Oshawa PUC Networks Inc.
ED-2002-0560

CDM Third Tranche Funding

2006 Annual Report

March 31 2007

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 1, 2007 the Board issued an updated guideline on CDM reporting, this report has been prepared in accordance with those guidelines.

OPUCN serves more than 46,089 residential, 4,277, commercial and 537 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 2006.

OPUCN's Conservation and Demand Management plan was designed to identify, alter, and measure reductions in consumption and demand for all customer classifications. Our second year of work includes the continuation of 2005 programs and the addition of some new for 2006. This report details our progress to the end of 2006 and provides some insight into programs in 2007.

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, 2006.

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 2006 was related to the continuance of programs from 2005. One such program is the UOIT residential electrical usage baseline study that will conclude in 2008. This will help us design ‘best fit” CDM programs for our residential customers.

We have made solid strides in the area of customer education with our radio awareness program and our 36 minutes of “Watt Wise“ energy tips on Roger’s Television. For the first time since the early 90’s we reached out to the young minds of grade five students with the “Generation Conservation” Education Pilot a program to teach students about energy and the value of conserving it. This project was funded in partnership with Whitby Hydro and Veridian Connections.

We produced measurable energy reductions through the promotion of Compact Fluorescent Bulbs, LED Christmas Lighting, and non-profit housing energy retrofits. Our progress to date has generated 1.3 million dollars in TRC, savings of 2.9 million kWh annually and a demand reduction of 1.028 mega watts.

We look forward to continued improvements in all areas for 2007 along with new focuses on commercial load management, education, and the proposed Ontario Power Authority programs.

3. Discussion of the Programs

3.1 Residential Customers

Establishing Baselines and Measuring Impacts

Program Description
In order to provide greater return on our CDM investment, we continue our quest to create targeted programs by studying energy usage patterns over a wide variety of residential customers. Partnering with the University of Ontario Institute of Technology (UOIT) this baseline study will examine, analyze, and conclude valuable information about energy consumption habits based on several criteria that can benefit CDM not only for today, but for years to come.

Discussion of 2006 Activities

Actions
- Another 300 potential smart meter locations were selected based on criteria such as income level, type of heating, age, and size of houses in 20 different categories.
- 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 technology was installed on participating residences to capture energy usage on an hourly basis in order to fully comprehend consumer usage patterns. This data will be collected and analyzed for a two-year period.
- Two compact fluorescent light bulbs (CFLs) will be given to each household as an incentive for their participation in the study. Once provided this will facilitate savings of almost 249,600 kWh.
- 87 Energuide energy audits were scheduled 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 utility to establish a baseline that reflects Oshawa's customers' consumption patterns and work towards a custom fit solution for the energy efficiency programs we wish to provide.

Results to Date
- A preliminary study on the first 50 households is now complete.
- An Interim Report analyzing the data has been finalized.
- Certain trends have been recognized from the preliminary study. The ongoing data will confirm these trends.
- To date190 (of 300) have agreed to the study.

- 40 of 87 home energy audits are complete.
- Smart meters have been installed.

Next Steps
- Continue our progress and achieve another 110 accepted residences for the study.
- Sustain our partnership with the University of Ontario Institute of Technology and the Ontario Centre of Excellence for continued results.

Customer Awareness and Education

Program Description
- OPUCN continues to use several forms of media to promote more efficient use of electricity within and beyond its own service area. In 2006 we have seen major advances in this category including the success of the Every Kilowatt Counts Campaign, the launch of the educational pilot "Generation Conservation", the creation and airing of energy conservation tips on Roger's Television, our continued efforts with flyers and inserts, and the media exposure we have achieved on these projects.

Target
- All residential and business customers in the City of Oshawa

Benefits
- Raises awareness and perpetuates the need to reduce electricity consumption through wise use and more efficient technologies and to reduce demand during peak periods. Part of the program was also used to dispel misconceptions about electrical usage.

Discussion of 2006 Activities

Actions
- Participated in the Every Kilowatt Counts campaign and provided direct mailing addresses for coupon booklets to 50,000 customers.
- Took a lead role in the development and delivery of "Generation Conservation" an energy education pilot program. This was done in a partnership with Whitby Hydro and Veridian Connections. The pilot delivered science, math and reading exercises all geared at conservation of electricity to over 400 students in 16 schools from both the public and separate Boards of Education. The program was a curriculum based pilot giving our youth education, knowledge, and tools, to become Generation C – a generation of dedicated energy conservers.
- Designed and delivered a Watt Reader lending program jointly with the Oshawa Public Libraries that allows customers to borrow Watt Readers – free of charge. Watt Readers empower the customer with real time knowledge and the ability to target electricity costs within the home and adjust their consumption accordingly.
- Wrote, produced, and aired 12 energy saving video tips on Rogers Television. These are two minute segments each targeting specific areas of residential dwellings to educate customers in several areas of energy conservation.
- Distributed in our bills a "Winter Lights" promotional flyer. This pamphlet promoted energy conservation and the benefits of Seasonal LED lights. Several energy saving tips were

included. A cost effective collaboration with the City of Oshawa that included information on their Winter Lights Celebrations.
- Published a customer newsletter that was delivered twice last year with a focus on saving energy.
- Promoted OPUC Website specifically in the energy conservation category.

Results to Date

- With the Every Kilowatt Counts campaign, OPUCN was the leader in coupon redemption when compared to shouldering utilities.

Total number of redeemed coupons (including the Spring and Fall Campaign):

Ajax	10,055
Oshawa	**18,711**
Whitby	13,927
Courtice	14
Pickering	6,361

- The launch of Generation Conservation was a huge success. Peter Love, Chief Conservation Officer from the Conservation Bureau spoke passionately about his belief in this program and its impact for the future. All local media were present. Generation Conservation will deploy to the grade five students in Durham Region this fall but we hope the model will be adopted province-wide. OPUCN's was proud to bring our neighbouring Utilities together and develop this program.
- There have been 133 watt readers borrowed from Oshawa libraries since the launch of the program in November 2006. Local media were present to witness the launch and Oshawa's Mayor John Gray signed out the first Watt Reader. Program interest continues strong.
- Upon the watt readers return library patrons receive a free CFL. We had provided 133 complimentary CFLs to the end of 2006.
- Rogers Television was so pleased with the quality of our 12 Energy Saving Tips that they generously aired the tips several times more than originally agreed. A few of the energy savings tips can be viewed on our website at http://www.opuc.on.ca/conservation/conservation-commercials/.
- Received an award of recognition for our assistance in the Winter Lights program for promoting LED Christmas lights and general winter energy savings tips.

