CAMBRIDGE AND NORTH DUMFRIES HYDRO INC.
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April 3, 2008

Ontario Energy Board
2300 Yonge Street Suite 2700
P.O. Box 2319
Toronto, ON M4P 1E4

Attn: Kirsten Walli,
Board Secretary

Re: Cambridge & North Dumfries Hydro Inc. – RP–2004-0203/EB-2005-0199
Conservation and Demand Management Annual Report

Enclosed please find three (3) hard copies and two (2) electronic copies of Cambridge & North Dumfries Hydro Inc.'s 2007 Conservation and Demand Management Annual Report.

The electronic copies are provided on the enclosed CD-ROM. One copy includes the Appendices in MS-Excel format while the other copy includes the entire report in Adobe Acrobat (PDF) format.

Yours truly,

CAMBRIDGE AND NORTH DUMFRIES HYDRO INC.

M Knox

Michael Knox,
Director, Customer Information Services
and Conservation

David Smelsky, CMA
Controller

cc: John Grotheer, President & CEO

Cambridge and North Dumfries Hydro Inc.

OEB Reporting # RP-2004-0203/EB-2005-0199

Conservation and Demand Management
2007 Annual Report

Submitted to Board Secretary
The Ontario Energy Board

March 31st, 2008

Prepared by:

Michael M. Knox
Director, Customer Information Services and Conservation

David Smelsky
Controller

Sarah Colvin
Conservation and Demand Management Coordinator

The information contained in this report provides an overview and evaluations of the Conservation and Demand Management programs undertaken by Cambridge and North Dumfries Hydro Inc. in 2007.

I. INTRODUCTION

Cambridge and North Dumfries Hydro Inc. (CND Hydro) is a progressive local distribution company that serves 48,000 customers in the City of Cambridge and the Township of North Dumfries. Our vision is to exceed customer and other stakeholder expectations through operational excellence. We are also proud that when it comes to energy conservation, we as the local distribution utility are leaders in the community.

On January 12, 2005 Cambridge and North Dumfries Hydro Inc. submitted an application to the Ontario Energy Board for an Order approving their CDM plan. Since receiving approval from the Board, we have sought out innovative means of providing C&DM programs to our customers. Our approved plan outlined elements that would be delivered to 6 different customer classes; Total Customer Base, Residential, Small Commercial, Mid to Large Scale, Government and Institutional and to our own LDC Asset Base. The total budget for the CDM Plan was consistent with the third installment of incremental Market Adjusted Revenue Requirement (MARR) in the amount of $2,161,652.

As a result of the approved CDM budget and plan, we successfully ran numerous programs throughout 2005 and 2006, many of which have carried over into 2007. With the wrap up of the programs in September, CND Hydro focused to delivering measurable results with the remaining funding.

For the 2007 reporting year, CND Hydro focused heavily on customer education and community awareness campaigns, along with upgrades to the LDC asset base. Our Energy Champion, Switch, has been active in the community as an ambassador of conservation. In addition, a large portion of the funding was allocated towards the installation of interval meters, in keeping with first-class service to our large users. An online access component was included to allow for energy use monitoring.

Through the 13 programs reported on herein, Cambridge and North Dumfries Hydro Inc. were able to take a lead role in educating and promoting energy conservation in the community. Our strong focus on conservation awareness and responsibility, for all ages, will greatly increase the development of a Culture of Conservation across our service territory.

Switch: Our Energy Champion!

II. EVALUATION OF THE CDM PLAN

The following CDM programs undertaken in 2007 are reported on herein:

1.0 Total Customer Base

1.1 Customer Education Campaigns
1.2 Earth Day Celebration
1.3 Switch to Cold Campaign

2.0 Residential Customer Base

2.1 Residential Energy Audits
2.2 Geothermal Heating Installation Incentive
2.3 Regional Housing Program
2.4 Seasonal LED Light Strings
2.5 Fridge Replacement Program

3.0 Small Business Customer Base

3.1 Church Energy Audits

4.0 Mid to Large Scale Customers

4.1 Power Factor Correction Program
4.2 Installation of Interval Meters

5.0 Government and Institutional Customer Base

5.1 Street Light Upgrades

6.0 LDC Corporate Asset Base

6.1 Outdoor Conservation Sign
6.2 Capacitor Bank Installations

A summary of these programs is shown in Appendix A, Appendix B and Appendix C.

