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March 31, 2009

Board Secretary Ontario Energy Board P.O. Box 2319 27th Floor 2300 Yonge Street Toronto, Ontario M4P 1E4

Dear Ms. Walli:

Re: Oshawa PUC Networks Inc. (ED-2002-0560) Reporting of CDM Funded under Third Tranche of MARR for 2008

Please find enclosed an electronic copy of the report above. This filing consists of an Acrobat Adobe file containing the report and its Appendices and a separate filing of the Excel form of those Appendices. Three (3) hardcopies and two (2) electronic copies of this report will be delivered to your office shortly.

Yours truly,

Vivian Leppard Regulatory Analyst Phone: (905) 743-5220 Email: <u>vleppard@opuc.on.ca</u>



Oshawa PUC Networks Inc. ED-2002-0560

CDM Third Tranche Funding

2008 Annual Report

March 31, 2009

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1. Introduction

On December 10, 2004 Oshawa PUC Networks Inc. (OPUCN) was granted final approval for its Conservation and Demand Management (CDM) Plan as filed with the Ontario Energy Board (the "Board"). The Board's decision stated that annual reporting "should be done on a calendar year and should be filed with the Board no later than March 31st of the following year". On March 2, 2007 the Board issued an updated guideline on CDM reporting. This report has been prepared in accordance with those guidelines.

OPUCN serves 47,747 residential, 3,826 commercial and 557 industrial customers within its 149 square kilometers service area. Oshawa has traditionally been a winter peaking Utility with a large distribution of electric heating within its customer base. New construction along with continued growth in residential central air-conditioning in part created a summer peak for Oshawa in 2007 which continued into 2008.

OPUCN's Conservation and Demand Management plan was designed to identify, alter, and measure reductions in consumption and demand for all customer classifications.

OPUCN requested from the Ontario Energy Board an extension to its September 30, 2007 deadline for CDM funding expenditure. An extension was granted and in 2008 we completed work on most outstanding projects.

2. Evaluation of Overall Plan

Please refer to Appendix "C" for an evaluation of OPUCN's Conservation and Demand Initiatives for the year ending December 31, 2008.

In reviewing the information provided in both Appendixes A, B, and C it should be noted that some of the work undertaken by OPUCN during 2008 was related to the continuance of programs from 2007. One such program is the University of Ontario Institute of Technology residential electrical usage baseline study that concluded in July of 2008.

We continued to work on a large hardware and software upgrade in our distribution system design and operation systems. This will lead toward our ability to better balance our distribution system and reduce our system operating losses.

Our cumulative kWh reductions total 31,477,049 with an associated demand reduction of 1.3 MW.

Discussion of the Programs

3.1 Residential Customers

University of Ontario Institute of Technology Energy Usage Study

Program Description

 In order to provide greater return on our CDM investment, we continue our quest to understand how and when consumers use electricity. Such an understanding will help us target programs that will provide the greatest return for each dollar invested. In late 2006, discussions began with the University Of Ontario Institute Of Technology (UOIT) and the Ontario Centres of Excellence to assist in the funding of this baseline energy usage study which will examine, analyze, and conclude valuable information about energy consumption habits of several different customer types.

Actions

- As part of the study requirement hourly usage data for a given customer was required. Three hundred locations for smart meters were selected at locations based on criteria such as income level, type of heating, age, and size of houses in 20 different categories.
- The balance of in depth surveys were compiled for each residence participating in the study. These surveys contained valuable questions on energy habits, types of appliances used, and views and beliefs on energy conservation.
- Smart meter data on homes was transmitted blindly to the University then captured and analysed to fully comprehend consumer usage patterns. This data acquisition was completed in 2008.
- Two compact fluorescent light bulbs (CFLs) were given to each household as an incentive for their participation in the study.
- 87 Energuide energy audits were scheduled and completed on participating households. The energy audits will establish a baseline and augment information we have on the homes today.

Target Group

Residential customers

Benefits

• Allows the University to establish usage baselines given certain customer attributes. This information will be used to develop custom fit conservation measures for a given consumer group.

Results to Date

- A preliminary study was published by the University in December of 2007.
- Certain trends have been recognized from the preliminary study. The ongoing data will confirm these trends once a full year of seasonal data has been acquired and analysed.

Next Steps

• Data collection has been completed for the study.

• Release of the final study is anticipated in 2009.

Smart Meter Installations

Program Description

• Oshawa has been actively testing two types of smart meter installations. This is in keeping with testing technology that may be used in the provincial deployment of smart meters when the installation requirements are determined.

Target Customers

Residential and Commercial

Benefits

• Understanding the value and benefits of certain types of smart meter technologies so we are prepared for the provincial deployment of Smart meters when mandated.

Actions to Date

- Installation of meters that use radio transmission technology and a mesh network to transmit meter data to a central collection hub. This technology has been used to feed the information to the UOIT customer usage study.
- Our second type of technology which ended in early 2008 saw us push meter readings down our own power lines. This project assesses the value of using our own infrastructure instead of others to transmit the meter data.

Results to Date

- The radio transmission meters have been used to feed meter usage data to the UOIT study for almost a year now in some cases. There have been some minor problems with the data transmission networks but all have been solvable. The meters in this technology have been approved for revenue billing and have proven to be stable in service.
- The second Powerline carrier data transmission meter has been dependable as well however there have not been meters available that have been sealed for revenue metering from this vendor. We were looking at going forward with a commercial study on this but given the lack of no approved meters the program wasn't launched.

Next Steps

• This project is complete

Watt Wise Energy Tips

Program Description

 This was a series of twelve video energy tips that were designed to create awareness of energy efficiency and educate customers about the savings available by making small changes in their homes.

Target

• Any electricity user

Benefits

• Raised awareness and perpetuates the importance of reducing electricity consumption. Part of the program was also used to dispel misconceptions about electrical usage.

Actions

• This program was not active in 2008

Next Steps

Although the tips are no longer running around the news on Roger's television we continue to make them available on our website.

Library Watt Reader Program

Program Description:

 This program was designed to assist electricity users in identifying the costs of plug-in appliances in their homes. "Watt Reader" devices were made available to customers through the Oshawa library system and the devices could be signed out like a book. With the return of each loaned unit the customer receives a free compact fluorescent light bulb.

<u>Target</u>

• All electricity users both residential and small business.

Benefits

• The program provides a simple tool to help customers identify the cost of operating appliances and provides them with a new compact fluorescent bulb to try.

Results to date

 129 Watt Readers were loaned out in 2008. Watt Readers empower the customer with real time knowledge and the ability to target electricity costs within the home and adjust their consumption accordingly.

Next Steps:

• Our intention is to continue to make these devices available through the library system in Oshawa.

Compact Fluorescent Light (CFL) School Fundraiser Pilot

Program Description

 In April 2007, we partnered with 5 Oshawa schools to offer a fundraiser using CFL's as the fundraising items. Oshawa PUC Networks Inc. employees would visit the schools and give a presentation to the students on energy conservation. 191 students, named the "Watt Squad" would then sell the CFL's to friends and family, raising money for their schools and increasing customers' awareness about energy efficiency. At the end of the fundraising period, a return visit to the schools gave the opportunity for the students to see the results of their fundraising efforts in terms of KW saved, and funds raised for their schools.

Target

• This was aimed at students between grade's five and eight. A total of five schools participated in the pilot group.

Benefits

 An educational assembly was held at each school that included an educational component about the value of saving energy and a visual representation of greenhouse gas savings based on certain sales targets. Each student was provided a lunch sack of eight bulbs to sell and they were allowed to keep the lunch sack as an incentive and to encourage a bag less lunch. The ultimate goal was to get as many CFL's in the community as possible.

<u>Results</u>

• A follow up meeting was held at each school and the results communicated to all the students. A total of 1,495 bulbs were sold through the five schools resulting in 732.5 MWH saved.

Next Steps

• This program was a pilot as a fundraiser and educational piece and has now been completed.

Generation Conservation

Program Description

• Generation Conservation was a pilot program designed to inspire and educate grade 5 students in both the Public and Separate school boards. A pilot was launched in the fall of 2006 and the results and teacher feedback was complied in 2007.

Target

• Grade five students and eventually all grade fives across the Durham region.

Benefits

• We strongly believe that in order to create a culture of conservation in the province we must start with Ontario's young citizens by helping them to understand the urgent need to conserve our energy resources and to help them understand some of the technology that is available to them and their parents today to do so.

Results to date

• Several school boards have implemented similar programs.

3.2 Commercial and Industrial Customers

Independent Electricity System Operator Demand Response Pilot Project (TDRP)

Program Description

 This program was designed to help customers benefit from the I.E.S.O's demand response pilot project. Customers were assisted in determining what load they could easily drop from when requested to do so by the I.E.S.O. This was a two-year pilot, directed at customers who can reduce demand when notified.

<u>Target</u>

• This program was aimed at interval metered larger customers who can shed loads on notification from the I.E.S.O.

Benefits

• Allows the I.E.S.O. to shed load in emergencies and high price point times quickly.

<u>Action</u>

- An email advisory program that was price driven was set up. This program sent alerts to a customer indicating a price threshold has been attained and that it would be beneficial for the system and for them financially to drop load.
- Given the cooler summer of 2007 there was less of a system loading issue.

Results to Date

• The program concluded in April 2007.

Next Steps

• The TDRP program raised awareness of some of the things that customers can do to reduce costs this in turn drove the interest in the OPA Electricity Incentive Programs.

Non-Profit Housing Lighting Retrofit

Program Description

 Our goal is to identify areas where retrofit funding will generate the greatest energy savings for the Non-Profit housing sector. The plan helps offset the capital costs associated with lighting, cooling and other energy retrofits. Submitted proposals are accepted and a Total Resource Cost analysis is completed to ensure the viability of the project. If the proposal provides a positive TRC the money is allocated until the program is completed. Verification of the retrofit must be presented and then Utilities portion of the funding is advanced.

<u>Benefit</u>

• Assist in the cost of energy retrofits providing funding for organizations that wouldn't normally be able to pay for the entire capital retrofit program.

<u>Action</u>

- Two applications for funding were received on four locations in Oshawa. Both were accepted with approximately \$6,000 allocated to the first request and \$40,000 to the second.
- The first retro fit involved lighting only and has been verified and the funds advanced. The second involved the upgrading lighting and the replacement of refrigerators. Verification of the work is now complete and the funding was advanced in early March of 2007.

Results to Date

• For these two locations alone, the annual energy savings total 230,400 kWh with a demand reduction of 106 kW.

Next Steps

• This program is now complete.

LED Traffic Light Initiative

Program Description

• This initiative involves replacing traffic signals at intersections with light-emitting diode (LED) technology that is quickly becoming the standard due to its long service life and energy saving.

Target

• 29 intersections in the City of Oshawa.

Benefits

• The LED technology in traffic lights reduces energy use by over 80%. Coincidental benefits include less maintenance (due to the longer life span) and improved signal visibility.

<u>Action</u>

• OPUCN and the City of Oshawa agreed on a funding formula of one third of the costs to a maximum of \$42,000 to retrofit 29 intersections with LED technology.

Results to Date

• All intersections were updated by the end of 2007.

Next Steps

• This program is now complete.

HVAC Upgrade

Program Description

• This initiative was undertaken to upgrade the HVAC systems at the utility's offices. Four inefficient HVAC systems were replaced with highly efficient ones. Formerly, one of the units operated using electricity. All four now use natural gas as their energy source.

Target

• All four of the utility's main buildings.

Benefits

• The new system is more energy efficient than the old one.

<u>Action</u>

• The contractor was chosen using Oshawa PUC Networks Inc.'s RFP-based procurement procedures to ensure that the most efficient system was purchased at the best price.

Results to Date

• The system upgrade was competed in 2008.

Next Steps

- The contract has a provision for a 10% holdback which will come due in the summer of 2009.
- Oshawa PUC Networks Inc. is waiting for the installation of a safety fence on one of the buildings mandated by TSSA. This is estimated to cost approximately \$6,000 and will be installed in the summer of 2009.

System Optimization

Program Description

• OPUCN has identified that it requires technology enhancements in order to properly perform distribution system optimization. The technology enhancement involves the purchase of distribution system software.

Results to Date

- Geographical information system (GIS) and distribution system optimization software was researched, selected and purchased.
- The GIS and distribution system optimization software has been delivered, installed and is operating.
- Multi speak exports from the GIS system to the system optimization software is currently under test to ensure proper operation.

Next Steps (2009)

- Perform distribution system optimization using GIS and distribution system software packages.
- Perform the necessary field operations to physically optimize the distribution system.
- Measure the actual results of optimizing the distribution system.

3. Lessons Learned

Working Together

We are pleased that we participated with the University of Ontario Institute of Technology (UOIT) and The Ontario Centres of Excellence in a jointly funded study of residential customer energy consumption patterns. Looking for synergies and partnerships in CDM is essential to the success of future CDM initiatives and maximizing the return for each CDM dollar invested.

The third tranche CDM funding for Oshawa helped the utility to engage the customer base in energy conservation. New programs from the Ontario Power Authority have helped us to continue to bring other conservation programs of value such as the Appliance Retirement, Summer Savings, peaksaver® and Electricity Retrofit Incentive Program to our customers.

Market Conditions

The commitment to conservation demonstrated by the Ministry of Energy and Infrastructure through the introduction of the Green Energy Act will help to maintain the momentum towards conservation and the development of environmentally sustainable energy sources for which the people of Ontario have demonstrated their support.

The continuing economic downturn may have a dampening effect on the momentum which has been developing over the past few years. Conservation and demand management programs for all consumers can require cash outlays which consumers can no longer afford. On the other hand, many consumers now understand that a commitment to conservation and the development of new energy sources is crucial for the health of our communities. Continuing assistance in the form of province wide programs will be crucial in sustaining the conservation culture developing in Ontario.

We believe that ongoing education and inspiration of all customers is the key ingredient to the success of all CDM initiatives. It is essential that we make the young energy users of today aware of the finite energy resources and encourage a culture of conservation that stays with them for a lifetime.

Regulatory and Policy Environment

Oshawa supports the direction taken by the Ministry of Energy and Infrastructure through the Green Energy Act. Provincial coordination of energy conservation measures will enhance the effects of those programs. Sustainable industrial development and its accompanying prosperity is dependent in part on the development of energy based industries. This type of industrial change is especially crucial in a community such as Oshawa which cannot continue to depend on the automotive sector to fuel local economic development.

