



CANADIAN NIAGARA POWER INC.

A **FORTIS** ONTARIO
Company

2007 CDM Annual Report and Total Life Evaluation of the Third Tranche CDM Plan

Submitted By:

Canadian Niagara Power

Port Colborne

RP-2004-0203 / EB 2004-0523

September 30, 2009



CANADIAN NIAGARA POWER INC.
A FORTIS ONTARIO
Company

September 30, 2009

Board Secretary
Ontario Energy Board
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Suite 2700
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**Total Life Evaluation of the Third Tranche CDM Plan
RP-2004-0203/EB-2004-0523**

Dear Ms. Walli:

Please accept Canadian Niagara Power Port Colborne's 2007/2008 Conservation and Demand Management Annual Report and Total Life Evaluation for Third Tranche programming. We regret that this report did not come to you by the filing date guideline.

For practical purposes we have combined the evaluation of our now-complete Third Tranche activities in 2007 and 2008, as well as the Total Life Evaluation of all programs, as set out in Appendix D.

Overall, CNPI Port Colborne is pleased with its Third Tranche CDM experience and we have learned much that will help us grow as a conservation partner to our customers.

Please call me if you have any questions concerning this filing.

Regards,

Douglas Bradbury
Director, Regulatory Affairs
Canadian Niagara Power Inc. Port Colborne

Introduction

Canadian Niagara Power Inc. Port Colborne (CNPI Port Colborne) serves some 9,400 customers in the Niagara Region, and actively administered conservation and demand management initiatives across 11 programs in 2007 and 2008 to complete its approved Third Tranche CDM expenditures of \$157,163.55. Two of the Third Tranche CDM programs were extended into 2008, the LED Festive Light exchange and Energy Audits of commercial facilities. A new low income program in support of Habitat for Humanity was also implemented in 2008.

The year 2007 was the most active that the LDC has been since Third Tranche programming commenced in 2005, and has netted the greatest results thus far. Third Tranche activities concluded in 2008 with the expenditure of the remaining budget, approximately \$14,000. Highlights of these expenditures appear in the accompanying tables.

2007

Program	Target Customers	Total kWh Savings	Actual Expenditures to Dec 31, 2007
Co-Branded Mass Market			
Christmas LED Light Exchange	Residential	13,754.10	\$1,529.64
Grade Five School Kits	Residential	38,880	\$14,396.65
City Energy Audits	Commercial		\$18,014.17
Mercury Ave Conversion	System	100,533.41	\$40,000.00
Interval Metering	Commercial		\$7,332

2008

Program	Target Customers	Total kWh Savings	Actual Expenditures to September, 2008
Energy Efficiency Appliance Upgrade - Habitat for Humanity	Low Income	706.68	\$429.30
Christmas LED Light Exchange	Residential		\$222.26
Energy Audits	Commercial		\$2,151.54

Evaluation of CDM Plan

As the accompanying Appendix D sets out, CNPI Port Colborne was successful in earning a positive net TRC return of \$69,347.69 for its Third Tranche Total Life Evaluation of CDM program activities between 2005 and 2008. This represents an aggregate energy savings of 414,002 kWh, a lifecycle savings of 4,185,109 and a load reduction of 48 kW from to the Third Tranche CDM Plan. CNPI Port Colborne was successful in achieving a positive net TRC return in all of the initiatives that it was possible to reliably track or assess kW and kWh savings. However, other initiatives such as the Conserver Family communications and the energy audits of city facilities, though difficult to attribute immediate savings, will contribute long terms gains through awareness of the conservation imperative, and as recommended city facility upgrades are implemented.

Discussion of Programs

Co-Branded Mass Market

Conserver Website

With its NEPA partners, CNP Port Colborne is a sponsor of the "Conserver Family", a customer education and information website that raises awareness among both youth and adult electricity consumers of the opportunities and options to conserve energy as a family endeavour. The Conserver Family helps promote conservation regionally through such channels as the Conservation Handbook, energy saving bill inserts, radio scripts and a web site for energy saving tips at www.conserverjoe.com.

The website and promotion of it continued through 2008 and beyond the Third Tranche, with plans to make the website interactive for Grade 5 children for use in schools as an aid in energy conservation education.

