stand-By Generators	-	-	-	-
Sub-Total	**-**	**743**	**-**	**743**
Unmetered / Scattered Load				
LED Traffic Lights	2,618,193	-	2,618,193	-
Sub-Total	**2,618,193**	**-**	**2,618,193**	**-**
Total	**2,846,556**	**743**	**2,762,961**	**743**

SSM ESTIMATE

Current Board guidelines suggest that an SSM application for 2007 CDM activities include measure and input assumptions that were in existence in 2006. It is SeeLine's understanding that the measure and input assumptions available at that time were those posted by the Board on its website.

SeeLine has reviewed Horizon's 2007 SSM claim shown in table 4 below, and finds that the prescriptive measure and input assumptions used by Horizon in its 2007 SSM claim are those posted by the Board. As a result, no further changes would be required for the 2007 SSM estimate.

Table 4. Horizon's 2007 SSM Claim

Rate Class/Program	2007 Programs			
	TRC Costs	TRC Benefits	TRC Net Benefits	SSM Amount $
Residential and Small Commercial (<50kW)				
Mass Market	176,356	$ 38,035	$ (138,321)	$ (6,916)
Energy Audit	-	0	$ -	$ -
Social Housing	10,444	0	$ (10,444)	$ (522)
Load Control	$ 426,111	$ 803,245	$ 377,134	$ 18,857
Commercial, Industrial and Institutional				
Energy Audit & Feasibility Studies	$ 54,875	$ -	$ (54,875)	$ (2,744)
Leveraging Energy Conservation	$ 2,752,531	$ 1,172,465	$ (1,580,066)	$ (79,003)
Distributed Energy	$ 340,474	$ 1,030,489	$ 690,015	$ 34,501
Distribution Loss Reduction	$ 5,208	$ -	$ (5,208)	$ (260)
Stand-By Generators	$ 1,065,518	$ 642,548	$ (422,969)	$ (21,148)
Unmetered / Scattered Load				
LED Traffic Lights	$ 1,350,438	$ 2,997,860	$ 1,647,422	$ 82,371
Other Support Costs	$ 211,047	$ -	$ (211,047)	$ (10,552)
Total	**6,393,001**	**$ 6,684,642**	**$ 291,641**	**$ 14,582**

Appendix A

CDM Activity Load Impacts

Table 1. 2005 CDM Program Impacts

Program	Efficient Technology	Rate Class	Participants/Projects	Filed OEB per unit kWh savings assumption	Filed OEB per unit kW savings assumption	Freeridership	Net kWh	Comment
Co-Branded Mass Markets							**1,881,736**	
Cold Water Wash Program	**Cold Water Wash Detergent**	**Residential**	**625**	**623.0**	**n/a**	**25%**	**291,906**	**No change required**
Call to Action Contest							**149,206**	
	CFLs	Residential	800	106.7	-	10%	76,824	No change required
	LED Night Lights	Residential	400	16.0	-	10%	5,760	No change required
	Efficient Showerhead	Residential	136	545.5	0.0390	10%	66,622	No change required
Retailer Program							**1,440,624**	
	CFL Screw-In 15W	Residential	10,062	104	-	10%	945,430	No change required
	LED Christmas Lights (indoor or outdoor) Replacing 5w Christmas Lights C-7 (25 Lights)	Residential	1,579	45	-	5%	66,755	No change required
	LED Christmas Lights (indoor or outdoor) Replacing Incandescent Mini Lights	Residential	1,579	17.0	-	5%	25,548	No change required
	Programmable Thermostat - Space Heating, Existing Single Family Detached	Residential	196	1,466	-	10%	258,675	No change required
	Programmable Thermostat - Space Cooling, Existing Single Family Detached	Residential	510	159	0.163	10%	72,998	No change required
	Timer - Outdoor Light	Residential	233	292	-	10%	61,232	No change required
	Timer - Indoor - Light	Residential	53	98	0.059	10%	4,678	No change required
	Timer - Indoor - Air Conditioners	Residential	53	109	0.174	10%	5,190	No change required
	Ceiling Fan	Residential	207	-	-	10%	-	No change required
	EnerGuide for Existing Homes - Space Heating	Residential	1	250	-	10%	117	No change required
Energy Audit and Support							**491,400**	
	CFLs (23w)	Residential	3,120	167	-	10%	468,936	No change required
	LED Night Lights	Residential	1,560	16	-	10%	22,464	No change required
Social Housing							**4,500,862**	
	CFL, 13W	Residential	28,104	108.90	-	1%	3,029,920	No change required
	CFL, 23W	Residential	8,236	178.60	-	1%	1,456,240	No change required
	Water Dam	Residential	625	-	-	1%	-	No change required
	Restrictors	Residential	450	33.00	-	1%	14,702	No change required
Energy Audit and Feasibility Studies	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
Leveraging Energy Conservation and Load Management	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
Load Control Initiative	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
Load Displacement Program	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**

Table 2. 2006 CDM Program Impacts

Program	Efficient Technology	Rate Class	Participants/Projects	Filed per unit kWh savings assumption	Filed per unit kW savings assumption	Freeridership	Net kWh	Comment
Co-Branded Mass Markets							**23,711,386.22**	
LED Light Exchange	LED Christmas Lights (indoor or outdoor)	Residential	1,000	18.9	0.0	5%	**17,914**	No change required
Community Events							**3,906,147**	
	13 Watt CFL	Residential	36,796	109.0	0.00	10%	3,611,012	No change required
	Low Flow Showerhead	Residential	601	545.5	0.00	10%	295,135	No change required
Conservation Champs							**736,089**	
	13 Watt CFL	Residential	6,000	109.0	0.00	10%	588,816	No change required
	Low Flow Showerhead	Residential	300	545.5	0.00	10%	147,273	No change required
Ebilling							**132,496**	
	13 Watt CFL	Residential	1,080	109.0	0.00	10%	105,987	No change required
	Low Flow Showerhead	Residential	54	545.5	0.00	10%	26,509	No change required
Environment Hamiliton							**1,323,393**	
	13 Watt CFL	Residential	12,860	109.0	0.00	10%	1,262,029	No change required
	Low Flow Showerhead	Residential	125	545.5	0.00	10%	61,364	No change required
Fridge Bounty							**1,769,316**	
	Fridge Bounty - Refrigerators	Residential	1,449	1200	0.27	10%	1,564,920	No change required
	Fridge Bounty - Freezers	Residential	11	900	0.20	10%	8,910	No change required
	Fridge Bounty - 13 W CFL	Residential	1,518	109.0	0.00	10%	148,970	No change required
	Fridge Bounty - Timer	Residential	177	292	0.00	10%	46,516	No change required
Keep Cool							**1,173,276**	
	Keep Cool - retired working units	Residential	1,428	621	0.113	10%	798,109	No change required
	Keep Cool - retired working units placed with Energy Star	Residential	1,058	394	0.718	10%	375,167	No change required
Smart Pak							**466,190**	
	13 Watt CFL	Residential	3,800	109.0	0.00	10%	372,917	No change required
	Low Flow Showerhead	Residential	190	545.5	0.00	10%	93,273	No change required
TAPS							**1,113,777**	
	13 Watt CFL	Residential	6,916	109.0	0.00	10%	678,709	No change required
	Low Flow Showerhead	Residential	788	545.5	0.00	10%	386,836	No change required
	Pipewrap	Residential	642	76.0	0.00	10%	43,913	No change required
	Aerators	Residential	128	33.6	0.00	0%	4,319	No change required
OPA EKC Spring Campaign							**5,964,992**	
	CFL	Residential	57,235	104.1	0.00	10%	5,359,918	No change required
	Ceiling Fan	Residential	918	140.6	0.014	10%	116,164	No change required
	Timer	Residential	1,935	182.5	0.00	10%	317,824	No change required
	Programmable Thermostat	Residential	872	218.0	0.05	10%	171,086	No change required
OPA EKC Fall Campaign							**7,107,798**	
	Baseboard Programmable Thermostat	Residential	172	366.6	0.000	10%	56,747	No change required
	CFLs	Residential	64,728	104.4	0.000	10%	6,082,380	No change required
	Motion Sensors	Residential	361	208.8	0.000	10%	67,839	No change required
	Programmable Thermostat - Space Heating	Residential	353	1466.3	0.000	10%	466,207	No change required
	Programmable Thermostat - Space Cooling	Residential	919	159.1	0.163	10%	131,564	No change required
	LED Seasonal Lights	Residential	15,069	13.0	0.000	5%	186,675	No change required
	Dimmer Switch	Residential	929	139.2	0.000	10%	116,385	No change required

Table 2. 2006 CDM Program Impacts (continued)

Load Control Iniative							**126,138**	
Residential A/C Control								
	Res. Peak Saver (Load Control Savings)	Residential	881	0	0.5	0%	-	No change required
	Res. Peak Saver (Programmable Thermostat Savings)	Residential	881	159.1	0.163	10%	126,138	No change required
Residential Energy Audit							**785,834**	
Energy Audit	Audit	Residential	70	0	0	0%	-	No change required
Cool Shops	CFL and T8 Lighting	Small Commercial (<50kW)	1	452,254.0	110.218	10%	407,029	No change required
Energy Audit Powerpak	13 Watt CFL	Small Commercial (<50kW)	3,860	109.04	0	10%	378,805	No change required
Social Housing							**2,195,711**	
City of Hamilton							**128,202**	
	13 Watt CFL	Residential	950	109.0	0.00	1%	102,552	No change required
	Low Flow Showerhead	Residential	48	545.5	0.00	1%	25,650	No change required
Green Venture							**18,136**	No change required
	13 Watt CFL	Residential	168	109.0	0.00	1%	18,136	No change required
	Pipewrap	Residential	-	76.0	0.00	1%	-	No change required
	Aerators	Residential	-	33.6	0.00	1%	-	No change required
Victoria Park							**1,680,161**	
	TL-11W	Residential	4,872	196	0.00	1%	945,363	No change required
	TL-15W	Residential	2,183	340	0.00	1%	734,798	No change required
Niagara Regional Housing							**369,213**	
	Refridgerator Replacement - First 6 years	Residential	213	760	0.16	1%	160,261	No change required
	Refridgerator Replacement - Last 13 years	Residential	213	74	0.02	1%	15,604	No change required
	T-8 replacing T-12 - Single	Residential	150	392	0.08	1%	58,212	No change required
	T-8 replacing T-12 - Double	Residential	63	288	0.06	1%	17,963	No change required
	Motion Sensors	Residential	1	1620	0.44	1%	1,604	No change required
	LED Exit Signs	Residential	60	236.5	0.03	1%	14,048	No change required
	Limiting Thermostats	Residential	422	243	0.08	1%	101,521	No change required
LED Traffic Lights							**114,812**	
City of Hamilton	LED Lighting	Unmetered / Scattered Load	1	149,899.00	17.1	30%	104,929	No change required
City of St. Catharines	LED Lighting	Unmetered / Scattered Load	1	14,118.00	1.61	30%	9,883	No change required
Leveraging Conservation and/or Load Management							**157,037**	
Project 1	Energy Efficient Lighting	Commerical, Industrial and Institutional	1	85,830	14.5	30%	60,081	No change required
Project 2	Energy Efficient Lighting	Commerical, Industrial and Institutional	1	138,508	18.22	30%	96,956	No change required
Energy Audit & Feasibility Studies	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Distribution Loss Reduction	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Stand By Generators	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Table 3. 2007 CDM Program Impacts

