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Ontario Energy Board
27th Floor
2300 Yonge Street
Toronto, ON
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March 31, 2008

Dear Ms. Walli,

RE: Burlington Hydro Inc.
2007 Annual Report
CDM Third Tranche Funding

Please find attached the 2007 Annual Report, CDM Third Tranche Funding from Burlington Hydro Inc ("BHI"). As directed in the Requirements for Annual Reporting on Conservation and Demand Management ("CDM") Initiatives dated March 3, 2008, BHI has included three hard copies of this report and two electronic copies (the full report in PDF and the appendixes only in Excel).

Should anything further be required, please contact me at 905-332-2260.

Yours truly,

Original signed by

Anne Rampado
Market Compliance & Rates Specialist

cc. Gerry Smallegange, Burlington Hydro Inc.



Burlington Hydro Inc.
Conservation and Demand Annual Report

Overview

The following report is consistent with the directions provided by the OEB in the “Guideline for Annual Reporting of CDM Initiatives” as posted on the OEB website December 21, 2005.

This report includes the following sections:

- Section 1 - Introduction,
- Section 2 – Evaluation of the CDM Plan,
- Section 3 – Discussion of the Program,
- Section 4 – Lessons Learned, and
- Section 5 - Conclusion.

In addition, the following appendices are attached:

- Appendix A – Evaluation of the CDM Plan Chart;
- Appendix B – Discussion of the Program Sheets,
- Appendix C – Program and Portfolio Totals

Section 1
Introduction

Burlington Hydro Inc. (“BHI”) filed a CDM plan with the OEB in November 2004 in accordance with the directions provided by the Ministry of Energy with respect to the third installment of the incremental market adjusted revenue requirement (“MARR”). This plan was approved by the OEB in its Final Order dated February 17, 2005.

The total spending included in the plan is \$2,157,862.

The components included in the plan are as follows:

- distribution system improvements
- general service smart metering;
- smart meter pilots;
- BHI lighting retrofit;
- municipal new construction;
- municipal building retrofit;
- appliance replacement;
- public education and outreach;
- home developers program;

March 31, 2008

- education and outreach – general service;
- CCIW showcase;
- voluntary demand management;
- staff development program; and
- planning, administration and monitoring.

As of December 31, 2007, the CDM Plan has been fully delivered.. Details of each of the projects are included in Section 3.

Section 2

Evaluation of the CDM Plan

This summary is provided at Appendix A, with supporting information at Appendix C.

Section 3

Discussion of Programs

BHI has the following projects that are appropriate for TRC calculations for 2007 activities:

- Municipal new construction;
- Municipal building retrofit;
- Public Education and Outreach;
- Home developers program; and
- Staff Development.

The “BHI lighting retrofit” program had TRC calculations included in 2006. Year to date values reflect those calculations as provided in the earlier annual reports.

BHI has a number of projects that are focused primarily on consumer education and awareness that are of benefit to the utility and the province, that are not subject to TRC testing in accordance with the TRC Guide.

The summary sheets outlining each of the BHI programs are provided at Appendix B. In each of the summary sheets, BHI has provided as much written detail as possible to provide overview of the project and the current status.

Section 4

Lessons Learned

BHI has continued to learn and develop related to CDM. BHI has continued to develop relationships with the City of Burlington, Burlington Economic Development Corporation, the Region of Halton, Environment Canada (through the CCIW program), Ministry of

Energy, Ontario Power Authority, other LDCs, various vendors/promoters of energy efficient programs/products, and most importantly, our customers.

Throughout 2007, BHI has had many projects that have been embraced by our customers, as well as having initiatives that have not been pursued as expected. These positive and negative experiences have provided us with a better understanding of what our customers would like to see moving forward, how to communicate with them, and how to be prepared internally to support initiatives.

Specifically,

- ☑ The Smart Meter Pilots gave BHI useful insight into the technology behind smart metering and its application in the field. Three pilot projects were undertaken in differing applications within Burlington: a residential community, the downtown core and several multi-unit high rise residential building. A different technology was employed for each and the experience contributed significantly to the development of BHI's Smart Metering Investment Plan. It also demonstrated the consumer demand for smart metering technology. After successful completion of the first residential building, at least eight other condominium corporations have approached BHI expressing interest in deployment of similar technology. Many of these were undertaken with remaining funds. Evaluations conducted on the pre- and post-retrofit indicated that material (20% or so) savings occurred when individual unit holders took responsibility for their own electricity use.
- ☑ Implementation of energy efficient lighting demonstrated that energy use could successfully be reduced through energy efficient lighting. The lighting program was expanded further into the residential sector where there was substantial demand for lighting retrofits, both in the condominium and rental markets. The momentum gained through public outreach and active lighting retrofit marketing carried through to the Electricity Retrofit Incentive Program, resulting in sustained customer uptake.
- ☑ The municipal new construction program demonstrated the economic value of incorporating energy efficiency into the design of a new facility
- ☑ The municipal building retrofit program demonstrated once again the leverage gained through provision of an incentive to motivate implementation of energy efficient lighting
- ☑ The Public Education/Outreach program was delivered through a curriculum based program across schools and demonstrated that a life-long conservation culture can be developed amongst students.
- ☑ Customers do care about conservation, but the message must be conveyed through a sustained effort. Cultural change only happens when the correct behaviours are consistently demonstrated and advocated.

BHI is encouraging the establishment of programs within our region and is working to determine how to best provide consistent programs to our mutual customers. To date, we now have programs that have been developed and run exclusively by BHI, we have partnerships with other LDC's in our region to support education in our schools, and we have participated in province wide initiatives. As we, and other LDCs, along with the OPA continue to learn, it is anticipated that there will be even more effective delivery of programs to customers.