Christmas LED Light Exchange

CNPI Port Colborne exchanged 254 sets of 35-multi coloured LED seasonal light strings for residential customers in 2007 and 2008, removing an equal number of incandescent sets from service. This program will save some 13,754 kWh of energy during the season, and 412,623 kWh over the technology's lifecycle and a net TRC return of \$13,658.25. For its part, CNPI Port Colborne has helped promote LED festive lighting to great popularity locally for energy

conservation purposes, but the outstanding quality of the light itself has also helped this technology become universally popular during the holiday season.

Grade Five School Kits

CNPI Port Colborne distributed 500 energy conservation kits to grade five students in the city and delivered conservation lessons to students in classrooms. This audience is crucial to conservation success over the longer term, because the learning experience promotes new behaviours in future electricity customers and the message is reliably delivered in family homes. The kits provide practical exposure to home electricity conservation, including CFL light bulbs, refrigerator thermometers, energy educational games and a home energy audit. The CFL lights provide for annual energy savings of 38,880 kWh and lifecycle savings of 311,040 kWh, representing a net TRC return of \$2,278.36.

Habitat for Humanity

In 2008, CNPI Port Colborne provided \$2,000 in funding to upgrade donated appliances to Energy Star standards for installation by Habitat for Humanity in Port Colborne. Habitat is a respected international organization that relies on volunteers and donors to build new homes for low income families, and those displaced by natural disasters. The upgrade in appliances will save 706.68kWh in energy annually, with a lifecycle saving of 10,098 kWh

Municipal Energy Audits

CNPI Port Colborne and the City of Port Colborne partnered to audit the energy efficiency of several city-owned facilities. Audits were completed at Roselawn Centre Heritage Building, the Sugarloaf Marina, and City Hall. Providing an excellent cross section of municipal facilities and uses, the results of these audits can be extended to other city-owned facilities.

The audit project commenced in 2007 and was completed in 2008. The final report provides estimated costs and payback periods for recommendations ranging from window upgrades and caulking to HVAC upgrades and replacements.

Commercial and Industrial

Interval Metering

In 2007 eight commercial and industrial customers received upgraded and/or installed interval metering technology, and given access to an online tool to better manage electricity demand and consumption.

Distribution System Loss Reduction

Mercury Ave Conversion

CNPI Port Colborne converted 77 residential customers and 13 commercial customers from 4.16 kV to 27.6 kV service on Mercury Avenue. The resulting annual loss reduction is 100,533.41 kWh, with lifecycle savings of 2,513,335.23 kWh, and a net TRC return of \$60,200.34.

Lessons Learned

Third Tranche CDM programming provided useful learning each year and this enabled CNPI Port Colborne to build on its CDM gains. Perhaps the most daunting challenge at the outset was the perceived limitation of a relatively small CDM budget of approximately \$160,000. However, this budget went much further in a partnership with other LDCs in the NEPA group on initiatives such as the Conserver Family website and activities.

Similarly, the advent of OPA sponsored programs makes it possible for the LDC to eliminate or remove much of the up-front planning and piloting costs for new programs, and to benefit from the learning of other LDCs who have enrolled in programs.

Although it is very difficult to measure the kW or kWh impacts of awareness and educational communications, these efforts are in many ways a prerequisite for CDM programming success. It not only creates awareness, but builds a readiness for program acceptance and behavioural change that are necessary for conservation efforts to root. It is a reason that the Conserver Family website continues in service beyond its Third Tranche origins, with new features to keep consumers engaged in energy conservation, and the new programs to come.

Conclusions

As the supporting Appendices set out, CNPI Port Colborne implemented CDM programs and initiatives for all classes of customers during the Third Tranche years. The largest return, understandably, came from its largest class of customers – residential -- with some 311,458 kWhs of energy savings, and a Total Life Evaluation net TRC return of \$51,672.56 from Co-Branded Mass Market activities. Though media and awareness initiatives such as the Conserver Family website and related classroom activities cannot be attributed to direct

savings or TRC returns, it is clear that the program created regional awareness. This in turn helped open minds and doors to the opportunities of energy conservation, among all classes of customers.

System improvements also contributed savings that will benefit all classes of customers. Voltage conversion projects contributed some 102,544 kWh in saved energy in its Total Life Evaluation over the Third Tranche years, representing a net TRC return of \$46,298.34, though the benefits of lower system losses will truly be felt for many years to come.

Overall, the Third Tranche CDM initiatives of CNPI Port Colborne have been ground breaking in creating a new dimension of service to customers. Much has been learned over the past four years with regard to reaching customers with conservation messages, implementing programming effectively, and working with both regional partners and the OPA to become ever more effective at delivering CDM value to customers.