Next Steps

- The momentum of Generation Conservation continues to grow strong and receive additional support. It is slated for full deployment into all grade five classes in the Region of Durham public and separate schools in the fall of 2007.
- A pilot program called "Conservation Through Education" will be launched on earth day in five Oshawa schools. This pilot is designed to replace chocolate bars with CFLs in their fundraisers and to promote energy awareness. Local principals have showed great enthusiasm and want this to be an ongoing fundraiser. Zapper, our mascot will introduce the program to young students.
- The library watt reader program will continue with the addition of energy seminars.

- We look forward to continuing to leverage our relationship with the local media. They have been most supportive over the past year.
- We will continue to investigate the merits of being aligned with the “POWERWISE” branding that Ontario Government recently adopted.

Residential 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.

Target

- All "Not for Profit" housing in the City of Oshawa

Benefit

- 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.

Discussion of 2006 Activities

Action

- 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

- Identify further opportunities to assist energy reduction.
- Leverage the OPA's Business Incentive Program in the upcoming year that will allow us to continue energy conservation for additional non-profit housing projects.
- Watch to see if the OPA Conservation fund makes additional money available for this sector.

Co-Branding

Program Description

- The powerWISE™ co-branding program was originally designed to become the 'top of mind" brand for energy efficient products and programs in Ontario. Although an agreement was reached with the former owner of the brand and the Ontario Power Authority to licence its right of use there has no further information regarding its use.

Target

- All consumers in the Oshawa area.

Benefit

- A Single recognizable branding for Ontarians.

Discussion of 2006 Activities

Action

- OPUCN has signed up for the initial stages to become an affiliate member. Early indication suggested the powerWISE™ branding would be available to OPUCN in March 2007. At the time of this report, there is no available date set when this brand sharing will take place.
- Keeping with the co-branding promotions, OPUCN partnered with the Conservation Bureau and participated in a seasonal LED light exchange. With local media present, Oshawa customers brought in a string of Christmas lights and exchanged them – for free – for a string of energy-saving LED lights. This program was launched at a local retail location.

Results to Date

- Generally the powerWISE™ brand has gained recognition and the large media exposure has helped it keep its momentum. The brand is recognizable for many now but needs to be released for all to use under license in Ontario.

Next Steps

- Once the branding of powerWISE™ becomes available to OPUCN, we will be evaluating the costs involved. The primary concern is how the cost of media purchases will be allocated to the powerWISE™ affiliates.

Smart Meter Residential

Program Description

- OPUCN actively supports the Minister of Energy's directive for the installation of 800,000 Smart Meters across Ontario by 2007. Keeping with this mandate, a study including an additional 300 Smart Meters was slated for 2006. It is important to understand which of the advancing communications technology is most efficient in order to effectively expand the Smart Meters citywide.
- Two pilot programs for residential "Smart" meters are already in place to enable the assessment of metering, communications, settlement, load control and other technologies used to accommodate the universal application of "Smart" meters. This also provides customers participating in the pilot programs with an incentive to conserve or shift energy use.
- As an element of the joint effort with the University of Ontario Institute Of Technology, the additional 300 Smart Meters play a key role in the execution of this study.

Target

- Residential Homes

Benefit

- This effort is designed to test technology that will assist the government in meeting its goal of 800,000 "Smart meters" installed by the end of 2007.

Discussion of 2006 Activities

Action

- Monitored and expanded existing Smart meter locations to assist in data acquisition for University of Ontario Institute of Technology residential energy use study.
- Participated as an active member in the Ontario Utility Smart Metering (O.U.S.M.) working group to share our results with utilities across the province.

Results to Date

- Meter functionality has been encouraging and meter testing continues.

Next Steps

- Complete the install of 300 Smart meters in the City to continue the test the technology.

Harris CDM Customer Module

Description

- In late 2006 Oshawa added the Harris CDM customer care module to its billing system and has made it available to customers. This software allows customers to look at their billing data on line and make choices of energy retro fits in the home and see the cumulative results.

Results to Date

- The module has only been in service three months and has not been widely advertised until it has been thoroughly tested by staff.

Next Steps

- We plan to introduce module to more customers in the first half of 2007. We will do this through our own website, mailings and seminars.
- We will monitor the "hits" to this portion of the customer platform and customer feed back. In future we may compare consumptions to see if actual reductions have resulted from the customer's changes.

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 by the I.E.S.O. This was a two-year pilot, directed at customers who can reduce demand when notified.

Target

- This program is 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.

Discussion of 2006 Activities

Action

- 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 2006 there was less of a system loading issue.

Results to Date

- There were 1282 notifications to customers to drop load from the system
- There were 8 customer responses to this request
- A total of 88,000 kWh were removed from the system in 2006.

Next Steps

- The TDRP program winds up in April of 2007.
- We are reviewing what program(s) might provide viable alternatives to TDRP. OPUCN continues to have interest in Commercial and Industrial load control and we look forward to offering this to our customer base.

LED Street 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 longevity and energy saving qualities.

Target

- The initial target is intersections that will provide the highest level of return on investment (ie the largest energy reduction per intersection).

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.

Action

- OPUCN and the City of Oshawa have agreed on a funding formula of one third of the costs to a maximum of $25,000 to retrofit 8 intersections with LED technology.

Results to Date

- City counsel is currently finalizing their 2007 budget and this project will go forth once these details are established.

Next Steps

- Begin installations in mid summer of 2007.

Multi Unit Residential Bulk Meter Conversion

Program Description

- Switch multi rental units from a bulk metering style to individual metering units.

Target

- Pilot One Bulk Metered Residential Apartment Complex.

Benefits

- Studies have shown that switching from bulk metering to individual metering generates an energy savings between 15% and 25% for non-electrical heated buildings and over 30% in electrically heated buildings
- By enabling residents to track their consumption and take advantage of possible price differences, choices of energy conservation or shifting their electricity use to off peak hours becomes beneficial.

