

**GRIMSBY POWER INCORPORATED**

***ANNUAL REPORT***

to

**ONTARIO ENERGY BOARD**

on

***Conservation and Demand Management Programs***

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## 1. Introduction

The following report is the Grimsby Power Incorporated (GPI) results and activities relating to Conservation and Demand Management (CDM) during the calendar year 2007. In this introductory section we will provide some of the approval background for the plan and then an overview of the activities and results of those activities.

The GPI CDM plan was based on Niagara Erie Public Power Alliance (NEPPA) Conservation and Demand Management Plan (Ontario Energy Board File No. RP-2004-0203). The GPI Market Adjusted Revenue Requirement of \$221,750 over the plan period was approved by the OEB on March 23<sup>rd</sup>, 2005 (Board File No. RP-2004-0203 / EB 2004-0523). The NEPPA plan had nine (9) applications filed and comprised of Canadian Niagara Power Inc. Grimsby Power Inc., Haldimand County Hydro Inc. Niagara Falls Hydro Inc., Niagara On The Lake Hydro Inc., Norfolk Power Distribution Inc., Peninsula West Utilities Limited Inc., St. Catharines Hydro Utility Services Inc., and Welland Hydro-Electric System Corp. Each LDC filed a separate schedule, which outlined their specific plan. Schedule 2 of the plan documents the GPI projects and customers associated with the various initiatives.

The following table shows the approved plan expenditures by project as well as actual expenditures to December 31, 2007.

<b>Project</b>	<b>Target Customers</b>	<b>Approved Expenditures</b>	<b>Expenditures in 2007</b>	<b>Expenditures to Dec. 31, 2007</b>	<b>Percent Spent</b>
Co-branded Mass Market Program	All Users	\$50,250	\$40,330.81	\$82,650.52	164.48%
Smart Metering / Prepaid Metering Program	Residential and small commercial (<50 kW)	\$39,750	-	\$5,128.28	12.90%
Energy Audits Programs	Residential and small commercial (<50 kW)	\$15,500	\$4,200.00	\$12,192.74	78.66%
Smart Metering / Interval Metering Program	Large commercial (>50kW)	\$22,500	-	\$0.00	0%

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Energy Audits / Feasibility Audits	Large commercial (>50kW)	\$2,750	\$13,123.97	\$15,962.53	580%
Distribution Loss Reduction	All Users	\$91,000	\$26,315.00	\$53,523.44	58.82%
<b>Total</b>		<b>\$221,750</b>	<b>\$83,969.78</b>	<b>\$169,457.51</b>	<b>76.42%</b>

As shown in the table, some of the planned projects are underway and smart metering is not going to be implemented due to government regulation as shown by costs in red. However, please notice the shifting of funds to other programs reflected in some programs being over budget.

To make our initiatives as cost effective and beneficial for our customers as possible, we have shared and continue to share programs with other utilities as well as implementing local programs specifically designed for our customers and their needs. In the following information we provide an overview of each of these shared and local programs.

### ***Shared NEPPA Activities***

As an active participant with the NEPPA group we have helped and continue to develop the “Conserver Family” customer education and information program. This program includes an introductory booklet and a web site for “Conserver Family” energy saving tips directly at [www.conserverjoe.com/np/](http://www.conserverjoe.com/np/) or on our website at [www.grimsbypower.com/conservation](http://www.grimsbypower.com/conservation). GPI has paid to continue this ongoing program to educate customers on ways of saving energy and monies.

### ***GPI/Local Activities***

The following is a listing and an overview of local programs initiated by GPI specifically for our customers:

- Educational Initiatives:  
We continued to provide educational sessions to customers, which does not form part of the spending with the exception of Conserver Joe, which requires on going website maintenance. This initiative was delivered to:
  - Grimsby Chamber of Commerce Trade Show and Grimsby Seniors Homes, where we delivered our message of energy conservation and distributed energy conservation games from the Ministry of Natural Resources Canada.

- Electrical Distribution System Loss Reduction and system improvements.  
In 2007, we purchased optimization software to reduce our overall distribution system loss by balancing load between our two feeder stations.
- Green Power Study  
We have initiated a proposal regarding Green Energy and potentially Greening the Community.

## **2. Evaluation of the CDM Plan**

We have continued to move cautiously throughout 2007 as we are examining some lessons learned by others so that we can be assured of prudent programs aimed at delivering a high value for our customers.

Despite our decision, the programs we offered our customers were well received and appeared to be accepted by many consumers. We continue to believe that many consumers want/need some financial incentive/rebate to prod them into purchasing more expensive items like a CFL versus an incandescent bulb.

The exit sign light bulb has proven to be a very effective way to deliver savings to our large and small business customers and was well received. Since exit lights are on all the time, by distributing a large number of bulbs we can reduce peak summer demand effectively.

For 2007, we again focused on Co-branding / Mass Marketing and Residential Energy Audit programs. Our programs were successful in reducing 3,038,433 lifetime kWhs and 464,888 kWh for the year. The benefit / cost ratio was 3.39 to 1 while summer peak demand was reduced by 3kW.

For the 2008 extension period, we plan to focus on Distribution Loss programs and the Smart Metering monies, which we plan to move into other areas. We have purchased software in 2007 to effectively calculate and reduce our distribution losses as an indication of our commitment to this area. We also plan to continue our highly successful appliance rebate and exit sign light programs.

## **3. Discussion of Programs**

GPI delivered the following programs to customers.

### **➤ Co-branding**

These programs were targeted at residential and small commercial customers.

- ***Grimsby Chamber of Commerce Trade Show***

This trade show was offered in February and offered Grimsby Power the chance to promote conservation to our customers. We distributed 1000 CFL bulbs and 250 tote bags with the Grimsby Power logo. A board game was developed by Natural Resources Canada that teaches children and adults about conservation. 250 board games were distributed. To help customers maintain the correct temperature inside of their refrigerators, 250 magnetic fridge thermometers were also given out. A display board was set up on a table with conservation messages and brochures. Another display demonstrated the efficiency of CFL bulbs compared to incandescent bulbs by showing the wattage consumed over time.

- ***Grimsby Seniors Homes***

Senior homes in Grimsby were visited in April by Grimsby Power staff. Another 1000 CFL bulbs and 250 tote bags were given out along with 250 magnetic fridge thermometers. This was a great chance to promote the importance of conservation among area seniors.