			w/ Original Input Assmptions						w/ Updated OPA Input Assmptions					
Program	Efficient Technology	Rate Class	Participants/Projects	OEB per unit kWh savings assumption	OEB per unit kW savings assumption	Freeridership	Fully Effective Net kWh	Partially Effective	Participants/Projects	OPA per unit kWh savings assumption	Filed OPA per unit kW savings assumption	Freeridership	Fully Effective Net kWh	Partially Effective Net kWh
Co-Branded Mass Markets							**128,338**	**64,169**					**58,201**	**29,101**
CFL Distribution														
	13 Watt CFL	Residential	1,048	109	0.00	10%	102,809	51,404	1,048	43	0.001	10%	40,558	20,279
	Low Flow Showerhead	Residential	52	545.5	0.00	10%	25,529	12,765	52	377	0.0290	10%	17,644	8,822
Load Control Iniative							**99,741**	**74,806**					**86,567**	**64,926**
Res. Peak Saver (Load Control Savings)	Res. Peak Saver (Load Control Savings)	Residential	678	0	0.5	0%	-		678	0	0.5	0%	-	-
Peak Saver (Programmable Thermostat Savings)	Res. Peak Saver (Programmable Thermostat Savings)	Residential	678	159	0.163	10%	97,022	72,766	678	138	0.163	10%	84,208	63,156
Comm. Peak Saver (Load Control Savings)	Comm. Peak Saver (Load Control Savings)	Small Commercial (<50kW)	19	0	0.5	0%	-		19	0	0.5	0%	-	-
Comm. Peak Saver (Programmable Ther	Comm. Peak Saver (Programmable Thermostat Savings)	Small Commercial (<50kW)	19	159	0.163	10%	2,719	2,039	19	138	0.163	10%	2,360	1,770
Social Housing			**n/a**	n/a	n/a	**n/a**	**n/a**		**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
LED Traffic Lights							**2,618,205**	**218,184**					**2,618,205**	**218,184**
	LED Lighting	Unmetered / Scattered Load	413	9,056.40	1.034	30%	2,618,205	218,183.77	413	n/a	n/a	30%	2,618,205	218,184
Leveraging Conservation and/or Load Management							**2,905,661**	**1,164,515**					**2,905,661**	**1,164,515**
Prescriptive Measures														
	Exit signs	Commercial, Industrial and Institutional	121	236.5	0.026	10%	25,755	12,877	121	n/a	n/a	10%	25,755	12,877
	Sylvania screw-in CFL <40W	Commercial, Industrial and Institutional	1,351	116	0.023	10%	141,044	70,522	1,351	n/a	n/a	10%	141,044	70,522
	Sylvania high-performance s	Commercial, Industrial and Institutional	240	68	0.015	10%	14,688	7,344	240	n/a	n/a	10%	14,688	7,344
	Sylvania high-performance tw	Commercial, Industrial and Institutional	255	120	0.026	10%	27,540	13,770	255	n/a	n/a	10%	27,540	13,770
	Sylvania high-performance fo	Commercial, Industrial and Institutional	593	236	0.051	10%	125,953	62,977	593	n/a	n/a	10%	125,953	62,977
	Osram standard single-lamp	Commercial, Industrial and Institutional	10,653	52	0.011	10%	498,560	249,280	10,653	n/a	n/a	10%	498,560	249,280
	Osram standard two-lamp T8	Commercial, Industrial and Institutional	2,899	80	0.017	10%	208,728	104,364	2,899	n/a	n/a	10%	208,728	104,364
	Osram standard three-lamp	Commercial, Industrial and Institutional	7	112	0.024	10%	706	353	7	n/a	n/a	10%	706	353
	Osram standard four-lamp T8	Commercial, Industrial and Institutional	7	160	0.034	10%	1,008	504	7	n/a	n/a	10%	1,008	504
	Lithonia 107T83 high-bay T5	Commercial, Industrial and Institutional	251	55	0.004	10%	12,357	6,178	251	n/a	n/a	10%	12,357	6,178
	T5 fixture	Commercial, Industrial and Institutional	19	55	0.004	10%	935	468	19	n/a	n/a	10%	935	468
	Philips lamp and Osram ball	Commercial, Industrial and Institutional	128	55	0.004	10%	6,301	3,151	128	n/a	n/a	10%	6,301	3,151
	Osram lamp and Philips ball	Commercial, Industrial and Institutional	15	308	0.064	10%	4,158	2,079	15	n/a	n/a	10%	4,158	2,079
Custom Projects														
	Hamilton East Kiwanis Non-I	Commercial, Industrial and Institutional	1	210,810	24.064	30%	147,567	81,162	1	n/a	n/a	30%	147,567	81,162
	City of Hamilton	Commercial, Industrial and Institutional	1	2,266,000	240	30%	1,586,200	523,446	1	n/a	n/a	30%	1,586,200	523,446
	CH TV	Commercial, Industrial and Institutional	1	-	38.264	30%	-	-	1	n/a	n/a	30%	-	-
	Oros Investments	Commercial, Industrial and Institutional	1	-	5.62	30%	-	-	1	n/a	n/a	30%	-	-
	Giant Tiger	Commercial, Industrial and Institutional	1	148,800	37.169	30%	104,160	26,040	1	n/a	n/a	30%	104,160	26,040
Energy Audit & Feasibility Studies	n/a	n/a	n/a	n/a	n/a	n/a	n/a		n/a	n/a	n/a	n/a	n/a	n/a
Distribution Loss Reduction	n/a	n/a	n/a	n/a	n/a	n/a	n/a		n/a	n/a	n/a	n/a	n/a	n/a
Distributed Energy			n/a	n/a	n/a	n/a	n/a		n/a	n/a	n/a	n/a	n/a	n/a
Stand By Generators	n/a	n/a	n/a	n/a	n/a	n/a	n/a		n/a	n/a	n/a	n/a	n/a	n/a

Appendix 2

2007 OPA Conservation Program Results

Ontario Power Authority

120 Adelaide Street West
Suite 1600
Toronto, Ontario M5H 1T1

T 416-967-7474
F 416-967-1947
www.powerauthority.on.ca

February 27, 2009

Ms. Eileen Campbell
Vice President, Customer Services
Horizon Utilities Corporation
55 John Street North
Hamilton ON L8N 3E4

Re: 2007 OPA Conservation Program Results – estimated allocation to Horizon Utilities Corporation service territory

Dear Eileen:

As per your request of February 18, 2009, attached are the 2007 energy and demand savings results for OPA funded conservation programs that were allocated to Horizon Utilities Corporation service area.

Four distinct methodologies were used to allocate province wide savings to an individual local distribution companies (LDC), depending on the conservation program type.

- LDC delivered programs: Savings were allocated based on participation data that was tracked by individual LDCs.
- Third-party (non-LDC) delivered programs:
  - Where geographic participant data was available, savings were allocated to corresponding LDC territory.
  - Where geographic participation was not available, savings were allocated based on each LDC's share of the provincial load for the customer class targeted by the program, based on data from the Ontario Energy Board 2007 Yearbook of Electricity Distributors. For example, if an LDC has 10% of the residential energy consumptions of Ontario, they would be allocated 10% of the savings from the Every Kilowatt Counts retail coupon program (as it is delivered by third party and does not include LDC-specific participant data).
- Programs run exclusively in Toronto: All energy and demand savings were allocated to Toronto Hydro.

These are the final results for 2007 programs. We do not anticipate any further adjustment to the 2007 conservation program results. Six of these programs underwent comprehensive third-party evaluations, in accordance with the OPA's Evaluation, Measurement and Verification (EM&V) framework developed in 2007. All 2008 programs will undergo evaluation and final results for will be available in the third quarter of 2009.

We hope this meets Horizon Utilities Corporation LRAM claim requirements.

Yours truly,

R. Paul Shervill
Vice President
Conservation and Sector Development

Ontario Power Authority

2007 Local Distribution Company Lost Revenue Adjustment Mechanism Claim Report

For Local Distribution Company: Horizon Utilities Corporation

Table 1 - 2007 OPA Conservation Program Results

#	Program	OPA Defined Sector	Net to Gross Ratio	Summer Peak Demand Savings (MW)	First-Year Energy Savings (MWh)	Notes
1	The Great Refrigerator Roundup	Mass Market	see note 1	0.06	502	**program was verified**
2	Every Kilowatt Counts	Mass Market	see note 1	0.20	5,353	**program was verified**
3	Cool Savings Rebate	Mass Market	see note 1	0.80	1,225	**program was verified**
4	peaksaver®	Mass Market	1:1	0.75	0	No curtailments in 2007
5	Summer Savings	Mass Market	see note 1	1.78	3,196	**program was verified**
6	Aboriginal Conservation Initative	Mass Market	1:1	0.00	0	
7	Affordable Housing	Commercial/Institutional	1:1	0.01	195	
8	Social Housing	Commercial/Institutional	1:1	0.06	483	
9	Energy Efficiency Assistance for Houses – Pilot	Commercial/Institutional	1:1	0.00	13	
10	Toronto Comprehensive (Toronto Hydro)	Commercial/Institutional	9:10	0.00	0	
11	Toronto Comprehensive (City of Toronto)	Commercial/Institutional	9:10	0.00	0	
12	Toronto comprehensive (BOMA)	Commercial/Institutional	see note 1	0.00	0	**program was verified**
13	Electricity Retrofit Incentive Program (ERIP)	Commercial/Institutional	9:10	0.03	71	
14	Demand Response 1	Industrial	see note 1	17.59	0	
15	Demand Response - Non Program	Industrial	1:1	0.74	0	**program was verified**
16	Demand Response - Carry Forward	Industrial	1:1	0.72	0	
17	Renewable Energy Standard Offer Program (RESOP)	Customer Based Generation	1:1	0.00	0	
Total				**22.74**	**11,037**	

Notes

1 Net to Gross ratios for these programs were assessed on a measure by measure basis in the EM&V process and as such are not expressed here at the program level

Appendix 3

2007 Annual Report

Horizon Utilities Corporation

Conservation and Demand Management

2007 Annual Report

Ontario Energy Board File No. RP-2004-0203
Distribution License ED-2006-0031

March 31, 2008

Table of Contents

1. Introduction

On December 10, 2004 the Ontario Energy Board ("Board") issued its oral decision in the RP-2004-0203 proceeding, with respect to six (6) applications filed by the Coalition of Large Distributors ("CLD") comprising Enersource Hydro Mississauga, Horizon Utilities Corporation, Hydro Ottawa Limited, PowerStream Inc. Toronto Hydro-Electric System Limited and Veridian Connections. This report is a requirement of that decision. In respect of the application filed by Horizon Utilities Corporation, the Board issued its Final Order on February 3, 2005 under docket number RP-2004-0203/ EB-2004-0488.

The Board's decision indicated that annual reporting "should be done on a calendar year and should be filed with the Board no later than March 31st of the following year" and would be subject to a public review. On December 21, 2005 the Board issued a Guideline for Annual Reporting of CDM Initiatives that explained the detailed requirements. The Board issued amended requirements for reporting CDM activities on March 3, 2008. This report has been prepared in accordance with those guidelines and amended requirements.

Currently, Horizon Utilities has two separate Conservation and Demand Management Plans filed with the OEB for the former Hamilton Hydro Inc. (HHI) RP-2004-0203 / EB-2004-0488 and St. Catharines Hydro Utility Services Inc. (SCHUSI) RP-2004-0203 / EB-2004-0523. On November 7, 2006, Board staff agreed with Horizon's recommendation to account for CDM spending on a consolidated basis under the single Distribution License No. ED-2006-0031.

On February 12, 2007 Horizon Utilities submitted a request to the Board to transfer funds between programs. Included in this request was a deadline extension for the Standby Generation and LED Traffic Light Retrofit programs until March 31, 2008.

Horizon Utilities finalized and completed all of its CDM programs in 2007. However expenditures associated with providing incentives to the LED traffic light projects in St. Catharines and Hamilton were not fully paid out until the 1st Qtr of 2008. As of the date of filing this report Horizon Utilities has received final reporting on the 2007 completed expenditures for all 12-program categories. The CDM activities carried out by Horizon Utilities in 2007 were intended to finalize the commitments to the projects funded through 3rd Tranche MARR. We are submitting this report as the final report for the 3rd Tranche MARR.

Horizon Utilities demonstrated the ability to deliver conservation programs in a resourceful and cooperative manner. Important partners, including the CLD, NEPA, OPA, local gas distributors and local community groups, enhanced the efforts of the Horizon Utilities CDM team. Horizon Utilities is committed to helping the government build a sustainable long-term conservation culture in Ontario.

1.1 Ongoing Opportunities

As Ontario develops the conservation culture, it is necessary to balance the need for short-term results while fostering a long-term conservation attitude among provincial citizens and businesses. The industry must continue to coordinate its efforts to ensure that program delivery is efficient and available to all customers. Our goal should be rapid program deployment using the LDC's clear channel to market. Horizon Utilities best serves its customers as the main channel for effective conservation and demand management programs. Horizon Utilities has now completed its plans and projects funded through 3rd Tranche MARR. At this time, Horizon Utilities has proven to be an effective delivery agent for the OPA core programs in 2007, despite the limited time to market made available for these programs. Registration for the core OPA programs in 2008 has been carried out. Horizon Utilities is currently evaluating with intentions of applying for funding from the OPA for custom program funding.

Beyond final completion of the programs in Horizon Utilities' 3rd Tranche CDM plan in 2007 we also have been resourceful with implementation of four core OPA programs; Great Refrigerator Round Up, PeakSAVER, Summer Savings, and Electricity Retrofit Incentives Program.

Horizon Utilities is also planning to explore OPA funding for custom programs in conjunction with the Coalition of Large Distributors in 2008.

2. Evaluation of Overall Plan

CDM program development is a complex and time-consuming process. Procurement and legal processes were more costly and time consuming than originally expected. Horizon Utilities was able to maximize our results by working with the Coalition of Large Distributors, which provided a significant advantage in knowledge and resource sharing, efficiency and cost effectiveness. As we gained market experience, we were able to fine-tune our individual CDM plans as well. The winding down of the ***peaksaver***™ program, limited our results. The delays in starting up the OPA peakSAVER program created a gap in marketing and enrolment opportunities.

In reviewing the information provided in both Appendices A, B and C, it should be noted that 46% of the 2007 overall costs were related to the standby generation project. This component of Horizon Utilities' CDM plan met with the capital expenditure amount that was filed in our plan and the subsequent notice to transfer capital funds filed with the Board, aligned with provincial government policy direction. The impact of smart meters on kWh consumption and kWh demand has not been assessed, and therefore has not been included in this report. Capital cost of implementing the smart metering and standby generation projects impacts the overall cost benefit analysis provided in Appendix A.

Appearing at over 28 community events last year, Horizon Utilities offered a unique opportunity to engage over 50 staff volunteers in learning about conservation measures, then extending this knowledge and leadership to the public. An addition of the smart meter display has proven useful in preparing customers for time-of-use rates and introducing conservation concepts that will allow them to seek cost savings when those rates take effect.

Increasing awareness about key conservation concepts, including consumption (kWh), demand (kW) and underlying reasons for Ontario's CDM campaign has been challenging both internally and externally. Internally, the Conservation Champions Committee brings the message to each department. Externally, this message is shared with the community at events, programs and media channels.

Horizon Utilities is reviewing second-generation opportunities to carry this message further using established relationships with the CLD, Ontario Power Authority, NEPA, other LDC's and our local community partners.

3. Discussion of Programs & 2006 Activities

3.1 Residential and Small Commercial (< 50 kW)

3.1.1 Co-Branded Mass Market Program

Description

This flagship co-branded mass-market program (powerWISE®) is a multifaceted approach to fostering the conservation culture in Ontario. Through development of a significant cooperative effort among six of the largest municipal LDC's, this program has become aligned with specific initiatives such as Compact Fluorescent Lighting (CFL) change out programs, LED Christmas Light Exchanges, Energy Star, Multi-Choice, energy audits, hot water heater blanket wraps, school based education and a host of other programs aimed at providing customers with the tools and education needed to reduce their energy usage. Access to online services such as energy consumption calculators, an energy expert and personalized energy audit services are being considered as future components of this program.

Target users

Mass-market including residential and small commercial <50 kW of monthly demand

Benefits

Increased awareness, improved product supply, culture shift, and significant demand and energy reductions.

3.1.1.1 Activity with the powerWISE® brand

Action

- Hamilton Utilities Corp. (HUC) registered the powerWISE® mark prior to Ontario's CDM activities.
- During CLD CDM plan preparation, it was agreed that the CLD would collectively develop and use the brand. HUC offered powerWISE® for license and the CLD agreed that we would use this mark.
- The Ministry of Energy was licensed to use the brand and released the series of Dr. David Suzuki advertisements on billboards, radio and television in 2007 to raise awareness of energy conservation and the brand.