III. DISCUSSION OF THE PROGRAMS

1.0 Total Customer Base

1.1 Customer Education Campaigns

CND Hydro has once again shown leadership within their community on promoting energy conservation. Through various events, speaking engagements and with each customer interaction, we are promoting the benefits and environmental responsibility of conservation. As always, we continue to advertise conservation messages and events in local newspapers – the Ayr News and the Cambridge Times, as well as on our own website.

Our President and CEO, John Grotheer, is continually looking for opportunities to reach out to customers with this important message. This past year he has been out speaking with MPPs at Town Hall Meetings, Senior's Homes, the Canadian Technology Triangle, the Association for Operations Management, and the launch of a new exhibit at the Waterloo Region Children's Museum.

CND Hydro once again this year sponsored an award for the Chamber of Commerce's Annual Business Awards for Energy Conservation and Environmental Excellence. This award was presented to a local business in March in recognition of their strides in changing the way they do business.

In 2006, we saw the partnership with the Waterloo Region District School Board come together to create a grade 5 curriculum entitled, Reduce Your Use. In 2007 this was introduced into 20 class rooms across our service territory. "Switch", our Energy Champion mascot, was able to visit and celebrate with each of these classrooms, reinforcing the positive message of conservation with our newest energy ambassadors.

1.2 Earth Day Celebrations

The Earth Day weekend in April saw a very successful event held at the Cambridge Centre Mall. We ordered 3500 energy kits that included; 2 CFLs, an LED night light, a shower timer, outlet gaskets, fridge thermometer and energy saving tips. These kits were given out by our slew of employee volunteers at a booth we set up. The community was very excited about this giveaway and the chance to talk conservation with us.

1.3 Switch to Cold Campaign

CND Hydro believes in the Switch to Cold Campaign and were happy to be partners again this past year. A small portion of money was spent on this and we distributed coupons to our customers, encouraging them to make the 'switch'. Results are not available for the uptake.

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2.0 Residential Customer Base

2.1 Residential Energy Audits

Once again, CND Hydro supported the efforts of the Residential Energy Efficiency Project (REEP) of Waterloo Region in their delivery of residential energy audits. Funding was provided to subsidize the cost of the audit to the customer, the administrative costs of the organization to provide the audits, and matching grants for customers who achieved successful improvements in retrofits as recognized by Natural Resources Canada. During the visit, customers were also offered an 'Electrical Audit' on their major appliances

2.2 Geothermal Heating Installation Incentive

Through energy audits performed by REEP, CND Hydro customers were offered an incentive of $1500 to install a geothermal heating system in their homes. There were 10 customers who took advantage of the offer to convert to a geothermal system.

2.3 Regional Housing Program

Funding was provided to the Region of Waterloo to install Safe-T-elements in 249 Regional Housing Units in Cambridge. By lowering the element output to exactly what the user requires, the Safe-T-element boasts a savings of $5,400 in an apartment building with 100 units. In this case the estimated savings for the Region of Waterloo Housing would be $13,446.

2.4 Seasonal LED Light Strings

This year, we used the remaining funding for seasonal light exchanges to provided 80 strands of Festive Lights to the City of Cambridge for their Family Christmas Extravaganza to replace the incandescent strands they had been using. This also provided the opportunity for some education to the City's event about the savings they could incur if they switched out all their strands.

2.5 Fridge Replacement Program

This program was created in-house to encourage the replacement of old, inefficient refrigerators in bulk-metered apartment buildings with new ENERGYSTAR models. Although uptake was slow, we had some dedicated landlords in Cambridge who embraced the program and made the change. Altogether, we had 5 property managers take part and we saw the replacement of 92 refrigerators.

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3.0 Small Business Customer Base

3.1 Church Energy Audits

It had been our intention to run the Cool Shops program in 2007 after a highly successful campaign in 2006. Due to lack of interest by other LDCs, the Clean Air Foundation discontinued the program. As a result, we allocated some of our resources towards conducting energy audits for churches in our community.

