### **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%	92%	0%	5%	3%	0%				
Peak kW saved as a percentage of LDC peak kW load (%):		100%	97%	0%	3%	0%	0%				
Report Year Gross C&DM expenditures     (\$):		\$ 391	\$ 221	\$ 26	\$ 5	\$ 10	\$ -	\$ 76	\$ -	\$ 5	\$ -
<sup>2</sup> Expenditures per KWh saved (\$/kWh):	0.29	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ -	\$ -	\$ -		\$ -	\$ -
з Expenditures per KW saved (\$/kW):	783.83	\$ 0.37	\$ 0.22	\$ 91.07	\$ 0.14	\$ -	\$ -	\$ -		\$ -	\$ -

Utility discount rate (%): 8.13%

<sup>&</sup>lt;sup>1</sup> Expenditures are reported on accrual basis.

<sup>&</sup>lt;sup>2</sup> Expenditures include all utility program costs (direct and indirect) for all programs which primarily generate energy savings.

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

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

<sup>5</sup> Includes total for the reporting year, plus prior year, if any (for example, 2006 CDM Annual report for third tranche will include 2005 and 2004 numbers, if any.

(complete this Appendix for each program)

	(5	ompiete tins Appendix		· cach program,					
A.	Name of the Program:	Library Watt Reader Program - C	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		wicasure z (ii applicable)	Weasure 5	(ii applicable)			
	Efficient technology:	CFL Screw-In 15W							
	Number of participants or units								
	delivered for reporting year: Measure life (years):	140							
	weddire me (years).	_							
	Number of Participants or units delivered life to date	140							
B.	TRC Results:			Reporting Year	Life-to-date	TRC Results:			
	TRC Benefits (\$): TRC Costs (\$):		\$	3.11	\$	3.11			
	• •	program cost (excluding incentives):	\$	0.02	\$	0.02			
	-	al 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			Cumulati	ve Results:				
	Conservation Programs:								
	Demand savings (kW):	Summer	0						
		Winter	3						
		lifecycle		in year	Cumulative Lifecycle	Cumulative Annual Savings			
	Energy saved (kWh):	52617.6	13,1	54	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	•							
	Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak	•							
	Demand Response Programs:  Dispatchable load (kW):								
	Peak hours dispatched in year (hou	rs):							
	Power Factor Correction Program  Amount of KVar installed (KVar):	<u>s:</u>							
	Distribution system power factor at a Distribution system power factor at a								
	Line Loss Reduction Programs: Peak load savings (kW):								
		lifecycle		in year					
	Energy savings (kWh):								
	<u>Distributed Generation and Load</u> Amount of DG installed (kW):  Energy generated (kWh):	Displacement Programs:							
	Peak energy generated (kWh): Fuel type:								
	Other Programs (specify): Metric (specify):								
	would (specify).								

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

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

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

(complete this Appendix for each program)