- ***Kilean Lodge Seniors Home***

90 CFLs were given to this home for installation in seniors' apartments. Seniors commented on how much brighter the lighting was as our 15W CFL was the equivalent of a 100W incandescent bulb.

- ***Conserver Joe***

This was an educational program that was jointly developed by the NEPPA group. We made Conserver Joe a few years back in an initial attempt to promote conservation prior to being a regulated requirement. We further developed Conserver Joe to have a family consisting of a wife and children. The booklet we developed was an effort to reach the entire family through the educational messages.

For 2007, we maintained our website. We have future plans to use the Conserver Family as part of a new interactive website aimed at Grade 5 children for use in schools as conservation education.

- ***Windows Program***

This was a rebate program offered in partnership with 5 local window contractors. A \$75 rebate was offered for each window having a price over \$250. The window installed had to be Energy Star efficient. GPI paid \$25 of the rebate and the \$50 balance was offered by the local contractor. This joint program saw 168 energy efficient windows installed by 14 customers. The NPV of the TRC was \$9,000 with a 2.5 to 1 benefit/cost ratio. This program was a continuation of the 2006 program.

- ***Grimsby Benevolent Fund***

300 area families in the Grimsby area were supplied with Grimsby Power tote bags containing 4 CFL bulbs, 2 LED nightlights and energy saving brochures. This program was well received by the participants who appreciated the assistance with their energy bills. Local media was also engaged to run a “feel good” story about how Grimsby Power and the Grimsby Benevolent Fund were helping low income families.

- ***Watt Reader Program***

To encourage a more active approach to conservation, Grimsby Power partnered with the Grimsby Public Library to run a watt reader lending program. Grimsby area residents with a valid library card were allowed to borrow the watt reader for a period of 3 weeks. As an added bonus, participants received a tote bag with 4 CFLs and 2 LED nightlights. It is difficult to quantify the energy saved due to this educational initiative but 42 customers participated in this program.

- ***Appliance Rebate Program***

This was one of the most successful conservation programs to date in terms of customer participation. \$50 was given as an incentive for each Energy Star refrigerator, dishwasher, washing machine and freezer. Customers could only receive an incentive for each type of appliance. Therefore, if 2 refrigerators were purchased only a \$50 incentive was available. However, customers could purchase 4 different appliances and receive \$200 although no customers reached this level. We did issue \$150 worth of incentives 7 times. This program was started on June 1 with marketing around that date. Word of mouth and the PST rebate starting on July 20 were the drivers of success. The NPV of the TRC was \$5352 with washing machines having the highest NPV TRC.

- ***New Customers***

New customers of Grimsby Power were given a tote bag with 4 CFLs, 2 LED nightlights and energy saving brochures. This initiative left a positive first impression with our new customers. It also started them thinking about energy conservation.

➤ ***Energy Audit (GS>50 class)***

- ***LED Exit Sign Replacement Bulbs***

1264 bulbs were distributed to 63 business customers. LED bulbs use 0.8 watts and replace 15 to 40 watt incandescent bulbs. LED bulbs also last 50,000 hours compared to 15,000 hours for an incandescent bulb. This may be a high estimate for incandescent lighting but it shows that an incandescent bulb will have to be replaced 3 times before an LED bulb burns out. This NPV of the TRC was \$47,824 with a benefit /cost ratio of 9.85 to 1. This program

was well received by the business community and if done in volume, effective in reducing peak demand since exit sign is lighting is on all the time.

➤ ***Distribution Loss***

This program was targeted to assist all customer classes served by GPI.

Software was purchased in 2007 to calculate and reduce distribution loss so that our system operates at an efficient level between the two feeder distribution stations. We have calculated the kWh savings to be 90.47. The NPV of the TRC was \$722,700.

A line rebuild was initiated on Mud Street in late 2007 and we have used more efficient transformers with lower impedance losses than minimum CSA standards. This should exhaust the remaining distribution loss budget.

***Next Steps***

GPI is committed to working with partners to deliver programs/joint ventures to effectively deliver CDM. In our extension period to April 30, 2008, we plan to:

- Continue customer education through the further development of Conserver Joe with NEPPA LDCs by use of an interactive website for kids;
- Continue with the windows, appliance rebate, new customer, watt reader and LED exit sign bulb programs .
- Sign agreements with the OPA to participate in new and existing conservation programs that make sense for our customers and Grimsby Power.
- Our focus will be on finding ways to effectively spend our Distribution Loss money.

**4. Lessons Learned**

***Utility Size Challenges***

As a relatively small utility (approximately 9,500 customers) we face challenges that larger utilities do not share. Costs to initiate and operate CDM programs are generally not dependent on utility size. This makes program development and administration cost control difficult. In addition, meeting regulatory and reporting requirements, while important, become a high cost when compared to the overall program budget. These regulatory costs are typically independent of utility size. A regulatory cost of \$20,000 may be a relatively insignificant in a budget of millions of dollars but significantly reduces the funds available for customer programs when a total CDM budget is \$221,750! Further, larger utilities are able to use dedicated staff while smaller LDCs assign CDM to an existing staff member along with the myriad of other duties they are required to perform.

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A smaller budget restricts the programs that smaller LDCs can offer their customers. This means that customers in smaller LDCs are being disadvantaged to the types of programs being run in larger neighbouring LDCs. This means that the province as a whole is missing an opportunity to reduce load symmetrically across the province.

It appears the provincially funded CDM programs locally delivered allows the province to collectively reduce load. Thereby it maintains the confidence of customers in their local LDC, with a continued position of trust and reliability, and it provides customers with a common collective message from all entities, government, OPA and LDCs. This avoids mixed and confused messages if we are all trying to do our own CDM 'thing'. The successful Appliance Rebate program is a good example as customers of neighbouring utilities are ineligible.

GPI has determined that the Windows Replacement program is worth repeating in 2008, as budgeted monies in Energy Audit must be spent. This program has a positive NPV as determined by the TRC software that we use. Our customers responded positively to this program in 2007.

### ***Shared Initiatives***

Without question shared initiatives reduce the cost component in delivery of CDM programs. Where they apply to our customer groups, they have proven to be a very effective way of implementing CDM.

Programs can be offered provincially and delivered locally. This way it reduces administration costs and offers a common province wide initiative to the benefit of all consumers and the reduction of demand for the province, which benefits all consumers. Therefore, the new and existing OPA C&DM initiatives listed in Next Steps above should benefit GPI customers with reduced costs. However, they must be easy to administer and deliver for our small utility.