Section 5
Conclusion

BHI has learned that there is customer support for conservation programs. BHI will continue to support these programs and will monitor the industry for updates and new initiatives that are in the best interest of our customers and the province in general.

Appendix A - Evaluation of the CDM Plan

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

	⁵ Cumulative Totals Life-to-date	Total for 2007	Residential	Commercial	Institutional	Industrial	Agricultural	LDC System	⁴ Smart Meters	Other #1	Other #2
<i>Net TRC value (\$):</i>	\$ 115,086	-\$ 6,203	\$ 133,117	-\$ 139,810	\$ -	\$ -	\$ -	\$ -		\$ 490	\$ -
<i>Benefit to cost ratio:</i>	1.13	0.98	2.46	0.40	0.00	0.00	0.00	0.00		1.07	0.00
<i>Number of participants or units delivered:</i>											
<i>Lifecycle (kWh) Savings:</i>	15,616,720	4,111,887	3,314,847	712,800	0	0	0	0		84,240	0
<i>Report Year Total kWh saved (kWh):</i>	3,155,386	1,780,971	1,382,451	356,400	0	0	0	0		42,120	0
<i>Total peak demand saved (kW):</i>	235	133	99	30	0	0	0	0		4	0
<i>Total kWh saved as a percentage of total kWh delivered (%):</i>	0.178%	0.100%	0.078%	0.020%						0.002%	
<i>Peak kW saved as a percentage of LDC peak kW load (%):</i>		0.036%	0.027%	0.008%						0.001%	
¹ <i>Report Year Gross C&DM expenditures (\$):</i>	2,167,955	\$ 859,728	\$ 102,924	\$ 153,180	\$ -	\$ -	\$ -	\$ 500,356	\$ 94,450	\$ 8,818	\$ -
² <i>Expenditures per kWh saved (\$/kWh):</i>	\$ 0.69	\$ 0.21	\$ 0.03	\$ 0.21	\$ -	\$ -	\$ -	\$ -		\$ 0.10	\$ -
³ <i>Expenditures per kW saved (\$/kW):</i>	\$ 9,235.56	\$ 6,481.66	\$ 1,042.06	\$ 5,057.11	\$ -	\$ -	\$ -	\$ -		\$ 2,463.13	\$ -
<i>Utility discount rate (%):</i>	6.82										

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

(Program #1 - Distribution System Improvements)

A. **Name of the Program:** Distribution System Improvements

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

Burlington Hydro has conducted some detailed modeling of its distribution system to identify opportunities for system optimization, improved phase balancing, installation of capacitor banks and voltage conversions. A cost/benefit type analysis has been conducted where possible in order to assist in the evaluation of the alternatives and to select the best options for the customers of Burlington Hydro. Based on the cost/benefit review, in conjunction with the ability to provide other system advantages such as improved reliability and operational flexibility, BHI has determined that budget allocated to distribution system improvements be spent on the two projects of phase balancing and system optimization.

Phase balancing includes a number of system changes that would reduce feeder unbalance conditions under various loading conditions. Implementing a number of changes to the system would have a result of reducing system losses.

The system optimization options include implementing a number of switch changes to improve system efficiency. This in turn should also provide a reduction to losses, depending on the day-to-day operating environment. In addition to these switches, BHI is installing remotely operated switches within the 27.6kV distribution system. The installation of these switches has further improved system reliability and operational flexibility. These remotely operated switches provide a very cost effective method of re-configuration the distribution system without the use of field crews. This gives BHI operations staff much greater flexibility in maintaining the 27.6kV system in an optimized state.

Measure(s):

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

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

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

Conservation Programs:

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

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

Demand Management Programs:

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

Demand Response Programs:

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):
Energy savings (kWh): *lifecycle* *in year*

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:	\$ 500,356.00	\$ 1,111,316.00
	Incremental O&M:		
	Incentive:		
	Total:	\$ 500,356.00	\$ 1,111,316.00
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 13,670.00	\$ 52,116.00
	Total:	\$ 13,670.00	\$ 52,116.00

E. Assumptions & Comments:

As a result of these initiatives, the response time to system outages has improved 12.4%, from a historical 0.0975 hours to 0.0854 hours.

Incremental indirect O&M represents an approximation of the time spent by internal BHI staff on various projects.

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

(Program #2 - General Services Smart Metering)

A. **Name of the Program:** General Services Smart Metering

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

A total of 43 interval meters were purchased for general service customers that were being metered by standard meters. BHI has been working with these customers to complete the meter change and the implement the required communication. These customers will then have access to an on-line tool that will provide them with hourly consumption and pricing information to aid them in energy use and conservation opportunities. BHI is doing some further exploration that will allow the utilization of Smart Metering communication back hauling for this customer group in the future.

BHI has found that many of these customers have embraced the on-line tool which provides access to hourly consumption and pricing information. As a result, they have been managing their energy use more effectively.

Measure(s):

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

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

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

Conservation Programs:

Demand savings (kW):		Summer		
		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:

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

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. Actual Program Costs:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:	\$ 29,784.00	\$ 29,950.00
	Incremental O&M:		
	Incentive:		
	Total:	\$ 29,784.00	\$ 29,950.00
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 1,035.00	\$ 4,449.00
	Total:	\$ 1,035.00	\$ 4,449.00

E. Assumptions & Comments:

Incremental indirect O&M represents an approximation of the time spent by internal BHI staff on various projects.