Results to Date

- The Ministry of Energy was licensed to use the brand in 2007

Next Steps

- At the end of 2007, HUC was in negotiations with the Ministry of Energy to acquire the brand for use in all provincial advertising.

3.1.1.2 Activity with powerWISE® Website

Action

- The powerWISE® website www.powerwise.ca was jointly developed and announced on April 1st, 2005.
- This website provides one common location for general electricity conservation information and useful industry links.
- Links have also been provided for customers to reach their CLD member's home website for specific local program information.
- The site also has an archive of the various advertising campaigns that ran throughout the year
- The website also features an "Ask the Expert" section.

Results to Date

- In 2007 the powerWISE® website had over 181,000 visitors.
- Since inception, the powerWISE® website has had over 218,000 visitors.

Next Steps

- The Ministry of Energy will have exclusive rights over the website www.powerwise.ca as part of the powerWISE brand.
- No further action will be taken with respect to this project.

3.1.1.3 Children's Discovery Centre (Conservation Model)

Action

- Horizon Utilities has purchased a powerWISE® Home for display at the YMCA Niagara Children's Discovery Centre.
- Hardware for the interactive theatre was purchased in 2006 but the media material, and theatre housing needed to be developed in 2007.
- The media script featured various conservation themes including the first talking smart meter animation. The video content is entitled "Power For Tomorrow" and features over 30 characters plus an original song.
- The video content is scripted with the theatre hardware features to create an interactive education model for all ages.

Results to Date

- On November 15, 2007 the "Power For Tomorrow – PowerWISE Home" was unveiled to the Grade 4 Class of Briardale Public School in a movie premier setting at the YMCA Children's Discovery Centre.
- The model is located at the YMCA - Children's Discovery Centre, where over 3000 primary school children will be educated on energy and water conservation concepts.

Next Steps

- Replicating the "Power for Tomorrow" video content to accompany the Generation Conservation Grade 5 curriculum.
- Interest from Model Tech other LDC's in use of the video content has been expressed.
- Use of the video content for all primary school events is intended.

3.1.1.4 Generation Conservation

Action

Recognizing that teaching children about energy conservation is key to creating a sustainable culture, Horizon Utilities launched the *kidzpower*™ brand in 2007. The first project under the new brand was the sponsorship of *Generation Conservation,* a 10-lesson curriculum course for 7,500 Grade 5 students attending 200 schools in Hamilton and St. Catharines. *This program meets all the requirements of the new Science and Technology - Conservation of Energy and Resources curriculum released by the Ministry of Education in December 2007.* In addition to providing teacher training workshops, course materials and a website specific to the topics covered in Generation Conservation, Horizon Utilities supplied up-to-date information about Ontario's energy sector and smart meters. Public libraries in both communities provided resource lists. The libraries also have a supply of Kill-A-Watt meters provided by Horizon Utilities, which may be borrowed by the public for conducting their own experiments. By teaching children about various forms of energy and providing them with an in-depth understanding of why and how to conserve energy, *Generation Conservation* aims to do for energy conservation what was done for blue box recycling - mobilize youth to become a generation of conservers.

Results to Date

Teacher workshops have been held for approximately 100 teachers in all four school boards: Hamilton Wentworth District School Board, Hamilton Wentworth Catholic District School Board, District School Board of Niagara and Niagara Catholic District School Board. The originators of the program conducted sessions with assistance from Horizon Utilities staff. Teacher reaction to the program materials has been enthusiastic and uniformly positive. Elementary school teachers do not generally have a good understanding of electricity, sources of energy, smart meters, climate change and other topics that are encompassed in Generation Conservation. They greatly appreciated the opportunity to review the materials during the workshops and participate in the hands-on experiments. The result is teachers who better understand the subject matter and have the confidence to teach it. Teachers started rolling out the program in classrooms in January. Initial feedback from students indicates the course is successful in educating the students about energy and the ways in which they, personally, can change their behaviours to conserve energy. Children who complete the course will receive a certificate presented by Horizon Utilities.

Next Steps

Teachers are not required to start teaching the new Science and Technology - Conservation of Energy and Resources curriculum until September 2008. We are very pleased that most of the teachers who have attended the workshops wanted to begin teaching Generation Conservation immediately. However, full-scale deployment of the course will not take place until September. Further teacher workshops are planned.

In the meantime, all teachers who participated in the workshops were provided with Earth Hour materials to assist in raising the awareness about the need for energy conservation with their students. Tie-ins with Earth Day are being explored for launch in 2009.

3.1.1.5 Community Events

Action
- Horizon Utilities participated in over 28 community events to bring the conservation message to our customers. Events included home shows, parades, festivals, community, school, and neighbourhood activities.
- Event management involved all logistics including volunteer management, ordering and provision of give-aways, registration, and co-ordination between all components.

Results to Date
- An events team was hired to assist with this process.
- The events van was purchased and decaled with conservation features to promote the message, and also enhance Horizon's presence at events.
- Horizon promoted energy efficiency in the home with 38,710 CFL's being distributed to customers at events which included a Brock University student housing light exchange event
- A wheel of conservation measures was created to increase public engagement at the Horizon booth.
- A lighting display was built to demonstrate the different styles of energy efficient light bulbs.
- The conservation model was used to enhance the message at events.
- High profile in the community has resulted in a demand for Horizon to attend and support numerous community events.

Next Steps
- Continue to bring the conservation message to the public.
- Evaluate future event opportunities to maximize customer engagement in energy efficiency and conservation in homes and businesses.

3.1.1.6 E-billing – Go Paperless

Action
This promotion encouraged customers to Go Paperless with Horizon by adopting e-billing and pre-authorized automatic billing. The incentives included:

- For customers that adopt the e-billing services, a donation to support a local tree-planting initiative
- Customers that select both options will receive a conservation kit.

Results to Date
- 524 customers received conservation kits for participating in the Go Paperless campaign in 2007.
- A total of 1064 conservation kits have been sent out to date.

Next Steps

- The E-billing Program is continuing on without the offering of conservation kits.
- No further action will be taken with respect to the conservation offering in conjunction with this project.

3.1.1.7 Horizon Utilities Website

Action

- The website www.horizonutilities.com was revised to provide a stronger emphasis on conservation.
- The website now offers numerous conservation options, including; information for residential customers, business customers, and general conservation advice under the powerWISE® category.
- This conservation component of the website is designed to provide Horizon customers with immediate access to local conservation initiatives
- Another highlight is the "ask-the-expert" feature whereby experts within the Horizon Conservation and Demand Management Department answer questions related to conservation.
- The website is also updated to provide links and details on active conservation programs.

Results to Date

- Since its launch www.horizonutilities.com has received 244,807 visitors in 2007. Internally, the www.horizonutilities.net has received 162,950 site visits. Traffic to Horizon Utilities' website has increased by 15% from 2006 to 2007.
- Horizon Utilities also answers conservation related questions from:
    1) There were 67 Ask the Expert email inquiries answered in 2007.

Next Steps

- Continue to enhance the website with new materials, links and applications.
- Continue to respond to customer enquiries.

3.1.1.8 Horizon Conservation Champions Committee

Action

- The Conservation Champions committee includes employee volunteers from many departments interested in energy conservation at Horizon Utilities. Regular meetings are held to discuss Horizon's external programs and to develop internal initiatives. Goals of the committee are to:
    1. Recommend ways to reduce Horizon's demand by 5% and overall consumption by 10%.
    2. Create an energy and water use checklist to be used with our health and safety workplace inspections.
    3. Assist in creating an action plan around the IESO calls for reduced energy use, as part of preparation for 2006 summer peak.
    4. Design and implement an energy and water conservation awareness campaign at Horizon.

Results to Date

- Developed an internal energy conservation audit for Horizon Utilities Buildings that was conducted in the spring and fall of 2007.
- Tracked energy consumption of Horizon facilities (consumption and demand) at meetings
- Provided volunteers and paid support at conservation events (including community events)
- Leadership in promoting and participating with internal programs including the employee incandescent light bulb exchange, Christmas light exchange, Kill-A-Watt-meter lending program, and others.
- Followed progress of the comprehensive building audits as completed by outside consultants.
- Track conservation opportunities as per audit recommendations.
- Met regularly to review conservation projects and bring that message back to respective departments.

Next Steps

- The potential adoption of the Horizon program by other institutions is being explored.
- Creation of shut down practices for all employees relating use of PC's and other equipment.
- Encouraging Horizon employee and corporate leadership in embracing conservation opportunities.

3.1.1.9 Kill-A-Watt Meter Library Loaner Project

Action

- In conjunction with the Kill-A-Watt Meter Library Loaner Project established by Hydro Ottawa and Enersource, Horizon Utilities developed a similar program in partnership with the Hamilton and St. Catharines Public Library Systems.
- Horizon also set up a loaner program for internal staff in March 2006.
- The Kill-A-Watt meter library loaner program is demonstrated and promoted at local community events by Horizon Utilities.
- In support of the library loaner program, meter instruction cards were developed bearing Horizon's logo and appropriate library contact details. These cards are distributed with the meter.

Results to Date

- Meters borrowed to date:

  121 - St. Catharines Public Library
  554 - Hamilton Public Library
  52 - Horizon Loaner Program

- This project was launched at the Downtown Hamilton Public Library on January 23rd and 24th, 2006, with 2,500 CFL bulbs given out to library patrons.
- The internal Horizon lending program started on March 6, 2006, and the devices have been borrowed internally 50 times to date.

Next Steps
- Horizon plans to provide posters to the libraries in 2008 in support of this program.

3.1.1.10 Ontario Power Authority – Every Kilowatt Counts Spring Coupon Campaign

Action
- The Conservation Bureau of the OPA developed a major mass-market retail campaign to advance the penetration of energy efficient devices into the marketplace through point of purchase redeemable coupons
- Coupon and information booklets were distributed through the mail to all Ontario households for each campaign.
- Horizon supported the OPA in its endeavor to reach all customers.
- Horizon promoted these mail-out programs on the website and at all community events.
- Horizon promoted the program internally by distributing the coupon booklets with pay stubs.
- Horizon promoted the program externally by providing related training to CSR's.
- Horizon also cross-promoted this program with the City of Hamilton.

3.1.1.10.1 Spring Campaign April 2007 to June 17, 2007

The products promoted in the 2007 spring EKC coupon booklet were as follows:
- Outdoor Motion Sensor Lighting ($5.00 off)
- Dimmer Switch ($3.00 off)
- Furnace Filters ($3.00 off)
- Outdoor Solar Lights ($5.00 off)
- Compact Fluorescent Lights ($3.00 off)
- Ceiling Fans ($25.00 off)

Results to Date
- Redemptions from Horizon Utilities distributed coupons resulted in 6269 coupons being redeemed at retailers.
- These coupon redemptions resulted in gross annual energy savings of 304,472 kWh.

Next Steps
- Continue to provide booklets and support of the EKC coupon programs at Horizon community events.
- Continued support of this program to Horizon customers is to be provided.

3.1.2 Smart Meter Pilot

Description

A pilot program for residential SMART meters will be deployed to enable the assessment of metering, communications, settlement, load control and other technologies that may be used to accommodate the universal application of SMART meters in the future. Further, sub-metering opportunities for the purposes of customer information in bulk-metered situations (i.e. condominiums) may be considered.

This initiative will commence upon the release of a formal definition of a SMART meter by the Board.

Target users

Residential and small commercial customers.

Benefits

This program supports the Minister of Energy's commitment to the installation of 800,000 SMART meters across Ontario by 2010. It will provide Horizon with the experience and knowledge needed to efficiently expand the use of SMART meters over the next several years.

In conjunction with appropriate rate structures, the program will also provide customers participating in the pilot programs with an incentive to conserve or shift energy use.

Action

- A smart meter pilot of 7500 meters was undertaken in Hamilton in 2006 and work continued to complete this project in 2007. The purpose of this pilot project was to test technologies, systems and processes that would be required in a full deployment strategy.
- A meter management system was purchased to manage meter changes and data flow back to the CIS.
- Customer education materials were issued to all customers receiving a smart meter.
- Work management software and the necessary Personal Digital Assistance (PDA) were procured to simulate full deployment conditions.
- End to end testing of these implemented technologies was tested in 2006.

Results to Date

- All 7500 smart meters were installed on residential customer's homes.
- A small Web Presentment pilot was conducted to receive input and understand what customers wanted to be presented. Of the 100 customers solicited 22 took part in the pilot providing us with valuable input in designing a customer friendly web presentment tool.

- The smart meter pilot allowed us to prepare for mass deployment. The lessons learned about the Automated Metering Infrastructure allowed a smooth transition to mass deployment. Developing customer education tools and techniques helped with advancing the customer knowledge of smart meters and the important role they will play in the development of an energy savings culture in Ontario.

Next Steps
- Evaluate the effectiveness of the work management software and processes used in the smart meter pilot project.
- Continue on with smart meter full deployment strategy to residential customers in 2008 so that we are able to meet the goal of all residential customers receiving a smart meter by 2010.

3.1.3 Social Housing Program

Description

A province-wide centralized energy management service for the social housing sector may be developed in collaboration with the Provincial Government, utilities (e.g. Enbridge, Union Gas) and others.

A pilot program will be conducted to determine feasibility with an expectation that a full-scale provincial program would follow.

Target users

Local social housing corporations, non-profit homes, co-op housing and low-income housing.

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

- Action
- Horizon paid the final invoice to its service provider in 1st quarter 2007 for work completed on the Low Income housing program in 2006.

- Results to Date
- City of Hamilton Housing – handed out 475 conservation kits
- Victoria Park Community Homes – prescriptive incentive for over 7,055 light bulbs
- Niagara Regional Housing (Kenworth Acres Seniors Residence) – comprehensive conservation measures for 211 units under the prescriptive program design.
- Used the Horizon social housing prescriptive incentive guidelines for various 2006 social housing retrofit projects.
- Green Venture / Union Gas Low Income Housing Pilot Project – 39 audits

Next Steps
- Horizon to assist or direct low-income and social housing customers to Ontario Power Authority applicable conservation program initiatives.