REEP offered a church audit that modeled the residential audit they performed. Two churches in Cambridge participated and were given suggestions on light upgrades to help reduce their electrical consumption.

Because these Church Audits were an "add-on" to the REEP Residential Audits, the results are reported under Residential Customer Base in the Appendices.

4.0 Mid to Large Scale Customers

4.1 Power Factor Correction Program

After providing interval metering data to our large use customers as part of a previous program, CND Hydro decided to run a Power Factor Correction Program, offering to assist our large users with correcting their power factors. We offered payment towards a study and also the installation of new equipment.

Unfortunately there was no uptake on this program, save for one study that was completed. Letters were sent out to customers with poor power factors, and follow up calls made.

4.2 Installation of Interval Meters

CND Hydro is focused on achieving success with their interval meter program. As a result, dollars were spent and time invested in installing interval meters in customers down to 200kW. This allowed us to offer online reviews of energy use at any time, and then work with those customers to see where potential savings lay.

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5.0 Government and Institutional Customer Base

5.1 Street Light Upgrades

Funding was provided to upgrade 306 older, less efficient Mercury Vapour street lights throughout our service territory. Conversions were made to 100W, 150W and 250W bulbs.

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6.0 LDC Corporate Asset Base

6.1 LDC Outdoor Sign

The office of CND Hydro is located on a busy road in Cambridge, and many of our customers still prefer to visit the office to pay their bills. As a result, we saw a great opportunity to yet again, reach our customers with the Conservation message. We installed an LED sign in front of the building were we continue to make notifications about conservation events and provide customers with tips on saving energy that can change with the season or day.

6.2 Capacitor Bank Installations

In order that we continue our own internal dedication to improving efficiency, capacitor banks were installed at MTS#1 to improve our power factor above the 90% threshold and free up transformer station capacity. The equipment cost to install sixteen 1200kVar capacitor banks were charged to the conservation program, while labour, trucking, materials, etc. required for the installation was paid out from our capital budget.

IV. LESSONS LEARNED

The following provides an overview of the lessons learned by CND Hydro Inc. for the Conservation and Demand Management Programs administered during the 2007 reporting year;

1. The best way to reach as many customers as possible is being out in the community. Through speaking engagements, the message is getting out; but we had the most success with our weekend event for Earth Day. With small promotions, and the delivery of energy kits, we had customers lined up around the halls to get to our booth. It was a great chance to deliver energy saving products, meet the customer, and be a presence in the community.
2. The successes and energy savings from the Residential Energy Audits are difficult to quantify and report on. Although it could be assumed that every customer who participates in the program makes some change, no matter how minor, it is impossible to know for sure how much energy is being saved a result.
3. The Seasonal LED light exchange continues to be popular with customers. There is a real interest in this, and customers begin calling in early Fall, to find out if it's running again. This would be a program to consider offering again in the future. It also results in a high TRC given the cost to run such a program.
4. Our Refrigerator Replacement Program had a lower than expected uptake, this could be as a result of a short window that the program was offered during. We did extend the participation time, but eventually ended it in order to support the OPA's Great Refrigerator Roundup.
5. The results from the Power Factor Correction Program were disappointing. The uptake was expected to yield some great results, especially when we spoke directly to the customers with the worst power factor. In the future it would be advantageous to work directly with the customers, one on one, to address the issues and explain how power factor correction can be of benefit to them.

V. CONCLUSION

The following table summarizes total spending on Cambridge and North Dumfries Hydro Inc.'s Conservation and Demand Management Programs to the end of 2006:

CAMBRIDGE AND NORTH DUMFRIES HYDRO INC.
Conservation and Demand Management Reporting Summary
December 31, 2007