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

(Program #3 - Smart Meter Pilots)

A. **Name of the Program:** Smart Meter Pilots

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

As part of the Smart Meter Pilot, BHI has two distinct initiatives. This first is the implementation of one or more smart meter pilots, consisting primarily of residential customers, designed to test various smart metering technology options. The second initiative is related to the installation of submetering technology within a multi-unit residential complex.

BHI has initiated two smart meter pilot projects in different residential areas. The first of these is the deployment of smart meters within a newly constructed community comprising of detached, semi-detached and town houses. This includes approximately 250 meters, and associated data collection hardware. BHI has also engaged a third party to test data collection capabilities and to begin to explore how the data collected may integrate into our billing systems. To date, BHI has demonstrated the technology has been very reliable in being able to acquire reads from meters in various areas of this subdivision, as we are modifying meter placement in order to assess possible limitations in other geographical settings. While data has been collected, these meters have continued to be billed in a conventional manner.

The second smart meter pilot is in an older downtown section of Burlington. We are anticipating that we will test different data collection technology, including wi-fi and internet alternatives. This pilot will include some small commercial customers as well as the residential customers to test a variety of meter placements (i.e. will include some inside residential and commercial meters). Some meters have been installed in the downtown core, and testing of data collection should begin in 2007.

In 2007, 100 meters were installed in the Lowville rural residential area to test the meter's ability to communicate in a rural and hilly terrain. This setting represents the type of landscape and foliage that Burlington would face with approximately 15% of its residential customer base. The communication network is working well and demonstrates that the current technology will operate satisfactorily under difficult geographic constraints.

The other initiative that has been completed by BHI is related to the submetering of a multi-unit residential condominium complex. The first conversion was completed in 2005, and customers have had individual billing since October 2005. In 2007, Burlington Hydro subsidized the installation of several network-based smart sub-metering systems in condominium building. Under this configuration, the individual unit holders became responsible for their own electricity consumption. This resulted in a conservation effect amounting to an overall electricity use reduction of approximately 20%. The additional projects further demonstrated the conservation effect of condominium smart sub-metering and helped Burlington Hydro understand the market drivers that are governing the uptake of smart metering in multi-unit residential buildings.

Measure(s):

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

B. **TRC Results:**

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

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

	Cumulative Results:			
Conservation Programs:			Cumulative Lifecycle	Cumulative Annual Savings
Demand savings (kW):	Summer			
	Winter			
Energy saved (kWh):	lifecycle			
	in year			

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):		
Energy savings (kWh):	lifecycle	in year

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):		
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D. <u>Actual Program Costs:</u>		Reporting Year		Cumulative Life to Date	
Utility direct costs (\$):	Incremental capital:	\$	6,458.00	\$	212,212.00
	Incremental O&M:	\$	87,992.00	\$	99,641.00
	Incentive:				
	Total:	\$	94,450.00	\$	311,853.00
Utility indirect costs (\$):	Incremental capital:				
	Incremental O&M:	\$	8,315.00	\$	32,985.00
	Total:	\$	8,315.00	\$	32,985.00

E. Assumptions & Comments:

Incremental indirect O&M represents an approximation of the time spent by internal BHI staff on various projects.

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

(Program #4 - BHI Lighting Retrofit)

A. **Name of the Program:** BHI Lighting Retrofit

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

BHI has completed a lighting retrofit of the office area, training centre and garage area of its own facilities in 2005. In 2006, this initiative was extended to include the 31 substations in the BHI distribution area.

Measure(s):

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

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ -	\$ 74,590.32
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 172.00	\$ 11,329.00
Incremental Measure Costs (Equipment Costs)	\$ -	\$ 81,299.05
Total TRC costs:	\$ 172.00	\$ 92,628.05
Net TRC (in year CDN \$):	-\$ 172.00	-\$ 18,037.73
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	-	0.81

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

Conservation Programs:

Demand savings (kW):	Summer		34.46
	Winter		

	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):			1,304,191.9	232,326.0
Other resources saved :				
Natural Gas (m3):				
Other (specify):				

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

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

Line Loss Reduction Programs:

Peak load savings (kW):		
	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. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:	\$ 172.00	\$ 86,081.00
	Incremental O&M:	\$ -	\$ 2,720.00
	Incentive:		
	Total:	\$ 172.00	\$ 88,801.00
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:	\$ -	\$ 3,828.00
	Total:	\$ -	\$ 3,828.00

E. Assumptions & Comments:

Incremental indirect O&M represents an approximation of the time spent by internal BHI staff on various projects.

TRC calculations have been based on using TRC Guide assumptions, where available, and where unavailable, estimates by lighting professionals were made for items not included in the TRC Guide. BHI reserves the right to provide and justify improved data inputs to the calculation of the TRC for this program in the future.

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

(Program #5 - Municipal New Construction)

A. **Name of the Program:** Municipal New Construction

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

The City of Burlington has several new building initiatives underway. Burlington Hydro proposes to assist in special design studies to address how this, or other buildings planned by the City, could be made more energy-efficient, while maintaining or enhancing functional and aesthetic requirements of the building(s). Burlington Hydro will encourage the City – through financial assistance and consultation – to review and alter proposed designs. Burlington Hydro may also provide direct financial assistance to cover the incremental cost of these energy efficient measures or innovative technologies. This assistance will help to realize a systematic, cost-effective reduction in peak demand, energy use or both.

Halton Regional Police Services undertook construction of a new station facility in Burlington in 2006. Burlington Hydro provided an incentive to upgrade the lighting systems as the design stage to incorporate higher levels of energy efficiency. As a result, this new facility will have a reduced demand and will consume less electricity for years to come.

