



283 pembroke street west – p.o. box 1087  
pembroke, ontario K8A 6Y6  
tel: (613) 732-3687 – fax: (613) 732-9838  
web: www. orpowercorp.com

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

Attention: Ms. Kirsten Walli, Board Secretary

**Via Courier**

Dear Ms. Walli:

**RE: 2006 C&DM Annual Report  
RP 2004-0203/EB 2004-0435**

Please find enclosed the 2006 C&DM Annual Report for Ottawa River Power Corporation.

As requested, there are three copies of the report as well as a disk with one PDF file for the report as well as the related Excel file.

Yours truly,

*Original Signed by*

Douglas Fee, P.Eng.  
President

Encl.

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*“A Proud Locally Owned Municipal Utility”*

# Ottawa River Power Corporation

RP 2004-0203/ EB-2004-0435

## Conservation and Demand 2006 Annual Report

### 1. Introduction

Ottawa River Power Corporation (ORPC) is an LDC serving 10,500 customers in the villages of Beachburg, Killaloe, the Town of Almonte (within the Municipality of Mississippi Mills) and the City of Pembroke. On March 18, 2005 the C&DM Plan for ORPC was approved by the OEB in the amount of \$296,000.

The approved program consisted of:

<b>Program</b>	<b>Brief Description</b>	<b>Amount</b>
Conservation Challenge	Residential and commercial program to educate customers on conservation by means of a energy challenge	\$105,500
LED Traffic Light Program	Conversion of existing traffic lights with the City of Pembroke	\$ 17,500
Load Control Program	Revival of a load control program operated prior to market deregulation	\$142,000
System Loss Study	Modeling and study of system losses within the distribution system	\$ 25,000
Municipal Lighting Program	Upgrading of municipal street lighting to HPS lighting	\$ 6,000

### 2. Evaluation of the CDM Plan

In 2005, three programs were started.

The Energy Challenge was kicked off in May 2005. The program focus was creating a conservation culture within our residential customers. The Energy Challenge drew to a close at the end of 2006 (dependent on meter reading date). During the year, the program was supported through a update mail-out to participants and conservation information on our web site. The program will be closed off in early 2007 with the final calculation of the year-over-year energy savings, a letter to all participants and a draw for those that reached the 10% reduction target. Details of the program are outlined in Appendix A1.

The LED traffic light program commenced in the fall of 2005 with the conversion from incandescent lights to LED lights in two intersections in the City of Pembroke. This pilot, under the C&DM program, provided the initiative for the municipality to

undergo a complete conversion of all the intersections in the City. All the intersections in the City were completed (18 in total) in 2006 with the funding of the project being provided through Ottawa Energy Solutions, an LDC and City of Pembroke affiliate. A description of the program is in Appendix A2.

The third program is the study of system losses within the distribution system. In 2006, the field work of collecting the distribution system data was completed and entered into the Dromey System model. Work is presently underway modeling the data and completing the engineering report.

### 3. Discussion of Programs

3.1. Energy Challenge – The Residential Energy Challenge was launched as a customer awareness and education program. The nature of the program was to challenge customers to reduce the consumption, year over year, by 10%. The focus of the program was the threefold thrust of conservation, environmental stewardship and cost savings. The enticement for meeting the goal was the chance to win \$5000 worth of Energy Star appliances or lighting or envelop improvements. As well, there were runner-up prizes of 25 – \$500 toward similar conservation measures. The program was kicked off in the spring of 2005.

The activity level in 2006 included a review of the progress for all of the participants that included a mail-out report on their progress to date. Beyond the mail out information, support was given through the web site and telephone staff.

3.2. LED Traffic Program – The program was commenced in 2005 and completed in March 2006. The aim of the program was to provide an incentive to the City by converting two intersections. The City of Pembroke then undertook to convert the remaining intersections with proceeds of the energy and maintenance savings over five years. Reporting on the program is attached in Appendix B.

3.3. System Loss – The program was initiated to identify system losses as a basis of setting priority future capital expenditure as well as identifying easy reductions that can be accomplished immediately (i.e. system configuration). Modeling of the system was completed and the evolution and preparation of the final report was commenced. Early observations were, that in the radial systems, reconductoring is not cost effective and transformer losses are a major contribution to the system losses. Modeling the impact of switching configurations is yet to be modeled fully.