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>	\$ 78,499	\$ 56,764	\$ 15,937	\$ -	\$ -	\$ -	\$ -	\$ 60,200		\$ -	\$ -
<i>Benefit to cost ratio:</i>		1.75	2.00	0.00	0.00	0.00	0.00	2.51		0.00	0.00
<i>Number of participants or units delivered:</i>	2,784	1,255	1,254					1			
<i>Lifecycle (kWh) Savings:</i>	4,175,011	3,236,998	723,663	0	0	0	0	2,513,335		0	0
<i>Report Year Total kWh saved (kWh):</i>	413,296	153,168	52,634	0	0	0	0	100,533		0	0
<i>Total peak demand saved (kW):</i>	48	22	0	0	0	0	0	22		0	0
<i>Total kWh saved as a percentage of total kWh delivered (%):</i>	0.21%	0.08%	0.03%					0.05%			
<i>Peak kW saved as a percentage of LDC peak kW load (%):</i>		0.0536%	0.0000%					0.0536%			
¹ Report Year Gross C&DM expenditures (\$):	\$ 143,540	\$ 95,113	\$ 35,740	\$ -	\$ -	\$ -	\$ -	\$ 40,000	\$ -	\$ -	\$ -
² Expenditures per kWh saved (\$/kWh):	\$ 0.03	\$ 0.03	\$ 0.05	\$ -	\$ -	\$ -	\$ -	\$ 0.02		\$ -	\$ -
³ Expenditures per kW saved (\$/kW):	\$ 2,990.43	\$ 4,323.34	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,818.18		\$ -	\$ -

2007 2006

<i>Utility discount rate (%):</i>	8.05	Total kWh Delievered	199,297,137	196,628,567
		Peak kW	41,046	44,252

¹ Expenditures are reported on accrual basis.

² Expenditures include all utility program costs (direct and indirect) for all programs which primarily generate energy savings

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

⁴ Please report spending related to 3rd tranche of MARR funding only. TRC calculations are not required for Smart Meters. Only actual expenditures for the year need to be reported.

⁵ Includes total for the reporting year, plus prior year, if any (for example, 2007 CDM Annual report for third tranche will include 2006, 2005 and 2004 numbers, if any).

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. Name of the Program: Christmas LED Lights

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

Christmas LED Light Exchange

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	5 WATT Christmas lights C-7(64 lights)		
Efficient technology:	LED Christmas Lights (indoor or outdoor)		
Number of participants or units delivered for reporting year:	254		
Measure life (years):	30		
Number of Participants or units delivered life to date	254		

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 15,187.89	\$ 15,187.89
² TRC Costs (\$):		
Utility program cost (excluding incentives):	-\$ 1,047.04	-\$ 1,047.04
Incremental Measure Costs (Equipment Costs)	-\$ 482.60	-\$ 482.60
Total TRC costs:	-\$ 1,529.64	-\$ 1,529.64
Net TRC (in year CDN \$):	\$ 13,658.25	\$ 13,658.25
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	9.93	

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

Conservation Programs:

Demand savings (kW):	Summer	0	0
	Winter	5.95	5.95

	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	412,623.00	13,754.10	412,623.00	13,754.10
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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<u>D. Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 1,047.04	
	Incentive:	\$ 482.60	
	Total:	\$ 1,529.64	\$ 13,792.64
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Quantity based on 254 units as per Port Colburne - third trancheV2 Excel Spreadsheet. All other assumptions based on OEB Tables - Residential Table Line 45.

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

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** School Kits Program

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

CNPI prepared energy conservation kits to be distributed to grade five students in Pot Colborne and presented in class educational sessions for the students. The kits comprised of CFL light bulbs, refrigerator thermometers, home energy audit material and energy educational games.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	60W Incandescent, studies		
Efficient technology:	CFL Screw-in 15W		
Number of participants or units delivered for reporting year:	1000		
Measure life (years):	8		
Number of Participants or units delivered life to date	1720		

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 16,675.01	\$ 32,930.59
² TRC Costs (\$):		
Utility program cost (excluding incentives):	-\$ 16,196.65	-\$ 16,196.65
Incremental Measure Costs (Equipment Costs)	\$ 1,800.00	\$ 3,096.00
Total TRC costs:	-\$ 14,396.65	-\$ 25,692.65
Net TRC (in year CDN \$):	\$ 2,278.36	
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	1.16	1.28

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

Conservation Programs:

	Summer	Winter	Cumulative Lifecycle	Cumulative Annual Savings
Demand savings (kW):	0	10.80	0	26.80
Energy saved (kWh):	311,040.00	38,880.00	686,880.00	114,048.00
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:		
	Incentive:		
	Total:	\$ 16,196.65	\$ 28,459.65
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

500 Kits Provided. Assumed that there were 2 CFLs per kit, for a total 1000 units. All other assumptions based on OEB Tables - Residential Table Line 33.