### ***Local Initiatives***

Our own local programs can be effective as long as we can minimize staff time, which has not had any administration costs to date. For example, keep it simple and partner with others who are willing or able to provide administrative support and management of the initiative. This we believe can be best done by the OPA with utility involvement in program design. Customers appear to have a trust in their local utility and see them as their trusted expert in electricity matters. However, the OPA needs to save LDC harmless of risk and work with LDCs to adequately plan the programs at the grass roots versus the '35,000' level.

### ***Customer Education Programs***

Customer education remains extremely important, as most customers know little about electricity. An educated customer helps energy efficiency become more of a focus for future consumers of electricity. Certainly one of the lessons learned during 2007 is that, while education is important, it is impossible to quantify the results of customer education. (There is

no test.) Statistically accurate survey information is expensive and this expense is of particular concern when the CDM budget is relatively small. Further studies have shown that a cultural change takes many years of continued efforts to achieve the desired results.

The result of this issue with customer education and the validation of results is that this type of CDM component may be stopped in future, unless some type of reduction in the requirements for TRC analysis is made for important customer education initiatives.

## **Summary**

There are 3 key aspects that we should be emphasised on C&DM for the future. They are:

- Customer Education – we need to continue to educate customers on the value of CDM from a total resource adequacy perspective and that while some costs may increase, overall their total costs will go down.
- Consistent Messages – customers need to hear a clear and consistent message from all players to avoid duplication of effort.
- Pay Back – customers want and need to know the pay back of their efforts. Unfortunately, many will not engage a program that is outside of 12 months. Somehow we need to determine a strategy that will see these customers engaged.

## **5. Conclusion**

In 2007, the CDM programs GPI was involved with were well received by our customers. Many customers appear to understand and they appear to want to help reduce demand. However, most are unwilling to change/ forfeit comfort. Customers also need to hear a consistent message from all players active with CDM.

Grimsby Power Incorporated is committed to CDM. It makes sense for everyone and we will continue to offer programs that benefit our customers (in both the short and long term). However, we believe that the best way to deliver CDM is provincially funded locally delivered programs.

Sharing costs and ideas only makes sense to effectively deliver CDM programs and to achieve the desired results.

## 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 2007	Residential	Commercial	Institutional	Industrial	Agricultural	LDC System	<sup>4</sup> Smart Meters	Other #1	Other #2
Net TRC value (\$):	\$ 984,296	\$ 857,596	\$ 94,825	\$ 40,071	\$ -	\$ -	\$ -	\$ 722,700		\$ -	\$ -
Benefit to cost ratio:	6.45	10.15	2.75	4.05	0.00	0.00	0.00	28.46		0.00	0.00
Number of participants or units delivered:	74605	32891	22092	1264				\$9,535			
Lifecycle (kWh) Savings:	25,747,071.83	22,635,819	3,038,433	849,050	0	0	0	18,748,336		0	0
Report Year Total kWh saved (kWh):	1,600,156.14	1,356,330	464,888	141,508	0	0	0	749,933		0	0
Total peak demand saved (kW):	161	110	3	16	0	0	0	91		0	0
Total kWh saved as a percentage of total kWh delivered (%):	0.29%	0.75%	0.26%	0.08%				0.41%			
Peak kW saved as a percentage of LDC peak kW load (%):		0.35%	0.01%	0.05%				0.29%			
<sup>1</sup> Report Year Gross C&DM expenditures (\$):	\$ 169,458	\$ 83,970	\$ 44,531	\$ 13,124	\$ -	\$ -	\$ -	\$ 26,315	\$ -	\$ -	\$ -
<sup>2</sup> Expenditures per kWh saved (\$/kWh):	\$ 0.11	\$ 0.00	\$ 0.01	\$ 0.02	\$ -	\$ -	\$ -	\$ 0.04		\$ -	\$ -
<sup>3</sup> Expenditures per kW saved (\$/kW):	\$ 1,054.24	\$ 765.17	\$ 14,843.60	\$ 820.25	\$ -	\$ -	\$ -	\$ 290.00		\$ -	\$ -
Utility discount rate (%):	8.13%										

<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, 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:** CFL and Tote Bag giveaway at the Grimsby Chamber of Commerce Trade Show

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

The Grimsby Chamber of Commerce was holding a trade show representing a good opportunity for us to distribute CFLs and tote bags with the Grimsby Power logo. We also distributed fridge thermometers as a customer education tool.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	Incandescent 100W bulb		
Efficient technology:	15W CFL Bulb		
Number of participants or units delivered for reporting year:	1000		
Measure life (years):	4		
Number of Participants or units delivered life to date	1000		

B. <b>TRC Results:</b>	Reporting Year	Life-to-date TRC Results:
<sup>1</sup> TRC Benefits (\$):	\$ 22,566.60	
<sup>2</sup> TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 4,066.60	
Incremental Measure Costs (Equipment Costs)	\$ 1,800.00	
Total TRC costs:	\$ 5,866.60	
<b>Net TRC (in year CDN \$):</b>	<b>\$ 16,700.00</b>	
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	\$ 3.85	

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

**Conservation Programs:**

Demand savings (kW):	Summer	0		
	Winter	20.25		

	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	#REF!	#REF!		
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><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>	\$ 5,866.60	\$ 5,866.60
	<i>Incentive:</i>	\$ -	
	<i>Total:</i>	\$ 5,866.60	\$ 5,866.60
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&amp;M:</i>		
	<i>Total:</i>		

**E. Assumptions & Comments:**

The 15W CFL bulb distributed has an equivalent of 100 W Incandescent but most customers will be using it to replace a 60W Incandescent bulb.

<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:** CFL and Tote Bag giveaway at the Grimsby Seniors Home

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

The Grimsby Seniors Home was holding an event for area seniors representing a good opportunity for us to distribute CFLs and tote bags with the Grimsby Power logo.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	Incandescent 100W bulb		
Efficient technology:	15W CFL Bulb		
Number of participants or units delivered for reporting year:	1000		
Measure life (years):	4		
Number of Participants or units delivered life to date	1000		

B. <b>TRC Results:</b>	Reporting Year	Life-to-date TRC Results:
<sup>1</sup> TRC Benefits (\$):	\$ 22,611.89	
<sup>2</sup> TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 2,911.89	
Incremental Measure Costs (Equipment Costs)	\$ 1,800.00	
<b>Total TRC costs:</b>	<b>\$ 4,711.89</b>	
<b>Net TRC (in year CDN \$):</b>	<b>\$ 17,900.00</b>	
<b>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</b>	<b>\$ 4.80</b>	

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

**Conservation Programs:**

Demand savings (kW):	Summer	0	
	Winter	20.25	

	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	375840	93,960.00		
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):

<b>D. <u>Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 4,711.89	
	Incentive:	\$ -	
	Total:	\$ 4,711.89	
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

**E. Assumptions & Comments:**

The 15W CFL bulb distributed has an equivalent of 100 W Incandescent but most customers will be using it to replace a 60W Incandescent bulb.