Action

- 155 Colborne St. has been switched from bulk metering to individual metering.
- This building now consists of eight apartment meters and one house meter.

Results To Date

- When comparing the three years average consumption to the first full year of individual metered consumption there has been a 23,000 kWh reduction in consumption. This translates into a savings of just over 10% from the baseline consumption of the bulk meter.

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Next Steps

- There are no plans to further retro fit other buildings with individual metering at this time.

Commercial "LED Seasonal Lighting Retrofit"

Program Description

- The Utility has had seasonal lighting on its building for more than 40 years. The fixtures were illuminated with 900-7 watt bulbs. In order to showcase LED Technology we investigated the cost of fixture replacement or a bulb retro fit. It was decided the bulb retro fit was far les costly.
- The existing seven-watt bulbs were replaced with comparable lumen output LED bulbs.
- The original load for the fixtures was 6.3 kW after the retro fit the load dropped to .405 kW. These displays we illuminated five hours a day for 45 days. Savings over a ten year life span of the bulbs is estimated to be13000 kWh

"The Power Corner" Articles

Program Description

- A monthly advertorial column sponsored by OPUCN's in the Greater Oshawa Chamber of Commerce Business Matters monthly publication entitled "The Power Corner" aimed directly at the commercial and industrial sector.

Target

- All commercial and industrial customers in the City of Oshawa.

Benefits

- In preparation for the upcoming OPA programs, it is necessary to inform commercial and industrial customers regarding the forthcoming projects so they can prepare to take advantage of such programs. It is imperative that these customers recognize that energy conservation is a win-win situation.

Action

- Monthly articles are written from an energy management standpoint for industrial and commercial customers to promote the understanding of the electricity markets and programs.

Results to Date

- Two monthly articles have appeared with several more slated for the upcoming year.

Next Steps

- Continue to use the column as a vehicle to communicate any prospective information from the OPA to business customers in our community.

3.3 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.

- Distribution system optimization software has been researched and a software package has been selected for purchase. The components of the GIS system requiring upgrade have been identified and a short list of vendors has been created.

Results to Date

- We have reviewed and assessed several geographical information systems and have selected a vendor.

Next Steps

- Purchase and install the distribution system optimization software (We have secured a satisfactory quote and the software will be installed shortly after the completion of the GIS upgrade).
- Use the software to perform the distribution system optimization calculations.
- Perform the necessary field operations to optimize the distribution system.
- Measure the actual results of optimizing the distribution system.

4. Lessons Learned

Working Together

This year OPUCN partnered with two other local utilities to develop and launch a pilot education program. The result was the Generation Conservation grade 5-science program that designed to create a generation of conservers. Without the co operation and financial support of the other utilities the program could not have been developed. Generation Conservation is scheduled for launch in all Durham Public and Catholic School Board grade five classrooms fall of 2007.

We are pleased to be participating with the University of Ontario Institute of Technology (UOIT) and The Ontario Centers 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.

In conjunction with the Independent Electricity System Operator (IESO), OPUCN distributed an introductory letter and a guide entitled "Managing Your Electricity Costs – A Guide For Business" to local businesses not only to educate and instigate energy conservation, but also to invite comments and questions on a feedback basis to build a trusting relationship with our commercial clientele. An ongoing database has been established to keep abreast of any energy conservation issues and questions that arise.

Oshawa is located ½ hour east of Toronto and we often find ourselves challenged to provide similar CDM programs to those offered by utilities in the Toronto market. A unified approach to programs from the Ontario Power Authority coupled with customized local programs should help drive customer participation.

Market Conditions

The term "greening" has picked up considerable momentum in the media and this is helping to drive many residences and business to review their personal and operational impacts on the environment and community. This continued focus should help contribute to the success of both existing and new programs.

The current form of pricing in the residential sector has taken some of the "sting" out of the pricing of electricity and may not be sending the kind of price signals to customers that would drive load shifting through savings.

Through our continued efforts to target residential customers to educate them on energy conservation using the media (such as the Rogers Television Energy Saving Tips) customers are becoming more and more comfortable with the term "Smart" meter and there seems to be a growing appetite for this metering style.

We believe that ongoing education is 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 create a new culture of conservation that stays with them for a lifetime.

Regulatory and Policy Environment

During 2006 the Ontario Power Authority (OPA) emerged as the primary agency charged with developing and delivering Conservation and Demand Management (CDM) programs for electricity consumers in Ontario. The OPA is gearing up to provide $400 million in funding for CDM programs targeted at all classes of consumers. The Local Distribution Companies (LDCs) will be the primary delivery agents for the programs. The relationship between individual LDCs and the OPA will be formalized by means of contracts between the two parties. These contracts consist of a master contract governing the roles and responsibilities of each party and schedules containing the details of each program to be delivered.

The OPA programs are designed for universal, or at the least regional, delivery throughout the province. The Ontario Energy Board (OEB) will continue to fund local initiatives which are designed for unique local conditions through distribution rates.

1. Conclusion

Overall, 2006 has proved to be a very successful CDM year for Oshawa PUC Networks Inc. An internal reorganization coupled with incremental staffing allowed a more refined and focused approach generating stronger results.

We believe that education is key to the sustainability of all CDM programs and to that end we encourage the Board to review its treatment of educational CDM expenditures. 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.

2007 will prove to be an aggressive year for Conservation and Demand Management at OPUCN. Programs targeting peak load control, continued education, the Every Kilowatt Counts Campaign, and a stronger focus on industrial and commercial customers should yield some of the greatest reductions in energy and demand to date. OPUCN looks forward to continuing to assist the province in achieving "a Culture of Conservation" in Ontario.