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

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Energy Audits

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

CNPI - Port Colborne partnered with the City of Port Colborne audit the energy efficiency of several of its facilities in Port Colborne. The city selected the Roselawn Center Heritage Building, the Sugarloaf Marina and the City Hall as a cross section of facilities to perform the audits. These facilities provided a good cross section and the results of the audit could be extended to other city owned facilities.

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:	<u>Reporting Year</u>	<u>Life-to-date TRC Results:</u>
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)	<u>Cumulative Results:</u>	
<u>Conservation Programs:</u>		
Demand savings (kW):	Summer	
	Winter	
	lifecycle	
Energy saved (kWh):	in year	
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):			
	<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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<u>D. Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:		
	Incentive:		
	Total:	\$ 18,014.17	\$ 18,014.17
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Total Costs taken from CDM - Port Colborne - third trancheV2 Excel SpreadSheet

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

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Mercury Conversion Loss Reduction

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

LDC system on Mercury Ave. is converted from 4.16kV to kV. Covered 77 residential customers and 13 phase commercial customers.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	34.76		
Efficient technology:	13.06		
Number of participants or units delivered for reporting year:	1		
Measure life (years):	25		
Number of Participants or units delivered life to date	1		

TRC Results:		Reporting Year
¹ TRC Benefits (\$):		\$ 100,200.34
² TRC Costs (\$):		
Utility program cost (excluding incentives):	-\$	40,000.00
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	-\$	40,000.00
Net TRC (in year CDN \$):	\$	60,200.34

Benefit to Cost Ratio (TRC Benefits/TRC Costs): 2.51

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

Conservation Programs:

		Cumulative Results:	
		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):		22	22
	<i>lifecycle</i>	<i>in year</i>	
Energy savings (kWh):	2,513,335.23	100,533.41	

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>		
	<i>Incentive:</i>		
	<i>Total:</i>	\$ 40,000.00	\$ 40,000.00
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>		
	<i>Total:</i>		

E. Assumptions & Comments:

Total Costs taken from CDM - Port Colborne - third trancheV2 Excel SpreadSheet

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

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 (\$)
<i>Christmas LED Lights</i>	\$ 15,188	\$ 1,530	\$ 13,658	9.93	13,754	412,623	0	\$ 1,530
<i>School Kits Program</i>	\$ 16,675	\$ 14,397	\$ 2,278	1.16	38,880	311,040	0	\$ 16,197
<i>Energy Audits</i>	\$ -	\$ -	\$ -	0.00	0	0	0	\$ 18,014
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
*Totals App. B - Residential	\$ 31,863	\$ 15,926	\$ 15,937	2.00	52,634	723,663	0	\$ 35,740
<i>Residential Indirect Costs not attributable to any specific program</i>	→							
Total Residential TRC Costs		\$ 15,926						
**Totals TRC - Residential	\$ 31,863	\$ 15,926	\$ 15,937	2.00				

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 (\$)
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
*Totals App. B - Commercial	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -

			\$	-	0.00							
			\$	-	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 (\$)			
			\$	-	0.00						
			\$	-	0.00						
			\$	-	0.00						
			\$	-	0.00						
			\$	-	0.00						
			\$	-	0.00						
			\$	-	0.00						
			\$	-	0.00						
			\$	-	0.00						
			\$	-	0.00						
			\$	-	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 (\$)				
<i>Mercury Conversion Loss Reduction</i>	\$	100,200	\$	40,000	\$	60,200	2.51	100,533	2,513,335	22	\$	40,000
			\$	-	0.00							