4. Conclusion

Overall, 2008 has proved to be a year of wrap up for rate based Conservation and Demand programs. As programs funded through third tranche funding wound up and new programs from the Ontario power Authority began to take hold. We believe that this is the most effective and efficient method of encouraging conservation at this time. Oshawa looks forward to participating in any new initiatives brought forward in the future.

We believe that education is key to the sustainability of all CDM programs. Creating a "Culture of Conservation" is an ongoing process and with the appropriate funding model Local Distribution Companies will be able to play an important role in this area.

This report is respectfully submitted by Oshawa PUC Networks Inc. If there are any questions please contact the undersigned.

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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.

	₅ Cumulative Totals Life-to- date	Total for 2008	Residential	Commercial	Institutional	Industrial	Agricultural	LDC System	₄ Smart Meters	Other #1	Other #2
Net TRC value (\$):	1602.73	-\$ 269	\$ (106)	\$-	\$-	\$-	\$-	\$ (163)		\$-	\$-
Benefit to cost ratio:	1.34	0.01	0.03	0.00	0.00	0.00	0.00	0.00		0.00	0.00
Number of participants or units delivered:	48,709	2,648	2,648	0	0						
Lifecycle (kWh) Savings:	31,477,049	13,416	4,182,148	0	0	0	0	0		0	0
Report Year Total kWh saved (kWh):	3,134,923	13,416	13,416	0	0	0	0	0		0	0
Total peak demand saved (kW):	1245	90	54	0	36	0	0	0		0	0
Total kWh saved as a percentage of total kWh delivered (%):	100%	100%	100%	0%	0%	0%	0%				
Peak kW saved as a percentage of LDC peak kW load (%):		100%	60%	0%	40%	0%	0%				
1 Report Year Gross C&DM expenditures (\$000's):	1197	\$ 409	\$ 202	\$-	\$ 41	\$ 3	\$-	\$ 163	\$-	\$-	\$-
2 Expenditures per KWh saved (\$/kWh):	0.38	\$ 0.03	\$ 0.00	\$-	\$-	\$-	\$-	\$-		\$-	\$-
3 Expenditures per KW saved (\$/kW):	961.45	\$ 4.53	\$ 3.74	\$-	\$ 1.14	\$ -	\$ -	\$ -		\$ -	\$-
Utility discount rate (%):	8 13%										

1 Expenditures are reported on accrual basis.

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

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

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

5 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.

(complete this Appendix for each program)

Library Watt Reader Program - CFL GiveAway Α. Name of the Program: CDM-108D Description of the program (including intent, design, delivery, partnerships and evaluation): Please see 2006 CDM Report (page 7) for additional description of this Program. Loan a 60 watt reader to customer through library program. Anticipate customer to understand their electrical consumption patterns and to adjust accordingly to allow conservation. Each customer receives lightbulb, book mark, and printed material for borrowing reader. Measure(s): Measure 1 Measure 2 (if applicable) Measure 3 (if applicable) Base case technology: 60W Incandescent Efficient technology: CFL Screw-In 15W Number of participants or units delivered for reporting year: 129 Measure life (years): 4 Number of Participants or units delivered life to date 402 Β. **TRC Results:** Life-to-date TRC Results: **Reporting Year** 1 TRC Benefits (\$): \$ 3.20 \$ 9.30 ² TRC Costs (\$): Utility program cost (excluding incentives): \$ 0.20 - \$ Incremental Measure Costs (Equipment Costs) \$ 0.60 Total TRC costs: 0.60 \$ Net TRC (in year CDN \$): \$ \$ 3.11 Benefit to Cost Ratio (TRC Benefits/TRC Costs): \$ \$ C. Results: (one or more category may apply) Cumulative Results: **Conservation Programs:** 0 Demand savings (kW): Summer q Winter 3 Cumulative Cumulative Lifecycle Annual Savings in year lifecycle Energy saved (kWh): 53664 13,416 227443.6 147.732 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):

Utility direct costs (\$):	Incremental capital:	\$ - \$	0.60
	Incremental O&M:		
	Incentive:		
	Total:		
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:	\$	0.20
	Total:	\$ - \$	0.80

E. Assumptions & Comments:

(complete this Appendix for each program)

A. Name of the Program:

Β.

C.

Retrofit Non-profit Housing

CDM-103

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

Please see 2006 CDM Report (page 10) for additional description of this Program. Retrofit no profit housing (The Cornerstone Community) buildings in Oshawa. Buildings retrofited with energy efficient T-8 bulbs, reflectors, all exit lights with LED technology, and all rooms lighting replaced with compact fluorescents lightbulbs.

•• ()				
Measure(s):				
	Measure 1	Measure 2 (if applicable)	Measure 3	(if applicable)
Base case technology:	2 - 15W (30W) Incandescent EX	60W Incandescent	60W Incandesc	ent
Efficient technology:	3W LED EXIT sign	15W Screw-In CFL	13W CFL fixture	e w/EM ballast
Number of participants or units				
delivered for reporting year:				
Measure life (years):	25	2		3
				Ĩ
Number of Partinants or unites				56
delievered life to date	CO	C10		00
dellevered lie to date	60	610		
Base case technology:	4 - T12 34W/ (156W/) 4' Lamps w	2 - T12 75\// (184\//) 8' HO Lamr		
Efficient technology:	2 - T8 32W (58 W) reflectorized	A = T8.32 (112) (112) (10 - 10) Early		
Ellicient technology.	2 - 18 52 W (58 W) Tellectorized	4 - 16 52 W (112 W) 4 Lamps W/		
delivered for reporting year:				
Measure life (years):	5	5		
Number of Partipants or unites				
delievered lfe to date	140	3		
TRC Results:		Reporting Year	Life-to-date	TRC Results:
¹ TRC Benefits (\$):		\$ -	\$	56.43
2 TRC Costs (\$):		-	÷	00110
1110 00313 (ψ).	program aget (avaluding incentives);	¢		¢ 45.77
Utility	program cost (excluding incentives):	\$ -		\$ 45.77
Incrementa	al Measure Costs (Equipment Costs)	\$-		5.1
	Total TRC costs:	\$-	\$	19.44
Net TRC (in year CDN \$):		\$-	\$-	\$ 32.10
Benefit to Cost Ratio (TRC Benefits/	TRC Costs):	\$-		1.23
Bosults: (and ar mara astagon, may			Cumulati	ve Deeulter
Results. (one of more category may	(apply)		Cumulati	ve Results:
Conservation Programs				
Conservation Programs:	Cummer	24 11670305		
Conservation Programs: Demand savings (kW):	Summer	34.11678285		
Conservation Programs: Demand savings (kW):	Summer Winter	34.11678285 35.912403		
Conservation Programs: Demand savings (kW):	Summer Winter	34.11678285 35.912403		
<u>Conservation Programs:</u> Demand savings (kW):	Summer Winter	34.11678285 35.912403	Cumulative	Cumulative
<u>Conservation Programs:</u> Demand savings (kW):	Summer Winter lifecycle	34.11678285 35.912403 in year	Cumulative Lifecycle	Cumulative Annual Savings
<u>Conservation Programs:</u> Demand savings (kW): Energy saved (kWh):	Summer Winter lifecycle	34.11678285 35.912403 <i>in year</i> 0	Cumulative Lifecycle 3653451	Cumulative Annual Savings 146138.04
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Conservation Programs: Demand savings (kW): Energy saved (kWh): Other resources saved : Natural Gas (m3): Other (specify): Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak	Summer Winter 0 (kWh): (kWh): (kWh):	34.11678285 35.912403 <i>in year</i> 0	Cumulative Lifecycle 3653451	Cumulative Annual Savings 146138.04
Conservation Programs: Demand savings (kW): Energy saved (kWh): Other resources saved : Natural Gas (m3): Other (specify): Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Dispatchable load (kW):	Summer Winter 0 (kWh): (kWh): (kWh):	34.11678285 35.912403 <i>in year</i> 0	Cumulative Lifecycle 3653451	Cumulative Annual Savings 146138.04
Conservation Programs: Demand savings (kW): Energy saved (kWh): Other resources saved : Natural Gas (m3): Other (specify): Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Dispatchable load (kW): Peak hours dispatched in vear (hour	Summer Winter 0 (kWh): (kWh): (kWh):	34.11678285 35.912403 <i>in year</i> 0	Cumulative Lifecycle 3653451	Cumulative Annual Savings 146138.04
Conservation Programs: Demand savings (kW): Energy saved (kWh): Other resources saved : Natural Gas (m3): Other (specify): Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Dispatchable load (kW): Peak hours dispatched in year (hour	Summer Winter 0 • (kWh): (kWh): (kWh): (kWh):	34.11678285 35.912403 <i>in year</i> 0	Cumulative Lifecycle 3653451	Cumulative Annual Savings 146138.04
Conservation Programs: Demand savings (kW): Energy saved (kWh): Other resources saved : Natural Gas (m3): Other (specify): Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Dispatchable load (kW): Peak hours dispatched in year (hour Power Factor Correction Programs	Summer Winter 0 (kWh): (kWh): (kWh): s): sj:	34.11678285 35.912403 <i>in year</i> 0	Cumulative Lifecycle 3653451	Cumulative Annual Savings 146138.04
Conservation Programs: Demand savings (kW): Energy saved (kWh): Other resources saved : Natural Gas (m3): Other (specify): Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Dispatchable load (kW): Peak hours dispatched in year (hour Power Factor Correction Program Amount of KVar installed (KVar):	Summer Winter 0 (kWh): (kWh): (kWh): s): s:	34.11678285 35.912403 <i>in year</i> 0	Cumulative Lifecycle 3653451	Cumulative Annual Savings 146138.04
Conservation Programs: Demand savings (kW): Energy saved (kWh): Other resources saved : Natural Gas (m3): Other (specify): Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Dispatchable load (kW): Peak hours dispatched in year (hour Power Factor Correction Programs Amount of KVar installed (KVar): Distribution system nower factor of the	Summer Winter 0 (kWh): (kWh): (kWh): s;): s:	34.11678285 35.912403 <i>in year</i> 0	Cumulative Lifecycle 3653451	Cumulative Annual Savings 146138.04
Conservation Programs: Demand savings (kW): Energy saved (kWh): Other resources saved : Natural Gas (m3): Other (specify): Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Dispatchable load (kW): Peak hours dispatched in year (hour Power Factor Correction Program Amount of KVar installed (KVar): Distribution system power factor at the	Summer Winter 0 (kWh): (kWh): (kWh): (kWh): s): s): s:	34.11678285 35.912403 <i>in year</i> 0	Cumulative Lifecycle 3653451	Cumulative Annual Savings 146138.04
Conservation Programs: Demand savings (kW): Energy saved (kWh): Other resources saved : Natural Gas (m3): Other (specify): Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Dispatchable load (kW): Peak hours dispatched in year (hour Power Factor Correction Programs Amount of KVar installed (KVar): Distribution system power factor at the Distribution system power factor at the	Summer Winter 0 (kWh): (kWh): (kWh): (kWh): s): s: s: s:	34.11678285 35.912403 <i>in year</i> 0	Cumulative Lifecycle 3653451	Cumulative Annual Savings 146138.04
Conservation Programs: Demand savings (kW): Energy saved (kWh): Other resources saved : Natural Gas (m3): Other (specify): Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Dispatchable load (kW): Peak hours dispatched in year (hour Power Factor Correction Programs Amount of KVar installed (KVar): Distribution system power factor at the Distribution system power factor at the Distribution system power factor at the	Summer Winter 0 (kWh): (kWh): (kWh): (kWh): s;: s: s: egining of year (%): end of year (%):	34.11678285 35.912403 <i>in year</i> 0	Cumulative Lifecycle 3653451	Cumulative Annual Savings 146138.04
Conservation Programs: Demand savings (kW): Energy saved (kWh): Other resources saved : Natural Gas (m3): Other (specify): Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Dispatchable load (kW): Peak hours dispatched in year (hour Power Factor Correction Programs Amount of KVar installed (KVar): Distribution system power factor at the Distribution system power factor at the Distribution system power factor at the Distribution system power factor at the	Summer Winter 0 (kWh): (kWh): (kWh): s): s): s: pegining of year (%): and of year (%):	34.11678285 35.912403 <i>in year</i> 0	Cumulative Lifecycle 3653451	Cumulative Annual Savings 146138.04
Conservation Programs: Demand savings (kW): Energy saved (kWh): Other resources saved : Natural Gas (m3): Other (specify): Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Dispatchable load (kW): Peak hours dispatched in year (hour Power Factor Correction Programs Amount of KVar installed (KVar): Distribution system power factor at the Distribution system power factor at the	Summer Winter 0 (kWh): (kWh): (kWh): (kWh): s): s): s: pegining of year (%): and of year (%):	34.11678285 35.912403 <i>in year</i> 0	Cumulative Lifecycle 3653451	Cumulative Annual Savings 146138.04
Conservation Programs: Demand savings (kW): Energy saved (kWh): Other resources saved : Natural Gas (m3): Other (specify): Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak Dispatchable load (kW): Peak hours dispatched in year (hour Power Factor Correction Programs Amount of KVar installed (KVar): Distribution system power factor at the Distribution system power factor at the Distribution system power factor at the Distrib	Summer Winter	34.11678285 35.912403 in year 0	Cumulative Lifecycle 3653451	Cumulative Annual Savings 146138.04

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:		Reporting Year	<u>Cumlativ</u>	e Life to Date
	Utility direct costs (\$):	Incremental capital:		\$	5.10
		Incremental O&M:	\$ -	\$	4.97
		Incentive:			
		Total:			
	Utility indirect costs (\$):	Incremental capital:			
		Incremental O&M:			
		Total:			

E. Assumptions & Comments:

We will be working with local government and social agencies to identify opportunities to reduce energy costs for nonprofit housing and low income earners.

It is very important that OPUCN take a lead in working with social agencies to ensure that residents in non-profit housing can participate in conservation.

Target users: Non profit and fixed income i.e. pensioner

Evaluation: Possible lighting retro fits, appliance upgrade, and water heater optimizations are being considered as saving measures at this time.