For further Information about Oshawa PUC Networks Inc. and it's Conservation and Demand efforts please contact:

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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 2006	Residential	Commercial	Institutional	Industrial	Agricultural	LDC System	[4] Smart Meters	Other #1	Other #2
Net TRC value ($):	*494.7*	**$ 851**	**$ 978**	**$ (25)**	**$ 37**	**$ (10)**	**$ -**	**$ (76)**		**$ (5)**	**$ -**
Benefit to cost ratio:	*1.58*	2.64	3.92	0.03	2.90	0.00	0.00	0.00		0.00	0.00
Number of participants or units delivered:	*22221*	*22,221*	21,372	36	813						
Lifecycle (kWh) Savings:	*27,191,661*	27,191,661	23,518,863	19,347	3,653,451	0	0	0		0	0
Report Year Total kWh saved (kWh):	*2903706*	2,903,706	2,668,923	645	146,138	88,000	0	0		0	0
Total peak demand saved (kW):	*1064*	1,064	1,028	0	36	0	0	0		0	0
Total kWh saved as a percentage of total kWh delivered (%):	100%	100%	92%	0%	5%	3%	0%				
Peak kW saved as a percentage of LDC peak kW load (%):		100%	97%	0%	3%	0%	0%				
[1] *Report Year Gross C&DM expenditures ($):*	*834*	$ 391	$ 221	$ 26	$ 5	$ 10	$ -	$ 76	$ -	$ 5	$ -
[2] *Expenditures per KWh saved ($/kWh):*	*0.29*	$ 0.00	$ 0.00	$ 0.00	$ 0.00	$ -	$ -	$ -		$ -	$ -
[3] *Expenditures per KW saved ($/kW):*	*783.83*	$ 0.37	$ 0.22	$ 91.07	$ 0.14	$ -	$ -	$ -		$ -	$ -

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.

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Library Watt Reader Program - CFL GiveAway CDM-108D

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

Please see 2006 CDM Report (page 6) 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:	140		
Measure life (years):	4		
Number of Participants or units delivered life to date	140		

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ 3.11	$ 3.11
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 0.02	$ 0.02
Incremental Measure Costs (Equipment Costs)	$ 0.03	$ 0.03
Total TRC costs:	$ 0.03	$ 0.03
Net TRC (in year CDN $):	$ 3.11	$ 3.11
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	$ 103.55	$ 103.55

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

Cumulative Results:

Conservation Programs:

Demand savings (kW): *Summer* 0; *Winter* 3

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*52617.6*	13,154	52617.6	13,154
Other resources saved :				
Natural Gas (m3):				
Other (specify):				

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

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

Line Loss Reduction Programs:

Peak load savings (kW):

	lifecycle	*in year*
Energy savings (kWh):		

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):

D. **Actual Program Costs:** **Reporting Year** **Cumulative Life to Date**

Utility direct costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Incentive:		
	Total:		
Utility indirect costs ($):	*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.

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Retrofit Non-profit Housing CDM-103

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

Please see 2006 CDM Report (page 9) for additional description of this Program. Retrofit no profit housing (The Cornerstone Community) buildings in Oshawa. Buildings retrofitted 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 EXIT Sign	60W Incandescent	60W Incandescent
Efficient technology:	3W LED EXIT sign	15W Screw-In CFL	13W CFL fixture w/EM ballast
Number of participants or units delivered for reporting year:	60	610	56
Measure life (years):	25	2	3
Number of Partipants or unites delievered lfe to date	60	610	56
Base case technology:	4 - T12 34W (156W) 4' Lamps w	2 - T12 75W (184W) 8' HO Lamp	
Efficient technology:	2 - T8 32W (58 W) reflectorized	4 - T8 32W (112W) 4' Lamps w/E	
Number of participants or units delivered for reporting year:	140	3	
Measure life (years):	5	5	
Number of Partipants or unites delievered lfe to date	140	3	

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	*$ 56.43*	$ 56.43
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 4.97	$ 4.97
Incremental Measure Costs (Equipment Costs)	$ 14.47	14.47
Total TRC costs:	$ 19.44	$ 19.44
Net TRC (in year CDN $):	$ 37.00	$ - $ 37.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	$ 2.90	2.90

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

Cumulative Results:

Conservation Programs:

Demand savings (kW): *Summer* 34.11678285; *Winter* 35.912403

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*3653451*	146138.04	3653451	146138.04
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):	

D. **Actual Program Costs:**

		Reporting Year	Cumlative Life to Date
Utility direct costs ($):	*Incremental capital:*		
	Incremental O&M:	$ 4.97	$ 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 non-profit 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.

[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 numebr of units times the net present value per unit benefit specified in the TRC Guide.

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Christmas Light Retro Fit OPUC CDM-300A

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

Please see 2006 CDM Report (page 14) for additional description of this Program. Retrofitted the Christmas lighting on front of OPUC building. Old load 900 times 7 watts replacing with .5 watts LED lights.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	5 WATT Christmas lights C-7(64 lights)		
Efficient technology:	LED Christmas Lights (indoor or outdoor)		
Number of participants or units delivered for reporting year:	36		
Measure life (years):	30		
Number of Partipants or unites delievered lfe to date	36		

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ 0.68	$ 0.68
[2] *TRC Costs ($):*	$ 3.87	$ 3.87
Utility program cost (excluding incentives):		
Incremental Measure Costs (Equipment Costs)	$ 0.01	0.01
Total TRC costs:	$ 3.88	$ 3.88
Net TRC (in year CDN $):	-$ 3.18	-$ 3.18
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	$ 0.18	0.18

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

Cumulative Results:

Conservation Programs:

Demand savings (kW): *Summer* 0

Winter 0

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*19347.0768*	645	19347.0768	645
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):

D. **Actual Program Costs:**

		Reporting Year	Cumlative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ 3.80	$ 3.80

	Incremental O&M:		
	Incentive:		
	Total:	$ 3.80	$ 3.80
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 numebr of units times the net present value per unit benefit specified in the TRC Guide.

