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Ontario Energy Board  
27<sup>th</sup> Floor  
2300 Yonge Street  
Toronto, ON  
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April 30, 2007

Dear Ms. Walli,

RE: Burlington Hydro Inc.  
2006 Annual Report  
CDM Funded Through Rates

Please find attached the 2006 Annual Report, CDM Funded Through Rates from Burlington Hydro Inc ("BHI"). As directed in the Requirements for Annual Reporting on Conservation and Demand Management ("CDM") Initiatives dated March 1, 2007, 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 myself at 905-332-2253, or Anne Rampado at 905-332-2260.

Yours truly,

*Original signed by*

Gerry Smallegange  
Chief Operating Officer

cc. Anne Rampado, 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, and the updated directions and spreadsheets as posted on the OEB website March 1, 2007.

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 on August 2, 2005 in conjunction with the filing of the 2006 Electricity Distribution Rate (“EDR”) Applications. The file number RP-2005-0020/EB-2005-0356 was given to this application. This plan was approved by the OEB in its Decision dated April 12, 2006.

The total spending included in the plan is \$400,000.

The programs included in the plan are as follows:

- New Home Developers Program;
- Residential Coupon Program; and
- General Service Lighting Program.

As of December 31, 2006, all programs have been initiated. Details of each of the programs are included in Section 3.

April 30, 2007

## **Section 2**

### **Evaluation of the CDM Plan**

BHI has had great success with the programs that are included in this portfolio. The total net TRC benefit is approximately \$1.7 million. These programs have provided a peak demand savings of 225 kW, and kWh lifecycle savings in excess of 39 million kWh.

In addition to the financial benefit greenhouse gas emissions were reduced as well. The approximate benefit, based upon Ontario's current electricity generation sources is an avoidance, over the technology lifespan, of:

- 26,000 Tonnes CO<sub>2</sub>
- 115,000 Kg SO<sub>2</sub>
- 24,000 Kg NO<sub>x</sub>

If all of the displaced electricity were generated by coal, the consumption of approximately 17.5 million tonnes of coal was avoided.

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

## **Section 3**

### **Discussion of Programs**

BHI has modified two of the programs based on a combination of consumer uptake and evolution of conservation initiatives in Ontario.

The Home Developers Program had initially been developed as part of the BHI 2005-2007 CDM Plan. Through consultations with the City of Burlington, representatives of the home building community (Hamilton/Burlington Home Builders Association) and specific discussions with larger developers, BHI designed what was thought to be an effective program. When offered to this group of clients, there was no uptake on the program offering. BHI modified the program in that we offered an extension of the General Service Lighting Retrofit program to multi-unit residential customers under this program. This group of customers would also have been eligible for new construction under the original program description.

The Residential Coupon Program was modified slightly since after the filing of this plan, the OPA has been delivering the bi-annual EKC Coupon booklet. BHI has used this program funding to support the OPA program initiatives.

The summary sheets outlining each of the BHI programs are provided at Appendix B. In each of the summary sheets, BHI has provided a detailed overview of each program and the current status.

## **Section 4**

### **Lessons Learned**

BHI has continued to learn and develop related to CDM. BHI has strengthened relationships with the City of Burlington, Burlington Economic Development Corporation, the Region of Halton, Ministry of Energy, other LDCs, various vendors/promoters of energy efficient programs/products, and most importantly, our customers.

Throughout 2006, BHI has had many programs 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 more effectively internally to support initiatives.