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.
 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

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

(complete this Appendix for each program)

Α.	Name of the Program:	Christmas Light Retro Fit OPUC		CDM-3	300A				
	Description of the program (including intent, design, delivery, partnerships and evaluation):								
	Please see 2006 CDM Report (pag OPUC building. Old load 900 times 7	e 15) for additional description 7 watts replacing with .5 watts LEI	of t D lig	his Program. Retrofitted the hts.	Christmas lightir	ng on front of			
	Measure(s):				M	<i>(1</i>			
	Base case technology:	5 WATT Christmas lights C-7(64 lights)		Measure 2 (if applicable)	Measure 3	(if applicable)			
	Efficient technology: Number of participants or units	LED Christmas Lights (indoor or outdoor)							
	delivered for reporting year:	0							
	Measure life (years):	30							
	Number of Partipants or unites delievered lfe to date	900							
В.	TRC Results:			Reporting Year	Life-to-date	TRC Results:			
	¹ TRC Benefits (\$): ² TRC Costs (\$):		\$	-	\$	11.60			
	Utility	program cost (excluding incentives):	φ	-					
	Incrementa	al Measure Costs (Equipment Costs)	\$	-		1.7			
	Net TRC (in year CDN \$):	Total TRC costs:	\$	-	\$	<u>1.70</u>			
	Renefit to Cost Ratio (TRC Renefits)		ψ	-		<u>φ</u> <u>3.10</u>			
		rec costs).	Φ	-		0.02			
C.	Results: (one or more category may	/ арріу)			Cumulat	ve Results:			
	Conservation Programs:	Summer	0						
	Demana savings (KW).	Winter	0						
					Cumulativa	Cumulative			
		lifecycle		in year	Lifecycle	Annual Savings			
	Energy saved (kWh):	0	0		19347.0768	645			
	Natural Gas (m3):								
	Other (specify):								
	Demand Management Programs: Controlled load (kW)								
	Energy shifted On-peak to Mid-peak	(<i>kWh</i>):							
	Energy shifted Mid-peak to Off-peak	(KWN):							
	Demand Response Programs:								
	Dispatchable load (kW):								
	Peak hours dispatched in year (hour	rs):							
	Power Factor Correction Program	<u>s:</u>							
	Amount of KVar installed (KVar):	pegining of year (%):							
	Distribution system power factor at e	end of year (%):							
	Line Loss Reduction Programs:								
	Peak load savings (kW):								
	Energy savngs (kWh):	lifecycle		in year					
	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):								

Utility direct costs (\$):	Incremental capital:	\$ - \$	1.70
	Incremental O&M:		
	Incentive:		
	Total:	\$ - \$	1.70
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:	\$	-
	Total:		

E. Assumptions & Comments:

(complete this Appendix for each program)

A.	Name of the Program:	Every Kilowatt Counts (Spring)		CDM-108a						
	Description of the program (includ	ding intent design delivery na	rtnerships and evaluation).							
	Place co 2006 CDM Papart (name 2 and 0) for additional department of this Program. Compare consisted with ODA to provide a									
	Please see 2006 CDM Report (pag	e 8 and 9) for additional descrip	btion of this Program. Campaigr	associated with OPA to provide t						
	Measure(s):									
	incubul o(o).	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)						
	Base case technology: Efficient technology:	60W Incandescent CFL Screw-In 15W	Average existing stock Programmable Thermostat (sp	Timore						
	Number of participants or units		(-)	Timers						
	delivered for reporting year:	Λ	18	20						
	weasure me (years).		10	20						
	Number of Participants or units	(====		0						
	delivered life to date	15880	0							
	Measure(s):	Measure 4	Measure 5 (if applicable)	Measure 6 (if applicable)						
	Base case technology:									
	Efficient technology: Number of participants or units	Ceiling Fans								
	delivered for reporting year:									
	Measure life (years):	20								
	Number of Participants or units									
	delivered life to date	0								
В.	TRC Results:		Reporting Year	Life-to-date TRC Results:						
-	TRC Benefits (\$):		\$-	\$ 477.90						
	Utility program cost (excluding incentives): Incremental Measure Costs (Equipment Costs)									
			\$-	83.65						
	Net TRC (in vear CDN \$):	Total TRC costs:	\$- \$-	\$ 39.35						
	Benefit to Cost Patio (TPC Benefits)	(TPC Costs):	¢ _	12.14						
	Besults: (one or more esteger, may		Ψ -	Cumulative Deputer						
С.	Kesuits. (one of more category may	(apply)		Cumulative Results:						
	Conservation Programs:	Summor	0	17						
	Demana savings (KW).	Winter	0	17						
				Cumulativa Cumulativa						
		lifecycle	in year	Lifecycle Annual Savings						
	Energy saved (kWh):	0	0	5087264 667,795						
	Uther resources saved : Natural Gas (m2):									
	Other (specify):									
	Demand Management Programs:									
	Controlled load (kW)									
	Energy shifted On-peak to Mid-peak	: (kWh): (kWh):								
	Energy shifted Mid-peak to Off-peak	: (kWh):								
	Demand Response Programs:									
	Dispatchable load (kW):									
	Peak hours dispatched in year (hour	rs):								
	Power Factor Correction Program	<u>s:</u>								
	Amount of KVar installed (KVar): Distribution system power factor at h	peginning of year (%).								
	Distribution system power factor at e	end of year (%):								
	Line Loss Reduction Programs:									
	Peak load savings (kW):									
		lifecycle	in year							

	Energy (energy (IdA/h))					
1	Energy savings (KWh):					
	Distributed Generation and Load I Amount of DG installed (kW): Energy generated (kWh): Peak energy generated (kWh): Fuel type: Other Programs (specify): Metric (specify):	<u>Displacement Programs:</u>				
D.	Actual Program Costs:			Reporting Year	(Cumulative Life to Date
	Litility direct costs (\$):	Incremental capital:			-	· · · · · · · · · · · · · · · · · · ·
	O(m) = O(m) O(m) O(m) O(m) O(m) O(m) O(m) O(m)		¢		¢	00.05
		Incremental U&M:	Ф	-	Ф	83.00
		Incentive:				
		Total:	\$	-	\$	83.65
	Utility indirect costs (\$):	Incremental capital:				
	2 and 9 and 1 an	Incremental O&M:				
		i otal:				

Ε. Assumptions & Comments:

	(c	omplete this Appendix	(for each program)	
A.	Name of the Program:	Every Kilowatt Counts (Fall/ Wint	er)	CDM-108b
	Description of the program (includ	ding intent, design, delivery, pa	rtnerships and evaluation):	
	Please see 2006 CDM Report (pag	e 8 and 9) for additional descrip	otion of this Program. Campaig	n associated with OPA to provide
			• • •	
	Measure(s):	Magaura 1	Maggura Q (if applicable)	Magazina 2 (if applicable)
	Base case technology:	60W Incandescent	Measure 2 (II applicable)	E watt Christman lights
	Efficient technology:	CFL Screw-In 15W	Dimmer switch	5 watt Christmas lights
	Number of participants or units			(
	delivered for reporting year:	0	(
	Measure life (years):	4	10) 30
	Number of Participants or units			5197
	delivered life to date	23586	326	j
	Measure(s):			
		Measure 4	Measure 5 (if applicable)	Measure 6 (if applicable)
	Base case technology:	Average existing stock	Average existing stock	3 100 Watt incandescent bulbs
	Efficient technology:	Programmable Thermostat	Programmable Thermostat (s	¹ Motion Sensor
	delivered for reporting year:	0	(
	Measure life (vears):	18	18	3 10
	Number of Participants or units			10 ²
	delivered life to date	709	404	Ļ
B.	TRC Results:		Reporting Year	Life-to-date TRC Results:
	¹ TRC Benefits (\$):		\$ -	\$ 715.90
:	² TRC Costs (\$):			
	Utility	program cost (excluding incentives):		
	Incrementa	al Measure Costs (Equipment Costs)	\$ -	79.2
		Total TRC costs:	\$ -	\$ 79.10
	Net TRC (in year CDN \$):		\$-	9.05
	Benefit to Cost Ratio (TRC Benefits/	TRC Costs):	\$-	14.64
C.	Results: (one or more category may	/ apply)		Cumulative Results:
	Conservation Programs:			
	Demand savings (kW):	Summer	0	6
		Winter	0	1003
				Cumulative Cumulative
		lifecycle	in year	Lifecycle Annual Savings
	Energy saved (kWh):		0	1881634
	Other resources saved :			
	Natural Gas (m3):			
	Other (specify):			
	Demand Management Programs:			
	Controlled load (kW)			
	Energy shifted On peak to Mid peak	$(k \Lambda/b)$		

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:

	Line L033 Reduction Programs.			
	Peak load savings (kW):			
		lifecycle	in year	
	Energy savings (kWh):			
	Distributed Generation and Load E Amount of DG installed (kW): Energy generated (kWh): Peak energy generated (kWh):	Displacement Programs:		
	Fuel type:			
	Other Programs (specify): Metric (specify):			
D.	Actual Program Costs:		Reporting Year	Cumulative Life to Date
	Utility direct costs (\$):	Incremental capital:		
		Incremental O&M:	\$-	\$ 0.15
		Incentive:		
		Total:	\$ -	\$ 0.15
	Utility indirect costs (\$):	Incremental capital:		
		Incremental O&M:		
		Total		

E. Assumptions & Comments:

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

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

(complete this Appendix for each program)

A.	Name of the Program:	Residential - Establish Baselines	and Measuring Impacts		CDM-100			
	Description of the program (including intent, design, delivery, partnerships and evaluation):							
	benchmark the measurement and ar apply to specific customer groups or Data capture is taking place through lifestyles, family size and several oth	nalysis of future results that are to they may be based on the penetr 55 "Smart meters" and will be ar per categories	be submitted to the regulators. B ation of identified energy efficient nalyzed based on connected load	aselines may t technologies. s, workings				
	Measure(s):							
	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 Partipants or unites							
	delievered lfe to date							
В.	TRC Results:		Reporting Year	Life-to-date	TRC Results:			
	¹ TRC Benefits (\$):							
:	² TRC Costs (\$):			•				
	Utility	program cost (excluding incentives):	\$-	\$ 150.78				
	moremente	Total TRC costs:		\$	150.78			
	Net TRC (in year CDN \$):							
	Benefit to Cost Ratio (TRC Benefits/	/TRC Costs):						
C	Results: (one or more category may	(apply)		Cumulativ	ve Results:			
0.								
	Conservation Programs:	Summer						
	Demana savings (KW).	Winter						
		lifecycle	in vear	Cumulative Lifecvcle	Cumulative Annual Savings			
	Energy saved (kWh):	mooyolo	in your	,	J			
	Other resources saved :							
	Natural Gas (m3):							
	Other (specify).							
	Demand Management Programs:							
	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):							
	reak nours dispatched in year (nour	8).						
	Power Factor Correction Program	<u>s:</u>						
	Distribution system power factor at b	pegining of year (%):						
	Distribution system power factor at e	end of year (%):						
	Line Loss Reduction Programs:							
	Peak load savings (kW):							
		lifecycle	in year					
	Energy savngs (kWh):							
	Distributed Generation and Load	Displacement Programs:						
	Energy generated (kWh):							
	Peak energy generated (kWh):							
	гиен туре:							
	Other Programs (specify): Metric (specify):							
D.	Actual Program Costs:		Reporting Year	Cumlative	Life to Date			

Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ - \$	150.78
	Incentive:		
	Total:	\$ - \$	150.78
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

Ε. Assumptions & Comments:

(complete this Appendix for each program)

Residential 155 Colbourne Replace Bulk with Individual Meters Α. Name of the Program: **CDM-100A** Description of the program (including intent, design, delivery, partnerships and evaluation): Please see 2006 CDM Report (page 14) for additional description of this Program. Switch bulk meter to individual meters (Residenti Measure(s): Measure 1 Measure 2 (if applicable) Measure 3 (if applicable) Base case technology: Existing Inventory Efficient technology: Individual Meter Number of participants or units delivered for reporting year: 0 Measure life (years): 20 Number of Partipants or unites delievered lfe to date 8 Β. **TRC Results:** Life-to-date TRC Results: **Reporting Year** 1 TRC Benefits (\$): \$ \$ 1.70 ² TRC Costs (\$): Utility program cost (excluding incentives): Incremental Measure Costs (Equipment Costs) \$ 3.2 Total TRC costs: \$ 3.20 Net TRC (in year CDN \$): \$ \$ 3.20 Benefit to Cost Ratio (TRC Benefits/TRC Costs): \$ \$ 0.53 C. Results: (one or more category may apply) Cumulative Results: **Conservation Programs:** Demand savings (kW): Summer 2 Winter 2 Cumulative Cumulative Lifecycle Annual Savings in year lifecycle Energy saved (kWh): 0 864000 43200 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 begining of year (%): Distribution system power factor at end of year (%): Line Loss Reduction Programs: Peak load savings (kW): lifecycle in year Energy savngs (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):

Utility direct costs (\$):	Incremental capital:	\$	3.20
	Incremental O&M:		
	Incentive:		
	Total:		
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

(complete this Appendix for each program)

A.	Name of the Program:	AMR/ DTM Pilot Project	CDM-100B	and CDM-500				
	Description of the program (including intent, design, delivery, partnerships and evaluation):							
	Please see 2006 CDM Report (pag	e 12) for additional description	of this Program. A five and Fifty	Points Pilot Pro	ject (installing a sr			
	Measure(s):							
	Rasa casa technology:	Measure 1	Measure 2 (if applicable)	Measure 3	(if applicable)			
	Efficient technology:							
	Number of participants or units delivered for reporting vear:							
	Measure life (years):							
	Number of Partipants or unites							
	delievered lfe to date							
В.	TRC Results:		Reporting Year	Life-to-date	TRC Results:			
2	² TRC Costs (\$):							
	Utility	program cost (excluding incentives):	\$-		\$ 31.11			
	Incrementa	Total TRC costs:	\$-	\$	31.11			
	Net TRC (in year CDN \$):							
	Benefit to Cost Ratio (TRC Benefits/	TRC Costs):						
C.	Results: (one or more category may	v apply)		<u>Cumulati</u>	ve Results:			
	Conservation Programs:							
	Demand savings (kW):	Summer Winter						
				0 1 1	Ourse de time			
		lifecycle	in year	Lifecycle	Annual Savings			
	Energy saved (kWh):							
	Natural Gas (m3):							
	Other (specify):							
	Demand Management Programs:							
	Energy shifted On-peak to Mid-peak	(kWh):						
	Energy shifted On-peak to Off-peak	(kWh):						
	Energy shifted Mid-peak to Off-peak	r (kWh):						
	Demand Response Programs: Dispatchable load (kW) [.]							
	Peak hours dispatched in year (hour	rs):						
	Power Factor Correction Program	<u>s:</u>						
	Amount of KVar installed (KVar):	pedining of year (%):						
	Distribution system power factor at e	end of year (%):						
	Line Loss Reduction Programs:							
	Peak load savings (kW):	lifecycle	in vear					
	Energy savngs (kWh):	meeyele	in year					
	Distributed Generation and Load I	Displacement Programs:						
	Amount of DG installed (kW): Energy generated (kWh):							
	Peak energy generated (kWh):							
	Other Brown (
	<u>Otner Programs (specify):</u> Metric (specify):							

Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ - \$	31.58
	Incentive:		
	Total:		
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

(complete this Appendix for each program)

A.	Name of the Program:	Residental System Prototype and	d Pilot CDI	M-100C			
	Description of the program (including intent, design, delivery, partnerships and evaluation):						
	Please see 2006 CDM Report (pag protype and pilot testing.	e 6) for additional description o	of this Program. A Residential ba	aseline measurer	nent. System		
	Measure(s): Base case technology:	Measure 1	Measure 2 (if applicable)	Measure 3	(if applicable)		
	Efficient technology: Number of participants or units delivered for reporting year: Measure life (years):						
	Number of Partipants or unites delievered lfe to date						
В.	TRC Results: 1 TRC Benefits (\$): 2 TRC Costs (\$): Utility	program cost (excluding incentives):	Reporting Year \$-	Life-to-date	TRC Results:		
	nicrementa	Total TRC costs	ъ - с	¢	16 20		
	Net TRC (in year CDN \$):	10101 1110 00313.	Ψ -	Ψ	10.20		
	Benefit to Cost Ratio (TRC Benefits,	/TRC Costs):					
C.	Results: (one or more category may	/ apply)		Cumulati	ve Results:		
	Conservation Programs: Demand savings (kW):	Summer Winter					
		lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings		
	Cher resources saved : Natural Gas (m3): Other (specify):						
	Demand Management Programs: Controlled load (kW)						
	Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak	: (kWh): (kWh): : (kWh):					
	Demand Response Programs: Dispatchable load (kW): Peak hours dispatched in year (hou	rs):					
	Power Factor Correction Program Amount of KVar installed (KVar): Distribution system power factor at a Distribution system power factor at a	s <mark>::</mark> begining of year (%): end of year (%):					
	Line Loss Reduction Programs: Peak load savings (kW):	lifecycle	in vear				
	Energy savngs (kWh):	mooyoro	in your				
	Distributed Generation and Load Amount of DG installed (kW): Energy generated (kWh): Peak energy generated (kWh): Fuel type:	Displacement Programs:					
	Other Programs (specify): Metric (specify):						
D.	Actual Program Costs:		Reporting Year	Cumlative	Life to Date		

Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ - \$	16.20
	Incentive:		
	Total:	\$ -	\$ -
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

Assumptions & Comments: Ε.

(complete this Appendix for each program)

A.	Name of the Program:	Residential Customer Satisfactio	n Survey CD	M-100D			
	Description of the program (including intent, design, delivery, partnerships and evaluation):						
	Please see 2006 CDM Report (pag 400 residential customers for 2006 c	e 6) for additional description o ustomer satisfaction survey for ele	f this Program. Customer satisfa ectric utilities. Data to include ana	action survey. A alyzing and repo	observation of rting.		
	Measure(s): Base case technology:	Measure 1	Measure 2 (if applicable)	Measure 3	(if applicable)		
	Efficient technology: Number of participants or units delivered for reporting year: Measure life (years):						
	Number of Partipants or unites delievered lfe to date						
B.	TRC Results: TRC Benefits (\$): TRC Costs (\$):	nrogram cost (excluding incentives):	Reporting Year	Life-to-date	TRC Results:		
	Incrementa	I Measure Costs (Equipment Costs)	\$ -		\$ 15.70		
		Total TRC costs:	\$-	\$	15.70		
	Net TRC (in year CDN \$):						
	Benefit to Cost Ratio (TRC Benefits/	TRC Costs):					
C.	Results: (one or more category may	r apply)		<u>Cumulati</u>	ve Results:		
	Conservation Programs: Demand savings (kW):	Summer Winter					
	F ire and <i>(</i> (10))	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings		
	Energy saved (kwn): Other resources saved :						
	Natural Gas (m3):						
	Demand Management Programs:						
	Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak	(kWh): (kWh): (kWh):					
	Demand Response Programs: Dispatchable load (kW): Peak hours dispatched in year (hour	s):					
	Power Factor Correction Program Amount of KVar installed (KVar): Distribution system power factor at b Distribution system power factor at e	<u>s:</u> begining of year (%): and of year (%):					
	Line Loss Reduction Programs: Peak load savings (kW):	lifecycle	in year				
	Energy savngs (kWh):	mooyoro	iii yoai				
	Distributed Generation and Load I Amount of DG installed (kW): Energy generated (kWh): Peak energy generated (kWh): Fuel type:	Displacement Programs:					
	Other Programs (specify): Metric (specify):						
D.	Actual Program Costs:		Reporting Year	Cumlative	Life to Date		

Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ - \$	15.70
	Incentive:		
	Total:	\$ - \$	15.70
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

Assumptions & Comments: Ε.

(complete this Appendix for each program)

٨	Name of the Brogram	Posidential DSM Indentification	Water Heater Date		04	
А.	Name of the Program: Residential DSM Indentification -water Heater Data CDM-101					
	Description of the program (inclue	ding intent, design, delivery, pa	rtnerships and evaluation):			
	Water Heater Extraction and update	e of information for Residential Lo	ad Control			
	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 me (years).					
	Number of Partipants or unites					
	delievered lfe to date					
В.	TRC Results:		Reporting Year	Life-to-date	TRC Results:	
:	TRC Benefits (\$): 2 TRC Costs (\$):					
	Utility	program cost (excluding incentives):	\$-	\$ 0.65		
	Incrementa	al Measure Costs (Equipment Costs)				
	Net TRC (in year CDN \$):	Total TRC costs:	\$-		0.65	
	Benefit to Cost Ratio (TRC Benefits/	TRC Costs):				
C.	Results: (one or more category may	/ apply)		<u>Cumulativ</u>	ve Results:	
	Conservation Programs:					
	Demand savings (kW):	Summer				
		Winter				
				Cumulative	Cumulative	
	Energy saved (kWh):	lifecycle	in year	Lifecycie	Annual Savings	
	Other resources saved :					
	Natural Gas (m3):					
	Other (specify):					
	Demand Management Programs:					
	Controlled load (kW) Energy shifted On-peak to Mid-peak	· (kM/b):				
	Energy shifted On-peak to Off-peak	(kWh):				
	Energy shifted Mid-peak to Off-peak	(kWh):				
	Demand Response Programs:					
	Dispatchable load (kW):					
	Peak hours dispatched in year (hour	rs):				
	Power Factor Correction Program	<u>s:</u>				
	Amount of KVar installed (KVar):	pedining of year (%):				
	Distribution system power factor at e	end of year (%):				
	Line Loss Reduction Programs:					
	Peak load savings (kW):					
		lifecycle	in year			
	Energy savngs (kWh):					
	Distributed Generation and Load I	Displacement Programs:				
	Energy generated (kWh):					
	Peak energy generated (kWh):					
	гиен куре.					
	Other Programs (specify):					
	weine (specily).					
D.	Actual Program Costs:		Reporting Year	Cumlative	Life to Date	

Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ - \$	0.65
	Incentive:		
	Total:	\$ - \$	0.65
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

Ε. Assumptions & Comments:

(complete this Appendix for each program)

A.	Name of the Program:	Smart Meter Pilot (Residential-	Fantalus Systems)		CDI	M-106	
	Description of the program (includ	ding intent, design, delivery, pa	rtnerships and evalua	tion):			
	Please see 2006 CDM Report (pag	e 12) for additional description	of this Program. Resid	dential 500	0 Poii	nt Smart Me	ter Pilot. Testing
	/.						
	Measure(s):	Measure 1	Measure 2 (if appli	cable)		Measure 3 (if applicable)
	Base case technology:			,		,	,
	Efficient technology: Number of participants or units						
	delivered for reporting year:						
	Measure life (years):						
	Number of Partipants or unites						
	delievered lfe to date						
В.	TRC Results:		Reporting Yea	ar	L	.ife-to-date	TRC Results:
1	TRC Benefits (\$):						
	Utility	program cost (excluding incentives):	\$	1.94	\$	251.14	
	Incrementa	al Measure Costs (Equipment Costs)					
	Net TRC (in year CDN \$).	Total TRC costs:	\$	1.94	\$		251.14
	Ponofit to Cost Patie (TPC Panofite)	TPC Control:					
						• • • •	.
C.	Results: (one or more category may	(арріу)				Cumulativ	<u>/e Results:</u>
	Conservation Programs:	2					
	Demand savings (kw):	Summer Winter					
							0 1 <i>i</i>
		lifecvcle	in vear			umulative Lifecycle	Cumulative Annual Savings
	Energy saved (kWh):					-	Ĵ
	Other resources saved :						
	Other (specify):						
	Demand Management Programs:						
	Controlled load (kW)						
	Energy shifted On-peak to Mid-peak	(kWh):					
	Energy shifted Mid-peak to Off-peak	(KWN): (KWh):					
	Demand Response Programs:						
	Dispatchable load (kW):						
	Peak hours dispatched in year (hour	rs):					
	Power Factor Correction Program	<u>s:</u>					
	Amount of KVar installed (KVar):	$p_{\alpha}(p) = \frac{1}{2} \left(\frac{1}{2} \frac{1}{2$					
	Distribution system power factor at e	end of year (%):					
	Line Loss Reduction Programs:						
	Peak load savings (kW):						
		lifecycle	in year				
	Energy savings (KWII):						
	Amount of DG installed (kW):	usplacement Programs:					
	Energy generated (kWh):						
	геак energy generated (кWh): Fuel type:						
	Other Programs (specify)						
	Metric (specify):						
D.	Actual Program Costs:		Reporting Yea	ar		Cumlative	Life to Date

Utility direct costs (\$):	Incremental capital:	\$ 1.94	\$ 251.21
	Incremental O&M:		
	Incentive:		
	Total:		
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

A pilot program for 200 residential SMART meters was deployed to enable the assessment of metering, communications, settlement, load control and other technologies that may be used to accommodate the universal application of SMART meters in the future. Although the formal definition of a SMART meter has not been decided the Board the Utility felt it prudent to perform a technological assessment of systems available today. This program supports the Minister of Energy's commitment to the installation of 800,000 SMART meters across Ontario by 2007. It will provide OPUCN with the experience and knowledge needed to efficiently expand the use of SMART meters over the next several years. On the commercial side we have purchased a product that we are testing called power view. It is a web based system that can allow customers to look at their interval meter data, profile their usage and see the results.

Target users: Eventually 500 residential customers throughout the City.

Benefits: Proof that certain forms of technology will perform satisfactory and that customers can match their usage to less expensive off peak hours when rate structures send the correct price signals.

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

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

(complete this Appendix for each program)

Smart Meter - Residential (Operation Group Fee) CDM-107 Name of the Program: Α. Description of the program (including intent, design, delivery, partnerships and evaluation):

Please see 2006 CDM Report (page 12) for additional description of this Program. Smart Meter - Residential. Operations 2006 Wor

	Measure(s):				
	Base case technology:	Measure 1	Measure 2 (if applicable)	Measure 3	(if applicable)
	Efficient technology:				
	Number of participants or units delivered for reporting year: Measure life (years):				
	Number of Partipants or unites delievered lfe to date				
В.	TRC Results:		Reporting Year	Life-to-date	TRC Results:
	TRC Benefits (\$):				
	² TRC Costs (\$):	program cost (ovaluding incontivos);	¢		¢ 14.01
	Incrementa	I Measure Costs (Equipment Costs)	р -		φ 14.01
		Total TRC costs:	\$-	\$	14.81
	Net TRC (in year CDN \$):				-
	Benefit to Cost Ratio (TRC Benefits/	TRC Costs):			
C.	Results: (one or more category may	apply)		Cumulati	ve Results:
	Concernation Brogramo				
	Demand savings (kW):	Summer			
		Winter			
		lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
	Energy saved (kWh):				
	Natural Cas (m2):				
	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 (hour	s):			
	Power Factor Correction Program	<u>s:</u>			
	Amount of KVar installed (KVar):				
	Distribution system power factor at b	pegining of year (%):			
	Distribution system power factor at e	end of year (%):			
	Line Loss Reduction Programs:				
	Peak load savings (kW):	life evelo	in woor		
	Energy savngs (kWh):	тесусіе	in year		
	Distributed Generation and Load I	Displacement Programs:			
	Amount of DG installed (kW):				
	Energy generated (kWh):				
	Peak energy generated (kWh):				
	Other Programs (specify):				
				1	
D.	Actual Program Costs:		Reporting Year	Cumlative	Life to Date

Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ - \$	14.81
	Incentive:		
	Total:		
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

(complete this Appendix for each program)