In 2007, Burlington Hydro provided a financial contribution towards the construction of a windmill on the Burlington Pier. The pier is currently under construction with a completion date anticipated during the summer of 2008. Due to the high cost to benefit ratio of renewable energy projects, it will not generate a positive TRC. The project however was considered to be of great significance to the community as it provides a highly visible model of functional renewable energy, which in combination with other education and outreach programs, will result in further investment by ratepayers in such technologies. To date, Burlington Hydro has assisted on customer with participation in Standard Offer Programs and anticipates that others will come forward.

Measure(s):

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

B. TRC Results:		Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):		\$ 26,496.00	\$ 112,559.91
² TRC Costs (\$):			
	Utility program cost (excluding incentives):	\$ 5,860.00	\$ 8,126.00
	Incremental Measure Costs (Equipment Costs)	\$ 218,000.00	\$ 275,379.00
	Total TRC costs:	\$ 223,860.00	\$ 283,505.00
Net TRC (in year CDN \$):		-\$ 197,364.00	-\$ 170,945.09
Benefit to Cost Ratio (TRC Benefits/TRC Costs):			0.40

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

Conservation Programs:

Demand savings (kW):	Summer	0	10.53
	Winter	0	10.21

	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	-	-	1,421,154.1	271,241.1
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):		
Energy savings (kWh):	lifecycle	in year

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):		
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D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 104,656.00	\$ 105,342.00
	Incentive:	\$ -	\$ 10,320.00
	Total:	\$ 104,656.00	\$ 115,662.00
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 1,203.00	\$ 2,783.00
	Total:	\$ 1,203.00	\$ 2,783.00

E. Assumptions & Comments:

Incremental indirect O&M represents an approximation of the time spent by internal BHI staff on various projects.

An estimated TRC calculation has been included for the wind turbine, for which payment was included in 2007 expenditures. BHI provided a contribution of \$100,000 towards the total estimated cost of \$218,000. No values for the turbine have been included in the "Results" (i.e. kW and kWh distributed generation) section. The wind turbine is expected to be operational in Summer 2008.

TRC calculations have been based on using TRC Guide assumptions, where available, and where unavailable, estimates by lighting professionals/wind specialists were made for items not included in the TRC Guide. BHI reserves the right to provide and justify improved data inputs to the calculation of the TRC for this program in the future.

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

(Program #6 - Municipal Building Retrofit)

A. **Name of the Program:** Municipal Building Retrofit

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

Burlington Hydro proposes to assist the City in realizing earlier or deeper savings than the City would otherwise be able to achieve through a municipal buildings fund. This fund could support, for example, earlier upgrading of lighting systems than would otherwise be undertaken, or assist with the incremental costs to upgrade a replacement chiller to one with a higher efficiency. From preliminary discussions with staff responsible for facilities at the City, it appears there are many opportunities for improving the energy performance of City buildings, such as City Hall itself, arenas, community centres, pools and meeting halls.

Burlington Hydro provided incentives to assist with implementation of energy efficient lighting and installation of a high efficiency chiller at City Hall. Energy efficient lighting was undertaken at five facilities in the City, including an arena, pool and park area.

BHI also supported the City in the promotion, measurement and reporting on "The Blackout Challenge". This was a day long event held August 14, 2006 - on the anniversary of the blackout. This event reduced energy consumption within the City's own buildings by 12% in public works and 26% in City Hall. The BHI facility reduced its consumption by 14%.

As one element of Earth Day activities in Burlington, City staff were invited to exchange incandescent bulbs for new compact fluorescent bulbs to raise energy conservation awareness. The lightbulb exchange demonstrated the willingness of the public to participate in initiatives that foster conservation.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
<i>Base case technology:</i>	60W Incandescent		
<i>Efficient technology:</i>	15W CFL		
<i>Number of participants or units delivered for reporting year:</i>	2200		
<i>Measure life (years):</i>	2		
<i>Number of Participants or units delivered life to date</i>	2200		

TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 65,181.60	\$ 337,056.40
² TRC Costs (\$):		
<i>Utility program cost (excluding incentives):</i>	\$ 7,628.00	\$ 39,314.00
<i>Incremental Measure Costs (Equipment Costs)</i>	\$ -	\$ 238,262.00
<i>Total TRC costs:</i>	\$ 7,628.00	\$ 277,576.00
<i>Net TRC (in year CDN \$):</i>	\$ 57,553.60	\$ 59,480.40
<i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>	8.55	1.21

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

Conservation Programs:

<i>Demand savings (kW):</i>			
	Summer	30.29	54.17
	Winter	28.51	51.11

	<i>lifecycle</i>	<i>in year</i>	<i>Cumulative Lifecycle</i>	<i>Cumulative Annual Savings</i>
<i>Energy saved (kWh):</i>	712,800.0	356,400.0	4,394,195.7	741,774.3
<i>Other resources saved :</i>				
<i>Natural Gas (m3):</i>				
<i>Other (specify):</i>				

Demand Management Programs:

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

Demand Response Programs:

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):
Energy savings (kWh): *lifecycle* *in year*

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Media Coverage (paid):
Media Coverage (unpaid):

D. Actual Program Costs:		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	<i>Incremental capital:</i>	<input type="text"/>	<input type="text"/>
	<i>Incremental O&M:</i>	\$ 7,383.00	\$ 37,293.00
	<i>Incentive:</i>	\$ -	\$ 65,722.00
	<i>Total:</i>	\$ 7,383.00	\$ 103,015.00
Utility indirect costs (\$):	<i>Incremental capital:</i>	<input type="text"/>	<input type="text"/>
	<i>Incremental O&M:</i>	\$ 245.00	\$ 2,021.00
	<i>Total:</i>	\$ 245.00	\$ 2,021.00

E. Assumptions & Comments:

Incremental indirect O&M represents an approximation of the time spent by internal BHI staff on various projects.