			\$	-	0.00				
			\$	-	0.00				
			\$	-	0.00				
			\$	-	0.00				
			\$	-	0.00				
			\$	-	0.00				
			\$	-	0.00				
			\$	-	0.00				
			\$	-	0.00				
			\$	-	0.00				
*Totals App. B - LDC System	\$ 100,200	\$ 40,000	\$ 60,200	2.51	100,533	2,513,335	22	\$ 40,000	
<i>LDC System Indirect Costs not attributable to any specific program</i>	→								
Total TRC Costs		\$ 40,000							
**Totals TRC - LDC System	\$ 100,200	\$ 40,000	\$ 60,200	2.51					

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 (\$)
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
*Totals App. B - Other #1	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
<i>Other #1 Indirect Costs not attributable to any specific program</i>	→							
Total TRC Costs		\$ -						
**Totals TRC - Other #1	\$ -	\$ -	\$ -	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 (\$)
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	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	\$ 132,063	\$ 55,926	\$ 76,137	2.36	\$ 153,168	\$ 3,236,998	\$ 22	\$ 95,113
<i>Any other Indirect Costs not attributable to any specific program</i>		\$ 19,373						
TOTAL ALL LDC COSTS		\$ 75,299						
**LDC' PORTFOLIO TRC	\$ 132,063	\$ 75,299	\$ 56,764	1.75				

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

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

Appendix 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.

	Total for 2008	Residential	⁵ Low Income	Commercial	Institutional	Industrial	Agricultural	LDC System	⁴ Smart Meters	Other #1	Other #2
<i>Net TRC value (\$):</i>	-\$ 9,151	\$ 99	\$	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
<i>Benefit to cost ratio:</i>	0.05	1.23		0.00	0.00	0.00	0.00	0.00		0.00	0.00
<i>Number of participants or units delivered:</i>	5	5									
<i>Lifecycle (kWh) Savings:</i>	10,098	10,098		0	0	0	0	0		0	0
<i>Report Year Total kWh saved (kWh):</i>	707	707		0	0	0	0	0		0	0
<i>Total peak demand saved (kW):</i>	0	0		0	0	0	0	0		0	0
<i>Total kWh saved as a percentage of total kWh delivered (%):</i>		0.00%									
<i>Peak kW saved as a percentage of LDC peak kW load (%):</i>		0.00%									
¹ <i>Report Year Gross C&DM expenditures (\$):</i>	\$ 13,624	\$ 4,374	\$	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
² <i>Expenditures per kWh saved (\$/kWh):</i>	\$ 1.35	\$ 0.43	\$	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
³ <i>Expenditures per kW saved (\$/kW):</i>	\$ 503,473.06	\$ 161,635.56	\$	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -

		2008	2007	2006	
<i>Utility discount rate (%):</i>	7.98%	Total kWh Delievered	206,228,897	199,297,137	196,628,567
		Peak kW	40,485	41,046	44,252

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 totals from Low Income programs that fall under both commercial and residential.

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Habitat for Humanity

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

CNPI - Port Colborne funded the upgrade of appliances donated to Habitat for Humanity in Port Colborne to Energy Star quality.

Measure(s):

	Measure 1	Measure 2	Measure 3
<i>Base case technology:</i>	Conventional non-Energy Star qualified ceiling fan fitted with three medium screw base socket using three 60W incandescent bulbs or conventional ceiling fixture (no fan) using three 60W incandescent bulbs	Current standard for clothes dryer	Current standard range/oven
<i>Efficient technology:</i>	Energy Star Ceiling Fan	High Efficiency Clothes Dryer	High Efficiency Range/Oven
<i>Number of participants or units delivered for reporting year:</i>	1	1	1
<i>Measure life (years):</i>	10	18	18
<i>Number of Participants or units delivered life to date</i>	1	1	1
	Measure 4	Measure 5	
<i>Base case technology:</i>	Standard refrigerator	Current standard for clothes washer	
<i>Efficient technology:</i>	Energy Star Refrigerator	Energy Star Front Loading Clothes Washer	
<i>Number of participants or units delivered for reporting year:</i>	1	1	
<i>Measure life (years):</i>	14	14	
<i>Number of Participants or units delivered life to date</i>	1	1	

B. TRC Results:	Reporting Year	TRC Results:
¹ TRC Benefits (\$):	\$ 528.25	\$ 528.25
² TRC Costs (\$):		
<i>Utility program cost (excluding incentives):</i>	\$ -	\$ -
<i>Incremental Measure Costs (Equipment Costs)</i>	-\$ 429.30	-\$ 429.30
<i>Total TRC costs:</i>	-\$ 429.30	-\$ 429.30
Net TRC (in year CDN \$):	\$ 98.95	
<i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>	\$ 1.23	