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Every Kilowatt Counts (Spring) CDM-108a

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

Please see 2006 CDM Report (page 6 and 7) for additional description of this Program. Campaign associated with OPA to provide customers coupons to purchase energy saving products CFLs light bulbs, Programable Thermostats, Motion Sensors,Seasonal LED Lights, and Dimmers. A popular program with customers in that amount of coupons used to purchase energy saving products by Oshawa residents.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	**60W Incandescent**	**Average existing stock**	
Efficient technology:	**CFL Screw-In 15W**	**Programmable Thermostat (sp**	**Timers**
Number of participants or units delivered for reporting year:	5436	315	416
Measure life (years):	4	18	20
Number of Participants or units delivered life to date	5436	315	416

Measure(s):

	Measure 4	Measure 5 (if applicable)	Measure 6 (if applicable)
Base case technology:			
Efficient technology:	**Ceiling Fans**		
Number of participants or units delivered for reporting year:	226		
Measure life (years):	20		
Number of Participants or units delivered life to date	226		

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ 257.73	$ 257.73
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):		
Incremental Measure Costs (Equipment Costs)	$ 39.35	39.35
Total TRC costs:	$ 39.35	$ 39.35
Net TRC (in year CDN $):	$ 218.38	218.38
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	$ 6.55	6.55

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	*Summer*	17	0
	Winter	0	

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*5087264*	667,795	5087264	667,795
Other resources saved :				
Natural Gas (m3):				
Other (specify):				

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

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

Line Loss Reduction Programs:

Peak load savings (kW):		
	lifecycle	*in year*

Energy savings (kWh):			

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		

D. **Actual Program Costs:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*		
	Incremental O&M:	$ 0.15	data conversation ETS
	Incentive:		
	Total:	$ 0.15	$ 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.

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Every Kilowatt Counts (Fall/ Winter) CDM-108b

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

Please see 2006 CDM Report (page 6 and 7) for additional description of this Program. Campaign associated with OPA to provide customers coupons to purchase energy saving products CFLs light bulbs, Programable Thermostats, Motion Sensors,Seasonal LED Lights, and Dimmers. A popular program with customers in that amount of coupons used to purchase energy saving products by Oshawa residents.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	**60W Incandescent**		**5 watt Christmas lights**
Efficient technology:	**CFL Screw-In 15W**	**Dimmer switch**	**LED Christmas Lights**
Number of participants or units delivered for reporting year:	8247	326	5197
Measure life (years):	4	10	30
Number of Participants or units delivered life to date	8247	326	5197

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 (sp**	**Motion Sensor**
Number of participants or units delivered for reporting year:	709	83	101
Measure life (years):	18	18	10
Number of Participants or units delivered life to date	709	83	101

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ *1,043.93*	$ 1,043.93
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):		
Incremental Measure Costs (Equipment Costs)	$ 71.30	71.3
Total TRC costs:	$ 71.30	$ 71.30
Net TRC (in year CDN $):	$ 972.63	972.63
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	$ 14.64	14.64

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	*Summer*	6	0
	Winter	1,003	

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):		1,881,634		
Other resources saved :				
Natural Gas (m3):				
Other (specify):				

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

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

Line Loss Reduction Programs:

Peak load savings (kW):			
	lifecycle	*in year*	
Energy savings (kWh):			

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		

D. **Actual Program Costs:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*		
	Incremental O&M:	$ 0.15	data conversation ETS
	Incentive:		
	Total:	$ 0.15	$ 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.

Appendix B - Discussion of the Program

(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):

Please see 2006 CDM Report (page 5 and 6) for additional description of this Program. To establish baselines to benchmark the measurement and analysis of future results that are to be submitted to the regulators. Baselines may apply to specific customer groups or they may be based on the penetration of identified energy efficient technologies.
Data capture is taking place through 55 "Smart meters" and will be analyzed based on connected loads, workings lifestyles, family size and several other categories.
This data has undergone a preliminary review and will be reviewed more in depth in conjunction with The University of Ontario Institute of Technology. There was a partnership with an outside technology supplier to assist in the meter installation.
Evaluation of the project continues as we test meter readings and accuracy. A baseline will continue to be developed throughout 2006.

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			

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*		
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 20.52	$ 150.22
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	$ 20.52	$ 150.22
Net TRC (in year CDN $):		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		

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

Cumulative Results:

Conservation Programs:

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

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

Amount of KVar installed (KVar):	
Distribution system power factor at 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):

D. **Actual Program Costs:**

		Reporting Year	Cumlative Life to Date
Utility direct costs ($):	*Incremental capital:*		
	Incremental O&M:	$ 10.76	$ 150.22
	Incentive:		
	Total:	$ 10.76	$ 150.22
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 numebr of units times the net present value per unit benefit specified in the TRC Guide.

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Residential 155 Colbourne Replace Bulk with Individual Meters CDM-100A

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

Please see 2006 CDM Report (page 13 and 14) for additional description of this Program. Switch bulk meter to individual meters (Residential Housing)

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:	8		
Measure life (years):	20		
Number of Partipants or unites delievered lfe to date	8		

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ 4.90	$ 4.90
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):		
Incremental Measure Costs (Equipment Costs)	$ 3.20	3.2
Total TRC costs:	$ 3.20	$ 3.20
Net TRC (in year CDN $):	$ 1.70	$ 1.70
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	$ 1.53	$ 1.53

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

Cumulative Results:

Conservation Programs:

Demand savings (kW): *Summer* 2; *Winter* 2

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*864000*	43200	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):

D. **Actual Program Costs:** **Reporting Year** **Cumlative Life to Date**

Utility direct costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Incentive:		
	Total:		
Utility indirect costs ($):	*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 numebr of units times the net present value per unit benefit specified in the TRC Guide.

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** 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 (page 11) for additional description of this Program. A five and Fifty Points Pilot Project (installing a special reader on meter at residential homes). Automatic meter reading and digital time meter install.

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			

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*		
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 4.51	$ 28.80
Incremental Measure Costs (Equipment Costs)		0
Total TRC costs:	$ 4.51	$ -
Net TRC (in year CDN $):		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		

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

Cumulative Results:

Conservation Programs:

Demand savings (kW): *Summer*

Winter

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):				
Other resources saved :				
Natural Gas (m3):				
Other (specify):				

Demand Management Programs:

Controlled load (kW)

Energy shifted On-peak to Mid-peak (kWh):

Energy shifted On-peak to Off-peak (kWh):

Energy shifted Mid-peak to Off-peak (kWh):

Demand Response Programs:

Dispatchable load (kW):

Peak hours dispatched in year (hours):

Power Factor Correction Programs:

Amount of KVar installed (KVar):

Distribution system power factor at 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):

D. **Actual Program Costs:**

	Reporting Year	Cumlative Life to Date

Utility direct costs ($):	*Incremental capital:*		
	Incremental O&M:	$ 4.51	$ 28.80
	Incentive:		
	Total:		
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 numebr of units times the net present value per unit benefit specified in the TRC Guide.