3.2 Commercial, Industrial and Institutional (> 50 kW)

3.2.1 Energy Audits and Feasibility Studies

Description

The Energy Audits and Feasibility Studies program is being accomplished through the powerWISE® Energy Audit Incentive program. This program offers financial incentives to large customers for performing energy audits. Interested customers must submit an application along with the necessary documentation. All details for this program are available at www.horizonutilities.com.

Target users

Large customers with peak demand of at least 50 kW. This includes schools, large commercial facilities, institutional facilities, industrial facilities, and municipal facilities such as recreation centres, arenas, and libraries.

Benefits

Customers applying for the powerWISE® Energy Audit Incentive program can receive an incentive of up to $5,000. Customers performing feasibility studies may be eligible for higher monetary incentives.

Actions:

- Provided incentives to the City of Hamilton for an Energy Reduction Solutions Design Report. Within this report energy reduction solutions were recommended as part of the renovation plans for City Hall. The recommended measures would qualify the City Hall building for a LEED Silver certification.
- Core cooling plant chillers located in the central downtown district of Hamilton are reaching end of life. A feasibility study to centralize core-cooling plant was carried out. The findings reported estimated demand savings of 1400 kilowatts of demand savings could be achieved by implementing an upgraded centralized cooling plant strategy.
- Horizon assisted in funding studies for 5 arena facilities as part of the Toronto and Region Conservation Authority provincial study on arena facility energy use.

Results to Date:

- Received 5 powerWISE® Energy Audit Incentive applications as part of the arena facilities provincial study totaling a value of $19,000 worth of incentives
- Approved incentive of $12,100 to City of Hamilton for feasibility study to upgrade City Hall renovation design to a LEED standard.
- Core Cooling Plant Centralization feasibility study was funded by Horizon at a cost of $12,900.

Next Steps

- PowerWISE Energy Audit Incentive Program is completed now and Horizon will refer customers to the Electricity Retrofit Incentive Program

3.2.2 Smart Meter Program

Description

Horizon Utilities will conduct a pilot to test Elster Smart Meter/Interval Meter technology by Commercial, Industrial and Institutional customers. The pilot will test meter technology, WAN backhaul capabilities and the integration to our current meter data collection computer and customer information system (CIS). Meters were ordered in 2006 for installation of meters in 2007. It is Horizon's intent to leverage the current Elster EnergyAxis Mesh technology in conjunction with an effective WAN backhaul communication technology for this pilot

Target users

Commercial, Industrial and Institutional customers larger than 50 kW.

Benefits

This program supports the Minister of Energy's commitment to the installation of 800,000 SMART meters across Ontario by 2007. These meters are seen as an important means of establishing a 'conservation culture' in Ontario. Customers will be able to view their consumption patterns daily and be able to prepare their operation for future rate design. The Customer's ability to better understand the load profile and in conjunction with appropriate rate structures, will encourage customers to conserve or shift energy use.

Action

- Horizon Utilities 2006 expenditures in this program involved investigating cost effective communication technologies to be used for interval metering for customers >50 kW
- Ordering of Elster interval meters for a pilot project in 2006 was performed.

Results to Date

- Horizon has revised their conditions of service to reflect the requirement of interval metering for customers with >50kw demand.
- Installed 500 Elster Alpha 3 Interval meters on commercial customers services.
- All meter data collected from these meters through Elster EnergyAxis AMI, leveraging the existing smart meter hardware and software.
- Meter data is collected and transmitted to the Meter Acquisition Software (MAS) using wireless GPRS modems reducing the need and cost of plain old telephone lines.
- Internal web presentment tool for customers to access meter data was developed and ready for customer use.
- Through this pilot, Horizon was able to obtain significant knowledge and understanding of this technology to be able change out, with confidence all

Commercial and Industrial customer meters using the selected technology as meter seal expired while minimizing customer costs.

- By inviting our pilot customer participants to a breakfast meeting we were able to inform them of our progress with the pilot as well as provide information of the benefits of an interval meter over a traditional electro-mechanical meter. Customers will have the ability to view hourly meter data providing an understanding of their daily load consumption patterns. The take away from the meeting was that not only is there potential that an interval meter may save the customer money by being able to shift loads from on-peak times to off or mid-peak times, as customers they would be able to contribute in the reduction of green-house gases by shifting peak loads from peak time to off-peak times.

Next Steps

- As per Horizon's conditions of service installation of Interval Meters for customers will continue as required.

3.2.3 LED Retrofits for Traffic Lights

Description

This initiative supports the replacement of existing traffic signals at intersections with new light-emitting diode (LED) technology.

Target users
Municipalities
Benefits

This program results in significant energy savings since the LED technology uses approximately 80% less electricity. Other benefits include reduced maintenance (LED's last longer) and improved visibility.

Action

- The City of Hamilton established a 2007 budget for a large replacement of incandescent traffic lighting with LED technology. Horizon requested a transfer of funding to provide $85,000 worth of incentives to the City of Hamilton for this project
- An extension for this program till March 31st, 2008 was requested to ensure completion of the LED retrofit installations by the City of Hamilton and St. Catharines.

Results to Date

- The City of Hamilton installed LED traffic light technology at 413 intersections in 2007. This conversion of lighting resulted in a reduction of 401 kilowatts in demand and 3.5 million kWh in savings. An incentive of $85,000 was paid toward this project ($62,900 was paid in 2007 and the balance of $22,100. paid 1st Quarter 2008). Total capital costs of this Hamilton project were $1,809,500.
- The City of St. Catharines reported LED traffic light technology at 19 intersections in 2007. This conversion of lighting resulted in a reduction of 26.03 kilowatts in demand and 227,760 kWh of annual energy savings. An incentive of $18,000 was paid toward this project in March of 2008.

Next Steps

- No further activity is required for this program as all projects were completed.

3.2.4 Leveraging Energy Conservation and Load Management

3.2.4.1 powerWISE® Business Incentive Program

Description

Leveraging Energy Conservation is being accomplished through the powerWISE® Business Incentive Program. This program offers financial incentives to large customers for projects that improve electricity consumption and reduce peak demand. Interested customers must submit an application along with the necessary documentation. All details for this program are available on www.horizonutilities.com. All other CLD members are participating in this program.

There are two application paths for customers: prescriptive and custom. The prescriptive path is for common measures and lighting retrofits. The custom path offers flexibility for customers performing retrofits that do not fall under the prescriptive path, and requires that the project reduce peak demand by at least 10 kW.

Target Users

Large customers with peak demand of at least 50 kW. This includes schools, large commercial facilities, institutional facilities, industrial facilities, and municipal facilities like recreation centres, arenas, and libraries.

Benefits

Under the prescriptive path, customers receive pre-set incentives per retrofit performed. Under the custom path, customers receive $150 per kWh reduced. The maximum incentive to any one customer is $50,000.

Actions:

- Expanded program to include St. Catharines.
- Processed and organized applications.
- Performed post-installation inspections.
- Held cheque presentation event at Mohawk College.
- Updated information and application forms at www.horizonutilities.com.

Results to Date:

- Final payment of 9 powerWISE® Business Incentive Program applications in the total amount of $114,374 was completed in 2007. Of these applications 5 were prescriptive lighting in the amount of $73,607. The remaining 4 applications were custom $40,767.
- The custom applications resulted in a demand savings of 345 kW.

- The perscriptive project applications were not specific to demand savings, however the engineering report from the Mohawk Project stated that a peak demand savings of 270 kWh and annual energy savings 974,962 kWh was achieved from their lighting retrofit. The other applications could be estimated by dividing the perscriptive amount by $150 resulting in a demand savings of 157 kilowatts.
- Total 2007 peak kWh demand savings from this program is estimated at 772 kWh.

Next Steps
- Refer customers to the Ontario Power Authority Electricity Retrofit Incentive Program.

3.2.5 Load Control Initiative

Description

The Load Control Initiative materialized as the ***peaksaver™*** Pilot Program. It was officially launched in September of 2006.

This load control initiative involves the free installation of programmable thermostats (for central air conditioning) and load control switches (for electric water heaters and pool pumps). The devices (thermostats and switches) are being supplied by Cannon Technologies, while the service provider is Honeywell Utility Solutions. The target is 2000 points (approximately 2 MW), with 75% in Hamilton and 25% in St. Catharines. The control strategy will involve off/on cycling for air conditioning loads and complete shut-off for electric water heaters and pool pumps during the control period.

Target Users

Residential customers with consumption profiles indicative of the use of central air conditioning in the summer. Small commercial customers with small air conditioning units and electric water heaters.

Benefits

For customers who receive programmable thermostats, the benefits include free professional installation, ability to adjust the thermostat through the Internet, and call centre support. Customers who only receive a load control switch are given a $25 cheque, as an additional incentive.

For Horizon Utilities, this program provides a mechanism to reduce load during times of peak electricity demand in the Province of Ontario.

Actions:

- Horizon Utilities carried forward with the ***peaksaver™*** pilot in 2007
- Horizon Utilities developed an Emergency Load Response Program procedure and internal notification protocol.
- PeakSAVER devices were made available for the IESO – Emergency Load Reduction Program during the summer of 2007.
- Horizon Utilities participated in a monitoring and verification study with the Coalition of Large Distributors. Twenty Horizon Utilities' customers with ***peaksaver™*** devices and activated smart meters were chosen to participate in this study. Activations of the peakSAVER devices were performed at various temperatures.
- Program information posted on website at www.horizonutilities.com.
- Direct mail pieces mailed out to more than 80,000 customers.
- Newspaper and radio advertisements.

Results to Date:

The following devices were installed in 2007 under the ***peaksaver™*** pilot funded through third tranche MARR:

- 678 residential thermostats
- 19 Commercial thermostats
- 8 load control switches

Total results for this program to date are as follows:

- 1559 residential thermostats
- 19 commercial thermostats
- 8 load control switches

Next Steps

- Upon Horizon enrolling for the Ontario Power Authority program all remaining inventory was made available for the OPA program and outstanding appointments.
- Horizon Utilities is now active in enrolling customers in the OPA residential and small commercial demand response program.

3.3 Distribution Loss Reduction

Description

The Distribution Loss Reduction Program is a broad network based initiative to drive greater efficiencies within the distribution grid. This program will identify opportunities for system enhancements. Next steps will be to complete the engineering analysis and feasibility studies. Projects will be prioritized and selected based on the most attractive investment to results ratio. Items to be addressed may include, but are not limited to:

Power Factor Correction - Under the Power Factor Correction initiative, a power factor assessment will be completed which will identify locations for the installation of power factor correction capacitor banks. The results and available funding will determine which projects proceed.

Voltage Conversion - Voltage upgrades can save up to 90% of the losses associated with a feeder as higher voltages and lower current results in lower losses. This study will ascertain the locations and value of voltage conversions. This program could also involve changing out all the meters on a particular feeder to SMART Meters so that the exact losses can be determined.

Power System Load Balancing - This program is designed to ascertain where load shifting can occur within the grid to improve system efficiency including the location of optimized "open points". It is estimated that approximately 5% - 10% of system losses could be saved.

Voltage Profile Management - Changing voltage profiles at the distribution station level can result in a peak reduction at the controllable distribution stations. This is in addition to the IMO's voltage reduction program and will not interfere with the effectiveness of that program.

Line Loss Reductions - Replacement of conductors such as #6 AWG copper with #2 AWG aluminum can reduce line losses. An evaluation of where such opportunities exist may be undertaken. The results and available funding will determine which projects proceed.

Transformer and Other Losses – Using infrared scans of transformers this program will help to identify additional electricity losses including overloaded equipment. "Hot" transformers will be investigated further to determine operational improvement opportunities.

Target users

The results of this program will positively impact all of Horizon Utilities' customers.

Benefits

Reduced electricity distribution system delivery losses will reduce system demand, relieve network capacity to accommodate growth, and reduce the requirement for new generating capacity in the Province. Costs associated with distribution system delivery losses are recovered through electricity distribution charges. Reductions in these costs will therefore benefit all customers.

Action

- All funding was transferred out of this program and into Distributed Energy – Standby Generation, as per our letter of January 12, 2007.

Results to Date

- Horizon Utilities purchased an infrared camera to monitor for hot spots in the distribution network, as well as support investigation of lost revenue opportunities within the service territory.

Next Steps

- This program was closed off once the request for transfer of funding was sent to the OEB, Jan 12, 2007.

3.4 Distributed Energy

3.4.1 Load Displacement

Description

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

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

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

Target Users

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

Benefit

Benefits include additional capacity within the grid. Cleaner technologies result in reductions in Green House Gas (GHG) emissions. Other benefits include improved system reliability, reduced harmonics, back-up power possibilities, education and skills development.

Action

- Horizon Utilities partnered with the District School Board of Niagara to incent a standby generator load displacement pilot project.
- This pilot project will assist the District School Board of Niagara in becoming a participant in the Ontario demand response program offerings.

Results to Date

- District School Board of Niagara installed a 400 Kilowatt standby generator at their headquarters 191 Carlton Street St. Catharines. This generator was commissioned for operation December 15, 2007.
- Letter of understanding from the DSBN was received Sept. 26, 2007 indicating their intention to enter into a pilot demand response CDM agreement with Horizon Utilities.

Next Steps

- Preparations for the District School Board of Niagara to become a demand response participant will be made conditional upon their receipt of the conditions of authorization from the Ministry of Environment and executed operating agreement with Horizon Utilities.

3.4.2 Stand-by Generators

Description

This program may provide for the use of customers' existing standby generators when required and/or economical. Environmentally friendly generators will be the primary focus of this initiative however all generators may be considered if needed during an emergency.

Target Users

Commercial and industrial customers with sufficiently sized standby generators.

Benefits

Reduction of customer and system peak demand and energy costs. This additional supply may be able to bid into the Ontario energy market in the future.

Action

- Horizon Utilities requested a transfer of its capital funds to this program by way of the January 12th, 2007 letter to the OEB.
- Horizon Utilities is carried out installation new standby generators in both the John Street and Vansickle Road locations. Operational control will be performed through the John Street Control Centre.
- Horizon Utilities installed new natural gas fired standby generators in both the John Street (2x375kWh) and Vansickle Road locations (1x375kWh). Operational control of these generators can be performed either locally through the local control room or remotely through the John Street Control Centre.