A.	Name of the Program:	Retrofit Non-profit Housing CDM-103								
	Description of the program (including intent, design, delivery, partnerships and evaluation):									
	Please see 2006 CDM Report (pag Community) buildings in Oshawa. E all rooms lighting replaced with com	Buildings retrofited with energy eff								
	Measure(s):									
	5	Measure 1		2 (if applicable)	Measure 3	` ''	ble)			
	Base case technology:	2 - 15W (30W) Incandescent EXIT Sign	60W Incandes	scent	60W Incandeso	ent				
	Efficient technology:	3W LED EXIT sign	15W Screw-In	CFL	13W CFL fixture	e w/EM ba	allast			
	Number of participants or units					, II, 2.II. 20	56			
	delivered for reporting year:		610							
	Measure life (years):	25	2				3			
	Number of Partipants or unites delievered Ife to date	60	610				56			
		_		40.040.0110.1						
	Base case technology:	4 - T12 34W (156W) 4' Lamps w 2 - T8 32W (58 W) reflectorized								
	Efficient technology: Number of participants or units	Z - 10 32VV (30 VV) Tellectorized	+ - 10 3∠VV (1	12VV) 4 Lamps W/I						
	delivered for reporting year:	140	3							
	Measure life (years):	5	5							
	Number of Partipants or unites delievered Ife to date	140	3							
B.	TRC Results:			rting Year	Life-to-date	TRC Res	ults:			
	<sup>1</sup> TRC Benefits (\$):		\$	56.43	\$		56.43			
- 1	<sup>2</sup> TRC Costs (\$): Utility	<b>c</b>	4.07		<b>c</b>	4.97				
	Incrementa	\$ \$	4.97 14.47		\$	14.47				
	moromone	\$	19.44	\$		19.44				
	Net TRC (in year CDN \$):				\$ -	\$	37.00			
	Benefit to Cost Ratio (TRC Benefits,	\$	2.90			2.90				
C.	Results: (one or more category may	y apply)			Cumulati	ve Result	s:			
	Conservation Programs:									
	Demand savings (kW):	Summer	34.11678285							
		Winter	35.912403							
					Cumulative	Cumulat Annual S				
	Energy sayed (kMh):	lifecycle 3653451	146138.04	n year	Lifecycle 3653451	146138.0				
	Energy saved (kWh): Other resources saved :	3033437	140130.04		3033431	140130.	0-1			
	Natural Gas (m3):									
	Other (specify):									
	Demand Management Programs:									
	Controlled load (kW)									
	Energy shifted On-peak to Mid-peak	k (kWh):								
	Energy shifted On-peak to Off-peak	, ,								
	Energy shifted Mid-peak to Off-peak	k (kWh):								
	Demand Response Programs:									
	Dispatchable load (kW):									
	Peak hours dispatched in year (hou	rs):								
		•								
	Power Factor Correction Program	<u>IS:</u>								
	Amount of KVar installed (KVar): Distribution system power factor at I	hagining of year (%):								
	Distribution system power factor at a									
	•	· · · · · · · · · · · · · · · · · · ·								
	Line Loss Reduction Programs:									
	Peak load savings (kW):	lifecycle	1.	n year						
	Energy sayngs (kWh):	шесуые	11	ı yeai						

<u>Distributed Generation and Load Displacement Programs:</u>	
Amount of DG installed (kW):	
Energy generated (kWh):	
Peak energy generated (kWh):	
Fuel type:	

### Other Programs (specify):

Metric (specify):

D.	Actual Program Costs:		<u>R</u>	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.

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

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.

(complete this Appendix for each program)

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	۵۱	Measure 3 (if applicable)			
Base case technology:	5 WATT Christmas lights C-7(64 lights)		wicasure 2 (ii applicable	c)	Weasure 5	(п аррпс	abicj	
Efficient technology:	LED Christmas Lights (indoor or outdoor	r)						
Number of participants or units delivered for reporting year:	0.0							
Measure life (years):	36							
Number of Partipants or unites delievered Ife to date	36	6						
TRC Results:			Reporting Year		Life-to-date	TRC Re	sults:	
<sup>1</sup> TRC Benefits (\$):		\$		0.68	\$		0.68	
<sup>2</sup> TRC Costs (\$):		\$		3.87		\$	3.87	
	tility program cost (excluding incentives): nental Measure Costs (Equipment Costs)			0.04			0.0	
incren	nental Measure Costs (Equipment Costs) :Total TRC costs	-		0.01 3.88	\$		0.0 3.8	
Net TRC (in year CDN \$):	rotal The costs.	-\$		3.18	Ψ	-\$	3.18	
Benefit to Cost Ratio (TRC Bene	efits/TRC Costs)	\$		0.18			0.1	
Results: (one or more category	•			00		Daan		
Kesuits. (One of more category	шау арріу)				Cumulati	ive Resu	its:	
Conservation Programs:								
Demand savings (kW):	Summer	0						
	Winter	0						
					Cumulative	Cumula	ative	
	lifecycle		in year		Lifecycle	Annual	Saving	
Energy saved (kWh):	19347.0768	645			19347.0768	645		
Other resources saved :								
Natural Gas (i Other (spec	·							
Demand Management Program	<u>ns:</u>							
Controlled load (kW)  Energy shifted On-peak to Mid-	neak (kWh):							
Energy shifted On-peak to Off-p								
Energy shifted Mid-peak to Off-p	peak (kWh):							
Demand Response Programs:								
Dispatchable load (kW):								
Peak hours dispatched in year (	hours):							
Power Factor Correction Prog Amount of KVar installed (KVar)								
Distribution system power factor								
Distribution system power factor	at end of year (%):							
Line Loss Reduction Program	۶۰							
Peak load savings (kW):	<del></del>							
Energy savngs (kWh):	lifecycle		in year					
	ad Diaglaces (12)							
<u>Distributed Generation and Lo</u> Amount of DG installed (kW):	aa Dispiacement Programs:							
Energy generated (kWh):								
Peak energy generated (kWh): Fuel type:								
Other Programs (specify):								
Metric (specify):								
Actual Program Costs:			Reporting Year		Cumlative	Life to	Date	
		\$		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:	