<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:** CFL, LED Nightlight and Tote Bag giveaway at the Grimsby Benevolent Fund

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

This program was designed to help low income families with their hydro bills. 4 CFLs, 2 LED nightlights and a tote bag with energy saving brochures were given to 300 families by the Grimsby Benevolent Fund.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
<i>Base case technology:</i>	Incandescent 100W bulb	Incandescent LED nightlight	
<i>Efficient technology:</i>	15W CFL Bulb	0.3 W LED nightlight	
<i>Number of participants or units delivered for reporting year:</i>	1200	600	
<i>Measure life (years):</i>	4	28	
<i>Number of Participants or units delivered life to date</i>	1200	600	

B. <b>TRC Results:</b>	Reporting Year	Life-to-date TRC Results:
<sup>1</sup> TRC Benefits (\$):	\$ 27,091.40	
<sup>2</sup> TRC Costs (\$):		
<i>Utility program cost (excluding incentives):</i>	\$ 5,504.40	
<i>Incremental Measure Costs (Equipment Costs)</i>	\$ 2,187.00	
<b>Total TRC costs:</b>	<b>\$ 7,691.40</b>	
<b>Net TRC (in year CDN \$):</b>	<b>\$ 19,400.00</b>	
<i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>	\$ 3.52	

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

**Conservation Programs:**

<i>Demand savings (kW):</i>	Summer	0		
	Winter	24		

	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
<i>Energy saved (kWh):</i>	873635	113,515.78	873635	113515.78
<i>Other resources saved :</i>				
<i>Natural Gas (m3):</i>				
<i>Other (specify):</i>				

**Demand Management Programs:**

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

**Demand Response Programs:**

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

**Power Factor Correction Programs:**

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

**Distributed Generation and Load Displacement Programs:**

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

**Other Programs (specify):**

Metric (specify):		
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<b>D. Actual Program Costs:</b>		<b>Reporting Year</b>	<b>Cumulative Life to Date</b>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 7,691.40	
	Incentive:	\$ -	
	Total:	\$ 7,691.40	
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

**E. Assumptions & Comments:**

The 15W CFL bulb distributed has an equivalent of 100 W Incandescent but most customers will be using it to replace a 60W Incandescent bulb as per the TRC Calculator. The LED nightlights last 100,000 hours according to the packaging and are on 10 hours per day. They last 28 years. Incandescent bulbs will have to be replaced 7 times before and LED nightlight. This is reflected in the .05 incremental cost. These assumptions apply to all programs were LED nightlights were distributed.

<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:** Watt Reader Consumer Awareness

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

In partnership with the Grimsby Public Library, 5 watt readers were made available to the public for a loan period of 3 weeks. The watt readers would enable customers to monitor the consumption of indoor appliances. 4 CFL bulbs and 2 LED nightlights were also given out in a tote bag as a bonus.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
<i>Base case technology:</i>	Limited Education on C&DM	100 W Incandescent Bulb	7 W Incandescent Nightlight
<i>Efficient technology:</i>	Promote C&DM	15 W CFL Bulb	0.3 W LED Nightlight
<i>Number of participants or units delivered for reporting year:</i>	42	168	84
<i>Measure life (years):</i>	4		28
<i>Number of Participants or units delivered life to date</i>	42	168	84

B. <b>TRC Results:</b>	Reporting Year	Life-to-date TRC Results:
<sup>1</sup> TRC Benefits (\$):	\$ 6,419.20	
<sup>2</sup> TRC Costs (\$):		
<i>Utility program cost (excluding incentives):</i>	\$ 770.24	
<i>Incremental Measure Costs (Equipment Costs)</i>	\$ 306.56	
<b>Total TRC costs:</b>	<b>\$ 1,076.80</b>	
<b>Net TRC (in year CDN \$):</b>	<b>\$ 5,342.40</b>	
<i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>	\$ 5.96	

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

**Conservation Programs:**

<i>Demand savings (kW):</i>	<i>Summer</i>	0	0
	<i>Winter</i>	0	0
	<i>lifecycle</i>	<i>in year</i>	<i>Cumulative Lifecycle</i>
<i>Energy saved (kWh):</i>	131671	18232.78	131671
<i>Other resources saved :</i>			18232.78
<i>Natural Gas (m3):</i>			
<i>Other (specify):</i>			

**Demand Management Programs:**

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

**Demand Response Programs:**

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

**Power Factor Correction Programs:**

<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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<b><u>D. Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 1,076.80	
	Incentive:		
	Total:	\$ 1,076.80	
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

**E. Assumptions & Comments:**

Customers have enjoyed using the watt reader. For household appliances such as refrigerators, I have told customers to take the daily watt usage and multiply by 365. They could also take a weekly reading and multiply by 52. It gives them a feeling of control and awareness over their energy consumption.

<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:** Appliance Rebate

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

To encourage customers to purchase Energy Star efficient appliances a \$50 rebate was offered on the purchase of washing machines, refrigerators, dishwashers and freezers. Customers were limited to a maximum rebate of \$200 on 4 different appliances. The Province of Ontario offered a point of sale PST rebate from July 20, 2007 to July 19, 2008. This helped drive program results. 2 CFLs and 2 LED nightlights in a tote bag with energy saving tips were distributed from October 2007 forward as Grimsby Power applied for an extension.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
<i>Base case technology:</i>	Top Load Washing Machine	Standard Refrigerator	Standard Dishwasher
<i>Efficient technology:</i>	Front Load Washing Machine	Energy Star Refrigerator	Energy Star Dishwasher
<i>Number of participants or units delivered for reporting year:</i>	50	88	62
<i>Measure life (years):</i>	14	19	13
<i>Number of Participants or units delivered life to date</i>	50	88	62