Specifically,

- Implementation of energy efficient lighting, originally initiated through the 2005-2007 CDM Plan Lighting Retrofit Program, demonstrated that energy use could successfully be reduced through energy efficient lighting. Our learning in our own retrofit program allowed us to design and offer a lighting retrofit program to our general service customers. Our work on this program indicated that although many lighting retrofit opportunities are cost-effective, they are not pursued by customers due to various informational and institutional barriers. Our experience was that customers had to be actively sought out, and that an appropriate financial incentive was important. Our original initial incentive (150 \$/kW) was insufficient to attract interest in participating in the program from many sectors. With a higher incentive and a program to contact customers directly, interest in this program has been high. When expanded to multi-unit residential applications, there has also been some word of mouth to assist uptake given the role of both residents in these facilities speaking with residents of other multi-unit facilities, and property management oversight of multiple facilities within Burlington.
- The Home Developers Program was one in which considerable time was spent developing a program that was, in the planning stages, supported by Burlington area builders. Despite the very positive feedback in the development stage, there was no uptake on this program. BHI is aware that the housing industry continues to boom in our area, and expects that the lack of participation is due primarily to time constraints of builders and a low level of incentive related to this program.
- Through the Residential Coupon program, BHI is learning the best mechanisms to reach the customers of Burlington, while better utilizing the funds and program support mechanisms that are available through the OPA.

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 utilities, 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.

	<sup>5</sup> Cumulative Totals Life-to-date	Total for 2006	Residential	Commercial	Institutional	Industrial	Agricultural	LDC System	<sup>4</sup> Smart Meters	Other #1	Other #2
<i>Net TRC value (\$):</i>	\$ 1,709,051	\$ 1,709,051	\$ 1,197,582	\$ 520,108	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
<i>Benefit to cost ratio:</i>	3.87	3.87	6.49	2.41	0.00	0.00	0.00	0.00		0.00	0.00
<i>Number of participants or units delivered:</i>											
<i>Lifecycle (kWh) Savings:</i>	39,254,037	39,254,037	26,677,247	12,576,790	0	0	0	0		0	0
<i>Report Year Total kWh saved (kWh):</i>	4,999,855	4,999,855	3,432,752	1,567,103	0	0	0	0		0	0
<i>Total peak demand saved (kW):</i>	225	225	104	121	0	0	0	0		0	0
<i>Total kWh saved as a percentage of total kWh delivered (%):</i>	0.276%	0.276%	0.590%	0.128%							
<i>Peak kW saved as a percentage of LDC peak kW load (%):</i>		0.059%	0.027%	0.031%							
<sup>1</sup> <i>Report Year Gross C&amp;DM expenditures (\$):</i>	224,573	\$ 224,573	\$ 47,873	\$ 168,061	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<sup>2</sup> <i>Expenditures per kWh saved (\$/kWh):</i>	\$ 0.01	\$ 0.01	\$ 0.00	\$ 0.01	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
<sup>3</sup> <i>Expenditures per kW saved (\$/kW):</i>	\$ 998.10	\$ 998.10	\$ 460.32	\$ 1,388.93	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
<i>Utility discount rate (%):</i>	6.82										

<sup>1</sup> Expenditures are reported on accrual basis.

<sup>2</sup> Expenditures include all utility program costs (direct and indirect) for all programs which primarily generate energy savings.

<sup>3</sup> Expenditures include all utility program costs (direct and indirect) for all programs which primarily generate capacity savings.

<sup>4</sup> 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.

<sup>5</sup> 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 - Multi-Unit Residential Lighting Retrofit Program)**

A. **Name of the Program:** Multi-unit Residential Lighting Retrofit Program (Originally New Home Developers Program)

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

Multi-Unit Residential Lighting Retrofit Program is an incentive program for multi-unit residential complexes to install energy efficient lighting. This is an extension of the very successful General Service Lighting Retrofit Program, specific to multi-unit residential complexes. The program design is incentive based. Incentives increase the effectiveness of lighting programs because they provide leverage. The building owners provide the majority of the capital resulting in a greater energy reduction achievement for each dollar of incentive. Program delivery was conducted through a lighting partner. This provided quality control and consistency of installations. Customers are pleased with the outcomes, both in terms of quality and energy savings. Much of the program activity was driven by "word of mouth": satisfied customers communicated the programs success to their counterparts, resulting in a high referral rate. This reduced marketing costs considerably. The lighting contractor also provided the marketing drive for program promotion.