#### 4. Lessons Learned

The quick-jump start to use the third tranche to have utilities initiate C&DM has its good and bad points. LDC programs in a small market can easily be lost or give confusing messages for customers. Subsequent OPA programs, which are similar, can also make the overall C&DM effort seem disjointed. In light of these general comments, more specifically, the lessons learned to date on our programs are:

##### 4.1. Energy Challenge

As indicated on last year's report, the sign up rate was disappointing. With a customer base of 8500, we had 317 signed up for the Challenge. We had hoped, with a local presence and promotion, that our participation rate would have been higher. It is encouraging that the customers, which did participate in the program, do have a good grasp of the need to conserve and the steps to take in the home to accomplish this. This may perhaps be a case of "preaching to the converted". The 10/10 Summer Challenge will be somewhat of a repeated program but will have the obvious advantage of the automatic enrollment.

The evaluation and establishing the TRC is difficult. Beyond the number of participants that sign on to the program, those that finish and those that are successful in meeting the 10% reduction goal, it is difficult to ascertain exactly what the customers did to accomplish the reduction goal.

##### 4.2. LED Traffic Lights

City officials are keen on the program but lack of funding prevented full involvement. The tie to funding from Ottawa River Energy Solutions provided a means for the City to make it happen within their existing budgets, thus creating a win-win proposition

##### 4.3. System Loss Study

This was a simple program with a low budget utilizing a summer engineering student that, with minimal direction, gathered data and ran the model. The model is in a form that can be used on an ongoing basis either with utility staff and/or outside consultants. The main outcome to date shows the importance of purchasing low loss distribution transformers. Further work in 2007 should identify areas for energy saving in betterment or new construction.

## 5. Conclusion

Three of the five C&DM programs are close to completion.

Approval was sought and received from the OEB to reallocate the funding for the load management program for the use of a smart meter pilot in 2007. It hoped that the smart metering will be a vehicle for reintroducing the load control program that was in place within the utility prior to market opening in 2000.

The remaining two programs for municipal street lighting and a commercial C&DM program will be done in 2007. The commercial program will be structured to complement the planned OPA incentive programs.

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## 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>	301635	\$ 303,015	\$ 51,466	\$ -	\$ 255,115	\$ -	\$ -	\$ (3,566)		\$ -	\$ -
<i>Benefit to cost ratio:</i>	7.5	21.09	15.39	0.00	33.12	0.00	0.00	0.00		0.00	0.00
<i>Number of participants or units delivered:</i>	511	511	489		18			4			
<i>Lifecycle (kWh) Savings:</i>	6526275	6,526,275	942,500	0	5,583,775	0	0	0		0	0
<i>Report Year Total kWh saved (kWh):</i>	411851	411,851	188,500	0	223,351	0	0	0		0	0
<i>Total peak demand saved (kW):</i>	26.2	26	0	0	26	0	0	0		0	0
<i>Total kWh saved as a percentage of total kWh delivered (%):</i>	0.2%	0.2%	0.1%		0.1%						
<i>Peak kW saved as a percentage of LDC peak kW load (%):</i>		0.1%			0.1%						
<sup>1</sup> Report Year Gross C&DM expenditures (\$):	\$ 14,635	\$ 14,635	\$ 3,576	\$ -	\$ 7,493	\$ -	\$ -	\$ 3,566	\$ -	\$ -	\$ -
<sup>2</sup> Expenditures per kWh saved (\$/kWh):	\$ 0.002	\$ 0.002	\$ 0.004	\$ -	\$ 0.001	\$ -	\$ -	\$ -		\$ -	\$ -
<sup>3</sup> Expenditures per KW saved (\$/kW):	\$ 558.59	\$ 558.59	\$ -	\$ -	\$ 285.99	\$ -	\$ -	\$ -		\$ -	\$ -
<i>Utility discount rate (%):</i>	7.25										

<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

(complete this Appendix for each program)

A. Name of the Program: LED Traffic Light Retrofit Program

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

ORPC provided the funding through their C&DM Program to supply the labour and material to convert two intersections from incandescent lighting to LED lighting. This provided the impetus for the municipality to enter into an agreement with Ottawa River Energy Solutions to complete the conversion of the remaining intersections in the City, 18 in total, to LED. The energy saving will be realized immediately and the City will pay for the conversion over five years through the energy savings. This project provided the incentive for the municipality to undertake the conversion of all the traffic lights in the City. The conversion of all the intersections was completed in 2006.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	Incandescent traffic lights		
Efficient technology:	LED lights		
Number of participants or units delivered for reporting year:	18 intersections and 3 caution lights		
Measure life (years):	25 years		
Number of Participants or units delivered life to date	18 intersections and 3 caution lights		