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

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

(complete this Appendix for each program)

A.	Name of the Program:	Every Kilowatt Count	ts (Spring)			CDM-108a	
	Description of the program (include			rtnarchine	and avaluation):		
	Please see 2006 CDM Report (pag customers coupons to purchase ene Lights, and Dimmers. A popular pro Oshawa residents.	e 6 and 7) for addition	onal descrip CFLs light b	otion of thi	is <b>Program.</b> Campaigr ramable Thermostats,	Motion Sensors,	Seasonal LED
	Measure(s):  Base case technology:	Measure 60W Incandescent	1		re 2 (if applicable)	Measure 3	(if applicable)
	Efficient technology:	CFL Screw-In 15W			nable Thermostat (sp	Timers	
	Number of participants or units delivered for reporting year:		5436		315		416
	Measure life (years):		4		18		20
							110
	Number of Participants or units delivered life to date		5436		315		416
	Measure(s):	Measure 4	4	Measi	re 5 (if applicable)	Measure 6	(if applicable)
	Base case technology: Efficient technology:	Ceiling Fans		1110000	applicable)		( applicable)
	Number of participants or units	Cennig i ans					
	delivered for reporting year:		226				
	Measure life (years):		20				
	Number of Participants or units delivered life to date		226				
B.	TRC Results:			Re	eporting Year	Life-to-date	TRC Results:
	TRC Benefits (\$):			\$	257.73		257.73
:	<sup>2</sup> TRC Costs (\$):						
	-	program cost (excluding al Measure Costs (Equip		\$	39.35		39.35
			TRC costs:	•	39.35	\$	39.35
	Net TRC (in year CDN \$):			\$	218.38		218.38
	Benefit to Cost Ratio (TRC Benefits/	<u> </u>		\$	6.55		6.55
C.	Results: (one or more category may	/ apply)				<u>Cumulati</u>	ve Results:
	Conservation Programs:  Demand savings (kW):		Summer	17			0
	Domana savings (KVV).		Winter	0			U
		lifecycle			in year	Cumulative Lifecycle	Cumulative Annual Savings
	Energy saved (kWh): Other resources saved:	5087264		667,795		5087264	667,795
	Natural Gas (m3):						
	Other (specify):						
	Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak	(kWh):					
	Demand Response Programs: Dispatchable load (kW): Peak hours dispatched in year (hour						
	Power Factor Correction Program Amount of KVar installed (KVar): Distribution system power factor at & Distribution system power factor at &	beginning of year (%):	:				
	<u>Line Loss Reduction Programs:</u> Peak load savings (kW):						

lifecycle

in year

Date
;
0.15

Energy savings (kWh):

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

(complete this Appendix for each program)