**Measure(s): See Attached Page**

	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. <b>TRC Results:</b>	Reporting Year	Life-to-date TRC Results:
<sup>1</sup> TRC Benefits (\$):	\$ 171,335.08	\$ 171,335.08
<sup>2</sup> TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 1,131.00	\$ 1,131.00
Incremental Measure Costs (Equipment Costs)	\$ 79,237.00	\$ 79,237.00
<b>Total TRC costs:</b>	<b>\$ 80,368.00</b>	<b>\$ 80,368.00</b>
<b>Net TRC (in year CDN \$):</b>	<b>\$ 90,967.08</b>	<b>\$ 90,967.08</b>
<b>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</b>	<b>2.13</b>	<b>2.13</b>

C. <b>Results:</b> (one or more category may apply)	<b>Cumulative Results:</b>			
<b>Conservation Programs:</b>				
Demand savings (kW):	Summer	36.103	36.103	
	Winter	34.183	34.183	
	lifecycle		Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	2,638,563.55	521,175.72	2,638,564	521,176
Other resources saved :				
Natural Gas (m3):				
Other (specify):				
<b>Demand Management Programs:</b>				
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):				
<b>Demand Response Programs:</b>				
Dispatchable load (kW):				
Peak hours dispatched in year (hours):				
<b>Power Factor Correction Programs:</b>				
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 (kW):		
Fuel type:		

**Other Programs (specify):**

Metric (specify):		
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<b>D. <u>Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
Utility direct costs (\$):	Incremental capital:	\$ -	\$ -
	Incremental O&M:	\$ 250.00	\$ 250.00
	Incentive:	\$ 35,041.70	\$ 35,041.70
	Total:	\$ 35,291.70	\$ 35,291.70
Utility indirect costs (\$):	Incremental capital:	\$ -	\$ -
	Incremental O&M:	\$ 881.00	\$ 881.00
	Total:	\$ 881.00	\$ 881.00

**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.

<sup>1</sup> 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.

<sup>2</sup> 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 #1 - Multi-Unit Residential Lighting Retrofit Program)**

**A. Measure(s):**

<b>Measure</b>	<b>Base Case Technology</b>	<b>Efficient Technology</b>	<b>Number of Units Delivered for Reporting Year</b>	<b>Measure Life (years)</b>
<b>1</b>	2lamp T12-4' 34W (78-81W)	2lamp T8 32W (51W)	29	10
<b>2</b>	2lamp T12-4' 34W (78-81W)	2lamp T8 32W (51W)	70	10
<b>3</b>	2lamp T12-4' 34W (156-162W)	2lamp T8 32W (58-59W)	2	10
<b>4</b>	2lamp T12/F96-8' HO 110W (232-252W)	4lamp T8 32W (112W)	93	10
<b>5</b>	1lamp T12 (47W)	1lamp T8 (30W)	113	10
<b>6</b>	1lamp T12 (47W)	1lamp T8 (30W)	218	10
<b>7</b>	2lamp T12-8' (97W)	2lamp T8 32W (51W)	128	10
<b>8</b>	1lamp-3' T12 (37W)	1lamp T8-3' (24W)	214	10
<b>9</b>	1lamp T12-2' (27W)	1lamp T8-2' (14W)	24	10
<b>10</b>	60W Incandescent	13W Screw-in CFL	1901	2

# Appendix B - Discussion of the Program

## (Program #2 - Residential Coupon Program)

A. **Name of the Program:** Residential Coupon Program

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

This program supports the delivery of the Ontario Power Authority residential coupon program, Every Kilowatt Counts. Burlington Hydro undertook activities to lever upon the Every Kilowatt Counts program. In November, 2006, an advertising and promotions campaign was undertaken, offering Burlington residents an opportunity to permanently retire their old incandescent seasonal lights at the local Home Depot store. In exchange, residents were given a coupon, doubling the Every Kilowatt Counts rebate. Delivery through the Home Depot partner was critical to the success of this program. Nearly 1,000 incandescent light strings were exchanged. The strings were recycled resulting in the recovery of the copper and plastic. The program increased year-over-year sales of LED seasonal lights by 800% on the two days of the exchange event.