- Horizon Utilities installed standby generators at all major facilities to enhance system reliability, but also to participate in the Provincial Emergency Load Response Plan (ELRP) and provide leadership in demand management.

Results to Date

- Developed and issued an RFP to seek related project proposals.
- Assigned Toromont CAT as the main contractor in April 2007.
- Applied for a transfer of CDM funds to finance the John Street and Vansickle Road projects
- Completed the system design and structural review in September 2007.
- Building permit received in October 2007.
- Environmental impact assessment completed in October 2007.
- Site mobilization in October 2007.
- Generators delivered and installed on both sites in November 2007.
- Commissioning at John St completed in December 2007.
- Commissioning at Vansickle Rd completed in Feb 2008 (unexpected vermiculite abatement process and gas supply upgrade)
- Environmental CoA submitted in Dec. 2007
- Generators on both sites are in service.

Next Steps

- Receive the CoA from Ministry of the Environment
- Participate in the ELRP

4. Lessons Learned

Horizon Utilities has built numerous relationships during the design and delivery of quality conservation and demand management programs to our customers. The members of the Coalition of Large Distributors (Toronto Hydro, Hydro Ottawa, Horizon Utilities, Veridian, Enersource Hydro Mississauga and Powerstream) have been a provincial focal point by working collectively on many of these conservation initiatives. Horizon has also connected with community partners, and has used these resources to achieve impressive results.

Many lessons have been learned along the way, including:

Program Development

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

- Conservation opportunities exist with residential and small commercial customers. However, getting this effective message to the target audience can be challenging. Specific examples of conservation measures that are clear and relate directly to that customer's needs help to increase participation.

- Working together with other LDC's to expand a program offering can maximize program effectiveness through cross-jurisdictional advertising and reduce overall costs. An example was the peakSAVER Program that was implemented in partnership with the CLD.

- LDCs have demonstrated that they are the most effective channel to their customers for conservation programs. Customers have grown to depend on their local distributor for conservation support, advise and programs. This is critical to minimizing customer confusion while maximizing brand equity, cost effectiveness and conservation results.

- The powerWISE® brand is one of the most recognized conservation brands in Ontario. Horizon Utilities customers look for this trusted symbol to identify conservation opportunities. During 2007 the Ministry of Energy also promoted the powerWISE® name extensively through the Dr. David Suzuki ads. This enhanced the image of Horizon Utilities' programs and the efforts of other CLD members that were also using the brand.

- Commercial Load Control (Demand Response) and Distributed Energy programs piloted as part of the CDM plan show great promise as a means of reducing electricity system demand but require considerable time and effort to overcome customer implementation barriers. Customer revenues provided by these programs have to address the financial realities that customers face in making this capacity available.

- Each LDC has unique markets, resources and needs requiring a range of diverse and individual strategies and tactics that can be customized for successful local CDM

program implementation. Providing communities with a variety of provincial OPA programs, in conjunction with custom LDC programs, makes good strategic sense.

- Horizon found that simple, low cost incentives like the powerWISE® Power Pack or free CFL bulbs were very well received by residential customers, offered good Total Resource Cost ("TRC") results and proved that customers did not require significant incentives to participate in programs. In fact, ease of participation accompanied by moderate incentives with a perceived high value to customers appear to be the hallmarks of program success. Demonstrating sample measures at community events is an engaging experience for customers that they are likely to share with others.

- Our powerWISE® for Business Incentive Program revealed that Commercial and Industrial customer timelines for conservation retrofit projects are usually longer then Horizon Utilities expected and have a lower sense of urgency then Horizon Utilities would prefer. Incentives have to be very meaningful, in order to encourage and speed up conservation projects at this level. For example, in 2006, seventeen applications were received and only two of the projects were completed and thus received PBIP incentives.

- Commercial Programs must address the needs of the customers at the corporate, Municipal, Provincial and National levels to allow implementation across jurisdictions and beyond individual stores. Coordination and consistency is required to allow large Corporations to make programs available to all store locations regardless of location by City or Province.

Education

- Public education and energy audits are important as Horizon Utilities builds a culture of conservation. Yet under the current reporting format, no reportable benefits can be attributed to these activities. This effectively penalizes utilities from participating in these worthwhile and necessary initiatives. Energy audits also provide an opportunity to educate customers on what effective measures can be taken to save energy.

- As Horizon Utilities develops a conservation culture in Ontario, Horizon Utilities must continue to balance the need for short-term results while fostering a long-term conservation attitude among the citizens and businesses in the province. If fostering conservation is to become a sustainable entity in Horizon Utilities' business portfolio, a stable, risk-averse methodology for funding must exist.

- Residential customers are generally aware of the simple products and initiatives that are available to help them to reduce their energy consumption. However, they have a limited understanding of the dollar impact and quick return provided by these simple solutions such as pipe wrap, SLED's and CFL bulbs. It is critical to educate our customers and to provide a savings comparison in dollars to highlight these impacts. A variety of case studies would be an effective means to achieve customer awareness. Real time, in home, energy monitors offer customers an effective tool to better understand and manage their consumption, particularly when time of use pricing comes into effect.

- Introduction of more complicated programs such as the residential demand response program peakSAVER requires customer education to gain acceptance and understanding of its importance. Cooperation to ensure that installed resources are used effectively in a manner that is prudent in reducing consumer costs and reinforces the benefit of customer enrolment in demand response. In 2007 peakSAVER devices were not officially called upon to operate as part of the IESO ELRP. Dispatched imported power requirements could be mitigated by calling on demand response capability as a measure.

- Through a customer focus group, Horizon Utilities learned that its larger Commercial and Industrial customers want direct customer contact on matters relating to energy conservation and emerging technologies. It is important to offer Commercial and Industrial customers access to information through convenient forums such as workshops and trade shows. The LDC can play a role by introducing service providers to customers. Relying on current customer contacts in the billing database will not always produce the appropriate contact that manages facility energy use. Using a dedicated Horizon Utilities resource to address energy conservation needs of larger industrial, commercial and MUSH sector customers will lead to increased participation and adoption of energy efficient technologies.

- Horizon Utilities' sponsorship of the Generation Conservation grade 5 curriculum and development of the powerWISE Home - "Power for Tomorrow" conservation model are steps taken to build a new generation of conservation savvy citizens. Introducing this curriculum to four school boards in two municipalities through teacher workshops has been well received.

Regulatory Issues

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

- The energy industry must coordinate the individual efforts of its many organizations to ensure that program delivery is efficient, readily available and understood by all customers. Most customers don't understand the relationship between the various organizations within the hydro industry, so an attempt to deliver programs to the end customer by these different organizations only confuses the customer and suggests a lack of industry coordination. Clarity regarding the roles of the LDC, OEB, OPA, and the IESO would be beneficial in this regard.

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

- OEB's new proposed CDM regulatory structure deals with pilots and it is recommended that it should also consider adding a separate R&D process to

support program development. This would encourage development of new ideas and control any potential risks involving new technologies.

- As a deregulated industry with shareholders, it is worth remembering that LDC shareholders expect some remuneration from CDM. All programs must balance the needs of market transformation and sustainability with a consistent rate of return.

- Finally, we must strive to streamline the LDC's administrative reporting efforts where possible. Reporting requirements must be consistent and applicable to all participants thereby removing regulatory duplication.

5. Conclusions

Horizon Utilities has embraced its role of implementing CDM programs to our customers. In doing so many new relationships were formed and a renewed focus on bringing value to our customers. Flexibility in adapting to customer demands and gaining understanding of new regulatory requirements around the business of CDM evolved. Plan and budget adjustments were required by Horizon Utilities to finalize the completion of its CDM plans within the budget allowed.

Energy Savings results delivered by Horizon Utilities programs in 2007 were 6.5 million kWh in energy savings reflective of the activities in winding down the various programs in anticipation of the OPA core program offerings.

Appearing at over 28 community events last year, Horizon Utilities offered a unique opportunity to engage over 50 staff volunteers in learning about conservation measures, then extending this knowledge and leadership to the public. An addition of the smart meter display has proven useful in preparing customers for time-of-use rates and introducing conservation concepts that will allow them to seek cost savings when those rates take effect. Demand for Horizon Utilities to appear at community events is growing as the public demands more information about energy efficiency measures and assistance through CDM programs.

Increasing awareness about key conservation concepts, including consumption (kWh), demand (kWh) and underling reasons for Ontario's CDM campaign has been challenging both internally and externally. Internally, the Conservation Champions Committee brings the message to each department. Externally, this message is shared with the community at events, programs and media channels.

The activities around Distributed Energy completed by Horizon Utilities in 2007 are aimed at providing leadership in demand response capabilities. Assisting customers to achieve demand and energy reduction is a role that Horizon Utilities can play an integral part going forward.

Horizon Utilities is very proud to be filing our 2007 Annual Conservation and Demand Management report that documents the completion of all projects and budget associated with the 3rd Tranche MARR.

Lastly Horizon Utilities is currently playing an active role in assisting the Province to meet the Conservation and Demand Management targets set out in the Integrated Power System Plan. Our customers are the reason we exist and they are pleased with Horizon's role in delivery of programs that meet their needs. Horizon is reviewing second-generation opportunities to carry this message further using established relationships with the CLD, Ontario Power Authority, NEPA, other LDC's and our local community partners.

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
Net TRC value ($):	*$ 10,929,364*	**$ 82,229**	**$ (93,776)**	**$ (654,966)**	**$ 1,464,988**	**$ -**	**$ -**	**$ -**		**$ (422,970)**	**$ -**
Benefit to cost ratio:	*2.31*	*1.01*	0.54	0.82	2.08	0.00	0.00	0.00		0.60	0.00
Number of participants or units delivered:	*335,194*	*19,227*	2,250	16,564	413						
Lifecycle (kWh) Savings:	*302,662,042*	*117,843,188*	1,887,295	29,929,568	86,026,325	0	0	0		0	0
Report Year Total kWh saved (kWh):	*40,780,228*	*6,499,297*	341,700	3,539,404	2,618,193	0	0	0		0	0
Total peak demand saved (kW):	*4,652*	*2,275*	26	1,163	299	0	0	0		788	0
Total kWh saved as a percentage of total kWh delivered (%):	*0.26%*	0.12%	0.01%	0.06%	0.05%						
Peak kW saved as a percentage of LDC peak kW load (%):		1.95%	0.02%	0.99%	0.26%						
[1] *Report Year Gross C&DM expenditures ($):*	*$ 7,050,246*	$ 2,420,635	$ 186,800	$ 687,813	$ 63,257	$ -	$ -	$ 5,208	$ 129,910	$ 1,136,600	$ -
[2] *Expenditures per KWh saved ($/kWh):*	*$ 0.17*	$ 0.02	$ 0.10	$ 0.02	$ 0.00	$ -	$ -	$ -		$ -	$ -
[3] *Expenditures per KW saved ($/kW):*	*$ 1,515*	$ 1,063.87	$ 7,094.57	$ 591.63	$ 211.63	$ -	$ -	$ -		$ 1,443.30	$ -

Utility discount rate (%):	6.28

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Co-Branded Mass Markets

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

This flagship co-branded mass-market program (powerWISE®) is a multifaceted approach to fostering the conservation culture in Ontario. Through development of a significant cooperative effort among six of the largest municipal LDC's, this program has become aligned with specific initiatives such as Compact Fluorescent Lighting (CFL) change out programs, LED Christmas Light Exchanges, Energy Star, Multi Choice, energy audits, hot water heater blanket wraps, school based education and a host of other programs aimed at providing customers with the tools and education needed to reduce their energy usage. Access to online services such as energy consumption calculators, an energy expert and personalized energy audit services are being considered as future components of this program.

Measure(s):

	EBilling	OPA EKC	Measure 3 (if applicable)
Base case technology:	Incandescent Bulb and Average Standard Stock Showerhead	Do Nothing, Incandescent Bulbs	
Efficient technology:	13 Watt CFL, Low Flow Showerhead	CFLs, Ceiling Fan, Dimmer Switch, Outdoor Motion Sensor, Outdoor Solar Lights and Furnace Filter	
Number of participants or units delivered for reporting year:	1,048 CFLs, 524 Showerheads	3,282 CFLs, 287 ceiling fans, 309 motion detectors, 204 dimmer switchs, 1,626 outdoor solar lights and 561 furnace filters	
Measure life (years):	Showerhead - 7 years	1 to 10 years	
Number of Participants or units delivered life to date	3,732	149,760	

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	*$ 109,753.00*	$ 10,876,219.00
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	*$ 176,356.00*	$ 998,188.00
Incremental Measure Costs (Equipment Costs)	$ 27,173.00	$ 767,445.00
Total TRC costs:	$ 203,529.00	$ 1,765,633.00
Net TRC (in year CDN $):	-$ 93,776.00	$9,110,586.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	$ 0.54	6.16

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	*Summer*	26.33	1,595
	Winter	n/a	n/a

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*1,887,295*	341,700	147,872,423	26,560,398
Other resources saved :				
Natural Gas (m3):				
Other (specify):	88,472	12,639	2,208,673	314,153

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):			
	lifecycle	*in year*	
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:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ 48,919.00	$ 117,874.00
	Incremental O&M:	$ 127,437.00	$ 1,049,245.00
	Incentive:	$ -	$ -
	Total:	$ 176,356.00	$ 1,167,119.00
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

This promotion encouraged customers to Go Paperless with Horizon by adopting e-billing and pre-authorized automatic billing. The incentives included:

o For customers that adopt the e-billing services, a donation to support a local tree-planting initiative
o Customers that select both options will receive a conservation kit.
o The Ebilling Program is continuing on without the offering of conservation kits.
o No further action will be taken with respect to the conservation offering in conjunction with this project.

[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:** Leveraging Conservation and/or Load Management

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

Description:
Leveraging Energy Conservation is being accomplished through the powerWISE® Business Incentive Program. This program offers financial incentives to large customers for projects that improve electricity consumption and reduce peak demand. Interested customers must submit an application along with the necessary documentation. All details for this program are available on www.horizonutilities.com. All other CLD members are participating in this program.