<b>B. TRC Results:</b>	<b>Reporting Year</b>	<b>Life-to-date TRC Results:</b>
<sup>1</sup> TRC Benefits (\$):	\$ 31,915.78	
<sup>2</sup> TRC Costs (\$):		
<i>Utility program cost (excluding incentives):</i>	\$ 2,195.10	
<i>Incremental Measure Costs (Equipment Costs)</i>	\$ 24,340.24	
<i>Total TRC costs:</i>	\$ 26,535.34	
<i>Net TRC (in year CDN \$):</i>	\$ 5,380.44	
<i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>	\$ 1.20	

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

**Conservation Programs:**

<i>Demand savings (kW):</i>	<i>Summer</i>	2	2
	<i>Winter</i>	5	5

	<i>lifecycle</i>	<i>in year</i>	<i>Cumulative Lifecycle</i>	<i>Cumulative Annual Savings</i>
<i>Energy saved (kWh):</i>	670814	51,249.21	670814	51,249.21
<i>Other resources saved :</i>				
<i>Natural Gas (m3):</i>				
<i>Other (specify):</i> Water		900000 L / year		

**Demand Management Programs:**

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

**Demand Response Programs:**

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

**Power Factor Correction Programs:**

<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:**

<i>Peak load savings (kW):</i>		
<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):

<b>D. <u>Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 2,195.10	\$ 2,195.10
	Incentive:	\$ 11,100.00	\$ 11,100.00
	Total:	\$ 13,295.10	\$ 13,295.10
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

**E. Assumptions & Comments:**

Continued on next page for Freezers, CFLs and LED Nightlights

<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:** Appliance Retirement

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

To encourage customers to purchase Energy Star efficient appliances a \$50 rebate was offered on the purchase of washing machines, refrigerators, dishwashers and freezers. Customers were limited to a maximum rebate of \$200 on 4 different appliances. The Province of Ontario offered a point of sale PST rebate from July 20, 2007 to July 19, 2008. This helped drive program results. 2 CFLs and 2 LED nightlights in a tote bag with energy saving tips were distributed from October 2007 forward.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
<i>Base case technology:</i>	Standard Freezer	100W Incandescent Bulb	7W Incandescent Nightlight
<i>Efficient technology:</i>	Energy Star Freezer	15W CFL	0.3W LED Nightlight
<i>Number of participants or units delivered for reporting year:</i>		22 142	142
<i>Measure life (years):</i>		21 4	28
<i>Number of Participants or units delivered life to date</i>		22 142	142

<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 (\$):		
<i>Utility program cost (excluding incentives):</i>		
<i>Incremental Measure Costs (Equipment Costs)</i>		
<i>Total TRC costs:</i>		
<hr/> <b>Net TRC (in year CDN \$):</b> <hr/>		
<i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>		

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

**Conservation Programs:**

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

**Demand Management Programs:**

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

**Demand Response Programs:**

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

**Power Factor Correction Programs:**

<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:**

<i>Peak load savings (kW):</i>		
	<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):

<b>D. <u>Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
Utility direct costs (\$):	Incremental capital:	<input type="text"/>	<input type="text"/>
	Incremental O&M:	<input type="text"/>	<input type="text"/>
	Incentive:	<input type="text"/>	<input type="text"/>
	Total:	<input type="text"/>	<input type="text"/>
Utility indirect costs (\$):	Incremental capital:	<input type="text"/>	<input type="text"/>
	Incremental O&M:	<input type="text"/>	<input type="text"/>
	Incentive:	<input type="text"/>	<input type="text"/>
	Total:	<input type="text"/>	<input type="text"/>

**E. Assumptions & Comments:**

Go to Appliance Retirement main page where all results are summarized

<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:** New Customers

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

New customers of Grimsby Power were given 4 CFLs, 2 LED Nightlights and energy saving brochures in a tote bag.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
<i>Base case technology:</i>	100W Incandescent Bulb	7W Incandescent Bulb	
<i>Efficient technology:</i>	15W CFL	0.3W LED Nightlight	
<i>Number of participants or units delivered for reporting year:</i>	800	200	
<i>Measure life (years):</i>	4	28	
 <i>Number of Participants or units delivered life to date</i>	 800	 200	

<b>B. TRC Results:</b>	<b>Reporting Year</b>	<b>Life-to-date TRC Results:</b>
<sup>1</sup> TRC Benefits (\$):	\$ 25,124.60	
<sup>2</sup> TRC Costs (\$):		
<i>Utility program cost (excluding incentives):</i>	\$ 2,651.70	
<i>Incremental Measure Costs (Equipment Costs)</i>	\$ 1,440.90	
<i>Total TRC costs:</i>	\$ 4,092.60	
<i>Net TRC (in year CDN \$):</i>	\$ 21,032.00	
 <i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>	 \$ 6.14	

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

**Conservation Programs:**

<i>Demand savings (kW):</i>		<i>Summer</i>	0		0
		<i>Winter</i>	18		18

	<i>lifecycle</i>	<i>in year</i>	<i>Cumulative Lifecycle</i>	<i>Cumulative Annual Savings</i>
<i>Energy saved (kWh):</i>	463839	80,995.39	463839	80,995.39
<i>Other resources saved :</i>				
<i>Natural Gas (m3):</i>				
<i>Other (specify):</i>				

**Demand Management Programs:**

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

**Demand Response Programs:**

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

**Power Factor Correction Programs:**

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

**Line Loss Reduction Programs:**

Peak load savings (kW): [ ] [ ]  
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): [ ] [ ]

<b>D. <u>Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
Utility direct costs (\$):	Incremental capital:	[ ]	[ ]
	Incremental O&M:	\$ 4,092.60	[ ]
	Incentive:	\$ -	[ ]
	Total:	\$ 4,092.60	[ ]
Utility indirect costs (\$):	Incremental capital:	[ ]	[ ]
	Incremental O&M:	[ ]	[ ]
	Total:	[ ]	[ ]

**E. Assumptions & Comments:**

The LED nightlights were ordered and distributed in the last half of the year. TRC CFL is based on 60W Incandescent but most customers will replace this bulb.