RP-2004-0203 / EB-2005-0199

	Program Name	Program Status	Rate Class Targeted		Total Approved Budget	Expenditures "Life-to-Date"
Program 1	**Consumer Education and Development Culture (Total Customer Base)**					
		Active	All	Capital	$ -	$ -
				Operating	$ 285,000	$ 297,547
Program 2	**Conservation and Demand Management Initiatives (Residential Customer Base)**					
		Active	Residential	Capital	$ -	$ -
				Operating	$ 990,000	$ 773,201
Program 3	**Small Business Customer Base**					
		Active	GS < 50kW	Capital	$ -	$ -
				Operating	$ 100,000	$ 53,005
Program 4	**Mid to Large Commercial/Industrial Customer Base**					
		Active	GS > 50kW	Capital	$ 70,000	$ 119,707
				Operating	$ 130,000	$ 101,702
Program 5	**Government/Institutional Customer Base**					
		Active	Other	Capital	$ -	$ -
				Operating	$ 400,000	$ 472,784
Program 6	**Local Distribution Company - Asset Base**					
		Active	Other	Capital	$ 186,652	$ 350,444
				Operating	$ -	$ -
				Capital	$ 256,652	$ 470,151
				Operating	$ 1,905,000	$ 1,698,239
				Total	**$ 2,161,652**	**$ 2,168,390**

VI. APPENDICES

Appendix "A" – Evaluation of the Conservation and Demand Management Plan

Appendix "B" – Discussion of the Programs

Appendix "C" – Program and Portfolio Totals

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 ($):	***($599,111)***	($183,409)	$10,954	$0	($321,057)	$0	$0	$0	-	$126,694	$0
Benefit to cost ratio:	***0.16***	0.31	1.15	0.00	(1.12)	0	0	0	-	3.71	0
Number of participants or units delivered:	***76,472***	4,492	566	0	306	0	0	0	120	3,500	0
Lifecycle (kWh) Savings:	***69,220,523***	7,568,906	3,942,323	0	261,879	0	0	0	-	3,364,704	0
Report Year Total kWh saved (kWh):	***8,469,478***	1,109,826	203,181	0	65,469	0	0	0	-	841,176	0
Total peak demand saved (kW):	***2,149***	494	283	0	27	0	0	0	-	184	0
Total kWh saved as a percentage of total kWh delivered (%):	***0.18***	0.0718	0.0132	0	0.0042	0	0	0		0.0545	0
Peak kW saved as a percentage of LDC peak kW load (%):	***0.23***	0.1594	0.0913	0	0.0087	0	0	0		0.0594	0
[1] *Report Year Gross C&DM expenditures ($):*	***$2,166,635***	$610,992	$107,764	$0	$144,978	$418	$0	$207,778	$93,186	$56,867	$0
[2] *Expenditures per KWh saved ($/kWh):*	***$0***	$0	$0	$0	$1	$0	$0	$0	-	$0	$0
[3] *Expenditures per KW saved ($/kW):*	***$1,008***	$1,237	$381	$0	$5,370	$0	$0	$0	-	$309	$0

Utility discount rate (%):	**7.50**

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Total Customer Base

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

Overall Customer Education through advertising, promotions, community events and education campaigns; Distribution of Energy Saving Kits to customers at an Earth Day Celebration at a local mall; Participation in the Switch to Cold coupon campaign.

Measure(s):

	Earth Day Energy Kits
Base case technology:	Average Existing Stock
Efficient technology:	Various
Number of participants or units delivered for reporting year:	3500
Measure life (years):	Varied
Number of Participants or units delivered life to date	4000

B. **TRC Results:**

	Reporting Year	**Life-to-date TRC Results:**
[1] *TRC Benefits ($):*	$ 203,613.59	$ 1,309,824.37
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 3,186.41	$ 4,134.34
Incremental Measure Costs (Equipment Costs)	$ 27,800.00	$ 249,600.00
Total TRC costs:	$ 30,986.41	$ 262,257.34
Net TRC (in year CDN $):	$ 234,600.00	$ 1,572,081.71
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	6.57	4.99

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

			Cumulative Results:	
Conservation Programs:				
Demand savings (kW):	*Summer*	13		181
	Winter	171		868
	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	4,026,960	2017	30,119,622	6,675,545
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:

	lifecycle	in year	
Peak load savings (kW):			
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:*	$0.00	$0.00
	Incremental O&M:	$0.00	$1,069.13
	Incentive:	$53,680.45	$230,839.65
	Total:	**$53,680.45**	**$231,908.78**
Utility indirect costs ($):	*Incremental capital:*	$0.00	$0.00
	Incremental O&M:	$3,186.41	$11,945.87
	Total:	**$3,186.41**	**$11,945.87**