There are two application paths for customers: prescriptive and custom. The prescriptive path is for common measures and lighting retrofits. The custom path offers flexibility for customers performing retrofits that do not fall under the prescriptive path, and requires that the project reduces peak demand by at least 10 kW.

Target Users:
Large customers with peak demand of at least 50 kW. This includes schools, large commercial facilities, institutional facilities, industrial facilities, and municipal facilities like recreation centres, arenas, and libraries.

Benefits:
Under the prescriptive path, customers receive pre-set incentives per retrofit performed. Under the custom path, customers receive $150 per kW reduced. The maximum incentive to any one customer is $50,000.

Measure(s):

	PBIP - Prescriptive		Measure 3 (if applicable)
Base case technology:	Existing Lighting		
Efficient technology:	Energy Efficient Lighting		
Number of participants or units delivered for reporting year:	16,539 Prescriptive Measures and 5 Custom Projects		
Measure life (years):	2 to 25 years		
Number of Participants or units delivered life to date	16,547		

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ *1,172,465.00*	$ 1,222,936.00
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ *128,878.00*	$ 130,188.00
Incremental Measure Costs (Equipment Costs)	$ 2,738,027.00	$ 2,824,416.00
Total TRC costs:	$ 2,866,905.00	$ 2,954,604.00
Net TRC (in year CDN $):	-$ 1,694,440.00	-$ 1,731,668.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	$ 0.41	0.41

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

			Cumulative Results:	
Conservation Programs:				
Demand savings (kW):	*Summer*	463.08		493
	Winter	n/a		n/a
	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*14,784,287*	2,905,651	15,389,999	3,107,555
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):				
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):			
	lifecycle	*in year*	
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:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ -	$ -
	Incremental O&M:	$ 14,503.45	$ 936,311.45
	Incentive:	$ 114,374.55	$ 114,374.55
	Total:	$ 128,878.00	$ 1,050,686.00
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

o Final payment of 9 powerWISE® Business Incentive Program applications in the total amount of $114,374 was completed in 2007. Of these applications 5 were prescriptive lighting in the amount of $73,607. The remaining 4 applications were custom $40,767.
o The custom applications resulted in a demand savings of 345 kW.
o The perscriptive project applications were not specific to demand savings. However the engineering report from the Mohawk Project stated that a peak demand savings of 270 kW and annual energy savings 974,962 kwhrs, was achieved from their lighting retrofit. The other applications could be estimated by dividing the perscriptive amount by $150 resulting in a demand savings of 157 kilowatts.
o Total 2007 peak kW demand savings from this program is estimated at 772 kW.

[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:** Load Control Initiative

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

Description:
The Load Control Initiative materialized as the peaksaver™ Pilot Program. It was officially launched in September of 2006.

This load control initiative involves the free installation of programmable thermostats (for central air conditioning) and load control switches (for electric water heaters and pool pumps). The devices (thermostats and switches) are being supplied by Cannon Technologies, while the service provider is Honeywell Utility Solutions. The target is 2000 points (approximately 2 MW), with 75% in Hamilton and 25% in St. Catharines. The control strategy will involve off/on cycling for air conditioning loads and complete shut-off for electric water heaters and pool pumps during the control period.

Target Users:
Residential customers with consumption profiles indicative of the use of central air conditioning in the summer. Small commercial customers with small air conditioning units and electric water heaters.

Benefits:
For customers who receive programmable thermostats, the benefits include free professional installation, ability to adjust the thermostat through the Internet, and call centre support. Customers who only receive a load control switch are given a $25 cheque, as an additional incentive.

For Horizon Utilities, this program provides a mechanism to reduce load during times of peak electricity demand in the Province of Ontario.

Measure(s):

	Peaksaver	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	Do Nothing		
Efficient technology:	Utility Controlled Relay with Programmable Thermostat		
Number of participants or units delivered for reporting year:	705		
Measure life (years):	18 years		
Number of Participants or units delivered life to date	1,586		

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ 803,245.00	$ 1,663,343.00
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 453,786.00	$ 737,069.00
Incremental Measure Costs (Equipment Costs)	$ -	$ -
Total TRC costs:	$ 453,786.00	$ 737,069.00
Net TRC (in year CDN $):	$ 349,459.00	$ 926,274.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	$ 1.77	2.26

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	*Summer*	419.5	549
	Winter	n/a	n/a

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*1,796,281*	99,793.00	4,066,759	225,930
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):			
	lifecycle	*in year*	
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:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ 363,916.00	$ 577,320.00
	Incremental O&M:	$ 62,195.00	$ 148,274.00
	Incentive:	$ 27,675.00	$ 27,675.00
	Total:	$ 453,786.00	$ 753,269.00
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

o Upon Horizon enrolling for the Ontario Power Authority program all remaining inventory was made available for the OPA program and outstanding appointments.
o Horizon is now active in enrolling customers in the OPA residential and small commercial demand response 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:** LED Traffic Lights

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

Description:
This initiative supports the replacement of existing traffic signals at intersections with new light-emitting diode (LED) technology.

Target users:
Municipalities

Benefits:
This program results in significant energy savings since the LED technology uses approximately 80% less electricity. Other benefits include reduced maintenance (LED's last longer) and improved visibility.

Measure(s):

	LED Traffic Lights	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	Average Standard Stock		
Efficient technology:	LED		
Number of participants or units delivered for reporting year:	413 locations		
Measure life (years):	23		
Number of Participants or units delivered life to date	434		

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ *2,815,425.79*	$ 2,979,669.79
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ *357.00*	$ 357.00
Incremental Measure Costs (Equipment Costs)	$ 1,350,081.00	$ 1,350,081.00
Total TRC costs:	$ 1,350,438.00	$ 1,350,438.00
Net TRC (in year CDN $):	$ 1,464,987.79	$1,629,231.79
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	$ 2.08	2.21

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	*Summer*	298.9	316
	Winter	n/a	n/a

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*86,026,325*	2,618,193	89,396,537	2,765,808
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):			
	lifecycle	*in year*	
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:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ -	$ -
	Incremental O&M:	$ 357.00	$ 357.00
	Incentive:	$ 62,900.00	$ 65,705.00
	Total:	$ 63,257.00	$ 66,062.00
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

o The City of Hamilton installed LED traffic light technology at 413 intersections in 2007. This conversion of lighting resulted in a reduction of 401 (gross) kilowatts in demand and 3.5 million (gross) kwhrs in savings. An incentive of $85,000 was paid toward this project ($62,900 was paid in 2007 and the balance of $22,100 paid 1st QTR 2008). Total capital costs of this Hamilton project was $1,809,500.

o The City of St. Catharines reported LED traffic light technology at 19 intersections in 2007. This conversion of lighting resulted in a reduction of 26.03 kilowatts in demand and 227,760 kwhrs of annual energy savings. An incentive of $18,000 was paid toward this project in March of 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:** Distributed Energy

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

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

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

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

Target Users:
Commercial, industrial, and residential, schools, colleges and universities.

Benefit:
Benefits include additional capacity within the grid. Cleaner technologies result in reductions in Green House Gas (GHG) emissions. Other benefits include improved system reliability, reduced harmonics, back-up power possibilities, education and skills development.

Measure(s):

	Load Displacement	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	Do nothing		
Efficient technology:	Load Displacement Generator		
Number of participants or units delivered for reporting year:	1		
Measure life (years):	25		
Number of Participants or units delivered life to date	1		

B. **TRC Results:**

		Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*		*$ 1,030,489.00*	
[2] *TRC Costs ($):*			
Utility program cost (excluding incentives):		*$ 274.00*	
Incremental Measure Costs (Equipment Costs)		$ 340,200.00	
Total TRC costs:		$ 340,474.00	
Net TRC (in year CDN $):		$ 690,015.00	
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		$ 3.03	

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	*Summer*	280	280
	Winter	n/a	n/a

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*13,349,000*	533,960	13,349,000	533,960
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):			
	lifecycle	*in year*	
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:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ -	$ -
	Incremental O&M:	$ 274.00	$ 274.00
	Incentive:	$ 50,000.00	$ 50,000.00
	Total:	$ 50,274.00	$ 50,274.00
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

District School Board of Niagara installed a 400 Kilowatt standby generator at their headquarters 191 Carlton Street St. Catharines. This generator was commissioned for operation October 2007.

Preparations for the District School Board of Niagara to become a demand response participant will be finalized upon final receipt of their Conditions of Authorization.

[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:** Stand By Generators

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

Description:
This program may provide for the use of customers' existing standby generators when required and/or economical. Environmentally friendly generators will be the primary focus of this initiative however all generators may be considered if needed during an emergency.

Target Users:
Commercial and industrial customers with sufficiently sized standby generators.

Benefits:
Reduction of customer and system peak demand and energy costs. This additional supply may be able to bid into the Ontario energy market in the future.

Measure(s):

	Stand By Generator	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	Do nothing		
Efficient technology:	Natural Gas Generator		
Number of participants or units delivered for reporting year:	3		
Measure life (years):	25		
Number of Participants or units delivered life to date	3		

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ 642,548.00	
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ -	
Incremental Measure Costs (Equipment Costs)	$ 1,065,518.00	
Total TRC costs:	$ 1,065,518.00	
Net TRC (in year CDN $):	-$ 422,970.00	
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	$ 0.60	

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	*Summer*	787.5	788
	Winter	n/a	n/a

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	-	-	-	-
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):			
	lifecycle	*in year*	
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:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ -	$ -
	Incremental O&M:	$ -	$ -
	Incentive:	$ 1,136,600.00	$ 1,136,600.00
	Total:	$ 1,136,600.00	$ 1,136,600.00
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

o Developed and issued an RFP to seek related project proposals.
o Assigned Toromont CAT as the main contractor in April 2007.
o Applied for a transfer of CDM funds to finance the John Street and Vansickle Road projects
o Completed the system design and structural review in September 2007.
o Building permit received in October 2007.
o Environmental impact assessment completed in October 2007.
o Site mobilization in October 2007.
o Generators delivered and installed on both sites in November 2007.
o Commissioning at John St completed in December 2007.
o Commissioning at Vansickle Rd completed in Feb 2008 (unexpected vermiculite abatement process and gas supply upgrade)
o Environmental CoA submitted in Dec. 2007
o Generators on both sites are in service.

Next Steps
o Receive the CoA from Ministry of the Environment
o Participate in the ELRP

[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 C - Program and Portfolio Totals

Report Year:

1. Residential Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
Co-Branded Mass Market Program	$ 109,753	$ 203,529	-$ 93,776	0.54	341,700	1,887,295	26.33	$ 176,356
Energy Audit Program	$ -	$ -	$ -	0.00	0	0	0	$ -
Social Housing Program	$ -	$ -	$ -	0.00	0	0	0	$ 10,444
Name of Program D			$ -	0.00				
Name of Program E			$ -	0.00				
Name of Program F			$ -	0.00				
Name of Program G			$ -	0.00				
Name of Program H			$ -	0.00				
Name of Program I			$ -	0.00				
Name of Program J			$ -	0.00				
***Totals App. B - Residential**	$ 109,753	$ 203,529	-$ 93,776	0.54	341,700	1,887,295	26	$ 186,800
Residential Indirect Costs not attributable to any specific program	→	$ -						
Total Residential TRC Costs		$ 203,529						
****Totals TRC - Residential**	**$ 109,753**	**$ 203,529**	**-$ 93,776**	**0.54**				

2. Commercial Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
Energy Audits & Feasibility Studies	$ -	$ -	$ -	0.00	0	0	0	$ 54,875
Load Displacement	$ 1,030,489	$ 340,474	$ 690,015	3.03	533,960	13,349,000	280	$ 50,274
Leveraging Energy Conservation and/or Load Management Programs	$ 1,172,465	$ 2,866,905	-$ 1,694,440	0.41	2,905,651	14,784,287	463	$ 128,878
Load Control Initiative	$ 803,245	$ 453,786	$ 349,459	1.77	99,793	1,796,281	420	$ 453,786
Name of Program E			$ -	0.00				
Name of Program F			$ -	0.00				
Name of Program G			$ -	0.00				
Name of Program H			$ -	0.00				
Name of Program I			$ -	0.00				
Name of Program J			$ -	0.00				

***Totals App. B - Commercial**	$ 3,006,199	$ 3,661,165	-$ 654,966	0.82	3,539,404	29,929,568	1,163	$ 687,813
Commercial Indirect Costs not attributable to any specific program	→							
Total TRC Costs		$ 3,661,165						
****Totals TRC - Commercial**	**$ 3,006,199**	**$ 3,661,165**	**-$ 654,966**	**0.82**				

3. Institutional Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
LED Traffic Lights	$ 2,815,426	$ 1,350,438	$ 1,464,988	2.08	2,618,193	86,026,325	299	$ 63,257
Name of Program B			$ -	0.00				
Name of Program C			$ -	0.00				
Name of Program D			$ -	0.00				
Name of Program E			$ -	0.00				
Name of Program C			$ -	0.00				
Name of Program G			$ -	0.00				
Name of Program H			$ -	0.00				
Name of Program I			$ -	0.00				
Name of Program J			$ -	0.00				
***Totals App. B - Institutional**	$ 2,815,426	$ 1,350,438	$ 1,464,988	2.08	2,618,193	86,026,325	299	$ 63,257
Institutional Indirect Costs not attributable to any specific program	→							
Total TRC Costs		$ 1,350,438						
****Totals TRC - Institutional**	**$ 2,815,426**	**$ 1,350,438**	**$ 1,464,988**	**2.08**				

4. Industrial Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
Name of Program A			$ -	0.00				
Name of Program C			$ -	0.00				
Name of Program C			$ -	0.00				
Name of Program D			$ -	0.00				
Name of Program E			$ -	0.00				
Name of Program F			$ -	0.00				
Name of Program G			$ -	0.00				
Name of Program H			$ -	0.00				