A. Name of the Program: Customer Awareness Education CDM-108 Description of the program (including intent, design, delivery, partnerships and evaluation): Please see 2006 CDM Report (hoge 114) for additional description of this Program. Customer awareness and evaluation in achieving a heightened change in energy efficiency. Programs will be targeted at home available incomparity and advances and understand where their incomparity and consumption and description of the program. Sould 1: An interent contain where customers and conservation. These programs could 1: An interent contain where customers and conservation. These programs could the available through changes and understand where their income changes and understand where their income contained where customers and understand where the service incomers and the service in										
Description of the program (including Intent, design, delivery, partnerships and evaluation): Main Program (including Intent, design, delivery, partnerships and evaluation): Places case 2006 CDM Report (page 14) for additional description of this Program. Customer maxmeness and more and business. These programs and theorem the savings impact available through the anging concerns, and conservation. These programs will be targeted at home a valuation through the anging concerns, and conservation. These programs and demonstrate the saving impact available through the anging concerns, and conservation. These programs could understand where there will be available through the anging concerns, and conservation. These programs could understand where there will be available through the anging concerns, and concervation. Base case inchnology: EVI candidescent EVICe through a saving the through the available through through the available through the available through through the available through through through through	Α.	Name of the Program:	Customer Awareness Education			CDM-108				
Please see 2006 CDM Report (page 14) for additional description of this Program. Customer awareness and more and business. These programs will business in the saving a hightmode damage in encry fileiony. Programs will be targeted at home and business. These programs will business and understand where the saving in the saving head through thanging concursion content motion where and conservation and demonstrate the saving in the saving head through thanging concursion content motion where and understand where the saving in the saving head through thanging concursion content motion where and understand where the saving in the saving of the saving in t		Description of the program (including intent, design, delivery, partnerships and evaluation):								
Measure(s): Measure 1 Measure 2 (if applicable) Measure 3 (if applicable) Base case technology: 60W Incandescent 60W Incandescent 60W Incandescent CHE Security or reporting year: 0 0 60W Incandescent Measure 16 (if applicable) 0 0 60W Incandescent Measure 16 (if opens): 0 0 60W Incandescent Measure 16 (if opens): 4 0 700 Measure 16 (if opens): 5 - \$100 ITC Cease 18 (if opens): S - \$100 Iter Cease 18 (if opens): S - \$100 Incremental Measure Case (Equipment Costs) S - \$100 Incremental Measure Case (Equipment Costs) S - \$100 Incremental Measure Case (Equipment Costs) 0 0 0 \$100 Benefit to Cost Ratio (TRC Benefits/TRC Costs): 0 0 \$100 \$100 Conservation Proceams: Summer 0 \$100 \$100 \$100 \$100 \$100 \$100 \$100 \$100 \$100 \$100 \$100 \$100 <		Please see 2006 CDM Report (pag education are key factors in achievir and business These programs will available through changing consump . An internet portal where customers	e 14) for additional description and a heightened change in energy illustrate the principal areas of co bion patterns and conservation. a can create custom profiles of the	of eff onsi The	this Program. Customer awar iciency. Programs will be targe umption and demonstrate the s rese programs could ome or business and understa	reness and eted at home savings impact and where they	Media Program			
Measure 1 Measure 2 (if applicable) Measure 3 (if applicable) Base case inchnology: SWI incandescent CI Efficient learbridger: 0 0 Mumber of participants or units 0 0 Measure life (years): 4 0 Mumber of Participants or units 0 0 Bit IEC Results: 4 0 'TrCe Benings (p): S - \$,77 'TrCe Costs (S): Unity program cost (schulding meentive): \$ - 0 Met TRC (in year CDN 3): - \$ 100 100 Met TRC (in year CDN 3): - - 0 <		•• ()								
Efficient technology: CFL Screw-In 15W Number of participants or units 0 Measure life (years): 4 Number of Partigants or units 168 It CR Cesults: \$ 'TRC Benefits (5): \$ 'TRC Constring Year: \$ Utility program cost (excluding incentives): \$ 'TRC Costs (5): \$ Utility program cost (excluding incentives): \$ 'TRC Costs (5): \$ 'TRC Costs (7RC Denefits/TRC Costs): \$ 'Test in the cost faile (TRC Benefits/TRC Costs): 0 Ccmental Measure Costs (2): \$ 'Test in the cost faile (TRC Benefits/TRC Costs): 0 Conservation Programs: 0 Demand savings (AW): Summer Matural Gas (m3): Cumulative Controled to add (Wi) Cumulative Energy send (AWh): Cumulative Controled to add (Wi) Cumulative Energy send (AWh): Cumulative Controled to add (Wi) Cumulative Energy send (AWh): Cumulative Controled to add (Wi) Cumulative		Measure(s): Base case technology:	Measure 1 60W Incandescent		Measure 2 (if applicable)	Measure 3 (if applicable)			
Mumber of participants or units 0 Measure life (pears): 4 Mumber of Partipants or unites 168 F. TRC Results: 5 * TRC Costs (S): 5 * TRC Costs (S): 5 Utility program cost (excluding incentive): 5 * TRC Costs (S): 5 Utility program cost (excluding incentive): 5 * TRC Costs (S): 0 Incremental Measure Costs (Excluding incentive): 5 * TRC (in year CON (S): 5 Censervation Programs: 0 Demand Savings (AV): 0 Winer 3 Conservation Programs: 0 Demand Savings (AV): 0 Mature Gas (m3): 0 Control doad (AW) 5140 Energy seved (kWh): 0 Other resources seved : 0 Mature Gas (m3): 0 Controlation Contrains: 0 Controlation Contrains: 0 Controlation Contrains: 0 Controlation Contrains: 0 Demand Masorese Programs: 0		Efficient technology:	CFL Screw-In 15W							
Outcourse in logicality gream; 0 Measure III logicality or unites 166 B. IEC Results: 8 Proceeding (S): 3 * TRC Benefits (S): \$ * TRC Costs (S): Utility program cost (excluding incentives): * Incremental Measure Costs (Edupment Costs) \$ Meat TRC (in year CDN S): \$ Conservation Programs: 0 Demand Savings (MV): \$ Unreading (MV): \$ Writer \$ Demand Savings (MV): \$ Other resources saved : \$ Meanuel Gas (mt): \$ Other resources as well : \$ Meanuel Gas (mt): \$ Other resources as well : \$ Meanuel Gas (mt): \$ Dispretitionel On-peak to Off-peak (Wth): \$ Energy shifted On-peak to Mid-peak (Wth): \$ Energy shifted On-peak to Mid-peak (Wth): \$ E		Number of participants or units	0							
Number of Periparts or unites deliavared file to date 168 8. Ex Cesults: ' TrC Benetits (\$): ' TrC Costs (\$): Unity program cost (excluding incentive): Incrementel Measure Costs (Equipment Costs) ' Total TRC (on year CDN \$): Costs (\$): Unity program cost (excluding incentive): S \$ - \$ 100 Mat TRC (in year CDN \$): Conservation Programs: Demand savings (kW): Conservation Programs: Controlled load (kW); Energy shifted On-peak to Off-peak (kWh); Energy shifted On-peak (kWh); Energy shifted On-pea		Measure life (years):	4							
Number of Partipants or unities delievered its to date 168 5 TRC Results: TRC Benefits (5): TRC Benefits (5): TRC Costs (5):										
B. TRC Results: Reporting Year Life-to-date TRC Result: * TRC Costs (S): Utility program cost (excluding incentives): \$ - \$ 3.77 * TRC Costs (S): Utility program cost (excluding incentives): \$ - \$ 100 Incremental Measure Costs (Equipment Costs) \$ - \$ 100 Net TRC (n year CDN \$): Conservation (TRC Benefits/TRC Costs): 0 0 0 0 C. Results: (one or more category may apply) Cumulative Results: 0 0 0 63140 15785 Demand savings (kW): 0 0 0 63140 15785 0 0 0 0 16785 0 0 0 16785 0 0 16785 0 0 15785 0 0 0 15785 0 0 0 15785 0 0 0 16785 0 16785 0 0 16785 0 0 15785 0 17785 0 0 15785 0 15785 0 15785 0 15785		Number of Partipants or unites delievered lfe to date	168							
* TRC Banelite (\$): s - 3.74 * TRC Costs (\$): Utility program cost (axcluding incentives): \$ - \$ 100 Total TRC costs (\$): - \$ 100 Net TRC (in year CDN \$): 5 - \$ 100 Net TRC (in year CDN \$): 5 - \$ 0 Benefit to Cost Ratio (TRC Benefits/TRC Costs): 0 <	В.	TRC Results:			Reporting Year	Life-to-date	TRC Results:			
² TRC Costs (\$): Utility program cost (excluding incentives): S S S S S S S S S S S S S S S S S S S	1	TRC Benefits (\$):		\$	-		3.74767			
Unity program cost (scaluding meetitives): \$ - \$ 100 Incremental Measure Costs (S - \$ 100 Net TRC (in year CDNS): \$ - (C) Benefit to Cost Ratio (TRC Benefits/TRC Costs): 0 0 0 C. Results: (one or more category may apply) Cumulative Results: 0 Conservation Programs: 0 0 63140 15785 Demand savings (kW): 0 0 63140 15785 Other resources saved :	2	TRC Costs (\$):								
Indefinitial integrate (Linguistic Costs) Image: Construction Programs (Linguistic Costs) Image: Conservation Programs (Linguistic Costs) C. Results: (one or more category may apply) Cumulative Results: Conservation Programs: 0 Demand savings (kW): Summer 0 Winter 3 0 Conservation Programs: 0 63140 15785 Other (specify): 0 63140 15785 Other (specify): 0 63140 15785 Demand Management Programs: 0 0 63140 15785 Controlled (Add (kW)): 0 0 63140 15785 Demand Management Programs: 0 0 0 0 0 Controlled (Mad (kW)): 0 </td <td></td> <td>Utility</td> <td>program cost (excluding incentives):</td> <td>\$</td> <td></td> <td></td> <td>\$ 106.81</td>		Utility	program cost (excluding incentives):	\$			\$ 106.81			
Net TRC (in year CDN \$): 1000 110 0000 \$ 0 1000 110 0000 \$ Benefit to Cost Ratio (TRC Benefits/TRC Costs): 0 0 0 C. Results: (one or more category may apply) Cumulative Results: 0 Conservation Programs: Demand savings (kW): Summer 0 0 Minter 3 0 63140 15785 Other resources saved (: Natural Gas (m3): Other (specify): 0 0 63140 15785 Demand Management Programs: Controlled load (kW) 0 0 63140 15785 Demand Response Programs: Controlled load (kWh): 0 0 63140 15785 Demand Response Programs: Dispatchable load (kWh): 0 0 63140 15785 Demand Response Programs: Dispatchable load (kWh): 0 0 63140 15785 Demand Response Programs: Dispatchable load (kWh): 0 0 63140 15785 Distribution system power factor at begining of year (%): 0 0 15785 0 Distribution system power factor at end of year (%): 0 0 0 0 0 0 0 0 0 0		Incrementa	Total TRC costs	¢ \$	- -	¢	0.3 107 11			
Benefit to Cost Ratio (TRC Benefits/TRC Costs): 0 C. Results; (one or more category may apply) Cumulative Results: Conservation Programs; Winter 0 Demand savings (kW): Summer 0 Winter 3 63140 Energy saved (kWh): 0 0 Natural Gas (m3): 0 15785 Other resources saved : 0 0 Natural Gas (m3): 0 0 Controlled Gad (kWh): 0 0 Energy shifted On-peak to Mid-peak (kWh): 0 0 Energy shifted On-peak to Off-peak (kWh): 0 0 Pemend Response Programs: 0 0 0 Distribution system power factor at edgining of year (%): 0 0 0 Distribution system power factor at edgining of year (%): 0 0 0 0 Distribution system power factor at edgining of year (%): 0 0 0 <td< td=""><td></td><td>Net TRC (in year CDN \$):</td><td>10101 1110 00013.</td><td>\$</td><td>-</td><td>Ψ</td><td>(0.30)</td></td<>		Net TRC (in year CDN \$):	10101 1110 00013.	\$	-	Ψ	(0.30)			
C. Results: Cumulative Results: Conservation Programs: 0 Demand savings (kW): Summer 0 Iflecycle in year Cumulative Results: Demand savings (kW): 0 0 Iflecycle in year Cumulative Cumulative Annual Sav Natural Gas (m3): 0 0 Other resources saved : 0 0 Natural Gas (m3): 0 0 Other (specify): 0 0 Demand Management Programs: 0 0 Controlled load (kW) Energy shifted On-peak to Mid-peak (kWh): 0 Energy shifted Mid-peak to Off-peak (kWh): 0 0 Dispatchable load (kW): 0 0 Peak hours dispatched in year (hours): 0 0 Power Factor Correction Programs: 0 0 Distribution system power factor at elegining of year (%): 0 0 Distribution system power factor at begining of year (%): 0 0 Distribution of DG installed (KWi): 0 0 0 Pack load savings (kWh): 0 0 0		Benefit to Cost Ratio (TRC Benefits)	(TRC Costs):				0.035			
C. Kexums: (one of minite category may apply) Cumulative Kesums: Conservation Programs: Summer 0 Demand savings (kW): Winter 3 Iffecycle in year Lifecycle Annual Savings Other resources saved : 0 63140 15785 Natural Gas (m3): 0 63140 15785 Other resources saved : 0 0 63140 15785 Controlled load (kW) 0 <td></td> <td></td> <td></td> <td></td> <td></td> <td>O</td> <td></td>						O				
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Iffecycle in year Lifecycle Annual Sav Energy saved (kWh): 0 63140 15785 Other resources saved :						Cumulative	Cumulative			
Energy saved (kWh): 0 63140 15785 Other resources saved : Natural Gas (m3): 0 63140 15785 Natural Gas (m3): 0 63140 15785 Other (specify): 0 63140 15785 Demand Management Programs: 0 0 63140 15785 Controlled load (kW) 0 <		-	lifecycle	•	in year	Lifecycle	Annual Savings			
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Other (specify):		Natural Gas (m3):								
Demand Management Programs:		Other (specify):								
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Demand Response Programs: Dispatchable load (kW): Peak hours dispatched in year (hours): Peak hours dispatched in year (hours): Amount of KVar installed (KVar): Distribution system power factor at begining of year (%): Distribution system power factor at end of year (%): Distribution system power factor at end of year (%): Distribution system power factor at end of year (%): Distribution system power factor at end of year (%): Distribution system power factor at end of year (%): Distribution system power factor at end of year (%): Distribution system power factor at end of year (%): Distribution system power factor at end of year (%): Distribution system power factor at end of year (%): Distribution system power factor at end of year (%): Distribution system power factor at end of year (%): Distribution system power factor at end of year (%): Distribution system power factor at end of year (%): Distribution system power factor at end of year (%): Distribution system power factor at end of year (%): Peak load savings (kW): Energy savngs (kWh): Energy generated (kWh): Peak energy generated (kWh): Fuel type: Other Programs (specify): Metric (specify):		Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak	(kWh): ((kWh):							
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Power Factor Correction Programs: Amount of KVar installed (KVar): Distribution system power factor at begining of year (%): Distribution system power factor at end of year (%): Distribution system power factor at end of year (%): Line Loss Reduction Programs: Peak load savings (kW): in year Ifecycle in year Energy savngs (kWh): Pak load Savings (kWh): Ifecycle in year Distributed Generation and Load Displacement Programs: Amount of DG installed (kW): Energy generated (kWh): Peak energy generated (kWh): Peak energy generated (kWh): Peak energy generated (kWh): Fuel type: Other Programs (specify):		Peak hours dispatched in year (hou	rs):							
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Iifecycle in year Energy savngs (kWh): in year Distributed Generation and Load Displacement Programs: Amount of DG installed (kW): Energy generated (kWh): in year Peak energy generated (kWh): in year Fuel type: in year Other Programs (specify): in year		Line Loss Reduction Programs:								
Energy savngs (kWh): Image: Section and Load Displacement Programs: Amount of DG installed (kW): Image: Section and Load Displacement Programs: Amount of DG installed (kWh): Image: Section and Load Displacement Programs: Peak energy generated (kWh): Image: Section and Load Displacement Programs: Peak energy generated (kWh): Image: Section and Load Displacement Programs: Other Programs (specify): Image: Section and Displacement Programs: Metric (specify): Image: Section and Displacement Programs:		reak load savings (KVV).	lifecvcle		in vear					
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Amount of DG installed (kW): Energy generated (kWh): Peak energy generated (kWh): Fuel type: Other Programs (specify): Metric (specify):		Distributed Generation and Load	Displacement Programs:							
Energy generated (kWh): Peak energy generated (kWh): Fuel type: Peak energy generated (kWh): Other Programs (specify): Peak energy generated (kWh): Metric (specify): Peak energy generated (kWh):		Amount of DG installed (kW):								
Fuel type: Image: Conternation (NVVII). Other Programs (specify): Image: Conternation (Specify). Metric (specify): Image: Conternation (Specify).		Energy generated (kWh):								
Other Programs (specify): Metric (specify):		Fuel type:								
Other Programs (specify): Metric (specify):		Other Breakens (and - 16.)								
		Other Programs (specify): Metric (specify):								

Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ - \$	106.81
	Incentive:		
	Total:		
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

(complete this Appendix for each program)

A.	Name of the Program:	Generation Conservation	CDM-109		
	Description of the program (includ	ling intent design delivery na	rtnerships and evaluation).		
	Please see 2006 CDM Report (nad	e 8) for additional description of	f this Program Develop and der	Nov Conservatio	on Projects for Gra
	Please see 2000 CDM Report (pag		i ilis riogram. Develop and dep		
	Measure(s):				
	Rase case technology:	Measure 1	Measure 2 (if applicable)	Measure 3	(if applicable)
	Efficient technology:				
	Number of participants or units delivered for reporting year:				
	Measure life (years):				
	Number of Partipants or unites				
	delievered lfe to date				
В.	TRC Results:		Reporting Year	Life-to-date	TRC Results:
1	TRC Benefits (\$):				
	Utility	program cost (excluding incentives):	\$-		\$ 53.82
	Incrementa	I Measure Costs (Equipment Costs)	•		
	Net TRC (in year CDN \$):	Total TRC costs:	\$-	\$	53.82
	Benefit to Cost Ratio (TRC Benefits/	TRC Costs).			
<u> </u>	Results: (one or more category may	(apply)		Cumulati	ve Results:
0.		apply		<u>oumaiai</u>	ve nesuns.
	Conservation Programs: Demand savings (kW):	Summer			
		Winter			
				Cumulative	Cumulative
		lifecycle	in year	Lifecycle	Annual Savings
	Energy saved (kWh): Other resources saved :				
	Natural Gas (m3):				
	Other (specify):				
	Demand Management Programs:				
	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:				
	Peak hours dispatched in year (hour	s):			
	Power Factor Correction Program	<u>s:</u>			
	Amount of KVar installed (KVar):				
	Distribution system power factor at p Distribution system power factor at e	egining of year (%): and of vear (%):			
	Line Loss Reduction Programs				
	Peak load savings (kW):				
	Energy coveres (kl/h):	lifecycle	in year		
	Distributed Generation and Load I	Displacement Programs:			
	Amount of DG installed (kW):	Displacement Flograms:			
	Energy generated (kWh): Peak energy generated (kWh):				
	Fuel type:				
	Other Programs (specify): Metric (specify):				
D.	Actual Program Costs:		Reporting Year	Cumlative	Life to Date

Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ - \$	53.82
	Incentive:	\$	-
	Total:		
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Powerwise has recently been adopted as the mass market programming approach to foster the conservation culture in Ontario. This alliance will hopefully maximize economies of scale, and will continue to include incentives to the consumer such as Christmas lights, school based education and other programs aimed at customers to encourage their reduction of energy usage. We are currently investigating the costs to join the Powerwise branding process. We also delivered the cold water wash campaign flyer in our bills to promote the use of cold water washing. Target users: All customers in the Oshawa service area. Benefits: The benefits of this program will include increased awareness, improved product supply, culture shift and

reduction of energy usage. It will also educate the customer on valuing the commodity. Evaluation: None at this time

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

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

(complete this Appendix for each program)

A. Name of the Program:

School Pilot CFL Fundraiser CDM 110

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

School CFL Bulb Fundraiser

Measure(s):

		Measure 1	Ν	Measure 2 (if applicable)	Measure 3	(if applica	able)
	Base case technology:	60W Incandescent					,
	Efficient technology:	CFL Screw-In 15W					
	Number of participants or units						
	delivered for reporting year:	0					
	Measure life (years):	4					
	Number of Partipants or unites						
	delievered lfe to date	1495					
В.	TRC Results:		•	Reporting Year	Life-to-date	TRC Res	sults:
	TRC Benefits (\$):		\$	-			33.7
4	TRC Costs (\$):						
	Utility p	program cost (excluding incentives):	\$	-		\$	0.82
	Incrementa	I Measure Costs (Equipment Costs)					
		Total TRC costs:	\$	-	\$		0.82
	Net TRC (in year CDN \$):					40.8	9805825
	Benefit to Cost Ratio (TRC Benefits	TRC Costs):					
	Beneficito Bost Natio (TNO Beneficis)						
C.	Results: (one or more category may	y apply)			<u>Cumulati</u>	ve Resul	ts:
	Conservation Programs:	-					
	Demand savings (kW):	Summer					
		Winter	30				
					Cumulativa	Cumula	ti ve
				•	Cumulative	Annual	live
		lifecycle	0	in year		Annual	Savings
	Energy saved (kwn):	0	0		3745880	187294	
	Other resources saved ?						
	Natural Gas (m3):						
	Other (specify):						
	Demand Management Programs:						
	Controlled load (kW)						
	Energy shifted On-peak to Mid-peak	k (kWh):					
	Energy shifted On-peak to Off-peak	(kWh)					
	Energy shifted Mid-peak to Off-peak	(). k (kWh):					
	Demand Response Programs:						
	Dispatchable load (kW):						
	Peak hours dispatched in year (hou	rs):					
	Power Factor Correction Program	IS:					
	Amount of KVar installed (KVar):						
	Distribution system power factor at l	begining of year (%):					
	Distribution system power factor at	end of vear (%):					
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					

Line Loss Reduction Programs:

	Peak load savings (kW):			
		lifecycle	in year	
	Energy savngs (kWh):			
	Distributed Generation and Load I Amount of DG installed (kW): Energy generated (kWh): Peak energy generated (kWh): Fuel type: Other Programs (specify):	Displacement Programs:		
	Metric (specify):			
D.	Actual Program Costs:		Reporting Year	Cumlative Life to Date
	Utility direct costs (\$):	Incremental capital:		
		Incremental O&M:	\$ -	\$ 0.82
		Incentive:		\$ -
		Total:		
	Utility indirect costs (\$):	Incremental capital: Incremental O&M:		
		Total:		

E. Assumptions & Comments:

Powerwise has recently been adopted as the mass market programming approach to foster the conservation culture in Ontario. This alliance will hopefully maximize economies of scale, and will continue to include incentives to the consumer such as Christmas lights, school based education and other programs aimed at customers to encourage their reduction of energy usage. We are currently investigating the costs to join the Powerwise branding process. We also delivered the cold water wash campaign flyer in our bills to promote the use of cold water washing. Target users: All customers in the Oshawa service area. Benefits: The benefits of this program will include increased awareness, improved product supply, culture shift and reduction of energy usage. It will also educate the customer on valuing the commodity.

Evaluation: None at this time

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

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

(complete this Appendix for each program)

A.	Name of the Program:	Commercial and Industrial System	m Protype and Pilot		CDM-300A				
	Description of the program (including intent, design, delivery, partnerships and evaluation):								
	System Protoype and pilot for Commercial/ Industrial class customers								
	Magaura(a)								
	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 (vears):								
	Number of Partipants or unites delievered Ife to date								
D			Poporting Voor	l ifa ta data					
Б.	¹ TRC Benefits (\$):		<u>Reporting rear</u>	Life-to-date	TRC Results.				
	² TRC Costs (\$):				•				
	Utility	program cost (excluding incentives): al Measure Costs (Equipment Costs)	\$-		\$ 41.81				
		Total TRC costs:	\$-	\$	41.81				
	Net TRC (in year CDN \$):								
	Benefit to Cost Ratio (TRC Benefits/	TRC Costs):							
C.	Results: (one or more category may	v apply)		<u>Cumulati</u>	ve Results:				
	Conservation Programs:								
	Demand savings (kW):	Summer Winter							
		, in the second s							
		lifecycle	in vear	Cumulative Lifecvcle	Cumulative Annual Savings				
	Energy saved (kWh):		in you.	,					
	Other resources saved :								
	Other (specify):								
	Demand Management Programs:								
	Controlled load (kW)								
	Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak	r (kWh): (kWh):							
	Energy shifted Mid-peak to Off-peak	(kWh):							
	Demand Response Programs:								
	Dispatchable load (kW):	``							
	Peak nours dispatched in year (nour	s):							
	Power Factor Correction Program Amount of KVar installed (KVar):	<u>s:</u>							
	Distribution system power factor at b	pegining of year (%):							
	Distribution system power factor at e	end of year (%):							
	Line Loss Reduction Programs:								
	Peak load savings (kW):	lifecvcle	in vear						
	Energy savngs (kWh):								
	Distributed Generation and Load I	Displacement Programs:							
	Amount of DG installed (kW): Energy generated (kWh):								
	Peak energy generated (kWh):								
	ruei type:								
	Other Programs (specify): Metric (specify):								
D.	Actual Program Costs:		Reporting Year	Cumlative	Life to Date				

Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ - \$	36.84
	Incentive:		
	Total:	\$ - \$	36.84
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

Assumptions & Comments: Ε.

A.	Name of the Program:	Independent Market Operator De	emand Response Pilot Project	CDM-303					
	Description of the program (includ	ling intent, design, delivery, pa	rtnerships and evaluation):						
	Please see 2006 CDM Report (page assisting the Independent Electricity The program identifies customers wh	Please see 2006 CDM Report (page 13) for additional description of this Program. This program is a two year pilot that is assisting the Independent Electricity System Operator to enroll and work with customers to shed load.							
	by e-mail. Target users Customers who have th	he ability to drop load	orgonou and outcomer to outcill						
	are currently evaluating the cost benefit of continuing this program.								
		Measure 1	Measure 2 (if applicable)	Measure 3 (if applica	ble)				
	Base case technology: Efficient technology:								
	Number of participants or units								
	delivered for reporting year: Measure life (years):								
	Number of Partipants or unites delievered lfe to date								
В.	TRC Results:		Reporting Year	Life-to-date TRC Res	sults:				
	¹ TRC Benefits (\$):								
	- TRC Costs (φ): Utility	program cost (excluding incentives):	\$-		\$ 24.96				
	Incrementa	I Measure Costs (Equipment Costs)							
	Net TRC (in vear CDN \$):	Total TRC costs:	\$-	\$	24.96				
	Benefit to Cost Ratio (TRC Benefits/	TRC Costs):							
	Besults: (one or more extensiv			Cumulative Decul	ta :				
υ.	Results. (one of more category may	арріу)		<u>Cumulative Resun</u>	<u>ts:</u>				
	Conservation Programs:	Summer							
		Winter							
		lifecycle	in year	Cumulative Lifecycle	Cumulativ e Annual Savings				
	Energy saved (kWh):								
	Natural Gas (m3):								
	Other (specify):								
	Demand Management Programs:								
	Controlled load (kW)	(k)(h))							
	Energy shifted On-peak to Off-peak ((KWh):							
	Energy shifted Mid-peak to Off-peak	(kWh):							
	Demand Response Programs:								
	Dispatchable load (kW):		C						
	Peak nours dispatched in year (nours	5).							
	Amount of KVar installed (KVar)	<u>8:</u>							
	Distribution system power factor at b	egining of year (%):							
	Distribution system power factor at e	nd of year (%):							
	Line Loss Reduction Programs:								
	Peak load savings (kW):	lifecycle	in vear						
	Energy savngs (kWh):	mooyor	iii yeai						
	Distributed Generation and Load I	Displacement Programs:							
	Arriount of DG Installed (KW):								

Energy generated (kWh): Peak energy generated (kWh): Fuel type: Other Programs (specify): Metric (specify): D. Actual Program Costs: Cumlative Life to Date Reporting Year Utility direct costs (\$): Incremental capital: Incremental O&M: \$ - \$ 24.96 Incentive: \$ 24.96 Total: - \$ Utility indirect costs (\$): Incremental capital: Incremental O&M: Total:

E. Assumptions & Comments:

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.
 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

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

(complete this Appendix for each program)

A. Name of the Program:

HVAC Upgrade

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

This initiative was undertaken to upgrade the HVAC systems at the utility's offices. The fuel source was changed to natural gas from electricity and a modern, controllable, control system was added. This allows the heat and air conditioning to be controlled by zones to stabilize the system and eliminate wide variations of temperature within individual buildings. The system automatically lowers temperatures in winter and raises them in summer outside of regular working hours to save energy at times when no staff are on site.