**Measure(s): See attached Page**

	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. <b>TRC Results:</b>	Reporting Year	Life-to-date TRC Results:
<sup>1</sup> TRC Benefits (\$):	\$ 1,244,459.00	\$ 1,244,459.00
<sup>2</sup> TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 15,832.19	\$ 15,832.19
Incremental Measure Costs (Equipment Costs):	\$ 122,012.00	\$ 122,012.00
Total TRC costs:	\$ 137,844.19	\$ 137,844.19
<b>Net TRC (in year CDN \$):</b>	<b>\$ 1,106,614.81</b>	<b>\$ 1,106,614.81</b>
<b>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</b>	<b>\$ 9.03</b>	<b>\$ 9.03</b>

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

**Conservation Programs:**

Demand savings (kW):	Summer	67.76	67.76
	Winter	583.97	583.97

	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	24,038,684	2,911,576	24,038,684	2,911,576
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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<b>D. <u>Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
<i>Utility direct costs (\$):</i>	<i>Incremental capital:</i>	\$ -	\$ -
	<i>Incremental O&amp;M:</i>	\$ 12,581.19	\$ 12,581.19
	<i>Incentive:</i>	\$ -	\$ -
	<i>Total:</i>	\$ 12,581.19	\$ 12,581.19
<i>Utility indirect costs (\$):</i>	<i>Incremental capital:</i>	\$ -	\$ -
	<i>Incremental O&amp;M:</i>	\$ 3,251.00	\$ 3,251.00
	<i>Total:</i>	\$ 3,251.00	\$ 3,251.00

**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 completed using the Total Resource Cost Test calculators as provide by the OPA for the 2006 Summer and Fall campaigns. Number of participants are based on the information on coupon redemption as provided by the OPA.

<sup>1</sup> 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.

<sup>2</sup> 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 - Residential Coupon Program)

A. Measure(s):

Measure	Efficient Technology	Number of Units Delivered for Reporting Year	Measure Life (years)
	<b>Spring EKC Program</b>		
1	CFL	5055	4
2	Ceiling Fan	325	20
3	Timer	378	20
4	Programmable Thermostat	257	18
	<b>Fall EKC Program</b>		
5	Baseboard Programmable Theromostats	83	18
6	Dimmers	720	10
7	Energy Star CFLs	6324	4
8	Motion Sensor Light Switch	149	20
9	Programmable Thermostat	788	18
10	Seasonal LED Lights	7551	30

# Appendix B - Discussion of the Program

## **(Program #3 - General Service Lighting Program)**

A. **Name of the Program:** General Service Lighting Program

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

The General Service Lighting Program is an incentive program for Commercial and Industrial customers to install energy efficient lighting. The program design is incentive based. Incentives increase the effectiveness of lighting programs because they provide leverage. The building owners provide the majority of the capital resulting in a greater energy reduction achievement for each dollar of incentive. Program delivery was conducted through two lighting partners. This provided quality control and consistency of installations. Customers are pleased with the outcomes, both in terms of quality and energy savings. Much of the program activity was driven by "word of mouth": satisfied customers communicated the programs success to their counterparts, resulting in a high referral rate. This reduced marketing costs considerably. The lighting contractors also provided the marketing drive for program promotion.

**Measure(s): See Attached Page**

	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. <b>TRC Results:</b>		
<sup>1</sup> TRC Benefits (\$):	\$ 889,619.13	\$ 889,619.13
<sup>2</sup> TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 18,775.94	\$ 18,775.94
Incremental Measure Costs (Equipment Costs)	\$ 350,736.00	\$ 350,736.00
Total TRC costs:	\$ 369,511.94	\$ 369,511.94
<b>Net TRC (in year CDN \$):</b>	<b>\$ 520,107.19</b>	<b>\$ 470,665.23</b>
<b>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</b>	<b>2.41</b>	<b>2.12</b>