Name of Program I			$ -	0.00				
Name of Program J			$ -	0.00				
***Totals App. B - Industrial**	$ -	$ -	$ -	0.00	0	0	0	$ -
Industrial Indirect Costs not attributable to any specific program →								
Total TRC Costs		$ -						
****Totals TRC - Industrial**	**$ -**	**$ -**	**$ -**	**0.00**				

5. Agricultural Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
Name of Program A			$ -	0.00				
Name of Program C			$ -	0.00				
Name of Program C			$ -	0.00				
Name of Program D			$ -	0.00				
Name of Program E			$ -	0.00				
Name of Program F			$ -	0.00				
Name of Program G			$ -	0.00				
Name of Program H			$ -	0.00				
Name of Program I			$ -	0.00				
Name of Program J			$ -	0.00				
***Totals App. B - Agricultural**	$ -	$ -	$ -	0.00	0	0	0	$ -
Agricultural Indirect Costs not attributable to any specific program →								
Total TRC Costs		$ -						
****Totals TRC - Agricultural**	**$ -**	**$ -**	**$ -**	**0.00**				

6. LDC System Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
Distribution Loss Reduction	$ -	$ -	$ -	0.00	0	0	0	$ 5,208
Name of Program B			$ -	0.00				

Name of Program C			$ -	0.00				
Name of Program D			$ -	0.00				
Name of Program E			$ -	0.00				
Name of Program F			$ -	0.00				
Name of Program G			$ -	0.00				
Name of Program H			$ -	0.00				
Name of Program I			$ -	0.00				
Name of Program C			$ -	0.00				
***Totals App. B - LDC System**	$ -	$ -	$ -	0.00	0	0	0	$ 5,208
LDC System Indirect Costs not attributable to any specific program →		-						
Total TRC Costs		$ -						
****Totals TRC - LDC System**	**$ -**	**$ -**	**$ -**	**0.00**				

7. Smart Meters Program

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

Report Year Gross C&DM Expenditures ($) →	129,910

8. Other #1 Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
Stand-by Generators	$ 642,548	$ 1,065,518	-$ 422,970	0.60	0	0	788	$ 1,136,600
Name of Program B				0.00	0	0	0	
Name of Program C			$ -	0.00				
Name of Program D			$ -	0.00				
Name of Program E			$ -	0.00				
Name of Program F			$ -	0.00				
Name of Program G			$ -	0.00				
Name of Program H			$ -	0.00				
Name of Program I			$ -	0.00				
Name of Program J			$ -	0.00				
***Totals App. B - Other #1**	$ 642,548	$ 1,065,518	-$ 422,970	0.60	0	0	788	$ 1,136,600
Other #1 Indirect Costs not attributable to any specific program →		-						
Total TRC Costs		$ 1,065,518						
****Totals TRC - Other #1**	**$ 642,548**	**$ 1,065,518**	**-$ 422,970**	**0.60**				

9. Other #2 Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
Name of Program A			$ -	0.00				
Name of Program B			$ -	0.00				
Name of Program C			$ -	0.00				
Name of Program D			$ -	0.00				
Name of Program E			$ -	0.00				
Name of Program C			$ -	0.00				
Name of Program G			$ -	0.00				
Name of Program H			$ -	0.00				
Name of Program I			$ -	0.00				
Name of Program J			$ -	0.00				
***Totals App. B - Other #2**	$ -	$ -	$ -	0.00	0	0	0	$ -
Other #2 Indirect Costs not attributable to any specific program	→							
Total TRC Costs		$ -						
****Totals TRC - Other #2**	**$ -**	**$ -**	**$ -**	**0.00**				

LDC's CDM PORTFOLIO TOTALS

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
***TOTALS FOR ALL APPENDIX B**	$ 6,573,926	$ 6,280,650	$ 293,276	1.05	$ 6,499,297	$ 117,843,188	$ 2,275	$ 2,420,635
*Any **other** Indirect Costs not attributable to any specific program*		$ 211,047						
TOTAL ALL LDC COSTS		$ 6,491,697						
****LDC' PORTFOLIO TRC**	$ 6,573,926	$ 6,491,697	$ 82,229	1.01				

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

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

Appendix 4

2008 Annual Report

Horizon Utilities Corporation

Conservation and Demand Management

2008 Annual Report

Ontario Energy Board File No. RP-2004-0203
Distribution License ED-2006-0031

March 31, 2009

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1. Introduction

On December 10, 2004 the Ontario Energy Board ("Board") issued its oral decision in the RP-2004-0203 proceeding, with respect to six (6) applications filed by the Coalition of Large Distributors ("CLD") comprising of Enersource Hydro Mississauga, Horizon Utilities Corporation, Hydro Ottawa Limited, PowerStream Inc., Toronto Hydro-Electric System Limited and Veridian Connections.

As part of that proceeding, Horizon Utilities filed two separate Conservation and Demand Management Plans with the OEB for the former Hamilton Hydro Inc. (HHI) RP-2004-0203 / EB-2004-0488 and St. Catharines Hydro Utility Services Inc. (SCHUSI) RP-2004-0203 / EB-2004-0523. On November 7, 2006, Board staff agreed with Horizon's recommendation to account for CDM spending on a consolidated basis under the single Distribution License No. ED-2006-0031.

The Board's RP-2004-0203 decision also indicated that annual reporting "should be done on a calendar year and should be filed with the Board no later than March 31st of the following year" and would be subject to a public review. On December 21, 2005 the Board issued a Guideline for Annual Reporting of CDM Initiatives that explained the detailed requirements. Horizon Utilities has submitted previous annual CDM reports based on those Board guidelines.

On February 12, 2007 Horizon Utilities submitted a request to the Board to transfer funds between programs. Included in this request was a deadline extension for the Standby Generation and LED Traffic Light Retrofit programs until March 31, 2008.

In a letter issued February 2, 2009 all licensed electrical distributors the Board updated the annual reporting requirements of CDM funded under 3rd Tranche of MARR. Although Horizon Utilities had finalized and completed all of its CDM programs in 2007, the activities carried out by in 2008 were intended to finalize the commitments to the projects funded through 3rd Tranche Market Adjusted Revenue Requirement (MARR). Given the completion of 3rd Tranche CDM activities in 2007, this 2008 CDM report provides a synopsis of CDM activities undertaken in 2005, 2006, and 2007.

Throughout these 3rd Tranche CDM activities, Horizon Utilities has demonstrated the ability to deliver conservation programs in a resourceful and cooperative manner. Important partners, including the CLD, NEPA, OPA, local gas distributors and local community groups, enhanced the efforts of the Horizon Utilities CDM team. Horizon Utilities is committed to helping the government build a sustainable long-term conservation culture in Ontario.

Horizon Utilities 3rd Tranche program implementation activities spanned a broad array of customers segments and program designs. Program activity highlights include:

- Established the powerWISE® brand and web site www.powerwise.ca along with the CLD in 2005. In 2006, Horizon added a customer link from the powerWISE site to Horizon Utilities website.

- Launched the "Lighten Your Electricity Bill" program, an initiative in which all of Horizon's 208,000 residential customers received money-saving coupons through bill inserts, redeemable at Canadian Tire for in-store discounts on several energy-efficient projects

including compact fluorescent lights (CFL's), ceiling fans, outdoor and indoor timers, programmable thermostats and LED seasonal lights in 2005. The CLD was successful in leveraging this program with a total of 31 utilities, which collectively distributed 2.3 million retail coupons in Q4, 2005. The energy saving results from all 31 utility program participants indicate a demand reduction of 6 MW and savings of 16 million kWh's.

- Launched the powerWISE Business Incentive Program in 2005. Through the program, Horizon provided financial incentives to qualifying commercial, industrial and institutional customers with an electricity demand of 50kW or more. The incentive level started at $150 per kW saved. The Program gained popularity with our Industrial and Commercial customers with 17 applications being received in 2006, and 9 applications in 2007. Horizon's incentive provided lighting solutions that delivered a reduction in energy use and more adequate illumination to facilities including the Pigott building in Hamilton.

- Branded 100 Horizon vehicles with powerWISE energy conservation tips in 2005.

- Engaged a pilot CFL retrofit project with Hamilton Community housing in 2005 by installing over 23,000 bulbs into homes where people need to cut energy use and costs most.

- Provided funding for 475 social housing units in the Social Housing Services Corporation provincial energy audit study in 2005.

- In 2006, Horizon reached out to our social housing service providers including Victoria Park Homes, Niagara Housing, and the Hamilton Housing Authority. Project scopes varied. Victoria Park Homes retrofitted four buildings with 7,055 new CFL's for in-suite lighting. Niagara Housing completed their first energy efficient pilot retrofit project at Kenworth Acres Senior's complex. Meanwhile, Hamilton Community Housing carried on with in-suite CFL installations by installing 950 bulbs into homes where people need to cut energy use and costs most.

- Participated in 14 community events promoting energy conservation including a pilot of two Social Housing energy conservation workshops in 2005.

- Smart Meters: Installed 1000 Smart Meters and pilot tested two technologies in 2005, and expanded the pilot in 2006 to the installation of 7,306 smart meters that tested technologies and procedures to be used during full deployment.

- Delivered an Energy Audit and Self Evaluation program with partners Green Venture at Community events. Provided energy tips, free electricity saving products and reduced cost energy audits through Green Venture (a local non-profit organization that promotes energy efficiency). The Energy Audit and Self Evaluation program came to an end with the Federal government's funding cuts to the EnerGuide for Homes program. No new audits were conducted in 2006 but Horizon did commit to provide funding for those residential customers completing follow-up audits by March 2007.

- Participated in several public events that allowed us to spread the conservation message throughout the community. These events included the St. Catharines Rotary Rib Fest, Santa Claus Parade, Hamilton Locke Street Festival, Dundas Cactus Festival, McMaster Institute of Energy Studies Workshop, Port Authority Days and energy events sponsored by MPP's such as Judy Marsales, and Ted McMeekin.

- Participated in the Refrigerator Retirement Program in conjunction with five NEPA LDC's and the OPA. St. Catharines was a provincial pilot site but Horizon ran this program in Hamilton along with the NEPA participants using the same OPA delivery agents. This successful program removed 1,449 secondary fridges from Horizon's service territory.

- Horizon partnered with Honeywell to launch the ***peaksaver***™ program in September of 2006. By the end of 2006, 881 residential customers had load control thermostats professionally installed.

- In 2006 our events van hit the road bringing energy efficient ideas to our customers at community events. Horizon attended over 40 events to promote conservation in 2006.

- Provided conservation messaging through varied energy conservation channels, including media interviews, regular billing inserts, online newspapers and public information sessions.

- Provided a customer link from Horizon's website to the site www.powerwise.ca in 2006.

1.1 Ongoing Opportunities

As Ontario develops the conservation culture, it is necessary to balance the need for short-term results while fostering a long-term conservation attitude among provincial citizens and businesses. The industry must continue to coordinate its efforts to ensure that program delivery is efficient and available to all customers. Our goal should be rapid program deployment using the LDC's clear channel to market. Horizon Utilities best serves its customers as the main channel for effective conservation and demand management programs. Horizon Utilities has now completed its plans and projects funded through 3rd Tranche MARR. At this time, Horizon Utilities has proven to be an effective delivery agent for the OPA core programs in 2007 and 2008, despite the limited time to market made available for these programs in 2006.

Beyond final completion of the programs in Horizon Utilities' 3rd Tranche CDM plan in 2007 we also have been resourceful with implementation of four core OPA programs since 2007; Great Refrigerator Round Up, PeakSAVER, Summer Savings, and Electricity Retrofit Incentives Program.

2. Lessons Learned

Evolution of Horizon

At the same time that our CDM plan was being carried out the merger of Hamilton Hydro Inc. and St. Catharines Hydro Utility Services Inc. evolved to become Horizon Utilities. The merger plans involved hiring a dedicated resource in March 2005 to manage Horizon's CDM plan going forward.

Working Together

From the outset in the fall of 2004, St. Catharines Utility Services Inc. worked with the NEPPA member LDC's to plan CDM activities including the joint plan filing by nine members. On March 1, 2005 the merger took place and Horizon Utilities focused on looking for opportunities to implement activities that fit both the HHI and SCHUSI CDM plans. The SCHUSI plan activities were also influenced by the work of the Coalition of Large Distributors (Toronto Hydro, Hydro Ottawa, Horizon Utilities, Veridian, Enersource Hydro Mississauga and Powerstream). This group, representing 40% of the Province's load has shared experiences, jointly prepared and delivered programs and launched the powerWISE brand.

Horizon has also connected with community partners, and has used these resources to achieve impressive results. Learning throughout the process, we have accomplished much to date by working with and leveraging various partnerships and relationships, by leveraging healthy individual LDC thought and innovation, and by developing programs at the "grassroots" level. The benefits of this joint action are numerous and are identified below, along with other lessons learned over the past four years.

Program Development

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

- Conservation opportunities exist with residential and small commercial customers. However, getting this effective message to the target audience can be challenging. Specific examples of conservation measures that are clear and relate directly to that customer's needs help to increase participation.

- Working together with other LDC's to expand a program offering can maximize program effectiveness through cross-jurisdictional advertising and reduce overall costs. An example was the peakSAVER Program that was implemented in partnership with the CLD.

- LDCs have demonstrated that they are the most effective channel to their customers for conservation programs. Customers have grown to depend on their local distributor for conservation support, advise and programs. This is critical to minimizing customer confusion while maximizing brand equity, cost effectiveness and conservation results.

- The powerWISE® brand is one of the most recognized conservation brands in Ontario. Horizon Utilities customers look for this trusted symbol to identify conservation opportunities. The Ministry of Energy also began to promoted the powerWISE® name extensively through the Dr. David Suzuki ads in 2007. This enhanced the image of Horizon Utilities' programs and the efforts of other CLD members that were also using the brand.

- Commercial Load Control (Demand Response) and Distributed Energy programs piloted as part of the CDM plan show great promise as a means of reducing electricity system demand but require considerable time and effort to overcome customer implementation barriers. Customer revenues provided by these programs have to address the financial realities that customers face in making this capacity available.

- Each LDC has unique markets, resources and needs requiring a range of diverse and individual strategies and tactics that can be customized for successful local CDM program implementation. Providing communities with a variety of provincial OPA programs, in conjunction with custom LDC programs, makes good strategic sense.

