2006 OEB Annual

Conservation and Demand Management Report RP-2004-0203 *I* EB 2004-0521

Submitted By:

Renfrew Hydro Inc.

April 2, 2007

Renfrew Hydro Inc. 2006 Conservation and Demand Management Annual Report

April 5, 2007

Board Secretary at Ontario Energy Board P.O. Box 2319 2300 Yonge Street Suite 2700 Toronto, ON M4P IE4

2006 Annual Conservation and Demand Management Report RP-2004-0203 *I* EB 2004-0521

Dear Sir:

Accompanying this letter are the 2006 Annual Conservation and Demand Management Report, and accompanying Appendices for Renfrew Hydro Inc.

I am pleased to report increased CDM expenditures and results in 2006 over 2005, as our submission details.

It was our intention to submit this report by the April 2, 2007 deadline, but system improvements and other urgent issues prevented us from allocating the necessary internal resources and time to the reporting process. As a result, we contracted external expertise to assist us in completing the reporting requirements.

I thank you for your understanding in this matter, and am available at your convenience to discuss our report, or answer any questions you may have.

Sincerely,

Tom Freemark President Renfrew Hydro Inc.

1.0 Introduction

The year 2006 marked Renfrew Hydro's first full Conservation and Demand Management (CDM) Plan implementation, with initiatives that served residential and commercial customers, while also examining the energy efficiency of the distribution itself.

Renfrew Hydro serves an urban area of 13 square kilometers and some 4,000 electricity customers in Renfrew, delivering more than 92,000 kWh of energy annually. Residential customers comprise more than 86% of the LDC's customer base and represent just over 1/3 of the energy consumption, while almost almost half of the delivered energy is used by 54 General Service > 50kV customers. Approximately 500 General Service <50 kV customers consume about 16% of total energy, and the remaining energy (1%) is used for street lighting.

Renfrew Hydro's CDM commitment is to promote energy conservation in all of its customer segments, and to improve the energy efficiency of its distribution system. To that end, the LDC's approved CDM Plan targets expenditures of \$70,550 over three years for:

- □ Customer Awareness and Education
- □ Reduced Line Losses (System Optimization)
- $\hfill\square$ Conservation and Demand Programs
 - Compact Fluorescent Lights
 - o Conversion of Business Improvement Lighting to LED
 - o Power Cost Monitors

Renfrew Hydro laid the groundwork for this programming with expenditures of totaling \$3654.49, in 2005, with the expectation that results would begin to emerge in 2006.

2.0 Evaluation of the CDM Plan

As the accompanying Appendices detail, Renfrew Hydro returned total portfolio TRC benefits of \$\$100,969 in 2006 across its CDM programs, resulting in a net present value of \$37,875. Expenditures and energy savings are summarized in the accompanying table.

	2006	2006
	Expenditure	kWh savings
Home Show	\$ 2451.73	30,173
LED Lighting for BIA	\$ 1388.34	Included with Home Show
Power Cost Monitors	\$ 818.94	N/A
Distribution Optimization	\$13,500.00	95,615
TOTAL	\$18,159.01	125,788

Renfrew Hydro Inc. 2006 Conservation and Demand Management Annual Report

3.0 Discussion of the Programs

The accompanying Appendix B sets out the expenditures and TRC analysis results for each of the programs discussed below.

Distribution System Optimization

In 2006, Renfrew Hydro completed an analysis of its distribution system with the assistance of EnerSpectrum Group. The study focused on areas of highest system losses and load imbalances, feeders at risk of overloading, substation transfer capability, power quality, and the impacts of embedded generation on system losses. The study identified configuration changes pertaining to 8 optimal switch pairs during the summer periods when embedded generation is non-operational, and an additional 2 optimal switch pairs once generators become operational in the winter and shoulder periods. The estimated annual energy savings from an optimal system configuration are 95,615 kWh and a lifecycle saving of 2,390,385 kWh. TRC analysis indicates a positive net benefit of \$30,752

Conservation and Demand

Three initiatives were undertaken in 2006 to help educate customers about energy efficiency and motivate changes in product choices and practices:

Renfrew Home & Leisure Show. In both of 2005 and 2006, Renfrew Hydro participated in the Renfrew Home & Leisure Show to directly communicate with its residential customers about energy conservation. A popular venue within its service area, the 3-day event enabled Renfrew Hydro to promote the use of CFL lights and timers, distribute energy conservation brochures, and display smart meter technology. A draw was held for an energy efficiency package that included CFL bulbs, timer and a programmable thermostat to build awareness among customers.