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Residental System Prototype and Pilot CDM-100C

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

Please see 2006 CDM Report (page 5) for additional description of this Program. A Residential baseline measurement. System protype and pilot testing.

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			

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*		0
[2] *TRC Costs ($):*	*$ -*	*$ 16.20*
Utility program cost (excluding incentives):		
Incremental Measure Costs (Equipment Costs)	$ -	0
Total TRC costs:	$ -	$ 16.20
Net TRC (in year CDN $):		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		

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

Cumulative Results:

Conservation Programs:

Demand savings (kW): *Summer*

Winter

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):				
Other resources saved :				
Natural Gas (m3):				
Other (specify):				

Demand Management Programs:

Controlled load (kW)

Energy shifted On-peak to Mid-peak (kWh):

Energy shifted On-peak to Off-peak (kWh):

Energy shifted Mid-peak to Off-peak (kWh):

Demand Response Programs:

Dispatchable load (kW):

Peak hours dispatched in year (hours):

Power Factor Correction Programs:

Amount of KVar installed (KVar):

Distribution system power factor at 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):

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:			

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 numebr of units times the net present value per unit benefit specified in the TRC Guide.

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Residential Customer Satisfaction Survey CDM-100D

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

Please see 2006 CDM Report (page 5) for additional description of this Program. Customer satisfaction survey. A observation of 400 residential customers for 2006 customer satisfaction survey for electric utilities. Data to include analyzing and reporting.

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			

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*		
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 15.70	$ 15.70
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	$ 15.70	$ 15.70
Net TRC (in year CDN $):		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		

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

Cumulative Results:

Conservation Programs:

Demand savings (kW): *Summer*

Winter

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):				
Other resources saved :				
Natural Gas (m3):				
Other (specify):				

Demand Management Programs:

Controlled load (kW)

Energy shifted On-peak to Mid-peak (kWh):

Energy shifted On-peak to Off-peak (kWh):

Energy shifted Mid-peak to Off-peak (kWh):

Demand Response Programs:

Dispatchable load (kW):

Peak hours dispatched in year (hours):

Power Factor Correction Programs:

Amount of KVar installed (KVar):

Distribution system power factor at 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):

D. **Actual Program Costs:**

	Reporting Year	Cumlative Life to Date

Utility direct costs ($):	*Incremental capital:*		
	Incremental O&M:	$ 15.70	$ 15.70
	Incentive:		
	Total:	$ 15.70	$ 15.70
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 numebr of units times the net present value per unit benefit specified in the TRC Guide.

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Residential DSM Indentification -Water Heater Data CDM-101

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

Water Heater Extraction and update of information for Residential Load 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 life (years):			
Number of Partipants or unites delievered lfe to date			

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*		
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 0.65	$ 0.65
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	$ 0.65	0.65
Net TRC (in year CDN $):		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		

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

Cumulative Results:

Conservation Programs:

Demand savings (kW): *Summer*

Winter

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):				
Other resources saved :				
Natural Gas (m3):				
Other (specify):				

Demand Management Programs:

Controlled load (kW)

Energy shifted On-peak to Mid-peak (kWh):

Energy shifted On-peak to Off-peak (kWh):

Energy shifted Mid-peak to Off-peak (kWh):

Demand Response Programs:

Dispatchable load (kW):

Peak hours dispatched in year (hours):

Power Factor Correction Programs:

Amount of KVar installed (KVar):

Distribution system power factor at 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):

D. **Actual Program Costs:** **Reporting Year** **Cumlative Life to Date**

Utility direct costs ($):	*Incremental capital:*		
	Incremental O&M:	$ 0.65	$ 0.65
	Incentive:		
	Total:	$ 0.65	$ 0.65
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 numebr of units times the net present value per unit benefit specified in the TRC Guide.

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Smart Meter Pilot (Residential- Tantalus Systems) CDM-106

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

Please see 2006 CDM Report (page 11) for additional description of this Program. Residential 500 Point Smart Meter Pilot. Testing of Tantalus meter system (wireless).

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			

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*		
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 40.78	$ 172.80
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	$ 40.78	$ 172.80
Net TRC (in year CDN $):		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		

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

Cumulative Results:

Conservation Programs:

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

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):				
Other resources saved :				
Natural Gas (m3):				
Other (specify):				

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

Amount of KVar installed (KVar):
Distribution system power factor at 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):

D. **Actual Program Costs:** **Reporting Year** **Cumlative Life to Date**

Utility direct costs ($):	*Incremental capital:*	$ 40.78	$ 172.80
	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 numebr of units times the net present value per unit benefit specified in the TRC Guide.

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Smart Meter - Residential (Operation Group Fee)

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

Please see 2006 CDM Report (page 11) for additional description of this Program. Smart Meter - Residential. Operations 2006 Working Group membership fee

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			

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*		
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 10.01	$ 13.51
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	$ 10.01	$ 13.51
Net TRC (in year CDN $):		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		

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

Cumulative Results:

Conservation Programs:

Demand savings (kW): *Summer*

Winter

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):				
Other resources saved :				
Natural Gas (m3):				
Other (specify):				

Demand Management Programs:

Controlled load (kW)

Energy shifted On-peak to Mid-peak (kWh):

Energy shifted On-peak to Off-peak (kWh):

Energy shifted Mid-peak to Off-peak (kWh):

Demand Response Programs:

Dispatchable load (kW):

Peak hours dispatched in year (hours):

Power Factor Correction Programs:

Amount of KVar installed (KVar):

Distribution system power factor at 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):

D. **Actual Program Costs:**

	Reporting Year	Cumlative Life to Date

Utility direct costs ($):	*Incremental capital:*		
	Incremental O&M:	$ 10.01	$ 13.51
	Incentive:		
	Total:		
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 numebr of units times the net present value per unit benefit specified in the TRC Guide.

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Customer Awareness Education CDM-108

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

Please see 2006 CDM Report (page 6) for additional description of this Program. Customer awareness and education are key factors in achieving a heightened change in energy efficiency. Programs will be targeted at home and business These programs will illustrate the principal areas of consumption and demonstrate the savings impact available through changing consumption patterns and conservation. These programs could
· An internet portal where customers can create custom profiles of their home or business and understand where they are consuming electricity
· Self registered programs that allow customers to track their savings through changing behavior or adopting more energy efficient appliances
· Implementation of tools that illustrate the affect of weather, seasonality, and additional occupants on energy consumption for each individual consumer
· Implementation of campaigns to build both general and targeted awareness and measure the impact of direct marketing on consumption
Target users: All businesses and residents in the City of Oshawa. Benefits: Helping to kept energy efficient use top of mind.
Evaluation : Radio advertisements and a school energy efficiency program are currently underway through a customer survey and spot visits of presentations.