TRC calculations have been based on using TRC Guide assumptions, where available, and where unavailable, estimates by lighting professionals were made for items not included in the TRC Guide. BHI reserves the right to provide and justify improved data inputs to the calculation of the TRC for this program in the future.

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

(Program #7 - Appliance Replacement Program)

A. **Name of the Program:** Appliance Replacement Program

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

BHI had originally contemplated the delivery of appliance and equipment replacement programs to assist customers in the removal, replacement and retirement of older and inefficient equipment. Among possibilities considered were an air conditioner replacement program, SLED program, basement refrigerator retirement, and so on.

Many of the items considered for the program began to be covered by programs delivered by the OPA. For example, BHI held a SLED exchange day as part of the Every Kilowatt Counts program.

As part of the cost allocation process initiated by the OEB, BHI was required to complete an appliance saturation survey. BHI took this opportunity to ask additional questions to customers with respect to their appliances, ages of appliances, and some specific questions with respect to conservation initiatives. Given the additional conservation type questions, 50% of the cost to complete this survey was included in this program. The knowledge from the survey will help in the delivery of OPA initiated programs in the BHI area.

Measure(s):

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

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

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

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

Line Loss Reduction Programs:

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

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):		
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D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>	\$ 130.00	\$ 11,586.00
	<i>Incentive:</i>		
	<i>Total:</i>	\$ 130.00	\$ 11,586.00
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>	\$ -	\$ 1,423.00
	<i>Total:</i>	-	\$ 1,423.00

E. Assumptions & Comments:

Incremental indirect O&M represents an approximation of the time spent by internal BHI staff on various projects.

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

(Program #8 - Public Education and Outreach)

A. **Name of the Program:** Public Education and Outreach

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

Burlington Hydro has launched a collaborative public education and outreach program with the City of Burlington. As part of this program, bill inserts with energy saving tips were mailed to BHI customers in July/August 2005. As well, the Lighten Your Electricity Coupon Program was launched as part of this initiative.

Burlington Hydro is a major sponsor of the ECO Schools program currently under delivery within the Halton District School Board and the Halton Catholic District School Board. Ontario EcoSchools is an environmental education program that addresses both how the schools are run and what students learn. It has been designed collaboratively by school boards to incorporate environmental education as well as environmentally responsible action into the school setting. Student success—in both academics and positive contributions to society—is the focus of Ontario EcoSchools. The program aims to influence young people during a formative period of life, and affect an exponential impact as children take a culture of conservation home with them. By instilling a conservation culture into students, Burlington Hydro is helping create a new generation of power consumers who will practice prudent energy use personally and within their families.

In 2007, Burlington Hydro continued to support the ECO schools program. In addition, to promote the energy conservation impact of compact fluorescent lamps, Burlington Hydro provided 800 compact fluorescent lamps to participants in the "Party in Pink", a volunteer initiative to fundraise for breast cancer research.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
<i>Base case technology:</i>	60W Incandescent		
<i>Efficient technology:</i>	13W CFL		
<i>Number of participants or units delivered for reporting year:</i>	800		
<i>Measure life (years):</i>	2		
<i>Number of Participants or units delivered life to date</i>	800		

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 25,862.40	\$ 255,769.40
² TRC Costs (\$):		
<i>Utility program cost (excluding incentives):</i>	\$ 18,141.00	\$ 77,958.00
<i>Incremental Measure Costs (Equipment Costs)</i>	\$ -	\$ 26,601.00
<i>Total TRC costs:</i>	\$ 18,141.00	\$ 104,559.00
<i>Net TRC (in year CDN \$):</i>	\$ 7,721.40	\$ 151,210.40
<i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>	\$ 1.43	2.45

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

Conservation Programs:

<i>Demand savings (kW):</i>	Summer	11.50	44.73
	Winter	10.80	10.80

	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
<i>Energy saved (kWh):</i>	270,720.0	135,360.0	5,368,812.0	620,833.0
<i>Other resources saved :</i>				
<i>Natural Gas (m3):</i>				
<i>Other (specify):</i>				

Demand Management Programs:

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

Demand Response Programs:

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): [] []
Energy savings (kWh): [] []

	lifecycle	in year
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Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Bill inserts distributed (approximately): [] 59,000
Media coverage: [] 1 newspaper ad

D. Actual Program Costs:		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>	\$ 16,708.00	\$ 55,631.00
	<i>Incentive:</i>	\$ -	\$ 16,857.00
	<i>Total:</i>	\$ 16,708.00	\$ 72,488.00
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>	\$ 1,433.00	\$ 6,470.00
	<i>Total:</i>	1,433.00	\$ 6,470.00

E. Assumptions & Comments:

Incremental indirect O&M represents an approximation of the time spent by internal BHI staff on various projects.

Details on 2005 coupon program and associated TRC analysis were provided in the 2005 annual report, and have not been duplicated in this report. TRC calculations have been based on using TRC Guide assumptions where available, and where unavailable, reasonable assumptions were made for items not included in the TRC Guide. BHI reserves the right to provide and justify improved data inputs to the calculation of the TRC for this program in the future.