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
<sup>1</sup> TRC Benefits (\$):	\$ 263,058.00	288399
<sup>2</sup> TRC Costs (\$):		
Utility program cost (excluding incentives):		
Incremental Measure Costs (Equipment Costs)	\$ 7,943.00	\$ 16,493.00
Total TRC costs:	\$ 7,943.00	\$ 16,493.00
<b>Net TRC (in year CDN \$):</b>		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	33	17

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

**Conservation Programs:**

Demand savings (kW):	Summer	26.2	26.2
	Winter	26.2	26.2

	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	5,583,775	223,351	5729575	229183

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. Actual Program Costs:</b>		<b>Reporting Year</b>	<b>Cumulative Life to Date</b>
Utility direct costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&amp;M:</i>	\$ 7,493.00	\$ 16,493.00
	<i>Incentive:</i>		
	<i>Total:</i>	\$ 7,493.00	\$ 16,493.00
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&amp;M:</i>		
	<i>Total:</i>		

**E. Assumptions & Comments:**

Included in the cost benefit is a saving in maintenance costs for the elimination of the need to change bulbs. The TRC is based on a 25 year life as indicated by the TRC guide for LED exit lights.

<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

**(complete this Appendix for each program)**

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

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

As described in the report, the residential part of the energy challenge started in the summer of 2005 and ended in late 2006. At that time, the customer's consumption records were reviewed to ascertain savings. While this was primarily an education program, it was hoped that year over year usage data will provide a metric for the program. Being reported at this time is energy savings due to the distribution of compact fluorescent bulbs that were given away as customers signed up for the program. On the cost side is the program advertising and administration costs. Costs and benefits do not coincide at this point and therefore the Benefit to Cost Ratio does not make sense.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	Incandescent Lights	Customer Conservation	
Efficient technology:	CFL	Various	
Number of participants or units delivered for reporting year:		0 172	
Measure life (years):	3 Years	5	
Number of Participants or units delivered life to date		317 172	

B. <b>TRC Results:</b>	Reporting Year	Life-to-date TRC Results:
<sup>1</sup> TRC Benefits (\$):	\$ 55,042.00	\$ 59,816.00
<sup>2</sup> TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 3,576.01	\$ 18,080.00
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	\$ 3,576.01	\$ 18,080.00
<b>Net TRC (in year CDN \$):</b>		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	15.4	3.3

C. <b>Results:</b> (one or more category may apply)	<b>Cumulative Results:</b>			
<b>Conservation Programs:</b>				
Demand savings (kW):	Summer			
	Winter			
	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	942500	188500	1006217	209739
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/h):		
Fuel type:		

**Other Programs (specify):**

Metric (specify):		
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<b>D. Actual Program Costs:</b>		<b>Reporting Year</b>	<b>Cumulative Life to Date</b>
Utility direct costs (\$):	<i>Incremental capital:</i>	\$ -	
	<i>Incremental O&amp;M:</i>	\$ 3,576.01	\$ 18,080.24
	<i>Incentive:</i>	\$ -	
	<i>Total:</i>	\$ 3,576.01	\$ 18,080.24
Utility indirect costs (\$):	<i>Incremental capital:</i>	0	\$ -
	<i>Incremental O&amp;M:</i>	0	\$ -
	<i>Total:</i>	0	\$ -

**E. Assumptions & Comments:**

In the second year of the Challenge, the program was supported through mailings to contest participants. 172 customers were successful in reducing their load by greater than 10%. The average reduction was 12.31%. For the sake of the TRC calculation, a load saving of 12.31% occurred on our average customer usage of 741 kW-hr/year. The savings were accomplished by customers through various means that included technology improvements (CFL's, air drying, insulation, etc) and life style changes (turning off lights, use of microwave, etc). An estimated life of 5 years was used in the calculation.

<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

**(complete this Appendix for each program)**

A. **Name of the Program:** System Loss Study

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

Work on the system losses commenced in 2005 as part of a summer student project. Collection of asset information was done and mapped within the GIS system. Work continued in 2006 with the preparation of the model using DESS software from Dromey Systems. Various scenarios will be investigated in 2007 to identify areas that would be cost effective to modify to reduce losses.

**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>B. TRC Results:</b>	<b>Reporting Year</b>	<b>Life-to-date TRC Results:</b>
<sup>1</sup> TRC Benefits (\$):		
<sup>2</sup> TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 3,566.00	\$ 12,007.00
Incremental Measure Costs (Equipment Costs)		
<b>Total TRC costs:</b>	<b>\$ 3,566.00</b>	<b>\$ 12,007.00</b>
<b>Net TRC (in year CDN \$):</b>		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		

<b>C. Results:</b> (one or more category may apply)	<b>Cumulative Results:</b>	
<b>Conservation Programs:</b>		
Demand savings (kW):	Summer	
	Winter	
	lifecycle	
Energy saved (kWh):	in year	
Other resources saved :	Cumulative Lifecycle	
Natural Gas (m3):	Cumulative Annual Savings	
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 (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>
Utility direct costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&amp;M:</i>	\$ 3,566.00	\$ 12,007.00
	<i>Incentive:</i>		
	<i>Total:</i>	\$ 3,566.00	\$ 12,007.00
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&amp;M:</i>		
	<i>Total:</i>		

**E. Assumptions & Comments:**

<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 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.