- Horizon found that simple, low cost incentives like the powerWISE® Power Pack or free CFL bulbs were very well received by residential customers, offered good Total Resource Cost ("TRC") results and proved that customers did not require significant incentives to participate in programs. In fact, ease of participation accompanied by moderate incentives with a perceived high value to customers appear to be the hallmarks of program success. Demonstrating sample measures at community events is an engaging experience for customers that they are likely to share with others.

- Our powerWISE® for Business Incentive Program revealed that Commercial and Industrial customer timelines for conservation retrofit projects are usually longer then Horizon Utilities expected and have a lower sense of urgency then Horizon Utilities would prefer. Incentives have to be very meaningful, in order to encourage and speed up conservation projects at this level. For example, in 2006, seventeen applications were received and only two of the projects were completed and thus received PBIP incentives.

- Commercial Programs must address the needs of the customers at the corporate, Municipal, Provincial and National levels to allow implementation across jurisdictions and beyond individual stores. Coordination and consistency is required to allow large Corporations to make programs available to all store locations regardless of location by City or Province.

Education

- Public education and energy audits are important as Horizon Utilities builds a culture of conservation. Yet under the current reporting format, no reportable benefits can be attributed to these activities. This effectively penalizes utilities from participating in these worthwhile and necessary initiatives. Energy audits also provide an opportunity to educate customers on what effective measures can be taken to save energy.

- As Horizon Utilities develops a conservation culture in Ontario, Horizon Utilities must continue to balance the need for short-term results while fostering a long-term conservation attitude among the citizens and businesses in the province. If fostering conservation is to become a sustainable entity in Horizon Utilities' business portfolio, a stable, risk-averse methodology for funding must exist.

- Residential customers are generally aware of the simple products and initiatives that are available to help them to reduce their energy consumption. However, they have a limited understanding of the dollar impact and quick return provided by these simple solutions such as pipe wrap, SLED's and CFL bulbs. It is critical to educate our customers and to provide a savings comparison in dollars to highlight these impacts. A variety of case studies would be an effective means to achieve customer awareness. Real time, in home, energy monitors offer customers an effective tool to better understand and manage their consumption, particularly when time of use pricing comes into effect.

- Introduction of more complicated programs such as the residential demand response program peakSAVER requires customer education to gain acceptance and understanding of its importance. Cooperation to ensure that installed resources are used effectively in a manner that is prudent in reducing consumer costs and reinforces the benefit of customer enrolment in demand response. In 2007 peakSAVER devices were not officially called upon to operate as part of the IESO ELRP. Dispatched imported power requirements could be mitigated by calling on demand response capability as a measure.

- Through a customer focus group, Horizon Utilities learned that its larger Commercial and Industrial customers want direct customer contact on matters relating to energy conservation and emerging technologies. It is important to offer Commercial and Industrial customers access to information through convenient forums such as workshops and trade shows. The LDC can play a role by introducing service providers to customers. Relying on current customer contacts in the billing database will not always produce the appropriate contact that manages facility energy use. Using a dedicated Horizon Utilities resource to address energy conservation needs of larger industrial, commercial and MUSH sector customers will lead to increased participation and adoption of energy efficient technologies.

- Horizon Utilities' sponsorship of the Generation Conservation grade 5 curriculum and development of the powerWISE Home - "Power for Tomorrow" conservation model are steps taken to build a new generation of conservation savvy citizens. Introducing this curriculum to four school boards in two municipalities through teacher workshops has been well received.

Regulatory Issues

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

- The energy industry must coordinate the individual efforts of its many organizations to ensure that program delivery is efficient, readily available and understood by all customers. Most customers don't understand the relationship between the various organizations within the hydro industry, so an attempt to deliver programs to the end customer by these different organizations only confuses the customer and suggests a lack of industry coordination. Clarity regarding the roles of the LDC, OEB, OPA, and the IESO would be beneficial in this regard.

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

- OEB's new proposed CDM regulatory structure deals with pilots and it is recommended that it should also consider adding a separate R&D process to support program development. This would encourage development of new ideas and control any potential risks involving new technologies.

- As a deregulated industry with shareholders, it is worth remembering that LDC shareholders expect some remuneration from CDM. All programs must balance the needs of market transformation and sustainability with a consistent rate of return.

- Finally, we must strive to streamline the LDC's administrative reporting efforts where possible. Reporting requirements must be consistent and applicable to all participants thereby removing regulatory duplication.

3. Conclusions

Horizon Utilities has embraced its role of implementing CDM programs to our customers. In doing so many new relationships were formed and a renewed focus on bringing value to our customers. Flexibility in adapting to customer demands and gaining understanding of new regulatory requirements around the business of CDM evolved. Plan and budget adjustments were required by Horizon Utilities to finalize the completion of its CDM plans within the budget allowed.

Energy Savings results delivered by Horizon Utilities programs in 2007 were 6.5 million kWh in energy savings reflective of the activities in winding down the various programs in anticipation of the OPA core program offerings.

Appearing at over 28 community events last year, Horizon Utilities offered a unique opportunity to engage over 50 staff volunteers in learning about conservation measures, then extending this knowledge and leadership to the public. An addition of the smart meter display has proven useful in preparing customers for time-of-use rates and introducing conservation concepts that will allow them to seek cost savings when those rates take effect. Demand for Horizon Utilities to appear at community events is growing as the public demands more information about energy efficiency measures and assistance through CDM programs.

Increasing awareness about key conservation concepts, including consumption (kWh), demand (kWh) and underling reasons for Ontario's CDM campaign has been challenging both internally and externally. Internally, the Conservation Champions Committee brings the message to each department. Externally, this message is shared with the community at events, programs and media channels.

The activities around Distributed Energy completed by Horizon Utilities in 2007 are aimed at providing leadership in demand response capabilities. Assisting customers to achieve demand and energy reduction is a role that Horizon Utilities can play an integral part going forward.

Horizon Utilities is very proud to be filing our 2007 Annual Conservation and Demand Management report that documents the completion of all projects and budget associated with the 3rd Tranche MARR.

Lastly Horizon Utilities is currently playing an active role in assisting the Province to meet the Conservation and Demand Management targets set out in the Integrated Power System Plan. Our customers are the reason we exist and they are pleased with Horizon's role in delivery of programs that meet their needs. Horizon is reviewing second-generation opportunities to carry this message further using established relationships with the CLD, Ontario Power Authority, NEPA, other LDC's and our local community partners.

Appendix D – Total Life Evaluation of the CDM Plan

	[5] Cumulative Totals Life-to-date	Residential	[6] Low Income	Commercial	Institutional	Industrial	Agricultural	LDC System	[4] Smart Meters	Other #1	Other #2
Net TRC value ($):	**$ 11,210,111**	**$ 11,640,789**	**$ 1,679,921**	**($1,724,293)**	**$ 1,731,767**	**$ -**	**$**	**$ -**	**$ -**	**($438,152)**	**$ -**
Benefit to cost ratio:	**2.36**	4.98	6.29	0.41	2.24	n/a		n/a	n/a	0.59	n/a
Number of participants or units delivered:	***332,930***	315,139	47,483	17,332	456	-		-	-	3	-
Lifecycle (kWh) Savings:	***299,770,904***	180,722,626	28,653,002	30,400,677	88,647,601	0		0	0	0	0
Total kWh saved (kWh):	***40,465,778***	34,034,334	6,696,172	3,698,440	2,733,004	0		0	0	0	0
Total peak demand saved (kW):	***4,626***	2,336	93	1,186	316	0		0	0	788	0
Total kWh saved as a percentage of total kWh delivered (%):	***0.24%***	0.20%	0.04%	0.02%	0.02%	n/a		n/a	n/a	0.00%	n/a
Peak kW saved as a percentage of LDC peak kW load (%):	***0.14%***	0.07%	0.00%	0.04%	0.01%	n/a		n/a	n/a	0.02%	n/a
[1] Gross C&DM expenditures ($):	**$ 7,084,062**	$ 2,400,759	$ 291,694	$ 250,381	$ 106,162	$ 66,589	$	$ 84,192	$ 2,117,079	$ 1,136,600	$ 922,300
[2] Expenditures per KWh saved ($/kWh):	**$ 0.18**	$ 0.07	$ 0.04	$ 0.07	$ 0.04	n/a	$	n/a	n/a	n/a	n/a
[3] Expenditures per KW saved ($/kW):	**$ 1,531**	$ 1,028	$ 3,136	$ 211	$ 336	n/a	$	n/a	n/a	$ 1,442	n/a

Utility discount rate (%):				2005	2006	2007	**Total**
	7.90%	2005	Total kWh delivered:	5,837,439,604	5,530,341,344	5,547,020,317	**16,914,801,265**
	6.28%	2006					
	6.28%	2007	Peak kW load:	1,069,467	1,125,946	1,168,910	**3,364,323**

[1] Expenditures are reported on cumulative 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. Actual expenditures for the total third tranche period need to be reported.
[5] Includes total for the reporting year, plus prior years, if any (for example, 2008 CDM Annual report for third tranche will include 2007, 2006, 2005 and 2004 numbers, if any).
[6] Includes totals from Low Income programs that fall under both commerical and residential.

Appendix 5

Bill Impacts

Residential

		2008		2009		Percent	
kWh Consumption	1000	Rate	Dollars	Rate	Dollars	Change	
RPP 1st Block	800						
Uplift TLF	1.0421						
	Fixed Distribution Charge	13.72	13.72	13.72	13.72		
	Variable Distribution Charge	0.0127	12.70	0.0127	12.70		
	Regulatory Assets	-0.0003	-0.30	-0.0003	-0.30		
	Lost Revenue - conservation	0.0002	0.20	0.0008	0.80		
	Total Distribution Charge		**26.32**		**26.92**	**2.3%**	
	Electricity RPP first block	0.057	45.60	0.057	45.60		
	Electricity RPP balance block	0.066	15.98	0.066	15.98		
	Total Electricity Charge		**61.58**		**61.58**	**0.0%**	
	Transmission Charge Network	0.0051	5.31	0.0051	5.31		
	Transmission Charge Connection	0.0047	4.90	0.0047	4.90		
	Wholesale Market Service	0.0065	6.77	0.0065	6.77		
	Debt Retirement Charge	0.007	7.00	0.007	7.00		
	Total Market Charges		**23.99**		**23.99**	**0.0%**	
	Total Bill		**111.88**		**112.48**	**0.5%**	**0.60**

General Service < 50 kW

		2008		2009		Percent	
kWh Consumption	2000	Rate	Dollars	Rate	Dollars	Change	
RPP 1st Block	750						
Uplift TLF	1.0421						
	Fixed Distribution Charge	28.45	28.45	28.45	28.45		
	Variable Distribution Charge	0.0073	14.60	0.0073	14.60		
	Regulatory Assets	-0.0005	-1.00	-0.0005	-1.00		
	Lost Revenue - conservation		0.00	0.0008	1.60		
	Total Distribution Charge		**42.05**		**43.65**	**3.8%**	
	Electricity RPP first block	0.057	42.75	0.057	42.75		
	Electricity RPP balance block	0.066	88.06	0.066	88.06		
	Total ElectricityCharge		**130.81**		**130.81**	**0.0%**	
	Transmission Charge Network	0.0045	9.38	0.0045	9.38		
	Transmission Charge Connection	0.0043	8.96	0.0043	8.96		
	Wholesale Market Service	0.0065	13.55	0.0065	13.55		
	Debt Retirement Charge	0.007	14.00	0.007	14.00		
	Total Market Charges		**45.89**		**45.89**	**0.0%**	
	Total Bill		**218.75**		**220.35**	**0.7%**	**1.60**

General Service > 50 kW

kWh Consumption 100,000
kW Demand 350
Uplift TLF 1.0421

	2008		2009		Percent	
	Rate	Dollars	Rate	Dollars	Change	
Fixed Distribution Charge	250.77	250.77	250.77	250.77		
Variable Distribution Charge	1.8167	635.85	1.8167	635.85		
Regulatory Assets	-0.2502	-87.57	-0.2502	-87.57		
Lost Revenue - conservation	0	0.00	0.0089	3.12		
Total Distribution Charge		**799.05**		**802.16**	**0.4%**	
Electricity WAHSP	0.05	5,210.50	0.05	5,210.50		
Total ElectricityCharge		**5,210.50**		**5,210.50**	**0.0%**	
Transmission Charge Network	1.7926	186,806.85	1.7926	186,806.85		
Transmission Charge Connection	1.7103	178,230.36	1.7103	178,230.36		
Wholesale Market Service	0.0065	677.37	0.0065	677.37		
Debt Retirement Charge	0.007	700.00	0.007	700.00		
Total Market Charges		**366,414.57**		**366,414.57**	**0.0%**	
Total Bill		**372,424.12**		**372,427.23**	**0.0%**	**3.11**

Unmetered / Scattered Load

kWh Consumption 511
RPP 1st Block 750
Connections 1
Uplift TLF 1.0421

	2008		2009		Percent	
	Rate	Dollars	Rate	Dollars	Change	
Fixed Distribution Charge	9.81	9.81	9.81	9.81		
Variable Distribution Charge	0.015	7.67	0.015	7.67		
Regulatory Assets	-0.0006	-0.31	-0.0006	-0.31		
Lost Revenue - conservation	0.0001	0.05	0.0104	5.30		
Total Distribution Charge		**17.22**		**22.47**	**30.5%**	
Electricity RPP first block	0.057	30.35	0.057	30.35		
Electricity RPP balance block	0.066	0.00	0.066	0.00		
Total ElectricityCharge		**30.35**		**30.35**	**0.0%**	
Transmission Charge Network	0.0046	2.45	0.0046	2.45		
Transmission Charge Connection	0.0044	2.34	0.0044	2.34		
Wholesale Market Service	0.0065	3.46	0.0065	3.46		
Debt Retirement Charge	0.007	3.58	0.007	3.58		
Total Market Charges		**11.83**		**11.83**	**0.0%**	
Total Bill		**59.40**		**64.66**	**8.8%**	**5.25**