A.	Name of the Program:	Every Kilowatt Counts (Fall/ Win	CDM-108b		
	Description of the program (include		,		
	Please see 2006 CDM Report (pag customers coupons to purchase ene Lights, and Dimmers. A popular pro Oshawa residents.	e 6 and 7) for additional descripgry saving products CFLs light b	otion of this Program. Campaigrulbs, Programable Thermostats, I	Motion Sensors, Seasonal LED	
	Measure(s):	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)	
	Base case technology:	60W Incandescent	ivicasure 2 (ii applicable)	5 watt Christmas lights	
	Efficient technology:	CFL Screw-In 15W	Dimmer switch	LED Christmas Lights	
	Number of participants or units delivered for reporting year:	00.47	200	5197	
	Measure life (years):	8247 4	326 10	30	
	Number of Participants or units delivered life to date	8247	326	5197	
	Measure(s):	Manage 4	Manager F (Hamplingha)	Manager O (if an alimable)	
	Base case technology:	Measure 4 Average existing stock	Measure 5 (if applicable)  Average existing stock	Measure 6 (if applicable) 3 100 Watt incandescent bulbs	
	Efficient technology:	Programmable Thermostat	Programmable Thermostat (sp	Motion Sensor	
	Number of participants or units			101	
	delivered for reporting year:	709	83		
	Measure life (years):	18	18	10	
	Number of Participants or units delivered life to date	709	83	101	
		100			
	TRC Results:  TRC Benefits (\$):  TRC Costs (\$):		Reporting Year \$ 1,043.93	\$ 1,043.93	
	( ) /	program cost (excluding incentives):			
	Incrementa	Il Measure Costs (Equipment Costs)	\$ 71.30	71.3	
		Total TRC costs:			
	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		
				Cumulative Cumulative	
	5 (4144)	lifecycle	in year	Lifecycle Annual Savings	
	Energy saved (kWh): Other resources saved :		1,881,634		
	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	` '			
	Energy shifted Mid-peak to Off-peak	: (kWh):			
	Demand Response Programs:				
	Dispatchable load (kW):				
	Peak hours dispatched in year (hour	rs):			
	Power Factor Correction Program	<u>s:</u>			
	Amount of KVar installed (KVar):	<del>_</del>			
	Distribution system power factor at b				
	Distribution system power factor at e	end of year (%):			

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

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

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

### (complete this Appendix for each program)

	•		,			
۹.	Name of the Program: Residential - Establish Baselines and Measuring Impacts CDM-100					
	Description of the program (include	ling intent, design, delivery, pa	rtnerships 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 group 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 siz 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 Ife to date					
В.	TRC Results:		Reporting Year	Life-to-date TRC Results:		
	· · · · · · · · · · · · · · · · · · ·	program cost (excluding incentives):	\$ 20.52	\$ 150.22		
	mcrementa	I 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  Conservation Programs:  Demand savings (kW):	apply) Summer		Cumulative Results:		
	<b>3</b> ( )	Winter				
	Energy saved (kWh):	lifecycle	in year	Cumulative Cumulative Lifecycle Annual Savings		
	Other resources saved :  Natural Gas (m3):					
	Other (specify):					
	Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak	(kWh):				
	Demand Response Programs: Dispatchable load (kW): Peak hours dispatched in year (hour	·s):				
	Power Factor Correction Program Amount of KVar installed (KVar): Distribution system power factor at & Distribution system power factor at &	egining of year (%):				
	<u>Line Loss Reduction Programs:</u> Peak load savings (kW):					
	Energy savngs (kWh):	lifecycle	in year			
	Distributed Generation and Load I Amount of DG installed (kWh): Energy generated (kWh): Peak energy generated (kWh):	Displacement Programs:				

Fuel type:

### Other Programs (specify):

Metric (specify):

Actual Program Costs:			Reporting Year	<u>Cumla</u>	ative 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:				
	Utility direct costs (\$):	Utility direct costs (\$):  Incremental Capital: Incremental O&M: Incentive: Total:  Utility indirect costs (\$):  Incremental capital: Incremental O&M:	Utility direct costs (\$):  Incremental capital: Incremental O&M: Incentive: Total:  Utility indirect costs (\$):  Incremental capital: Incremental O&M:	Utility direct costs (\$):  Incremental Capital: Incremental O&M: Incentive: Total:  Utility indirect costs (\$):  Incremental Capital: Incremental O&M:	Utility direct costs (\$):  Incremental capital: Incremental O&M: Incentive: Total:  Utility indirect costs (\$):  Incremental capital: Incremental O&M:

### **Assumptions & Comments:**

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

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

(complete this Appendix for each program)