LED Lighting for Business Improvement Area. Renfrew Hydro exchanged LED lights for displays in Renfrew's Business Improvement Area in 2006, including LED light strings that replaced some 1500 incandescent bulbs. The move reduced load by 9 kW.

Power Cost Monitors. As a pilot to test the effectiveness of new technology to raise awareness of energy consumption and cost control, Renfrew Hydro acquired 5 monitors that connect with conventional meters and provide the customer with a running tally of the cost of the electricity consumed in their homes. While no firm assumptions can be made at this time of the impact of such monitors on energy consumption, other utilities have suggested that as much as a 5% decrease in energy consumption after the units have been installed.

4.0 Lessons Learned

System optimization is an important initiative that should be embedded in LDC practices, and considered for additional investment. More frequent system studies will help avoid or eliminate system losses that can emerge due to load growth and declining power factors.

New technologies have strong potential to build a conservation and demand management approach to daily energy use for all customer segments. However, much groundwork must be done to educate customers about technologies, to raise awareness, and create positive expectations. This should precede the introduction of smart meters and be communicated at the LDC and provincial levels.

Similarly, knowledge transfer is vitally important for business customers who are aware of the cost benefits of energy conservation, but may not be as cognizant about how efficiency can be fully leveraged within their enterprise. One solution is a more accessible suite of business incentives that links local, provincial and federal programs to help businesses optimize their energy efficiency efforts.

Finally, smaller LDCs stand to benefit from standardized CDM programs, particularly in the residential segment, where spillover advertising from larger jurisdictions may cause customers to feel left out of energy efficiency options. The OPA programs are more effectively communicated from a centralized agency, while the LDC is best suited to act as a local conduit.

5.0 Conclusions

- □ System optimization returned the greatest value for dollars invested, both in terms of energy savings through loss reduction, and TRC analysis. Study results indicate that there are additional opportunities to further reduce system losses.
- Customers are receptive to CDM information and appreciate opportunities to purchase new technologies. This was most evident in the Renfrew Home & Leisure Show, and in the demonstration of LED technologies for seasonal displays in the Business Improvement Area.
- □ Continued study and survey of pilot cost meter user consumption patterns will help build knowledge about the effects that cost has on energy consumption, prior to the introduction of smart meters and time-of-use rates.

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 2006	Residential	Commercial	Institutional	Industrial	Agricultural	LDC System	₄ Smart Meters	Other #1	Other #2
Net TRC value (\$):	\$ 34,632.90	\$ 37,875	\$ 7,124	\$-	\$-	\$-	\$-	\$ 30,752		\$-	\$-
Benefit to cost ratio:	1.52	1.60	3.62	0.00	0.00	0.00	0.00	1.51		0.00	0.00
Number of participants or units delivered:	2051	2051	2050					1			
Lifecycle (kWh) Savings:	2,616,965	2,616,965	226,580	0	0	0	0	2,390,385		0	0
Report Year Total kWh saved (kWh):	125,788	125,788	30,173	0	0	0	0	95,615		0	0
Total peak demand saved (kW):	13	13	8	0	0	0	0	5		0	0
Total kWh saved as a percentage of total kWh delivered (%):	0.060%	0.119%	0.029%					0.090%			
Peak kW saved as a percentage of LDC peak kW load (%):	0.003%	0.006%	0.004%					0.002%			
Report Year Gross C&DM expenditures (\$):	\$ 31,176.05	\$ 19,491	\$ 5,991	\$-	\$-	\$-	\$-	\$ 13,500	\$-	\$-	\$-
2 Expenditures per KWh saved (\$/kWh):	\$ 0.01	\$ 0.01	\$ 0.03	\$-	\$-	\$-	\$-	\$ 0.01		\$-	\$-
3 Expenditures per KW saved (\$/kW):	\$ 2,447.42	\$ 1,530.14	\$ 748.93	\$ -	\$ -	\$ -	\$ -	\$ 2,849.10		\$ -	\$ -

Utility discount rate (%):

8.13%

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.

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. Name of the Program:

Renfrew Hydro Inc. Distribution System Optimization

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

A distribution system study was undertaken to identify configuration changes that will reduce losses. The study identified 8 optimal switch pairs during the summer periods when embedded generation is non-operational, and an additional 2 optimal switch pairs once generators become operational in the winter and shoulder periods.