E. Assumptions & Comments:

1. General CDM indirect costs not attributed to a specific program were proportionally charged to each program reported herein.
2. The cost figures listed in Appendix B also take into consideration the costs of item 1.1 - Customer Education, although there is no TRC calculation. This represents expenses for the website, advertising, equipment, community outreach, and school pilot projects. Also included is the cost of participation in the Switch to Cold washing campaign from 2006 - but was billed to the LDC in early 2007. Results from this program are not reported in this year.
3. The LED nightlights, included in the Earth Day Energy Kits, were entered as a Direct Input in the TRC Calculations with the following assumptions: replacing a 5W incandescent bulb, turned on for 8760 hours a year, has a lifespan of 10 years according to the manufacturer and the value is $3/unit.

[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:** Residential Customer Base

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

Distribution of CFL through a partnership with the Residential Energy Efficiency Program to customers at workshops. This is also in support of REEP who are funded to provide Energy Audits on customer's houses and churches; Geothermal heating units are also installed as part of the REEP initiative; A partnership with the Region of Waterloo allowed for the installation of 249 Safe T Elements into apartment buildings; A donation of 80 strands of LED Festive Lights was provided to the City of Cambridge; a Fridge replacement program for bulk metered apartments saw the replacement of 92 inefficient units with new ENERGYSTAR refrigerators.

Measure(s):

	REEP Initiative - CFLs	Geothermal Incentive	SLED Exchange	Fridge Replacement
Base case technology:	40W incandescent light bulb	Existing Equipment	5W incand. light string	Old inefficient refrigerators
Efficient technology:	13W Compact Fluorescent	Ground Source Heat Pump	LED festive light string	ENERGYSTAR Refrigerator
units delivered for reporting year:	135	10	80	92
Measure life (years):	4	20	30	19
Number of Partipants or units delivered lfe to date	2,291	19	15,380	92

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	*$19,461.65*	$201,172.33
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$6,038.35	$89,677.80
Incremental Measure Costs (Equipment Costs)	$132,400.00	$309,900.00
Total TRC costs:	$138,438.35	$399,577.80
Net TRC (in year CDN $):	$157,900.00	$600,750.13
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	0.14	0.50

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

Cumulative Results:

Conservation Programs:

Demand savings (kW): Summer	129		252
Winter	155		320

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*3,948,583*	2038	18,300,321	203,181
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 begining of year (%):		
Distribution system power factor at end of year (%):		
Line Loss Reduction Programs:		
Peak load savings (kW):		
	lifecycle	*in year*
Energy savngs (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	Cumlative Life to Date
Utility direct costs ($):	*Incremental capital:*	$0.00	$0.00
	Incremental O&M:	$0.00	$151,361.18
	Incentive:	$101,726.07	$628,623.67
	Total:	**$101,726.07**	**$779,984.85**
Utility indirect costs ($):	*Incremental capital:*	$0.00	$0.00
	Incremental O&M:	$6,038.35	$18,213.26
	Total:	**$6,038.35**	**$18,213.26**

E. Assumptions & Comments:

1. General CDM indirect costs not attributed to a specific program were proportionally charged to each program reported herein.
2. For the Residential Energy Audits conducted by REEP a TRC calculation was only able to be performed on the CFLs that were distributed at outreach seminars they conducted. Calculations used a proxy of 11W to represent both the 11W and 13W bulbs that were distributed.
3. Part of the REEP program was encouraging the installation of Geothermal heating systems, and we provided customers with an incentive towards the install. TRC calculations used the commercial table to properly account for the energy savings from this system and respect that a 5.0 ton unit is larger than what is typically installed in a residential application.
4. A free ridership rate of 0% was used for the Seasonal LED Light Exchange as the City of Cambridge had not planned to convert lights this past year.

[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 numebr 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:** Mid to Large Scale Customers

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

Delivery of a Power Factor Correction Program incentive to customers - which did not result in any uptake other than one study being paid for. Interval meters were installed for customer accounts down to 200kW.