	Measure(s):					
		Measure 1		Measure 2 (if applicable)	Measure 3	(if applicable)
	Base case technology:					
	Efficient technology:					
	delivered for reporting year:					
	Measure life (vears):					
	Number of Participants or units					
	delivered life to date					
B.	TRC Results:			Reporting Year	l ife-to-date	TRC Results:
	¹ TRC Benefits (\$):		\$	-	<u>Ene to dute</u>	The Results.
	² TRC Costs (\$):		Ŷ			
	Utility µ	program cost (excluding incentives):	\$	-		
	Incrementa	I Measure Costs (Equipment Costs)	\$	-		
		Total TRC costs:	\$	-	\$	-
	Net TRC (in year CDN \$):		\$	-		
	Benefit to Cost Ratio (TRC Benefits	/TRC Costs).	\$	<u>-</u>	\$	-
			Ψ		Ŷ	
C.	Results: (one or more category may	/ арріу)			Cumulati	ve Results:
	Conservation Programs:					
	Demand savings (kW):	Summer	0			
		Winter				
					Cumulative	Cumulative
		lifecycle		in year	Lifecycie	Annual Savings
	Energy saved (kWh):	0	0			
	Netural Con (m2)					
	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	(<i>kWh</i>):				
	Energy shifted Mid-peak to Off-peak	: (kWh):				
	Demand Response Programs:					
	Dispatchable load (kW):					
	Peak hours dispatched in year (hou	rs):				
	Power Factor Correction Program	IS:				
	Amount of KVar installed (KVar)	<u></u>				
	Distribution system power factor at l	beginning of year (%):				
	Distribution system power factor at e	end of year (%):				

Line Loss Reduction Programs:

Peak load savings (kW):

		lifecycle	in year	
	Energy savings (kWh):		,	
	Distributed Generation and Load Amount of DG installed (kW): Energy generated (kWh): Peak energy generated (kWh): Fuel type:	Displacement Programs:		
<u> </u>	Other Programs (specify): Metric (specify):		Penerting Voor	Cumulativa Life to Dete
D.	Utility direct costs (\$):	Incremental capital: Incremental O&M: Incentive: Total:	\$ 121.30	\$ 121.30

E. Assumptions & Comments:

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

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

A. Name of the Program:

System Optimization

CDM-400

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

Please see 2006 CDM Report (page 16) for additional description of this Program. The objective of this portion of OPUCN's plan is to be able to identify the major causes of losses on OPUCN's distribution feeders. This first involves a high level analysis of losses from distribution lines and transformers, and estimation of the percentage contribution of each to the total system losses. This information will be used to develop a loss reduction strategy. A further objective would be to identify specific opportunities for loss mitigation on the distribution systems. Detailed feeder modeling would be required to assess the financial impact of particular mitigation techniques on individual feeders. This work would establish areas where implementation of loss reduction techniques could be cost justified.

The overall intent of the study would be to illustrate where cost savings would be available and the methodology by which savings could be achieved. The loss reduction techniques that

could be applied most easily by the utility to achieve the greatest return with the least investment in time or equipment would be determined.

Target users: The Distribution system

В.

C.

Benefits: A reduction is energy losses within the distribution system. Evaluation: To soon to do so.

Measure(s):	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicab	ole)
Base case technology:				
Efficient technology:				
delivered for reporting year:				
Measure life (vears):				
0				
Number of Partipants or unites				
delievered lfe to date				
TRC Results:		Reporting Year	Life-to-date TRC Resu	ults:
¹ TRC Benefits (\$):				
² TRC Costs (\$):				
Utility µ	program cost (excluding incentives):	\$ -		\$ 35.54
Incremental	Measure Costs (Equipment Costs)			
	Total TRC costs:	\$ -	\$	35.54
Net TRC (in year CDN \$):				
Benefit to Cost Ratio (TRC Benefits/	TRC Costs):			
Results: (one or more category may	apply)		Cumulative Results	<u>s:</u>
Conservation Programs:				
Demand savings (kW):	Summer			
	Winter			
				Cumulativ
	life evidio	in voor	Cumulative Lifecycle	e Annual Savings
Energy saved (kWh):	mecycle	in year		Gavings
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	5):			
Power Factor Correction Programs	<u>.</u>			
Distribution system power factor of h	paining of year (%).			
Distribution system power factor at el	nd of vear (%).			
Line Loss Reduction Programs:				
Peak load savings (kW):	116 1 -			
Enorgy sounds (kM/h);	litecycle	in year		
Energy savings (KWN):				

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:		Reporting Year	Cumlative Life to Date	
	Utility direct costs (\$):	Incremental capital:			
		Incremental O&M:	\$ -	\$	35.54
		Incentive:			
		Total:	\$ -	\$	35.54
	Utility indirect costs (\$):	Incremental capital:			
		Incremental O&M:			
		Total:			

Ε. Assumptions & Comments:

(complete this Appendix for each program)

A.	Name of the Program:	CDM Web Infrastructure	CDM-40	1&CDM-402	
	Description of the program (inclu	ding intent, design, delivery, pa	rtnerships and evaluation):		
	Set up of CDM Web infrastructure (c	one time fee). Software Design.	· ·		
	 /)				
	Measure(s):	Measure 1	Measure 2 (if applicable)	Measure 3	(if applicable)
	Base case technology: Efficient technology:				
	Number of participants or units				
	Measure life (years):				
	Number of Partipants or unites				
	delievered lfe to date				
В.	TRC Results:		Reporting Year	Life-to-date	TRC Results:
:	² TRC Benefits (\$): ² TRC Costs (\$):				
	Utility	program cost (excluding incentives):	\$-		\$ 273.93
	Incrementa	Total TRC costs:	\$-	\$	273.93
	Net TRC (in year CDN \$):				
	Benefit to Cost Ratio (TRC Benefits/	/TRC Costs):			
C.	Results: (one or more category may	/ apply)		<u>Cumulati</u>	ve Results:
	Conservation Programs:	Summer			
	Demand savings (kw).	Winter			
				Cumulative	Cumulative
	Energy sayed (kWh):	lifecycle	in year	Lifecycle	Annual Savings
	Other resources saved :				
	Natural Gas (m3): Other (specify):				
	Demand Management Programs:				
	Controlled load (kW)	(44/b)			
	Energy shifted On-peak to Off-peak Energy shifted On-peak to Off-peak	(kWh):			
	Energy shifted Mid-peak to Off-peak	: (kWh):			
	Demand Response Programs:				
	Peak hours dispatched in year (hour	rs):			
	Power Factor Correction Program	<u>s:</u>			
	Amount of KVar installed (KVar): Distribution system power factor at l	pegining of year (%):			
	Distribution system power factor at e	end of year (%):			
	Line Loss Reduction Programs:				
	Peak load savings (kW):	lifecycle	in year		
	Energy savngs (kWh):		-		
	Distributed Generation and Load Amount of DG installed (kW)	Displacement Programs:			
	Energy generated (kWh):				
	Feak energy generated (kwh): Fuel type:				
	Other Programs (specify):				
_	Metric (specify):				
D.	Actual Program Costs:		Reporting Year	Cumlative	Life to Date

Utility direct costs (\$):	Incremental capital:	\$ -	\$ 273.9	93
	Incremental O&M:	\$ -		
	Incentive:			
	Total:	\$ -	\$ 273.9	93
Utility indirect costs (\$):	Incremental capital:			
	Incremental O&M:			
	Total:			

E. Assumptions & Comments:

(complete this Appendix for each program)

Α.	Name of the Program:	Total Resource Cost Tool for OE	B Reporting	CDM-403						
	Description of the program (including intent, design, delivery, partnerships and evaluation):									
	TRC tool for calculation of data to appease OEB reporting for CDM projects									
	Maggura(a)									
	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 Partipants or unites delievered lfe to date									
В.	TRC Results:		Reporting Year	Life-to-date	TRC Results:					
1	¹ TRC Benefits (\$): ² TRC Costs (\$):									
	Utility	program cost (excluding incentives):	\$-		\$ 4.75					
	Incrementa	al Measure Costs (Equipment Costs)								
	Net TRC (in year CDN \$):	Total TRC costs:	\$-	\$	4.75					
	Panafit to Cost Patia (TPC Panafita)	(TPC Conto):								
C.	Results: (one or more category may apply) Cumulative Results:									
	Conservation Programs:	0								
	Demand savings (kw):	Summer Winter								
		lifecycle	in vear	Cumulative Lifecvcle	Cumulative Annual Savings					
	Energy saved (kWh):	mooyoro	in your		j.					
	Other resources saved :									
	Natural Gas (m3): Other (specify):									
	Demand Management Programs:									
	Controlled load (kW)									
	Energy shifted On-peak to Mid-peak	(<i>kWh</i>):								
	Energy snifted Un-peak to Off-peak Energy shifted Mid-peak to Off-peak	(KWh): ((kWh):								
	Demand Response Programs									
	Dispatchable load (kW):									
	Peak hours dispatched in year (hour	rs):								
	Power Factor Correction Program	<u>s:</u>								
	Amount of KVar installed (KVar):									
	Distribution system power factor at a Distribution system power factor at a	egining of year (%): end of year (%):								
	Line Loss Reduction Programs:									
	Peak load savings (kW):									
	- ""	lifecycle	in year							
	Energy savngs (kWh):									
	Distributed Generation and Load I Amount of DG installed (kW).	Displacement Programs:								
	Energy generated (kWh):									
	Peak energy generated (kWh): Fuel type:									
	Other Brograms (and the b									
	Other Programs (specify): Metric (specify):									
			Demention Mann	- 0						

Utility direct costs (\$):	Incremental capital:	\$ -	\$ 4.75
	Incremental O&M:		
	Incentive:		
	Total:	\$ -	\$ 4.75
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

Assumptions & Comments: Ε.

(complete this Appendix for each program)

A. Name of the Program:

Consulting CDM Reporting CDM 510

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

Measure(s):						
	Measure 1		Measure 2 (if applicable)	Measure 3	(if applie	cable)
Base case technology:						
Efficient technology:						
Number of participants or units						
delivered for reporting year:						
Measure me (years).						
Number of Partipants or unites						
delievered Ife to date						
			Departing Veer		TROP	
1 TPC Benefits (\$):			Reporting fear	Life-to-date	IRC RE	suits:
2 TRC Costs (\$):						
Utility p	roaram cost (excluding incentives):	\$	<u>.</u>		\$	36.5
Incremental	Measure Costs (Equipment Costs)	Ψ	- 		Ψ	00.0
	Total TRC costs:	\$	-	\$		36.5
Net TRC (in year CDN \$):		Ŷ		¥		00.0
Benefit to Cost Ratio (TRC Benefits/	TRC Costs):					
Results: (one or more category may apply)				<u>Cumulati</u>	ve Resu	<u>ults:</u>
Conservation Programs:						
Demand savings (kW):	Summer					
	Winter					
				Cumulative	Cumul	ative
	lifecycle		in year	Lifecycle	Annua	I Saving
Energy saved (kWh):						
Other resources saved :						
Natural Gas (m3):						
Other (specity):						
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 (hour	s):					
Power Factor Correction Program	s:					
Amount of KVar installed (KVar)	<u></u>					
Distribution system power factor at h	egining of year (%):					
Distribution system power factor at e	end of year (%):					
Line Lees Deduction Decompose						

	Peak load savings (kW):				
		lifecycle	in year		
	Peak load savings (kW): Energy savngs (kWh): Distributed Generation and Load Disg Amount of DG installed (kW): Energy generated (kWh): Peak energy generated (kWh): Fuel type: Other Programs (specify): Metric (specify):				
	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:		Reporting Year	Cumlative Life to I	Date
	Utility direct costs (\$):	Incremental capital:	\$ -	\$	8.94
		Incremental O&M:		\$	33.01
		Incentive:			
		Total:	\$ -	\$	41.94
	Utility indirect costs (\$):	Incremental capital:			
		Incremental O&M:			
		Total:			

E. Assumptions & Comments:

(complete this Appendix for each program)

A. Name of the Program:

UOIT Energy Usage Study CDM 900

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

CFL Giveaway - includes Fall Home Show, The Green Show, Peaksaver Launch, Kiwanis Club, Probus Club, Community Presentations,

Measure	s):
---------	---	----

		Measure 1	Me	easure 2 (if applicable)	Measure 3	(if applic	able)
	Base case technology:	60W Incandescent					
	Efficient technology:	CFL Screw-In 15W					
	Number of participants or units						
	delivered for reporting year:	1018	3				
	Measure life (years):	4	1				
	Number of Partipants or unites						
	delievered lfe to date						
В.	TRC Results:			Reporting Year	Life-to-date	TRC Re	sults:
1	TRC Benefits (\$)		\$				22.9
2	TRC Costs (\$):						
	Litility r	program cost (excluding incentives):	¢	30.00		¢	00.00
	lacromonto	Maagura Casta (Equipment Casta)	φ	30.00		φ	90.00
	Incremental						
		Total TRC costs.	· \$	30.00	\$		90.00
	Net TRC (in year CDN \$):						0.25
	Report to Cost Potio (TRC Reportion	(TPC Conto);					
	Benefit to Cost Ratio (TRC Benefits/	TRC Costs):					
C.	Results: (one or more category may	v apply)			Cumulati	ve Resu	lts:
-		5 - 11 37					
	Conservation Programs:						
	Demand savings (kW):	Summer	21				
	0 ()	Winter					
		Winter					
					Cumulative	Cumula	ative
		life evelo		invoor	Lifecycle	Annual	Savinas
			05054	iii yeai		470055	
	Energy saved (kvvn):	382604	95651		41444	4/8255)
	Other resources saved :						
	Natural Gas (m3):						
	Other (specify):						
	- III / -						
	Demand Management Programs:						
	Controlled load (kW)						
	Energy shifted On-peak to Mid-peak	k (kWh):					
	Energy shifted On-peak to Off-peak	(kWh):					
	Energy shifted Mid-peak to Off-peak	k (kWh):					
	Demand Response Programs:						
	Dispatchable load (kW):						
	Peak hours dispatched in year (hour	rs):					
	Power Factor Correction Program						
	Amount of K) (or installed (K) (c)	15.					
	Amount of Kvar Installed (KVar):						
	Distribution system power factor at b	heaining of year (%)					
	2. canballeri eyeteri perior labter at a						