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

(Program #9 - Home Developers Program)

A. **Name of the Program:** Home Developers Program

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

This program provides an incentive up to \$100/unit for home developers in Burlington to install energy efficient lighting in single family and multi-residential units (includes common areas). The program launched in January 2006.

Despite aggressive work on the part of BHI to provide this program, there has been no uptake by the builder community. At the same time, demand for retrofitting lighting in existing multi-unit residential facilities was increasing in the City of Burlington. As a result, the focus of this program was shifted from residential new construction to the residential lighting retrofit market. In 2007, Burlington Hydro completed two multi-unit residential lighting retrofit projects. The momentum gained through public outreach and active lighting retrofit marketing carried through to the Electricity Retrofit Incentive Program, resulting in sustained customer uptake.

Measure(s): SEE ATTACHED

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

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 198,661.63	\$ 198,661.63
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 1,380.00	\$ 32,767.00
Incremental Measure Costs (Equipment Costs)	\$ 71,886.00	\$ 71,886.00
Total TRC costs:	\$ 73,266.00	\$ 104,653.00
Net TRC (in year CDN \$):	\$ 125,395.63	\$ 94,008.63
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	\$ 2.71	1.90

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

Conservation Programs:

Demand savings (kW):	Summer	87.27	87.27
	Winter	84.04	84.04

	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	3,044,126.61	1,247,091.15	3,044,126.61	1,247,091.15

Other resources saved :

Natural Gas (m3):			
Other (specify):			

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

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

Line Loss Reduction Programs:

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

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. Actual Program Costs:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>	\$ 890.00	\$ 32,278.00
	<i>Incentive:</i>	\$ 85,197.00	\$ 85,197.00
	<i>Total:</i>	\$ 86,087.00	\$ 117,475.00
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>	\$ 490.00	\$ 7,122.00
	<i>Total:</i>	\$ 490.00	\$ 7,122.00

E. Assumptions & Comments:

Incremental indirect O&M represents an approximation of the time spent by internal BHI staff on various projects.

TRC calculations have been based on using TRC Guide assumptions, where available, and where unavailable, estimates by lighting professionals were made for items not included in the TRC Guide. BHI reserves the right to provide and justify improved data inputs to the calculation of the TRC for this program in the future.

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

(Program #9 - Home Developers Program)

A. Measure(s):

Measure	Base Case Technology	Efficient Technology	Number of Units Delivered for Reporting Year	Measure Life (years)
1	2lamp 4' T12 (76W)	2lamp 4' T8 (46W)	171	2.74
2	2lamp 2' T12(48W)	2lamp 2' T8 (27W)	110	2.74
3	1lamp 2' T12 (27W)	1lamp 2' T8 (15W)	44	2.74
4	Metal Halide (127W)	2lamp 4' T8 (59W)	98	2.74
5	Metal Halide (185W)	2lamp 4' T8 (74W)	7	2.74
6	Exit Sign Incandescent 30W	Exit Sign LED=2.4W	71	25.11
7	Exit Sign Incandescent 80W	Exit Sign LED=2.4W	64	25.11
8	60W Incandescent	13W CFL	4329	1.14
9	60W Incandescent	14W CFL	54	1.14
10	25W Incandescent	9W CFL	669	1.14
11	40W Incandescent	7W CFL	934	0.91
12	100W Incandescent	23W CFL	20	0.91
13	2lamp 8' T12 (204W)	4lamp 4' T8 (112W)	83	2.74
14	2lamp 8' T12 (204W)	4lamp 4' T8 (95W)	1	2.74
15	4lamp 4' T12 (156W)	4lamp 4' T8 (98W)	1	2.74
16	2lamp 4' T12 (78W)	2lamp 4' T8 (51W)	74	2.74
17	1lamp 4' T12 HO (85W)	1lamp 4' T8 (28W)	25	2.74
18	1lamp 4' T12 (47W)	1lamp 4' T8 (30W)	34	2.74
19	1lamp 3' T12 (37W)	1lamp 3' T8 (22W)	60	2.74
20	50W Incandescent	9W CFL	16	1.14
21	100W Incandescent	13W CFL	1	1.14

Appendix B - Discussion of the Program

(Program #10 - Education and Outreach - General Service)

A. **Name of the Program:** Education and Outreach - General Service

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

Burlington Hydro has launched an education and outreach program for its general service customers. To date this has involved a number of initiatives including: energy conservation tips in the Burlington Post local newspaper; participation in the mail out of IESO information brochure that had a focus on conservation initiatives for business; participation in Burlington Economic Development Corporation tradeshows, hosting of a breakfast meeting for general service customers. In 2007, to promote uptake further uptake of Energy Management, Burlington Hydro has continued to promote general service program success to date which illustrated the benefits of energy management in the community.

These initiatives have taken place early in the CDM Program period and illustrate the importance of community outreach. The continued broadcasting of the benefits of energy management resulted in very high uptake of subsequent programs such as Energy Efficient Lighting and Electricity Retrofit Incentive Programs.

Measure(s):

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

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

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

Conservation Programs:

Demand savings (kW):	Summer			
	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):		
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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):

Number of IESO mailouts:

Tradebooth Handouts:

D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	<i>Incremental capital:</i>	<input type="text"/>	<input type="text"/>
	<i>Incremental O&M:</i>	\$ 1,634.00	\$ 22,878.00
	<i>Incentive:</i>	<input type="text"/>	<input type="text"/>
	<i>Total:</i>	\$ 1,634.00	\$ 22,878.00
Utility indirect costs (\$):	<i>Incremental capital:</i>	<input type="text"/>	<input type="text"/>
	<i>Incremental O&M:</i>	\$ 1,384.00	\$ 7,155.00
	<i>Total:</i>	\$ 1,384.00	\$ 7,155.00

E. Assumptions & Comments:

Incremental indirect O&M represents an approximation of the time spent by internal BHI staff on various projects.