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:	168		
Measure life (years):	4		
Number of Partipants or unites delievered lfe to date	168		

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ -	3.74767
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 75.08	$ 81.55
Incremental Measure Costs (Equipment Costs)	$ 0.30	0.3
Total TRC costs:	$ 75.38	$ 81.85
Net TRC (in year CDN $):	-$ 75.38	-78.09833
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		0.046

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

Conservation Programs:

Demand savings (kW): *Summer* 0
Winter 3

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*0*	0	63140	15785
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):

D. **Actual Program Costs:**

		Reporting Year	Cumlative Life to Date
Utility direct costs ($):	*Incremental capital:*		
	Incremental O&M:	$ 75.08	$ 81.55
	Incentive:		
	Total:		
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 numebr of units times the net present value per unit benefit specified in the TRC Guide.

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Generation Conservation CDM-109

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

Please see 2006 CDM Report (page 6) for additional description of this Program. Develop and deploy Conservation Projects for Grade Five Students.

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			

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*		
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 53.82	$ 53.82
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	$ 53.82	$ 53.82
Net TRC (in year CDN $):		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		

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

Cumulative Results:

Conservation Programs:

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

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

Amount of KVar installed (KVar):	
Distribution system power factor at 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):	

D. **Actual Program Costs:** **Reporting Year** **Cumlative Life to Date**

Utility direct costs ($):	*Incremental capital:*		
	Incremental O&M:	$ 53.82	$ 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 numebr of units times the net present value per unit benefit specified in the TRC Guide.

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Commercial and Industrial System 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

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			

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*		
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 21.81	$ 27.34
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	$ 21.81	$ 27.34
Net TRC (in year CDN $):		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		

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

Cumulative Results:

Conservation Programs:

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

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

Amount of KVar installed (KVar):	
Distribution system power factor at 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):	

D. **Actual Program Costs:** — **Reporting Year** — **Cumlative Life to Date**

Utility direct costs ($):	*Incremental capital:*		
	Incremental O&M:	$ 20.64	$ 36.84
	Incentive:		
	Total:	$ -	$ 36.84
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 numebr of units times the net present value per unit benefit specified in the TRC Guide.

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

Appendix B - Discussion of the Program

A. **Name of the Program:** Independent Market Operator Demand Response Pilot Project CDM-303

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

Please see 2006 CDM Report (page 12) 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.
The program identifies customers who can shed load on short notice. The notification is driven by a price spike and delivered to them by e-mail.
Target users Customers who have the ability to drop load
Benefits: To the IESO to see how much load can be dropped in an emergency and customer to curtail energy costs. Evaluation: We are currently evaluating the cost benefit of continuing this program.

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			

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*		
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 9.82	$ 21.99
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	$ 9.82	$ 21.99
Net TRC (in year CDN $):		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		

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

Conservation Programs:

		lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Demand savings (kW):	*Summer*				
	Winter				
Energy saved (kWh):			88000		
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):

D. **Actual Program Costs:**

		Reporting Year	Cumlative Life to Date
Utility direct costs ($):	*Incremental capital:*		
	Incremental O&M:	$ 9.82	$ 21.99
	Incentive:		
	Total:	$ -	$ 21.99
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 numebr of units times the net present value per unit benefit specified in the TRC Guide.

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

Appendix B - Discussion of the Program

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 15) 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
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 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			

B. **TRC Results:**

	Reporting Year	**Life-to-date TRC Results:**
[1] *TRC Benefits ($):*		
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 5.00	$ 5.00
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	$ 5.00	$ 5.00
Net TRC (in year CDN $):		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		

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

Cumulative Results:

Conservation Programs:

Demand savings (kW): *Summer*
Winter

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):				
Other resources saved :				
Natural Gas (m3):				
Other (specify):				

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

Amount of KVar installed (KVar):
Distribution system power factor at 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):	

D. **Actual Program Costs:**

		Reporting Year	Cumlative Life to Date
Utility direct costs ($):	*Incremental capital:*		
	Incremental O&M:	$ 5.00	$ 5.00
	Incentive:		
	Total:	$ -	$ 5.00
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 numebr of units times the net present value per unit benefit specified in the TRC Guide.

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** CDM Web Infrastructure CDM-401&CDM-402

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

Set up of CDM Web infrastructure (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 delivered for reporting year:			
Measure life (years):			
Number of Partipants or unites delievered lfe to date			

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*		
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 70.80	$ 141.43
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	$ 70.80	$ 141.43
Net TRC (in year CDN $):		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		

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

Cumulative Results:

Conservation Programs:

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

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

Amount of KVar installed (KVar):	
Distribution system power factor at 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):	

D. **Actual Program Costs:**

	Reporting Year	Cumlative Life to Date

Utility direct costs ($):	*Incremental capital:*	$ 70.80	$ 141.43
	Incremental O&M:	$ -	
	Incentive:		
	Total:	$ 70.80	$ 141.43
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 numebr of units times the net present value per unit benefit specified in the TRC Guide.

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Total Resource Cost Tool for OEB 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

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			

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*		
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 4.75	$ 4.75
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	$ 4.75	$ 4.75
Net TRC (in year CDN $):		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		

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

Conservation Programs:

Demand savings (kW): *Summer* | *Winter*

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):				
Other resources saved :				
Natural Gas (m3):				
Other (specify):				

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

Amount of KVar installed (KVar):
Distribution system power factor at 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):

D. **Actual Program Costs:** **Reporting Year** **Cumlative Life to Date**

Utility direct costs ($):	*Incremental capital:*	$ 4.75	$ 4.75
	Incremental O&M:		
	Incentive:		
	Total:	$ 4.75	$ 4.75
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 numebr of units times the net present value per unit benefit specified in the TRC Guide.