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

Conservation Programs:

<i>Demand savings (kW):</i>	Summer	0.027	0.027
	Winter	0.053	0.053
	<i>lifecycle</i>	<i>in year</i>	
<i>Energy saved (kWh):</i>	10098	706.68	

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>		
	<i>Incentive:</i>		
	<i>Total:</i>	\$ 2,000.00	\$ 2,000.00
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>		
	<i>Total:</i>		

E. Assumptions & Comments:

Assumptions from the OEB Tables.
Ceiling Fans - Residential Table Line 106
High Efficiency Clothes Dryers - Residential Table Line 12
High Efficiency Range/Oven - Residential Table Line 16
Energy Star Refrigerator - Residential Table Line 5
Energy Star Front Loading Clothes Washer - Residential Table Line 26

¹ Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit benefit specified in the TRC Guide.
² For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made to a third party service provider to run an incentives program are program costs, and are to be included as TRC costs under the "Utility Program Costs" line.

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Christmas LED Exchange

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

Christmas LED Light Exchange

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>			

	Reporting Year	TRC Results:
B. <u>TRC Results:</u>		
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>		

	<u>Cumulative Results:</u>	
C. <u>Results:</u> (one or more category may apply)		
<u>Conservation Programs:</u>		
<i>Demand savings (kW):</i>	Summer	
	Winter	
	lifecycle	
	in year	
<i>Energy saved (kWh):</i>		
<i>Other resources saved :</i>		
<i>Natural Gas (m3):</i>		
<i>Other (specify):</i>		
<u>Demand Management Programs:</u>		
<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>		
<u>Demand Response Programs:</u>		
<i>Dispatchable load (kW):</i>		
<i>Peak hours dispatched in year (hours):</i>		
<u>Power Factor Correction Programs:</u>		
<i>Amount of KVar installed (KVar):</i>		
<i>Distribution system power factor at beginning of year (%):</i>		
<i>Distribution system power factor at end of year (%):</i>		

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>		
	<i>Incentive:</i>		
	<i>Total:</i>	\$ 222.26	\$ 14,014.90
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>		
	<i>Total:</i>		

E. Assumptions & Comments:

Total Costs taken from CDM - Port Colborne - third trancheV2 Excel Spreadsheet

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

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Energy Audits

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

CNPI - Port Colborne and the City of Port Colborne partnered to audit the energy efficiency of several city-owned facilities. Audits were completed at Roselawn Centre Heritage Building, the Sugarloaf Marina, and City Hall. Providing an excellent cross section of municipal facilities and uses, the results of these audits can be extended to other city owned facilities.
Target Users: Residential and Small Commercial Customers

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	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
Energy saved (kWh):		
Other resources saved :		
Natural Gas (m3):		
Other (specify):		
Demand Management Programs:		
Controlled load (kW)		
Energy shifted On-peak to Mid-peak (kWh):		
Energy shifted On-peak to Off-peak (kWh):		
Energy shifted Mid-peak to Off-peak (kWh):		
Demand Response Programs:		
Dispatchable load (kW):		
Peak hours dispatched in year (hours):		
Power Factor Correction Programs:		
Amount of KVar installed (KVar):		
Distribution system power factor at beginning of year (%):		
Distribution system power factor at end of year (%):		
Line Loss Reduction Programs:		
Peak load savings (kW):		
	lifecycle	in year
Energy savings (kWh):		
Distributed Generation and Load Displacement Programs:		
Amount of DG installed (kW):		
Energy generated (kWh):		

Peak energy generated (kWh):

Fuel type:

Other Programs (specify):

Metric (specify):

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D. Actual Program Costs:		Reporting Year	Cumulative Life to Date
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:		
	Incentive:		
	Total:	\$ 2,151.54	
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Total Costs taken from CDM - Port Colborne - third trancheV2 Excel SpreadSheet

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:

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 (\$)
Habitat for Humanity	\$ 528	\$ 429	\$ 99	1.23	707	10,098	0	\$ 2,000
Christmas LED Exchange	\$ -	\$ -	\$ -	0.00	0	0	0	\$ 222
Energy Audits	\$ -	\$ -	\$ -	0.00	0	0	0	\$ 2,152
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
*Totals App. B - Residential	\$ 528	\$ 429	\$ 99	1.23	707	10,098	0	\$ 4,374
<i>Residential Indirect Costs not attributable to any specific program</i>	→							
Total Residential TRC Costs		\$ 429						
**Totals TRC - Residential	\$ 528	\$ 429	\$ 99	1.23				