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

(Program #11 - CCIW Showcase)

A. **Name of the Program:** CCIW Showcase

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

This program is a partnership with Environment Canada, Canada Centre for Inland Waters (CCIW), City of Burlington and BHI to showcase CCIW's energy efficiency measures to BHI's general service customers.

BHI has continued to work with CCIW throughout 2006 in providing meetings to BHI's general service customers at this facility and to build on and develop the culture of conservation. At a meeting held at CCIW on January 19, 2006, BHI was presented with a Certificate of Recognition from Peter Love of the OPA to recognize the leadership role that BHI has made in the long term commitment to conserve electricity in Ontario. The unique partnership with CCIW was also recognized.

In addition to this meeting, and another meeting held in September 2006 at this facility, BHI has worked with CCIW to provide installation of meters to measure the hourly generation of solar panels. This information is fed into the CCIW internal energy management and web posting system. This knowledge will help CCIW and BHI understand more about how solar panels can be used to assist in energy management.

Measure(s):

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

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

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

Conservation Programs:

Demand savings (kW):	Summer		
	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:

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

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 130.00	\$ 18,971.00
	Incentive:		
	Total:	\$ 130.00	\$ 18,971.00
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:	\$ -	\$ 5,627.00
	Incentive:		
	Total:	\$ -	\$ 5,627.00

E. Assumptions & Comments:

Incremental indirect O&M represents an approximation of the time spent by internal BHI staff on various projects.

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

(Program #12 - Voluntary Demand Response)

A. **Name of the Program:** Voluntary Demand Response

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

Burlington Hydro has installed a customer notification system that works in conjunction with the SCADA system to provide telephone notification to BHI's largest customers during peak periods as indicated by the IESO. This also includes notification during smog days.

In 2006, Burlington Hydro worked with the four local distribution companies who service Conservation Halton, the regional lands and water conservation authority, to structure a demand response triggered by wholesale market electricity prices exceeding \$0.12 or whenever the Ontario Ministry of Environment issued a smog alert. On receipt of a price alarm signal or a smog alert, a "call to action" is issued by Conservation Halton to an "Energy Marshall" located at each of Conservation Halton's 50 facilities. Demand reduction actions include reducing lighting, setting up air conditioning (summer) and setting down heating (winter). This can result in a demand reduction of 100kW through the Halton Region. In the winter, when snow is manufactured at a Halton area ski facility, the demand response can be up to 2.1 mW. While facilities within the Burlington distribution area were limited to one administration building, we were pleased to be partner in this program that has provided education and awareness to the Halton region.

Expenditures in 2007 relate to support and maintenance of the TVD Avalanche system. Based on the experience gained in customer notification and demand response since the system installation in 2005, during 2007 Burlington Hydro changed the communication provider associated with this project. This change has not only improved the customer notification process, but has positioned Burlington Hydro to be able to utilize this system to support additional demand response functionality in the future.

Measure(s):

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

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

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

Conservation Programs:

Demand savings (kW):	Summer			
	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:

Peak load savings (kW):		
Energy savings (kWh):	lifecycle	in year

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):		
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D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:	\$ -	\$ 48,000.00
	Incremental O&M:	\$ 9,422.00	\$ 38,297.00
	Incentive:		
	Total:	\$ 9,422.00	\$ 86,297.00
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 4,301.00	\$ 13,284.00
	Total:	\$ 4,301.00	\$ 13,284.00

E. Assumptions & Comments:

Incremental indirect O&M represents an approximation of the time spent by internal BHI staff on various projects.

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

(Program #13 - Staff Development Program)

A. **Name of the Program:** Staff Development Program

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

BHI is encouraging staff to participate in training that will provide additional knowledge of CDM activities. BHI has continued to learn where external education opportunities exist, and members of the conservation team have continued to expand their personal network of contacts with other utilities, City, Region and other businesses. BHI has also begun the process of developing internal employee education and initiating a culture change to one that encourages all employees to be part of the Provincial conservation initiatives. This program has allowed and encouraged BHI to make additional strides in overall conservation awareness.

An example of this education was an all employee meeting was held which included overview of all Third Tranche, Post Third Tranche and OPA conservation initiatives and described the level of participation to everyone. All employees received CFL bulbs at this meeting, and sample of the items available in the spring EKC coupon campaign were available for employees to see. These items were given to employees in a draw at the end of all meetings. Future employee education initiatives have been delivered based on the success of these employee activities.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
<i>Base case technology:</i>	60W Incandescent		
<i>Efficient technology:</i>	15WCFL		
<i>Number of participants or units delivered for reporting year:</i>	260		
<i>Measure life (years):</i>	2		
<i>Number of Participants or units delivered life to date</i>	260		

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 7,703.00	7,703.00
² TRC Costs (\$):		
<i>Utility program cost (excluding incentives):</i>	\$ 7,213.00	8,333.00
<i>Incremental Measure Costs (Equipment Costs)</i>	\$ -	-
<i>Total TRC costs:</i>	\$ 7,213.00	8,333.00
<i>Net TRC (in year CDN \$):</i>	\$ 490.00	(630.00)
<i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>	\$ 1.07	0.92

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

Conservation Programs:

<i>Demand savings (kW):</i>	Summer	3.58	3.58
	Winter	3.37	3.37

	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
<i>Energy saved (kWh):</i>	84,240.00	42,120.00	84,240.00	42,120.00
<i>Other resources saved :</i>				
<i>Natural Gas (m3):</i>				
<i>Other (specify):</i>				

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

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

Line Loss Reduction Programs:

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

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>	\$ 4,458.00	\$ 5,578.00
	<i>Incentive:</i>		
	<i>Total:</i>	\$ 4,458.00	\$ 5,578.00
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>	\$ 2,755.00	\$ 3,433.00
	<i>Total:</i>	\$ 2,755.00	\$ 3,433.00

E. Assumptions & Comments:

Incremental indirect O&M represents an approximation of the time spent by internal BHI staff on various projects.