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

Appendix C - Program and Portfolio Totals

Report Year: **2006**

1. Residential Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
Library Watt Reader Program - CFL C	$ 3	$ 0	$ 3	103.55	13,154	52,618	3	$ -
Every Kilowatt Counts (Spring)	$ 258	$ 39	$ 218	6.55	667,795	5,087,264	17	$ 0
Every Kilowatt Counts (Fall)	$ 1,044	$ 71	$ 973	14.64	1,881,634	17,499,196	1,003	$ 0
Residential - Establish Baselines and	$ -	$ 21	-$ 21	0.00				$ 21
Replace Bulk with Individual Meters 1	$ 5	$ 3	$ 2	1.53	43,200	864,000	2	$ -
5 and 50 Points Pilot Project	$ -	$ 5	-$ 5	0.00				$ 5
System Prototype & Pilot	$ -	$ -	$ -	0.00				$ -
Customer Satisfaction Survey	$ -	$ 16	-$ 16	0.00				$ 16
Water Heater DSM Id.	$ -	$ 1	-$ 1	0.00				$ 1
Smart Meter Pilot	$ -	$ 41	-$ 41	0.00				$ 41
Smart Meter Operations Fee	$ -	$ 10	-$ 10	0.00				$ 10
Education CDM Spending (Media)	$ 4	$ 75	-$ 72	0.05	63,140	15,785	3	$ 75
Generation Conservation	$ -	$ 54	-$ 54	0.00				$ 54
Name of Program I			$ -	0.00				
Name of Program I	$ -		$ -	0.00				
Name of Program J			$ -	0.00				
***Totals App. B - Residential**	$ 1,313	$ 335	$ 978	3.92	2,668,923	23,518,863	1,028	$ 221
Residential Indirect Costs not attributable to any specific program	→	$ -						
Total Residential TRC Costs		$ 335						
****Totals TRC - Residential**	**$ 1,313**	**$ 335**	**$ 978**	**3.92**				

2. Commercial Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
Christmas Lighting Retrofit	$ 1	$ 4	-$ 3	0.18	645	19,347	0	$ 4
Com/Ind. System Prototype & Pilot	$ -	$ 22	-$ 22	0.00				$ 22
Name of Program C			$ -	0.00				
Name of Program D			$ -	0.00				
Name of Program E			$ -	0.00				

Name of Program F			$ -	0.00					
Name of Program G			$ -	0.00					
Name of Program H			$ -	0.00					
Name of Program I			$ -	0.00					
Name of Program J			$ -	0.00					
***Totals App. B - Commercial**	$ 1	$ 26	-$ 25	0.03	645	19,347	0	$ 26	
Commercial Indirect Costs not attributable to any specific program →									
Total TRC Costs		$ 26							
****Totals TRC - Commercial**	**$ 1**	**$ 26**	**-$ 25**	**0.03**					

3. Institutional Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
Non profit Retrofit Project	$ 56	$ 19	$ 37	2.90	146,138	3,653,451	36	$ 5
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**	$ 56	$ 19	$ 37	2.90	146,138	3,653,451	36	$ 5
Institutional Indirect Costs not attributable to any specific program →								
Total TRC Costs		$ 19						
****Totals TRC - Institutional**	**$ 56**	**$ 19**	**$ 37**	**2.90**				

4. Industrial Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
Transitional Demand Response Progr	$ -	$ 10	-$ 10	0.00	88,000			$ 10
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**	$ -	$ 10	-$ 10	0.00	88,000	0	0	$ 10
Industrial Indirect Costs not attributable to any specific program →								
Total TRC Costs		$ 10						
****Totals TRC - Industrial**	**$ -**	**$ 10**	**-$ 10**	**0.00**				

5. Agricultural Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
Name of Program A			$ -	0.00				
Name of Program C			$ -	0.00				
Name of Program C			$ -	0.00				
Name of Program D			$ -	0.00				
Name of Program E			$ -	0.00				
Name of Program F			$ -	0.00				
Name of Program G			$ -	0.00				
Name of Program H			$ -	0.00				
Name of Program I			$ -	0.00				
Name of Program J			$ -	0.00				
***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.

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

Sys Opt/ CDM Web Infrastructure	$ -	$ 71	-$ 71	0.00				$ 71

Name of Program C			$ -	0.00					
Name of Program D			$ -	0.00					
Name of Program E			$ -	0.00					
Name of Program F			$ -	0.00					
Name of Program G			$ -	0.00					
Name of Program H			$ -	0.00					
Name of Program I			$ -	0.00					
Name of Program C			$ -	0.00					
***Totals App. B - LDC System**	$ -	$ 76	-$ 76	0.00	0	0	0	$ 76	
LDC System Indirect Costs not attributable to any specific program →									
Total TRC Costs		$ 76							
****Totals TRC - LDC System**	**$ -**	**$ 76**	**-$ 76**	**0.00**					

7. Smart Meters Program

Only spending information that was authorized under the 3rd tranche of MARR is required to be reported for Smart Meters.

Report Year Gross C&DM Expenditures ($) →	-

8. Other #1 Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
Total Resource Cost Tool for OEB Re	$ -	$ 5	-$ 5	0.00				$ 5
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**	$ -	$ 5	-$ 5	0.00	0	0	0	$ 5
Other #1 Indirect Costs not attributable to any specific program →								
Total TRC Costs		$ 5						
****Totals TRC - Other #1**	**$ -**	**$ 5**	**-$ 5**	**0.00**				

9. Other #2 Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
Name of Program A			$ -	0.00				
Name of Program B			$ -	0.00				
Name of Program C			$ -	0.00				
Name of Program D			$ -	0.00				
Name of Program E			$ -	0.00				
Name of Program C			$ -	0.00				
Name of Program G			$ -	0.00				
Name of Program H			$ -	0.00				
Name of Program I			$ -	0.00				
Name of Program J			$ -	0.00				
***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

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
***TOTALS FOR ALL APPENDIX B**	$ 1,371	$ 471	$ 900	2.91	$ 2,903,706	$ 27,191,661	$ 1,064	$ 391
*Any **other** Indirect Costs not attributable to any specific program* →		$ 49						
TOTAL ALL LDC COSTS		$ 520						
****LDC' PORTFOLIO TRC**	$ 1,371	$ 520	$ 851	2.64				

* 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.