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 (\$)
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
*Totals App. B - Commercial	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -

			\$	-	0.00							
			\$	-	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 (\$)			
			\$	-	0.00						
			\$	-	0.00						
			\$	-	0.00						
			\$	-	0.00						
			\$	-	0.00						
			\$	-	0.00						
			\$	-	0.00						
			\$	-	0.00						
			\$	-	0.00						
			\$	-	0.00						
			\$	-	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 (\$)
			\$	-	0.00			
			\$	-	0.00			

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

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 (\$)
		\$	-	0.00				
		\$	-	0.00				
		\$	-	0.00				
		\$	-	0.00				
		\$	-	0.00				
		\$	-	0.00				
		\$	-	0.00				
		\$	-	0.00				
		\$	-	0.00				
		\$	-	0.00				
		\$	-	0.00				
		\$	-	0.00				
		\$	-	0.00				
*Totals App. B - Other #1	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
<i>Other #1 Indirect Costs not attributable to any specific program</i>	→							
Total TRC Costs		\$ -						
**Totals TRC - Other #1	\$ -	\$ -	\$ -	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 (\$)
Note: To ensure the integrity of the formulas, please insert the additional row			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
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			\$ -	0.00				
			\$ -	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	\$ 528	\$ 429	\$ 99	1.23	\$ 707	\$ 10,098	\$ 0	\$ 13,624
<i>Any other Indirect Costs not attributable to any specific program</i>		\$ 9,250						
TOTAL ALL LDC COSTS		\$ 9,679						
**LDC' PORTFOLIO TRC	\$ 528	\$ 9,679	\$ -9,151	0.05				

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

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

Appendix D - Total Life Evaluation of the CDM Plan

Table is to be completed manually by totalling the information from each year of activity

	§ Cumulative Totals Life-to-date	Residential	¶ Low Income	Commercial	Institutional	Industrial	Agricultural	LDC System**	• Smart Meters	Other #1	Other #2
Net TRC value (\$):	\$ 69,347.69	\$ 51,672.56	\$	\$	\$	\$	\$	\$ 46,298.34		\$	\$
Benefit to cost ratio:		5.75						4.26			
Number of participants or units delivered:	5,571	2,787						2			
Lifecycle (kWh) Savings:	4,185,109	1,621,499						2,563,610			
Total kWh saved (kWh):	414,002	311,458						102,544			
Total peak demand saved (kW):	48	3						45			
Total kWh saved as a percentage of total kWh delivered (%):	0.07%	0.05%						0.02%			
Peak kW saved as a percentage of LDC peak kW load (%):		0.00%						0.04%			
¹ Gross C&DM expenditures (\$):	\$ 157,164.26	\$ 46,899.26	\$	\$	\$	\$	\$	\$ 56,000.00	\$	\$	\$
² Expenditures per kWh saved (\$/kWh):	\$0.04	\$ 0.03	\$	\$	\$	\$	\$	\$ 0.02	\$	\$	\$
³ Expenditures per kW saved (\$/kW):	\$3,272.41	\$ 15,493.34	\$	\$	\$	\$	\$	\$ 1,244.44	\$	\$	\$

** LDC System Total includes Distribution System Loss Program totals from 2005 which was included as a Residential Program where it should have been an LDC System Program

Utility discount rate (%):	8.05	Cumulative			
		2008	2007	2006	
Total kWh Delivered		602,154,601	206,228,897	199,297,137	196,628,567
Peak kW		125,783	40,485	41,046	44,252

- ¹ Expenditures are reported on cumulative basis.
- ² Expenditures include all utility program costs (direct and indirect) for all programs which primarily generate energy savings.
- ³ Expenditures include all utility program costs (direct and indirect) for all programs which primarily generate capacity savings.
- Please report spending related to 3rd tranche of MARR funding only. TRC calculations are not required for Smart Meters. Actual expenditures for the total third tranche period need to be reported.
- § Includes total for the reporting year, plus prior years, if any (for example, 2008 CDM Annual report for third tranche will include 2007, 2006, 2005 and 2004 numbers, if any).
- ¶ Includes totals from Low Income programs that fall under both commercial and residential.