	Measure(s):					
		Measure 1		Measure 2 (if applicable)	Measure 3	(if applicable)
	Base case technology:	Base Case Configuration				
	Efficient technology:	Optimal Configuration				
	Number of participants or units					
	delivered for reporting year:	1				
	Measure life (years):	25				
	Number of Participants or units					
	delivered life to date	1				
В.	TRC Results:			Reporting Year	Life-to-date	TRC Results:
	¹ TRC Benefits (\$):		\$	91,124.20	\$	91,124.20
	2 TRC Costs (\$):			- ,	Ť	-, -
	Utility p	program cost (excluding incentives):	\$	60.372.25	\$	63 614 85
	Incremental	Measure Costs (Equipment Costs)	¢		¢	-
	moremental		ф Ф	60 272 25	Φ Φ	62 61 / 95
	Not TPC (in yoar CDN \$):	TOTAL TRC COSIS.	ф Ф	30,751,05	<u>ф</u>	27 500 35
	Net TRC (III year CDN \$).		φ	30,731.93	φ	27,509.55
	Benefit to Cost Ratio (TRC Benefits/	TRC Costs):		1.51		1.43
C.	Results: (one or more category may	apply)			Cumulat	ve Results:
	Concernation Deconcerne					
	Conservation Programs:	0				
	Demand savings (KW):	Summer				
		Winter				
					o <i>i i i</i>	
					Cumulative	Cumulative
		lifecycle		in year	Lifecycie	Annual Savings
	Energy saved (kWh):					
	Other resources saved :					
	Natural Gas (m3):					
	Other (specify):					
	Domand Managament Breakema					
	Energy snifted On-peak to Mid-peak	(KVVN):				
	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 (hour	s):				
	Power Factor Correction Programs	<u>s:</u>				
	Amount of KVar installed (KVar):					
	Distribution system power factor at b	eginning of year (%):				
	Distribution system power factor at e	nd of year (%):				

Line Loss Reduction Programs:

	Peak load savings (kW):			5		5
		lifecycle		in year	Cumulative Lifecycle	Cumulative Annual Savings
	Energy savings (kWh):		2,390,385	95,615	2,390,385	95,615
	Distributed Generation and Load	Displacement Program	ms:			
	Amount of DG installed (kW):		_			
	Energy generated (kWh):					
	Peak energy generated (kWh):					
	Fuel type:					
	Other Programs (specify):					
	Metric (specify):					
D.	Actual Program Costs:			Reporting Year	Cumulative	Life to Date
	Utility direct costs (\$):	Incremental capital:	\$	-	\$	-
		Incremental O&M:	\$	13,500.00	\$	16,742.60
		Incentive:	\$	-	\$	-
		Total:	\$	13,500.00	\$	16,742.60
	Utility indirect costs (\$):	Incremental capital:	\$	-	\$	-
		Incremental O&M:	\$	-	\$	-

E. Assumptions & Comments:

2

Each year there is an expenditure of \$3600 for making configuration changes between operation periods of the generators. This expense is assumed to have and inflation rate of 2%.

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

For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. Name of the Program:

Co-Branded Mass Market

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

Promote energy efficient products and practices to customers through the Renfrew Home & Leisure Show, including compact fluorescent lights and timers, Energy Conservation Tips, brochures and Smart Meter/ time of use displays. A prize draw package of energy saving devices (Timer, CFL, Thermostat) was also given away. LED lights were exchanged for incandescent displays in Renfrew's Business Improvement Area, including LED light strings that replaced some 1800 incandescent bulbs.