	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>Energy Challenge</i>	\$ 55,042	\$ 3,576	\$ 51,466	15.39	188,500	942,500	0	\$ 3,576
<i>Name of Program B</i>			\$ -	0.00				
<i>Name of Program C</i>			\$ -	0.00				
<i>Name of Program D</i>			\$ -	0.00				
<i>Name of Program E</i>			\$ -	0.00				
<i>Name of Program F</i>			\$ -	0.00				
<i>Name of Program G</i>			\$ -	0.00				
<i>Name of Program H</i>			\$ -	0.00				
<i>Name of Program I</i>			\$ -	0.00				
<i>Name of Program J</i>			\$ -	0.00				
<b>*Totals App. B - Residential</b>	<b>\$ 55,042</b>	<b>\$ 3,576</b>	<b>\$ 51,466</b>	<b>15.39</b>	<b>188,500</b>	<b>942,500</b>	<b>0</b>	<b>\$ 3,576</b>
<i>Residential Indirect Costs not attributable to any specific program</i>								
<b>Total Residential TRC Costs</b>		<b>\$ 3,576</b>						
<b>**Totals TRC - Residential</b>	<b>\$ 55,042</b>	<b>\$ 3,576</b>	<b>\$ 51,466</b>	<b>15.39</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 (\$)
<i>Name of Program A</i>			\$ -	0.00				
<i>Name of Program B</i>			\$ -	0.00				
<i>Name of Program C</i>			\$ -	0.00				
<i>Name of Program D</i>			\$ -	0.00				
<i>Name of Program E</i>			\$ -	0.00				
<i>Name of Program F</i>			\$ -	0.00				
<i>Name of Program G</i>			\$ -	0.00				
<i>Name of Program H</i>			\$ -	0.00				
<i>Name of Program I</i>			\$ -	0.00				
<i>Name of Program J</i>			\$ -	0.00				
<b>*Totals App. B - Commercial</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$ -</b>

Commercial Indirect Costs not attributable to any specific program



<b>Total TRC Costs</b>		\$	-			
<b>**Totals TRC - Commercial</b>	\$	-	\$	-	\$	0.00

### 3. Institutional Programs

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
LED Traffic Lights	\$ 263,058	\$ 7,943	\$ 255,115	33.12	223,351	5,583,775	26	\$ 7,493
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 - Institutional</b>	\$ 263,058	\$ 7,943	\$ 255,115	33.12	223,351	5,583,775	26	\$ 7,493

Institutional Indirect Costs not attributable to any specific program



<b>Total TRC Costs</b>		\$	7,943				
<b>**Totals TRC - Institutional</b>	\$	263,058	\$	7,943	\$	255,115	33.12

### 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	\$	-
Industrial Indirect Costs not attributable to any specific program	→											
<b>Total TRC Costs</b>		\$	-									
<b>**Totals TRC - Industrial</b>	\$	-	\$	-	\$	-	<b>0.00</b>					

## 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	\$	-
Agricultural Indirect Costs not attributable to any specific program	→									
<b>Total TRC Costs</b>		\$	-							
<b>**Totals TRC - Agricultural</b>	\$	-	\$	-	\$	-	<b>0.00</b>			

## 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 (\$)				
System Study	\$	-	\$	3,566	\$	3,566	0.00	0	0	0	\$	3,566
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>	\$ -	\$ 3,566	\$ 3,566	0.00		0	0	0	\$ 3,566

LDC System Indirect Costs not attributable to any specific program →

<b>Total TRC Costs</b>		\$ 3,566							
<b>**Totals TRC - LDC System</b>	\$ -	\$ 3,566	\$ 3,566	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	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>	\$ 318,100	\$ 15,085	\$ 303,015	21.09	\$ 411,851	\$ 6,526,275	\$ 26	\$ 14,635
<i>Any other Indirect Costs not attributable to any specific program</i>	→							
<b>TOTAL ALL LDC COSTS</b>		\$ 15,085						
<b>**LDC' PORTFOLIO TRC</b>	\$ 318,100	\$ 15,085	\$ 303,015	21.09				

\* 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.