TRC calculations have been based on using TRC Guide assumptions, where available, and where unavailable, estimates by lighting professionals were made for items not included in the TRC Guide. BHI reserves the right to provide and justify improved data inputs to the calculation of the TRC for this program in the future.

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

(Program # 14 - Planning, Administration and Monitoring)

A. **Name of the Program:** Planning, Administration and Monitoring

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

This category of expenses include the costs that are related to the completion of the original plan, quarterly and annual reporting, general CDM tracking and administration, ongoing reconciliation to accounting records, etc..

As anticipated, Burlington Hydro was able to reduce the amount of costs on the administration side as more experience was gained in the roll-out of various CDM initiatives. A greater amount of knowledge has been gained in tracking and reporting on the projects, resulting in a reduced reliance on external resources to assist in administration aspects. BHI continues to learn and develop internally as well as streamline internal reporting and monitoring activities.

Measure(s):

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

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

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:

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

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
<i>Utility direct costs (\$):</i>	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>	\$ 4,361.00	\$ 72,081.00
	<i>Incentive:</i>		
	<i>Total:</i>	\$ 4,361.00	\$ 72,081.00
<i>Utility indirect costs (\$):</i>	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>	\$ 5,730.00	\$ 30,863.00
	<i>Incentive:</i>		
	<i>Total:</i>	\$ 5,730.00	\$ 30,863.00

E. Assumptions & Comments:

Incremental indirect O&M represents an approximation of the time spent by internal BHI staff on various projects.

¹ Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit 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 Third Tranche Funding

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 (\$)
#7 - Appliance Replacement			\$ -	0.00				\$ 130
#8 - Public Education & Outreach	\$ 25,862	\$ 18,141	\$ 7,721	1.43	135,360	270,720	12	\$ 16,707
#9 - Home Developers Program	\$ 198,662	\$ 73,266	\$ 125,396	2.71	1,247,091	3,044,127	87	\$ 86,087
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	\$ 224,524	\$ 91,407	\$ 133,117	2.46	1,382,451	3,314,847	99	\$ 102,924
Residential Indirect Costs not attributable to any specific program								
Total Residential TRC Costs		\$ 91,407						
**Totals TRC - Residential	\$ 224,524	\$ 91,407	\$ 133,117	2.46				

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 (\$)
#2 - General Services Smart Metering			\$ -	0.00				\$ 29,783
#4 - BHI Lighting Retrofit			\$ -	0.00				\$ 172
#5 - Municipal New Construction	\$ 26,496	\$ 223,860	-\$ 197,364	0.12				\$ 104,656
#6 - Municipal Building Retrofit	\$ 65,182	\$ 7,628	\$ 57,554	8.55	356,400	712,800	30	\$ 7,383
#10 - Education & Outreach			\$ -	0.00				\$ 1,635
#11 - CCIW Showcase			\$ -	0.00				\$ 130
#12 - Voluntary Demand Response			\$ -	0.00				\$ 9,421
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
*Totals App. B - Commercial	\$ 91,678	\$ 231,488	-\$ 139,810	0.40	356,400	712,800	30	\$ 153,180

Commercial Indirect Costs not attributable to any specific program →

Total TRC Costs		\$	231,488				
**Totals TRC - Commercial	\$	91,678	\$	231,488	-\$	139,810	0.40

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 (\$)
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 - Institutional	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -

Institutional Indirect Costs not attributable to any specific program →

Total TRC Costs		\$	-		
**Totals TRC - Institutional	\$	-	\$	-	0.00

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	\$ -
<i>Industrial Indirect Costs not attributable to any specific program</i>	→							
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	\$ -
<i>Agricultural Indirect Costs not attributable to any specific program</i>	→							
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 (\$)
#1 - Distribution System Improvements			\$ -	0.00				\$ 500,356
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	\$ 500,356
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 (\$) → 94,450

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 (\$)
#13 - Staff Development	\$ 7,703	\$ 7,213	\$ 490	1.07	42,120	84,240	4	\$ 4,457
#14 - Planning, Admin and Monitoring			\$ -	0.00				\$ 4,361
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	\$ 7,703	\$ 7,213	\$ 490	1.07	42,120	84,240	4	\$ 8,818
Other #1 Indirect Costs not attributable to any specific program	→							
Total TRC Costs		\$ 7,213						
**Totals TRC - Other #1	\$ 7,703	\$ 7,213	\$ 490	1.07				


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	\$ -
<i>Other #2 Indirect Costs not attributable to any specific program</i>								
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	\$ 323,905	\$ 330,108	-\$ 6,203	0.98	\$ 1,780,971	\$ 4,111,887	\$ 133	\$ 859,728
<i>Any other Indirect Costs not attributable to any specific program</i>								
TOTAL ALL LDC COSTS		\$ 330,108						
**LDC' PORTFOLIO TRC	\$ 323,905	\$ 330,108	-\$ 6,203	0.98				

* 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.