		Compact Fluorescent Lights	LED	Decorative Lights		
	Base case technology:	60W Incandescent	5 Wat	t Incandescent Lights		
	Efficient technology:	CFL Screw-In 15W		LED Lights		
	Number of participants or units					
	delivered for reporting year:	250		1800		
	Measure life (vears):	4		30		
	Number of Participants or units					
	delivered life to date	250		1800		
		250		1000		
В.	TRC Results:			Reporting Year	Life-to-date	TRC Results:
	¹ TRC Benefits (\$):		\$	9 844 34	\$	9 844 34
	2 TPC Costs (\$):		Ψ	0,011.01	Ŷ	0,011.01
	Πτυ ουσιο (ψ).	program cost (excluding incentives):	¢		¢	
			φ ¢	-	\$	-
	Incremental	Measure Costs (Equipment Costs)	\$	2,720.79	\$	2,720.79
		Total TRC costs:	\$	2,720.79	\$	2,720.79
	Net TRC (in year CDN \$):		\$	7,123.55	\$	7,123.55
	Panafit to Cost Datia (TDC Danafita)	TPC Contaly		2.62		2.62
	Benefit to Cost Ratio (TRC Benefits/	TRC COSIS).		5.02		3.02
C.	Results: (one or more category may	apply)			Cumulati	ve Results:
	Conservation Programs:					
	Demand savings (kW):	Summer	8		8	
	,	Winter	14		14	
					Cumulative	Cumulative
		lifecycle		in vear	Lifecvcle	Annual Savings
	Energy saved (kW/h):	226 580	30 173	in jour	226 580	30 173
	Other resources saved :	220,000	00,170		220,000	00,110
	Notural Cap (m2):					
	Natural Gas (113).					
	Other (specify):					
	Demand Management Programs:					
	Controlled load (k/M)					
	Energy shifted On peak to Mid peak	(kM/b):				
	Energy shined On-peak to Mid-peak	(KVV11).				
	Energy shifted On-peak to Off-peak ((kWh):				
	Energy shifted Mid-peak to Off-peak	(kWh):				
	Demand Beenenee Breatemer					
	Demand Response Programs:					
	Dispatchable load (kw):					
	Peak hours dispatched in year (hours	s):				
	Power Factor Correction Program	e.				
	Amount of KV/ar installed (KV/ar):	~				
	Distribution system power factor at b	eginning of year (%):				
	Distribution system power factor at e	nd ot year (%):				

Line Loss Reduction Programs:

	Peak load savings (kW):					
		lifecycle	in	year		
	Energy savings (kWh):					
	Distributed Generation and Load I	<u>Displacement Programs:</u>				
	Amount of DG installed (kW):					
	Energy generated (kWh):					
	Peak energy generated (kWh):					
	Fuel type:					
	Other Programs (specify):					
	Metric (specify):					
	Metric (specify):					
D.	Metric (specify): Actual Program Costs:		Repor	ting Year	Cu	mulative Life to Date
D.	Metric (specify): <u>Actual Program Costs:</u> Utility direct costs (\$):	Incremental capital:	<u>Repor</u>	ting Year -	<u>Cu</u> \$	mulative Life to Date
D.	Metric (specify): <u>Actual Program Costs:</u> Utility direct costs (\$):	Incremental capital: Incremental O&M:	Repor \$ \$	ting Year - 5,991.46	<u>Cu</u> \$ \$	mulative Life to Date - 14,433.45
D.	Metric (specify): <u>Actual Program Costs:</u> Utility direct costs (\$):	Incremental capital: Incremental O&M: Incentive:	Repor \$ \$ \$	ting Year - 5,991.46	<u>Cu</u> \$ \$ \$	mulative Life to Date - 14,433.45 -
D.	Metric (specify): <u>Actual Program Costs:</u> Utility direct costs (\$):	Incremental capital: Incremental O&M: Incentive: Total:	<u>Repor</u> \$ \$ \$	ting Year 5,991.46 5,991.46	<u>Cu</u> \$ \$ \$	mulative Life to Date
D.	Metric (specify): <u>Actual Program Costs:</u> Utility direct costs (\$):	Incremental capital: Incremental O&M: Incentive: Total:	<u>Repor</u> \$ \$ \$ \$	ting Year 5,991.46 - 5,991.46	Cu \$ \$ \$ \$	mulative Life to Date - 14,433.45 - 14,433.45
D.	Metric (specify): <u>Actual Program Costs:</u> Utility direct costs (\$): Utility indirect costs (\$):	Incremental capital: Incremental O&M: Incentive: Total: Incremental capital:	Report \$ \$ \$ \$ \$	ting Year 5,991.46 5,991.46	<u>Cu</u> \$ \$ \$ \$	mulative Life to Date - 14,433.45 - 14,433.45 -
D.	Metric (specify): <u>Actual Program Costs:</u> Utility direct costs (\$): Utility indirect costs (\$):	Incremental capital: Incremental O&M: Incentive: Total: Incremental capital: Incremental O&M:	Report \$ \$ \$ \$ \$ \$ \$	ting Year 5,991.46 5,991.46 - - -	Cu \$ \$ \$ \$ \$ \$ \$	mulative Life to Date - 14,433.45 - 14,433.45 - - -

E. Assumptions & Comments:

2

Program costs include expeditures for Customer Education, Smart Metering, and Conservation and Demand Programs LED Decorative Lights produce 8 kW savings per day in all seasonal periods.

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

For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made

Appendix C - Program and Portfolio Totals

Report Year:

2006

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.