Measure(s):

Base case technology:	No Measures were Evaluated
Efficient technology:	
Number of participants or units delivered for reporting year:	
Measure life (years):	
Number of Participants or units delivered life to date	

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ -	$ -
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ -	$ -
Incremental Measure Costs (Equipment Costs)	$ -	$ -
Total TRC costs:	$ -	$ -
Net TRC (in year CDN $):	$ -	$ -
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	0.00	0.00

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	*Summer*			
	Winter			
	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:

	lifecycle	in year	
Peak load savings (kW):			
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:*	$0.00	$0.00
	Incremental O&M:	$0.00	$102,552.07
	Incentive:	$88,359.92	$118,553.46
	Total:	**$88,359.92**	**$221,105.53**
Utility indirect costs ($):	*Incremental capital:*	$0.00	$0.00
	Incremental O&M:	$5,244.95	$8,307.91
	Total:	**$5,244.95**	**$8,307.91**

E. Assumptions & Comments:

1. General CDM indirect costs not attributed to a specific program were proportionally charged to each program reported herein.
2. Interval meters are not included here as part of the TRC calculations, although the financial breakdown is. Please see Appendix C for 'Smart Meters' for further information.
3. Dollars spent on the Power Factor Correction Program are not attributable to any measured savings, funding was provided for a study only.

[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:** Government and Institutional Customer Base

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

Upgrade the street light system for 306 units.

Measure(s):

	Street Light Upgrades
Base case technology:	average existing stock
Efficient technology:	upgraded efficient lighting
Number of participants or units delivered for reporting year:	306
Measure life (years):	4
Number of Participants or units delivered life to date	306

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	($86,223.55)	($1,061,670.80)
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$8,123.55	$258,666.13
Incremental Measure Costs (Equipment Costs)	$47,000.00	$681,800.00
Total TRC costs:	$55,123.55	$940,466.13
Net TRC (in year CDN $):	($31,100.00)	($121,204.74)
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	(1.56)	(1.13)

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	*Summer*	13	144
	Winter	14	145

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*261,879*	2012	17,211,146	65,469
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:

	lifecycle	in year	
Peak load savings (kW):			
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:*	$0.00	$0.00
	Incremental O&M:	$0.00	$486.73
	Incentive:	$136,854.78	$472,296.91
	Total:	**$136,854.78**	**$472,783.64**
Utility indirect costs ($):	*Incremental capital:*	$0.00	$0.00
	Incremental O&M:	$8,123.55	$11,470.50
	Total:	**$8,123.55**	**$11,470.50**

E. Assumptions & Comments:

1. General CDM indirect costs not attributed to a specific program were proportionally charged to each program reported herein.
2. Although a total of 306 street lights were installed, a proxy of 175W was used in the calculation for the 100W and 150W. The quantities were adjusted to reflect the same total wattage if using 175W. Therefore if 185 x 100W were installed the calculation was performed with a quantity of 106. For the 100 x 150W a quantity of 86 was used in the calculation.

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

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** LDC Asset Base

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

Installation of a road side LED message sign for Conservation bulletins and tips. Also, an installation of a capacitor bank system to upgrade the service at MTS#1.

Measure(s):

Base case technology:	No Measures were Evaluated
Efficient technology:	
Number of participants or units delivered for reporting year:	
Measure life (years):	
Number of Participants or units delivered life to date	

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ -	($160,622.94)
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ -	$4,200.90
Incremental Measure Costs (Equipment Costs)	$ -	$135,100.00
Total TRC costs:	$ -	$139,300.90
Net TRC (in year CDN $):	$ -	(21,322.04)
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	0.00	(1.15)

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	*Summer*	0	10
	Winter	0	10

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):			2,209,821	
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:

	lifecycle	in year	
Peak load savings (kW):			
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:*	$0.00	$106,701.44
	Incremental O&M:	$0.00	$3,710.00
	Incentive:	$196,135.16	$264,142.66
	Total:	**$196,135.16**	**$374,554.10**
Utility indirect costs ($):	*Incremental capital:*	$0.00	$0.00
	Incremental O&M:	$11,642.37	$16,060.69
	Total:	**$11,642.37**	**$16,060.69**

E. Assumptions & Comments:

1. General CDM indirect costs not attributed to a specific program were proportionally charged to each program reported herein.