Line Loss Reduction Programs:

lifecycle in year Energy savngs (kWh):		Peak load savings (kW):			
Energy savings (kWh): Distributed Generation and Load Displacement Programs: Armount of DG installed (kW): Energy generated (kWh): Energy generated (kWh): Fuel type: Other Programs (specify): Image: Constance of the second of the			lifecycle	in year	
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: 30.00 Incremental O&M: Total: 30.00 Vtility indirect costs (\$): Incremental capital: Incremental O&M: 90.00 Incremental O&M: 90.00 Incremental O&M: 100 Total: 100		Energy savngs (kWh):			
Amount of DG installed (kW): Energy generated (kWh): Energy generated (kWh): Peak energy generated (kWh): Fuel type: Tube: Other Programs (specify): Metric (specify): D. Actual Program Costs: Utility direct costs (\$): Incremental capital: Incremental 0&M: \$ 30.00 Incremental Capital: 1000000000000000000000000000000000000		Distributed Generation and Load	Displacement Programs:		
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: Total: Incremental Capital: Incremental Capital: Incremental O&M: Total: Incremental Capital: Incremental Capital: In		Amount of DG installed (kW):			
Peak energy generated (kWh): Fuel type: Other Programs (specify): Reporting Year Cumlative Life to Date D. Actual Program Costs: Incremental capital: Utility direct costs (\$): Incremental capital: Incremental O&M: \$ 30.00 \$ 90.00 Incentive: Total: Utility indirect costs (\$): Incremental capital: Incremental O&M: \$ 30.00 \$ 90.00 Incremental O&M: Incremental capital: Incremental O&M: Incremental capital: Incremental O&M: Total: Incremental O&M: Incremental O&M: Incre		Energy generated (kWh):			
Fuel type: Other Programs (specify): Metric (specify): Incremental capital: D. Actual Program Costs: Incremental capital: Utility direct costs (\$): Incremental capital: Cumlative Life to Date Incremental O&M: \$ 30.00 90.00 Incremental Capital: Incremental Capital: 90.00 Utility indirect costs (\$): Incremental capital: 90.00 Utility indirect costs (\$): Incremental capital: 1000000000000000000000000000000000000		Peak energy generated (kWh):			
Other Programs (specify): Metric (specify): Reporting Year Cumlative Life to Date D. Actual Program Costs: Utility direct costs (\$): Incremental capital: Incremental O&M: Total: 1 Utility indirect costs (\$): Incremental capital: Incremental O&M: Incremental Capital: Incremental Capital: Incremental O&M: Total: 1		Fuel type:			
Metric (specify): Reporting Year Cumlative Life to Date D. Actual Program Costs: Utility direct costs (\$): Incremental capital: Incremental O&M: Incentive: Total: Incremental capital: Incremental O&M: Incremental capital: Incremental Capital: Incremental O&M: Total: Incremental capital: Incremental O&M: Incremental O&M: Incremental O&M: Incremental O&M: Incremental O&M: Incremental O&M: Total: Incremental capital: Incremental O&M: Incremental O		Other Programs (specify):			
Actual Program Costs: Incremental capital: Reporting Year Cumlative Life to Date Utility direct costs (\$): Incremental capital: Incremental Capital: Incremental Capital: Incremental O&M: \$ 30.00 \$ 90.00 Incremental Capital: Incremental Capital: Incremental Capital: Incremental Capital: Utility indirect costs (\$): Incremental Capital: Incremental Capital: Incremental Capital: Utility indirect costs (\$): Incremental Capital: Incremental Capital: Incremental Capital: Incremental O&M: Incremental O&M: Incremental O&M: Incremental O&M: Total: Total: Incremental O&M: Incremental O&M:		Metric (specify):			
Utility direct costs (\$): Incremental capital: Incremental 0&M: \$ 30.00 \$ 90.00 Incentive: Total: \$ 30.00 \$ 90.00 Utility indirect costs (\$): Incremental capital: \$ 90.00 Utility indirect costs (\$): Incremental capital: Incremental capital: Incremental 0&M: Incremental 0&M: Incremental 0&M: Incremental 0&M: Incremental 0&M: Incremental 0&M: <td></td> <td></td> <td></td> <td></td> <td></td>					
Incremental O&M: \$ 30.00 90.00 Incentive:	D.	Actual Program Costs:		Reporting Year	Cumlative Life to Date
Incentive: Incentive: Total: \$30.00 Utility indirect costs (\$): Incremental capital: Incremental O&M: Incremental O&M: Total: Incremental O&M: Total: Incremental O&M:	D.	Actual Program Costs: Utility direct costs (\$):	Incremental capital:	Reporting Year	Cumlative Life to Date
Total: \$ 30.00 \$ 90.00 Utility indirect costs (\$): Incremental capital: Incremental capital: Incremental capital: Incremental O&M: Incremental Capital: Incremental Capital: Total: Incremental Capital: Incremental Capital:	D.	<u>Actual Program Costs:</u> Utility direct costs (\$):	Incremental capital: Incremental O&M:	Reporting Year \$ 30.00	Cumlative Life to Date
Utility indirect costs (\$): Incremental capital: Incremental O&M: Incremental O&M: Total: Incremental O&M:	D.	<u>Actual Program Costs:</u> Utility direct costs (\$):	Incremental capital: Incremental O&M: Incentive:	Reporting Year \$ 30.00	Cumlative Life to Date 0 \$ 90.00
Utility indirect costs (\$): Incremental capital: Incremental O&M: Incremental O&M: Total: Total:	D.	<u>Actual Program Costs:</u> Utility direct costs (\$):	Incremental capital: Incremental O&M: Incentive: Total:	Reporting Year \$ 30.00 \$ 30.00	Cumlative Life to Date 0 \$ 90.00 0 \$ 90.00
Incremental O&M: Total:	D.	<u>Actual Program Costs:</u> Utility direct costs (\$):	Incremental capital: Incremental O&M: Incentive: Total:	Reporting Year \$ 30.00 \$ 30.00	Cumlative Life to Date 0 \$ 90.00 0 \$ 90.00
Total:	D.	Actual Program Costs: Utility direct costs (\$): Utility indirect costs (\$):	Incremental capital: Incremental O&M: Incentive: Total: Incremental capital:	Reporting Year \$ 30.00 \$ 30.00	Cumlative Life to Date 0 \$ 90.00 0 \$ 90.00
	D.	Actual Program Costs: Utility direct costs (\$): Utility indirect costs (\$):	Incremental capital: Incremental O&M: Incentive: Total: Incremental capital: Incremental O&M:	Reporting Year \$ 30.00 \$ 30.00	Cumlative Life to Date 0 \$ 90.00 3 90.00

E. Assumptions & Comments:

Appendix C - Program and Portfolio Totals

Tetel Deels

Dem

Report Year:

2008

<u>1. Residential Programs</u>

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 Ben (PV)	efits	TRC Costs (PV) \$	§ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Demand (kW) Saved	Gross C&D	ar)M s (\$)
Library Watt Reader Program - CFL (\$	3	\$	- :	\$3	0.00	13,416	53,664	3	\$	-
Every Kilowatt Counts (Spring)	\$	-	\$	- :	\$-	0.00	0	0	0	\$	-
Every Kilowatt Counts (Fall)	\$	-	\$	- :	\$-	0.00	0	0	0	\$	-
Residential - Establish Baselines and	\$	-	\$	1 -:	\$1	0.00				\$	1
Replace Bulk with Individual Meters 1	\$	-	\$	- :	\$-	0.00	0	0	0	\$	-
5 and 50 Points Pilot Project	\$	-	\$ 2	2 -	\$2	0.00				\$	2
System Prototype & Pilot	\$	-	\$	- :	\$-	0.00				\$	-
Customer Satisfaction Survey	\$	-	\$	- :	\$-	0.00				\$	-
Water Heater DSM Id.	\$	-	\$	- :	\$-	0.00				\$	-
Smart Meter Pilot	\$	-	\$ 76	3 -	\$ 76	0.00				\$	76
Smart Meter Operations Fee	\$	-	\$ 5	5 -9	\$5	0.00				\$	5
Education CDM Spending (Media)	\$	-	\$ 25	5 -9	\$ 25	0.00	0	0	0	\$	25
Generation Conservation	\$	-	\$	- :	\$-	0.00				\$	-
School Pilot CFL	\$	-	\$	- :	\$-	0.00		3,745,880	30	\$	1
UIOT Energy Usage Study and CFL	\$	-	\$	- :	\$-	0.00		382,604	21		90
Consulting CDM Reporting			\$	- :	\$ 23	90.00				\$	2
*Totals App. B - Residential	\$	3	\$ 109	9 -:	\$ 106	0.03	13,416	4,182,148	54	\$	202
Residential Indirect Costs not attributable to any specific program			\$	-							
Total Residential TRC Costs			\$ 10	9							
**Totals TRC - Residential	\$	3	\$ 109	9 -:	\$ 106	0.03					

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	TDO 0 ((D)))		Benefit/Cost	Report Year Total	Lifecycle (kWh)	Total Peak Demand (kW)	Report Year Gross C&DM
	(PV)	TRC Costs (PV)	\$ Net TRC Benefits	Ratio	kwh Saved	Savings	Saved	Expenditures (\$)
Christmas Lighting Retrofit	\$ -	\$-	\$-	0.00	0	0	0	\$-
Com/Ind. System Prototype & Pilot	\$-	\$-	\$-	0.00				\$-
HVAC Upgrade			\$-	0.00				
Name of Program D			\$-	0.00				
Name of Program E			\$-	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.

							Total Peak	Report Year
	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Demand (kW) Saved	Gross C&DM Expenditures (\$)
Non profit Retrofit Project	\$-	\$-	\$-	0.00	0	0	36	\$ 41
Name of Program B			\$-	0.00				
Name of Program C			\$-	0.00				
Name of Program D			\$-	0.00				
Name of Program E			\$-	0.00				
Name of Program C			\$-	0.00				
Name of Program G			\$-	0.00				
Name of Program H			\$-	0.00				
Name of Program I			\$-	0.00				
Name of Program J			\$ -	0.00				
*Totals App. B - Institutional	\$-	\$-	\$-	0.00	0	0	36	\$ 41
Institutional Indirect Costs not attributable to any specific program								
Total TRC Costs		\$-						
**Totals TRC - Institutional	\$ -	\$ -	\$ -	0.00				

4. Industrial Programs

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

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

	TRC Benefits			Benefit/Cost	Report Year Total	Lifecycle (kWh)	Total Peak Demand (kW)	Report Year Gross C&DM
	(PV)	TRC Costs (PV)	\$ Net TRC Benefits	Ratio	kWh Saved	Savings	Saved	Expenditures (\$)
Transitional Demand Response Prog	\$ -	\$-	\$-	0.00				\$ 3
Name of Program C			\$-	0.00				
Name of Program C			\$-	0.00				

Name of Program D			\$-	0.00				
Name of Program E			\$ -	0.00				
Name of Program F			\$ -	0.00				
Name of Program G			\$ -	0.00				
Name of Program H			\$ -	0.00				
Name of Program I			\$ -	0.00				
Name of Program J			\$ -	0.00				
*Totals App. B - Industrial	\$-	\$-	\$ -	0.00	0	0	0	\$ 3
Industrial Indirect Costs not attributable to any specific program								
Total TRC Costs		\$-			_			
**Totals TRC - Industrial	\$ -	\$ -	\$ -	0.00				

5. Agricultural Programs

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

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

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

6. LDC System Programs

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

	, p							Total Peak	Report Year
	TRC Benefits				Benefit/Cost	Report Year Total	Lifecycle (kWh)	Demand (kW)	Gross C&DM
	(PV)	TRC Costs	5 (PV)	\$ Net TRC Benefits	Ratio	kWh Saved	Savings	Saved	Expenditures (\$)
System Opt/ Loss Analysis - Consulte	\$-	\$	43	-\$ 43	0.00				\$ 43

Sys Opt/ CDM Web Infrastructure	\$ - \$	120 -\$	120	0.00		\$	120

**Totals TRC - LDC System	\$ -	\$ 163	-\$	163	0.00				
Total TRC Costs		\$ 163							
LDC System Indirect Costs not attributable to any specific program	 →								
*Totals App. B - LDC System	\$ -	\$ 163	-\$	163	0.00	0	0	0	\$ 163
Name of Program C			\$	-	0.00				
Name of Program I			\$	-	0.00				
Name of Program H			\$	-	0.00				
Name of Program G			\$	-	0.00				
Name of Program F			\$	-	0.00				
Name of Program E			\$	-	0.00				
Name of Program D			\$	-	0.00				
Name of Program C			\$	-	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.

	TPC Bonofits			Bonofit/Cost	Poport Voar Total	Lifocyclo (kWb)	Total Peak	Report Year
	(PV)	TRC Costs (PV)	\$ Net TRC Benefits	Ratio	kWh Saved	Savings	Saved	Expenditures (\$)
Total Resource Cost Tool for OEB Re	\$-	\$-	\$-	0.00				\$-
Name of Program B			\$-	0.00				
Name of Program C			\$-	0.00				
Name of Program D			\$-	0.00				
Name of Program E			\$-	0.00				
Name of Program F			\$-	0.00				
Name of Program G			\$-	0.00				
Name of Program H			\$-	0.00				
Name of Program I			\$-	0.00				
Name of Program J			\$ -	0.00				
*Totals App. B - Other #1	\$-	\$-	\$-	0.00	0	0	0	\$-
Other #1 Indirect Costs not attributable to any specific program								
Total TRC Costs		\$-						
**Totals TRC - Other #1	\$ -	\$ -	\$ -	0.00				

9. Other #2 Programs List each Appendix B in the cells below; Insert additional rows as required. Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

	TPC Bonofite			Bonofit/Cost	Poport Voor Total	Lifocyclo (kWb)	Total Peak	Report Year
	(PV)	TRC Costs (PV)	\$ Net TRC Benefits	Ratio	kWh Saved	Savings	Saved	Expenditures (\$)
Name of Program A			\$ -	0.00				
Name of Program B			\$-	0.00				
Name of Program C			\$-	0.00				
Name of Program D			\$-	0.00				
Name of Program E			\$-	0.00				
Name of Program C			\$-	0.00				
Name of Program G			\$-	0.00				
Name of Program H			\$-	0.00				
Name of Program I			\$-	0.00				
Name of Program J			\$ -	0.00				
*Totals App. B - Other #2	\$-	\$-	\$ -	0.00	0	0	0	\$-
Other #2 Indirect Costs not attributable to any specific program								
Total TRC Costs		\$-						
**Totals TRC - Other #2	\$ -	\$ -	\$ -	0.00				

LDC's CDM PORTFOLIO TOTALS

	TI	RC Benefits (PV)	TRC Costs (PV)		\$ Net TRC Benefits		Benefit/Cost Ratio		Report Year Total kWh Saved		Lifecycle (kWh) Savings		Total Peak Demand (kW) Saved		Report Year Gross C&DM Expenditures (\$)	
*TOTALS FOR ALL APPENDIX B	\$	3	\$	272	-\$	269	0.01	\$	13,416	\$	4,182,148	\$	90	\$		409
Any <u>other</u> Indirect Costs not attributable to any specific program			\$	-												
TOTAL ALL LDC COSTS	¢	0	\$	272	¢	000	0.01									
	\$	3	\$	272	-⊅	269	0.01									

* 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.