	трс	Bonofite				Bonofit/Cost	Poport Voor Total	Lifeevele (kWh)	Total Peak	Re	port Year
		(PV)	TRC Costs (F	V)	\$ Net TRC Benefits	Ratio	kWh Saved	Savings	Saved	Expe	nditures (\$)
Co-Branded Mass Market	\$	9,844	\$ 2,7	21	\$ 7,124	3.62	30,173	226,580	8	\$	5,991
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					
*Totals App. B - Residential	\$	9,844	\$ 2,7	21	\$ 7,124	3.62	30,173	226,580	8	\$	5,991
Residential Indirect Costs not attributable to any specific program											
Total Residential TRC Costs			\$ 2,7	21							
**Totals TRC - Residential	\$	9,844	\$ 2,7	21	\$ 7,124	3.62					

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



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.

	o ronnalao, proaoo						Total Peak	Report Year
	TRC Benefits			Benefit/Cost	Report Year Total	Lifecycle (kWh)	Demand (kW)	Gross C&DM
	(PV)	TRC Costs (PV)	\$ Net TRC Benefits	Ratio	kWh Saved	Savings	Saved	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.

Note: To choare the integrity of the	Tormulus, picuse						Total Peak	Report Year
	TRC Benefits			Benefit/Cost	Report Year Total	Lifecycle (kWh)	Demand (kW)	Gross C&DM
	(PV)	TRC Costs (PV)	\$ Net TRC Benefits	Ratio	kWh Saved	Savings	Saved	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				



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.

	TRO D (1)						Total Peak	Report Year
	(PV)	TRC Costs (PV)	\$ Net TRC Benefits	Ratio	kWh Saved	Lifecycle (kWh) Savings	Demand (kW) Saved	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	<u> </u>	\$-	<u>\$</u> -	0.00	0	0	0	\$-
Agricultural Indirect Costs not attributable to any specific program								
Total TRC Costs		\$ -						
**Totals TRC - Agricultural	\$ -	\$ -	\$ -	0.00				

6. LDC System Programs

List each Appendix B in the cells below; Insert additional rows as required. Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below. Total Peak

	TRC E	enefits					Benefit/Cost	Report Year Total	Lifecycle (kWh)	Demand (kW)	(Gross C&DM
	(F	(PV) TR		TRC Costs (PV) \$ Net TRC Benefits		Ratio	kWh Saved	Savings	Saved	Expenditures (\$)		
System Optimization	\$	91,124	\$	60,372	\$	30,752	1.51	95,615	2,390,385	Ę	5\$	13,500
Name of Program B					\$	-	0.00					

Report Year

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	\$ 91,124	\$ 60,372	\$ 30,752	1.51	95,615	2,390,385	5	\$ 13,50	00
LDC System Indirect Costs not attributable to any specific program	 								
Total TRC Costs		\$ 60,372							
**Totals TRC - LDC System	\$ 91,124	\$ 60,372	\$ 30,752	1.51					

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.

	TPC Benefits			Benefit/Cost	Peport Vear Total	l ifecycle (kWb)	Total Peak	Report Year
	(PV)	TRC Costs (PV)	\$ Net TRC Benefits	Ratio	kWh Saved	Savings	Saved	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				
*Totals App. B - Other #1	\$-	\$-	\$ -	0.00	0	0	0	\$-
Other #1 Indirect Costs not attributable to any specific program								
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.

	TPC Bonofits			Bonofit/Cost	Report Vear Total	l ifecycle (kWb)	Total Peak	Report Year
	(PV)	TRC Costs (PV)	\$ Net TRC Benefits	Ratio	kWh Saved	Savings	Saved	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	C	- \$
Other #2 Indirect Costs not attributable to any specific program								
Total TRC Costs		\$-						
**Totals TRC - Other #2	\$ -	\$ -	\$-	0.00				

LDC's CDM PORTFOLIO TOTALS

	TR	C Benefits (PV)	TRC Costs (PV)		\$ Net TRC Benefits		Benefit/Cost Ratio		Report Year Total kWh Saved		fecycle (kWh) Savings	Total Peak Demand (kW) Saved		Report Year Gross C&DM Expenditures (\$)	
*TOTALS FOR ALL APPENDIX B	\$	100,969	\$	63,093	\$	37,875	1.60	\$	125,788	\$	2,616,965	\$	13	\$	19,491
Any <u>other</u> Indirect Costs not attributable to any specific program															
TOTAL ALL LDC COSTS			\$	63,093											
**LDC' PORTFOLIO TRC	\$	100,969	\$	63,093	\$	37,875	1.60								

* 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.