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

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

Appendix C - Program and Portfolio Totals

Report Year: **2007 CDM**

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 ($)
Residential Energy Audits	-$ 41,622	$ 43,322	-$ 84,945	-0.96	8,175	32,698	2	$ 43,322
Geothermal Heating Incentive	$ 138,510	$ 15,890	$ 122,619	8.72	187,313	3,746,250	278	$ 15,890
Regional Housing Initiative	n/a	n/a			n/a	n/a	n/a	$ 34,291
Seasonal LED Light Exchange	$ 1,057	$ 443	$ 615	2.39	1,433	44,427	0	$ 443
Fridge Replacement Incentive	-$ 13,517	$ 13,817	-$ 27,335	-0.98	6,260	118,948	3	$ 13,817
***Totals App. B - Residential**	$ 84,427	$ 73,473	$ 10,954	1.15	203,181	3,942,323	283	$ 107,764
Residential Indirect Costs not attributable to any specific program →		$ -						
Total Residential TRC Costs		$ 73,473						
****Totals TRC - Residential**	**$ 84,427**	**$ 73,473**	**$ 10,954**	**1.15**				

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 ($)
No Programs to Report			$ -	0.00				
***Totals App. B - Commercial**	$ -	$ -	$ -	0.00	0	0	0	$ -
Commercial Indirect Costs not attributable to any specific program →								
Total TRC Costs		$ -						
****Totals TRC - Commercial**	**$ -**	**$ -**	**$ -**	**0.00**				

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 ($)
Street Light Upgrades	-$ 176,078	$ 144,978	-$ 321,057	-1.21	65,469	261,879	27	$ 144,978

			$ -	0.00				
***Totals App. B - Institutional**	-$ 176,078	$ 144,978	-$ 321,057	-1.21	65,469	261,879	27	$ 144,978
Institutional Indirect Costs not attributable to any specific program →		-						
Total TRC Costs		$ 144,978						
****Totals TRC - Institutional**	**-$ 176,078**	**$ 144,978**	**-$ 321,057**	**-1.21**				

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 ($)
Power Factor Correction Program	n/a	n/a		0.00	n/a	n/a	n/a	$ 418
***Totals App. B - Industrial**	$ -	$ -	$ -	0.00	0	0	0	$ 418
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 ($)
No Programs to Report			$ -	0.00				
			$ -	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 ($)
LCD Outdoor Sign	n/a	n/a		0.00	n/a	n/a	n/a	$ 20,924
Capacitor Bank Installation	n/a	n/a		0.00	n/a	n/a	n/a	$ 186,853
			$ -	0.00				
***Totals App. B - LDC System**	$ -	$ -	$ -	0.00	0	0	0	$ 207,778
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 ($) →	93,186

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 ($)
Customer Education Campaigns	n/a	n/a		0.00	n/a	n/a	n/a	$ 9,849
Earth Day Celebrations	$ 173,447	$ 46,753	$ 126,694	3.71	841,176	3,364,704	184	$ 46,753
Switch to Cold Program	n/a	n/a		0.00	n/a	n/a	n/a	$ 265
			$ -	0.00				
***Totals App. B - Other #1**	$ 173,447	$ 46,753	$ 126,694	3.71	841,176	3,364,704	184	$ 56,867
Other #1 Indirect Costs not attributable to any specific program →		-						
Total TRC Costs		$ 46,753						
****Totals TRC - Other #1**	**$ 173,447**	**$ 46,753**	**$ 126,694**	**3.71**				

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 ($)
No Programs to Report			$ -	0.00				
			$ -	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**	$ 81,796	$ 265,204	-$ 183,409	0.31	$ 1,109,826	$ 7,568,906	$ 494	$ 610,992
*Any **other** Indirect Costs not attributable to any specific program* →		$ -						
TOTAL ALL LDC COSTS		$ 265,204						
****LDC' PORTFOLIO TRC**	$ 81,796	$ 265,204	-$ 183,409	0.31				

* 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.