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

**Conservation Programs:**

Demand savings (kW):		Summer	121.257		121.257
		Winter	114.419		114.419

		lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):		12,576,790.08	1,567,102.79	12,576,790	1,567,103

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):

**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):

<b>D. Actual Program Costs:</b>		<b>Reporting Year</b>	<b>Cumulative Life to Date</b>
Utility direct costs (\$):	Incremental capital:	\$ -	\$ -
	Incremental O&M:	\$ 16,670.94	\$ 16,670.94
	Incentive:	\$ 151,390.06	\$ 151,390.06
	Total:	\$ 168,061.00	\$ 168,061.00
Utility indirect costs (\$):	Incremental capital:	\$ -	\$ -
	Incremental O&M:	\$ 2,105.00	\$ 2,105.00
	Total:	\$ 2,105.00	\$ 2,105.00

**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.

<sup>1</sup> 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.

<sup>2</sup> 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 - General Service Lighting Program)

**A. Measure(s):**

Measure	Base Case Technology	Efficient Technology	Number of Units Delivered for Reporting Year	Measure Life (years)
1	4 - T12 34 W (156W) 4' lamps w/2 magnetic	2 - T8 32W (58 W) reflectorized w/E	88	10
2	2 - 15W (30W) Incandescent EXIT sign	3W LED EXIT Sign	238	10
3	2lamp T12-4' 34W (78-81W)	2lamp T8 32W (51W)	1030	10
4	4lamp T12-4' 34W (156-162W)	2lamp T8 32W (58-59W)	548	10
5	4lamp T12-4' 34W (156-162W)	2lamp T8 32W (73-78W)	1151	10
6	2lamp T12/F96-8' 60W (133-142W)	2lamp T8 32W (73-78W)	12	10
7	2lamp T12/F96-8' HO 110W (232-252W)	4lamp T8 32W (112W)	24	10
8	1 Metal Halide (std) 400W (460W)	6lamp T8 32W (174W)	57	10
9	1 Metal Halide (std) 400W (460W)	6lamp T8 32W (202-226W)	86	10
10	1 Metal Halide (std) 400W (460W)	4lamp T5-HO 54W (232W)	58	10
11	1 Mercury Vapour 250W (295W)	6lamp T8 32W (174W)	37	10
12	2lamp T12-8' HO (146W)	2lamp T8 32W (73-78W)	11	10
13	1lamp T12 (47W)	1lamp T8 (30W)	118	10
14	1lamp T12 (47W)	1lamp T8 (30W)	70	10
15	1lamp T12 (34W)	1lamp T8 (24W)	204	10
16	2lamp-3' T12 (67W)	2lamp T8-3' (40W)	113	10
17	4lamp T12-4' (156W)	4lamp T8 (100W)	25	10
18	4lamp T12-4' (149W)	4lamp T8 (100W)	27	10
19	2lamp T12-8' HO (232W)	4lamp T8 (102W)	118	10
20	1lamp T12-2' (27W)	1lamp T8-2' (14W)	210	10
21	2lamp T12-2' (54W)	2lamp T8-2' (30W)	113	10
22	2lamp T12-U Tube (78W)	2lamp T8-2' (32W)	29	10
23	2lamp T12-U-4' (74W)	2lamp T8-4' (78W)	40	10
24	1lamp HPS (127W)	2lamp T8 4' (59W)	38	10
25	40W Incandescent	7W Screw-in CFL	232	1.5
26	40W Incandescent	9W Screw-in CFL	315	1.5
27	100W Incandescent	11W Screw-in CFL	30	2
28	60W Incandescent	13W Screw-in CFL	1242	2
29	75W Incandescent	15W Screw-in CFL	23	1.5
30	500W Incandescent	65W Screw-in CFL	40	2.5
31	100W Incandescent	23 WScrew-in CLF	140	2.5

## Appendix C - Program and Portfolio Totals

Report Year:

Distribution Rate Funded

### 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 (\$)
#1 - Multi-Unit Residential Lighting Retrofit	\$ 171,335	\$ 80,368	\$ 90,967	2.13	521,176	2,638,563	36	\$ 35,292
#2 - Coupon Program	\$ 1,244,459	\$ 137,844	\$ 1,106,615	9.03	2,911,576	24,038,684	68	\$ 12,581
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				
<b>*Totals App. B - Residential</b>	<b>\$ 1,415,794</b>	<b>\$ 218,212</b>	<b>\$ 1,197,582</b>	<b>6.49</b>	<b>3,432,752</b>	<b>26,677,247</b>	<b>104</b>	<b>\$ 47,873</b>
Residential Indirect Costs not attributable to any specific program	→							
<b>Total Residential TRC Costs</b>		<b>\$ 218,212</b>						
<b>**Totals TRC - Residential</b>	<b>\$ 1,415,794</b>	<b>\$ 218,212</b>	<b>\$ 1,197,582</b>	<b>6.49</b>				

### 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 (\$)
#3 - General Service Lighting Retrofit	\$ 889,619	\$ 369,511	\$ 520,108	2.41	1,567,103	12,576,790	121	\$ 168,061
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 J			\$ -	0.00				
<b>*Totals App. B - Commercial</b>	<b>\$ 889,619</b>	<b>\$ 369,511</b>	<b>\$ 520,108</b>	<b>2.41</b>	<b>1,567,103</b>	<b>12,576,790</b>	<b>121</b>	<b>\$ 168,061</b>



Commercial Indirect Costs not attributable to any specific program →

<b>Total TRC Costs</b>		\$	369,511				
<b>**Totals TRC - Commercial</b>	\$	889,619	\$	369,511	\$	520,108	2.41

### 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 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				
<b>*Totals App. B - Institutional</b>	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -

Institutional Indirect Costs not attributable to any specific program →

<b>Total TRC Costs</b>		\$	-		
<b>**Totals TRC - Institutional</b>	\$	-	\$	-	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				

<b>*Totals App. B - Industrial</b>	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
<i>Industrial Indirect Costs not attributable to any specific program</i>	→							
<b>Total TRC Costs</b>		\$ -						
<b>**Totals TRC - Industrial</b>	\$ -	\$ -	\$ -	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				
<b>*Totals App. B - Agricultural</b>	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
<i>Agricultural Indirect Costs not attributable to any specific program</i>	→							
<b>Total TRC Costs</b>		\$ -						
<b>**Totals TRC - Agricultural</b>	\$ -	\$ -	\$ -	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 (\$)
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 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				
<b>*Totals App. B - LDC System</b>	\$	-	\$	-	0.00	0	0	0	\$ -

LDC System Indirect Costs not attributable to any specific program

<b>Total TRC Costs</b>		\$	-						
<b>**Totals TRC - LDC System</b>	\$	-	\$	-	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 (\$) →

## 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 (\$)
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 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			
<b>*Totals App. B - Other #1</b>	\$	-	\$	-	0.00	0	0	\$ -


Other #1 Indirect Costs not attributable to any specific program

<b>Total TRC Costs</b>		\$	-					
<b>**Totals TRC - Other #1</b>	\$	-	\$	-	0.00			


## 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				
<b>*Totals App. B - Other #2</b>	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
<i>Other #2 Indirect Costs not attributable to any specific program</i>								
<b>Total TRC Costs</b>		\$ -						
<b>**Totals TRC - Other #2</b>	\$ -	\$ -	\$ -	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 (\$)
<b>*TOTALS FOR ALL APPENDIX B</b>	\$ 2,305,413	\$ 587,723	\$ 1,717,690	3.92	\$ 4,999,855	\$ 39,254,037	\$ 225	\$ 224,573
<i>Any other Indirect Costs not attributable to any specific program</i>		\$ 8,639						
<b>TOTAL ALL LDC COSTS</b>		\$ 596,362						
<b>**LDC' PORTFOLIO TRC</b>	\$ 2,305,413	\$ 596,362	\$ 1,709,051	3.87				

\* 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.