<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:** Conservator Joe Educational Awareness

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

See report. Started in 2005.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
<i>Base case technology:</i>	Limited Education on C&DM		
<i>Efficient technology:</i>	Promote C&DM		
<i>Number of participants or units delivered for reporting year:</i>	9535		
<i>Measure life (years):</i>	10		
<i>Number of Participants or units delivered life to date</i>	9535		

<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 (\$):		
<i>Utility program cost (excluding incentives):</i>	\$ 1,800.00	11118.4
<i>Incremental Measure Costs (Equipment Costs)</i>		
<b>Total TRC costs:</b>	<b>\$ 1,800.00</b>	<b>11118.4</b>
<hr/> <b>Net TRC (in year CDN \$):</b> <hr/>		
<i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>		

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

*lifecycle*

*in year*

Energy savings (kWh):

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

**Other Programs (specify):**

Metric (specify):

**D. Actual Program Costs:**

Utility direct costs (\$):

*Incremental capital:*

*Incremental O&M:*

*Incentive:*

*Total:*

Utility indirect costs (\$):

*Incremental capital:*

*Incremental O&M:*

*Total:*

**Reporting Year**

**Cumulative Life to Date**

\$	1,800.00	\$ 11,118.40
\$	1,800.00	\$ 11,118.40

**E. Assumptions & Comments:**

Expenses incurred in 2007 related to web hosting. Grimsby Power customers could obtain energy saving tips on-line.

<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:** Window Replacement

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

Energy Star windows over \$250 were installed with a \$50 rebate per window from the vendor. Grimsby Power paid an additional \$25 rebate.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
<i>Base case technology:</i>	Existing windows		
<i>Efficient technology:</i>	Energy Star windows		
<i>Number of participants or units delivered for reporting year:</i>	168		
<i>Measure life (years):</i>	25		
<i>Number of Participants or units delivered life to date</i>	347		

B. <b>TRC Results:</b>	Reporting Year	Life-to-date TRC Results:
<sup>1</sup> TRC Benefits (\$):	\$ 10,791.86	\$ 21,920.89
<sup>2</sup> TRC Costs (\$):		
<i>Utility program cost (excluding incentives):</i>	\$ 1,057.70	\$ 3,631.03
<i>Incremental Measure Costs (Equipment Costs)</i>	\$ 734.16	\$ 5,990.65
<i>Total TRC costs:</i>	\$ 1,791.86	\$ 9,621.68
<i>Net TRC (in year CDN \$):</i>	\$ 9,000.00	\$ 12,300.00
<i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>	\$ 6.02	2.278280924

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

**Conservation Programs:**

<i>Demand savings (kW):</i>	<i>Summer</i>	1	2
	<i>Winter</i>	4	8

	<i>lifecycle</i>	<i>in year</i>	<i>Cumulative Lifecycle</i>	<i>Cumulative Annual Savings</i>
<i>Energy saved (kWh):</i>	112,968.00	4,518.71	233,393.00	9,335.71
<i>Other resources saved :</i>				
<i>Natural Gas (m3):</i>	40875	1635	84425	3377
<i>Other (specify):</i>				

**Demand Management Programs:**

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

**Demand Response Programs:**

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

**Power Factor Correction Programs:**

<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:**

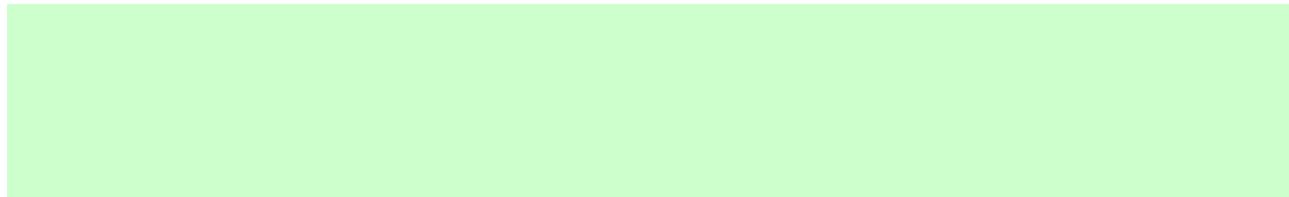
Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kW):		
Fuel type:		

**Other Programs (specify):**

Metric (specify):		
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<b><u>Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 1,057.70	\$ 13,820.89
	Incentive:	\$ 4,200.00	\$ 8,675.00
	Total:	\$ 5,257.70	\$ 22,495.89
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

**E. Assumptions & Comments:**



The Calculated TRC values were not done using the TRC tables but rather with the data and information contained within a report titled "Potential Savings for Energy Star Windows, Doors and Skylights" completed on behalf of Natural Resources Canada by Enermodal Engineering in 2005. Vendor rebates of \$50 per window were included as an incentive in this program because they are neither utility or customer costs. The incremental cost of installing an energy efficient window is \$43.75 per square meter. Natural gas savings are calculated based on future gas pricing supplied by Union Gas and using the NPDI discount rate for the NPV calculation of those savings.

<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:** Kilean Lodge

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

This is a seniors home in Grimsby. They requested some CFL bulbs to install in seniors apartments.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	100W Incandescent Bulb		
Efficient technology:	15W CFL		
Number of participants or units delivered for reporting year:	90		
Measure life (years):	4		
Number of Participants or units delivered life to date	90		

B. <b>TRC Results:</b>	Reporting Year	Life-to-date TRC Results:
<sup>1</sup> TRC Benefits (\$):	\$ 2,608.92	
<sup>2</sup> TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 576.72	
Incremental Measure Costs (Equipment Costs)	\$ 162.00	
<b>Total TRC costs:</b>	<b>\$ 738.72</b>	
<b>Net TRC (in year CDN \$):</b>	<b>\$ 1,870.20</b>	
<b>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</b>	<b>\$ 3.53</b>	

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

**Conservation Programs:**

Demand savings (kW):	Summer	Winter	Cumulative Lifecycle	Cumulative Annual Savings
	0	2	33826	8,456.40

	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	33826	8,456.40	33826	8,456.40
Other resources saved :				
Natural Gas (m3):				
Other (specify):				

**Demand Management Programs:**

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

**Demand Response Programs:**

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

**Power Factor Correction Programs:**

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

**Line Loss Reduction Programs:**

Peak load savings (kW):

*lifecycle*

*in year*

Energy savings (kWh):

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

**Other Programs (specify):**

Metric (specify):

**D. Actual Program Costs:**

Utility direct costs (\$):

*Incremental capital:*

*Incremental O&M:*

*Incentive:*

*Total:*

**Reporting Year**

**Cumulative Life to Date**

\$ 738.72

\$ -

\$ 738.72

Utility indirect costs (\$):

*Incremental capital:*

*Incremental O&M:*

*Total:*

**E. Assumptions & Comments:**

TRC CFL is based on 60W Incandescent but most customers will replace this bulb.

<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:** LED Exit Sign Bulbs

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

Replace 15 Watt Incandescent Bulb with 0.8 Watt LED Bulb in Exit Sign. Program is aimed at the business sector. Delivery was made directly to the business.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
<i>Base case technology:</i>	Incandescent 15W bulb	No Adapter	
<i>Efficient technology:</i>	0.8W LED Exit Sign Bulb	Adapter used for larger base	
<i>Number of participants or units delivered for reporting year:</i>	1264	124	
<i>Measure life (years):</i>	6	6	
<i>Number of Participants or units delivered life to date</i>	1264	124	

B. <b>TRC Results:</b>	Reporting Year	Life-to-date TRC Results:
<sup>1</sup> TRC Benefits (\$):	\$ 53,195.07	
<sup>2</sup> TRC Costs (\$):		
<i>Utility program cost (excluding incentives):</i>	\$ 8,244.01	
<i>Incremental Measure Costs (Equipment Costs)</i>	\$ 4,879.96	
<b>Total TRC costs:</b>	<b>\$ 13,123.97</b>	
<b>Net TRC (in year CDN \$):</b>	<b>\$ 40,071.10</b>	
<b>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</b>	<b>\$ 4.05</b>	

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

**Conservation Programs:**

<i>Demand savings (kW):</i>	Summer	16	16
	Winter	16	16

	<i>lifecycle</i>	<i>in year</i>	<i>Cumulative Lifecycle</i>	<i>Cumulative Annual Savings</i>
<i>Energy saved (kWh):</i>	849050	141,508.34	849050	141,508.34
<i>Other resources saved :</i>				
<i>Natural Gas (m3):</i>				
<i>Other (specify):</i>				

**Demand Management Programs:**

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

**Demand Response Programs:**

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

**Power Factor Correction Programs:**

<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:**

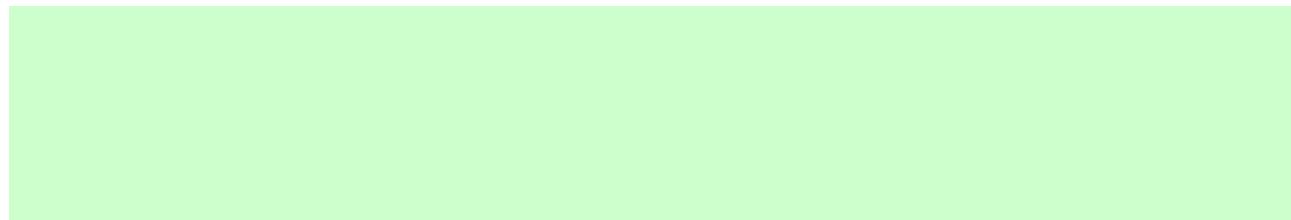
Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kW):		
Fuel type:		

**Other Programs (specify):**

Metric (specify):		
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<b><u>Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 13,123.97	
	Incentive:	\$ -	
	Total:	\$ 13,123.97	
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

**E. Assumptions & Comments:**



The LED Exit Sign bulb at 0.8 Watts replaces a 15 Watt Incandescent but some incandescent bulbs can be 15 to 40 Watts. Replacing a 40 Watt incandescent would deliver even greater energy savings. 124 adapters were used for larger base bulbs and placed in incremental costs. LED Exit Sign Bulbs last 50,000 hours according to the Turolight website and are on all the time. They last 6 years. Incandescent bulbs last 2 years and will have to be replaced 3 times. This is reflected in lower incremental costs. Free ridership is 10%.

<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:** Distribution Loss Software

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

Software from Dromey Design used to balance peak system load and thereby reduce distribution loss.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	No software used		
Efficient technology:	Software used		
Number of participants or units delivered for reporting year:	9535 customers		
Measure life (years):	25		
Number of Participants or units delivered life to date	9535		

	Reporting Year	Life-to-date TRC Results:
<b>B. TRC Results:</b>		
<sup>1</sup> TRC Benefits (\$):	\$ 749,015.00	
<sup>2</sup> TRC Costs (\$):		
Utility program cost (excluding incentives):		
Incremental Measure Costs (Equipment Costs)	\$ 26,315.00	
Total TRC costs:	\$ 26,315.00	
<b>Net TRC (in year CDN \$):</b>	<b>\$ 722,700.00</b>	
<b>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</b>	<b>\$ 28.46</b>	

	<b>Cumulative Results:</b>			
<b>C. Results:</b> (one or more category may apply)				
<b>Conservation Programs:</b>				
Demand savings (kW):	Summer			
	Winter			
	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):				
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 (%):				
<b>Line Loss Reduction Programs:</b>				
Peak load savings (kW):		90.74	2268.5	90.74
	lifecycle	in year		
Energy savings (kWh):	18748336	749933.43	18748336	749933.43

**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><u>Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
Utility direct costs (\$):	Incremental capital:	\$ 26,315.00	\$ 26,315.00
	Incremental O&M:		
	Incentive:		
	Total:	\$ 26,315.00	\$ 26,315.00
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

**E. Assumptions & Comments:**

Average demand of 27,000 MW assumed resulting in average of 90.74 kW demand savings constant throughout the year.

<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.

**Calculation to find cumulative Benefit to Cost Ratio**

From	2005 C&DM filing		
	PV Benefits	PV Costs	
	15,499.21	1,299.21	CFLs
	2,950.00	1,050.00	Cold Water Wash
	9,644.24	2,344.24	LEDs
	18,928.35	2,728.35	Thermostats
	8,826.52	826.52	Timers
	-	52.46	Ceiling Fans
	29,108.44	27,208.44	Distribution Loss
	-	1,500.00	Administration ( TRC Calculator)
	-	5,128.28	Smart Meter
	-	8,418.40	Conserver Joe
	<u>84,956.76</u>	<u>50,555.90</u>	
Totals	84,956.76	50,555.90	
2005 Benefit to Cost Ratio		1.68	
From	2006 C&DM filing		
	26,732.00	9,032.00	Fridge Retirement
	8,370.00	670.00	plus 6 Free CFLs
	6,749.62	549.62	plus free appliance timer
	11,236.98	7,800.00	Windows Replacement
	40,875.25	9,475.25	LED Xmas light exchange
	-	2,404.77	Lighting Seminar
	-	900.00	Conserver Joe
	<u>93,963.85</u>	<u>30,831.64</u>	
2006 Benefit to Cost Ratio		3.05	
Note: 2006 Windows program not calculated correctly			
From	2007 C&DM filing		
	22,566.60	5,866.60	Grimsby Trade Show
	22,611.89	4,711.89	Grimsby Seniors Home
	27,091.40	7,691.40	Grimsby Benevolent Fund
	6,419.20	1,076.80	Watt Reader
	31,915.78	26,535.34	Appliance Rebate
	25,124.60	4,092.60	New Customers
	2,608.92	738.72	Kilean Lodge
	10,791.86	1,791.86	Window Replacement
	-	1,800.00	Conserver Joe
	53,195.07	13,123.97	LED Exit Sign Bulbs
	<u>749,015.00</u>	<u>26,315.00</u>	Distribution Loss
	951,340.32	93,744.18	
2007 Benefit to Cost Ratio		10.15	
Cumulative Ratio			
	1,130,260.93	175,131.72	
Cumulative 2005/2006/2007 Ratio		6.45	

**Number of Participants by Program**

From 2005 C&DM filing	29274
2006 Total	12440
2007 Total	1000 Grimsby Trade Show 1000 Grimsby Seniors Home 300 Grimsby Benevolent Fund 42 Watt Reader 222 Appliance Rebate 200 New Customers 90 Kilean Lodge 168 Window Replacement 9535 Conserver Joe 1264 LED Exit Sign Bulbs 9535 Distribution Loss
	23356 Total Note: Conserver Joe and Distribution Loss software appeal to all customers
	22092 Residential 1264 Commercial Exit Sign Bulbs
Cumulative total	65070.00
Breakdown:	
Residential	63797.00
Industrial	9
Commerical	1264

# 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		\$ 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 (\$)
	(PV)	TRC Costs (PV)						
Trade Show-Grimsby	\$ 22,567	\$ 5,867	\$ 16,700	3.85	93,960	375,840	0	\$ 5,867
Seniors Homes-Grimsby	\$ 22,612	\$ 4,712	\$ 17,900	4.80	93,960	375,840	0	\$ 4,712
Grimsby Benevolent Fund	\$ 27,091	\$ 7,691	\$ 19,400	3.52	113,516	873,635	0	\$ 7,691
Windows Replacement	\$ 10,792	\$ 1,792	\$ 9,000	6.02	4,519	112,968	1	\$ 5,258
Watt Reader	\$ 6,419	\$ 1,077	\$ 5,342	5.96	18,233	131,671	0	\$ 1,077
Appliance Rebate	\$ 31,916	\$ 26,535	\$ 5,380	1.20	51,249	670,814	2	\$ 13,295
New Customers	\$ 25,125	\$ 4,093	\$ 21,032	6.14	80,995	463,839	0	\$ 4,093
Kilean Lodge Seniors Home	\$ 2,609	\$ 739	\$ 1,870	3.53	8,456	33,826	0	\$ 739
Conserver Joe Webhosting	n/a	\$ 1,800			n/a	n/a	n/a	\$ 1,800
<b>*Totals App. B - Residential</b>	<b>\$ 149,130</b>	<b>\$ 54,305</b>	<b>\$ 94,825</b>	<b>2.75</b>	<b>464,888</b>	<b>3,038,433</b>	<b>3</b>	<b>\$ 44,531</b>
<i>Residential Indirect Costs not attributable to any specific program</i>	→							
<b>Total Residential TRC Costs</b>		<b>\$ 54,305</b>						
<b>**Totals TRC - Residential</b>	<b>\$ 149,130</b>	<b>\$ 54,305</b>	<b>\$ 94,825</b>	<b>2.75</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		\$ 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 (\$)
	(PV)	TRC Costs (PV)						
LED Exit Sign Replacement Bulbs	\$ 53,195	\$ 13,124	\$ 40,071	4.05	141,508	849,050	16	\$ 13,124
Name of Program B			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
<b>*Totals App. B - Commercial</b>	<b>\$ 53,195</b>	<b>\$ 13,124</b>	<b>\$ 40,071</b>	<b>4.05</b>	<b>141,508</b>	<b>849,050</b>	<b>16</b>	<b>\$ 13,124</b>
<i>Commercial Indirect Costs not attributable to any specific program</i>	→							
<b>Total TRC Costs</b>		<b>\$ 13,124</b>						
<b>**Totals TRC - Commercial</b>	<b>\$ 53,195</b>	<b>\$ 13,124</b>	<b>\$ 40,071</b>	<b>4.05</b>				

### 3. Institutional Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
Name of Program A			\$ -	0.00				
Name of Program B			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
<b>*Totals App. B - Institutional</b>	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Institutional Indirect Costs not attributable to any specific program	→							
<b>Total TRC Costs</b>								
<b>**Totals TRC - Institutional</b>	\$ -	\$ -	\$ -	0.00				

### 4. Industrial Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
Name of Program A			\$ -	0.00				
Name of Program 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 - 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>	\$ -	\$ -	\$ -	0.00				

## 5. Agricultural Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
Name of Program A			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program C			\$ -	0.00				
Name of Program D			\$ -	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
<b>*Totals App. B - Agricultural</b>	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Agricultural Indirect Costs not attributable to any specific program	→							
<b>Total TRC Costs</b>		\$ -						
<b>**Totals TRC - Agricultural</b>	\$ -	\$ -	\$ -	0.00				

## 6. LDC System Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
Distribution Loss Software	\$ 749,015	\$ 26,315	\$ 722,700	28.46	749,933	18,748,336	91	\$ 26,315
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>	\$ 749,015	\$ 26,315	\$ 722,700	28.46	749,933	18,748,336	91	\$ 26,315
LDC System Indirect Costs not attributable to any specific program	→							
<b>Total TRC Costs</b>		\$ 26,315						
<b>**Totals TRC - LDC System</b>	\$ 749,015	\$ 26,315	\$ 722,700	28.46				

## 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>	\$ -	\$ -	\$ -	<b>0.00</b>				

## 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	\$ -
Other #2 Indirect Costs not attributable to any specific program	→							
<b>Total TRC Costs</b>		\$ -						
<b>**Totals TRC - Other #2</b>	\$ -	\$ -	\$ -	<b>0.00</b>				

## 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>	\$ 951,340	\$ 93,744	\$ 857,596	10.15	\$ 1,356,330	\$ 22,635,819	\$ 110	\$ 83,970
Any <u>other</u> Indirect Costs not attributable to any specific program	→							
<b>TOTAL ALL LDC COSTS</b>		\$ 93,744						
<b>**LDC' PORTFOLIO TRC</b>	\$ 951,340	\$ 93,744	\$ 857,596	10.15				

\* 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.