A.	Name of the Program:	Residential 155 Colbourne Repla	ace E	Bulk with Individual Meters		CDM-100A		
	Description of the program (include	ling intent, design, delivery, pa	rtnei	rships and evaluation):				
	Please see 2006 CDM Report (pag (Residential Housing)				ch I	bulk meter to inc	dividual m	eters
	Measure(s):	Measure 1		Measure 2 (if applicable)		Measure 3	(if applica	ble)
	Base case technology: Efficient technology: Number of participants or units delivered for reporting year:	Existing Inventory Individual Meter						
	Measure life (years):	20						
	Number of Partipants or unites delievered Ife to date	8						
	TRC Results: TRC Benefits (\$): TRC Costs (\$):		\$	Reporting Year 4.9	90	<u>Life-to-date</u>	TRC Res	<u>ults:</u> 4.90
	Utility	program cost (excluding incentives):  Il Measure Costs (Equipment Costs)	\$	3.2	20			3.2
		Total TRC costs:	\$	3.2	20	\$		3.20
	Net TRC (in year CDN \$):		\$	1.7	0		\$	1.70
	Benefit to Cost Ratio (TRC Benefits/	TRC Costs):	\$	1.5	3	\$		1.53
C.	Results: (one or more category may	apply)				Cumulati	ve Result	<u>s:</u>
	Conservation Programs:  Demand savings (kW):	Summer Winter	2			0 1"		
	- (a)M)	lifecycle	100	in year		Cumulative Lifecycle	Annual S	
	Energy saved (kWh): Other resources saved :	864000	432	00		864000	43200	
	Natural Gas (m3):							
	Other (specify):							
	Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak	(kWh):						
	<u>Demand Response Programs:</u> Dispatchable load (kW): Peak hours dispatched in year (hour	rs):						
	Power Factor Correction Program Amount of KVar installed (KVar): Distribution system power factor at to Distribution system power factor at to	egining of year (%):						
	<u>Line Loss Reduction Programs:</u> Peak load savings (kW):			·				
	Energy savngs (kWh):	lifecycle		in year				
	Distributed Generation and Load I Amount of DG installed (kW): Energy generated (kWh): Peak energy generated (kWh): Fuel type:	Displacement Programs:						
	Other Programs (specify):  Metric (specify):							

D. <u>Actual Program Costs:</u> <u>Reporting Year</u> <u>Cumlative Life to Date</u>

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

E. Assumptions 8	& Comments:
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Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit benefit specified in the TRC Guide.

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

(complete this Appendix for each program)

A.	Name of the Program:	AMR/ DTM Pilot Project	CDM-100B	and CDM-500	
	Description of the program (include	ling intent, design, delivery, pa	rtnerships and evaluation):		
	Please see 2006 CDM Report (pag special reader on meter at residential			Points Pilot Pro	ject (installing a
	Measure(s):				
	Dana anna taobhralamu	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 Ife to date				
В.	TRC Results:  1 TRC Benefits (\$):		Reporting Year	Life-to-date	TRC Results:
	TRC Benefits (\$):				
	• •	program cost (excluding incentives):	\$ 4.51		\$ 28.80
	Incrementa	I Measure Costs (Equipment Costs)			0
	Net TRC (in year CDN \$):	Total TRC costs:	\$ 4.51	\$	-
	Benefit to Cost Ratio (TRC Benefits/	TPC Contol:			
	•				
C.	Results: (one or more category may	apply)		<u>Cumulati</u>	ve Results:
	Conservation Programs:				
	Demand savings (kW):	Summer Winter			
		Wille			
			<i>t</i>	Cumulative Lifecycle	Cumulative Annual Savings
	Energy saved (kWh):	lifecycle	in year	LifeCycle	Arinual Savings
	Other resources saved :				
	Natural Gas (m3):				
	Other (specify):				
	<u>Demand Management Programs:</u> Controlled load (kW)				
	Energy shifted On-peak to Mid-peak	(kWh):			
	Energy shifted On-peak to Off-peak	(kWh):			
	Energy shifted Mid-peak to Off-peak	(kWh):			
	Demand Response Programs:				
	Dispatchable load (kW): Peak hours dispatched in year (hour	-a):			
	Power Factor Correction Program  Amount of KVar installed (KVar):	<u>s:</u>			
	Distribution system power factor at b	pegining of year (%):			
	Distribution system power factor at e				
	Line Loss Reduction Programs:				
	Peak load savings (kW):	155	to constitution of the con		
	Energy savngs (kWh):	lifecycle	in year		
	Distributed Generation and Load I	Displacement Programs:			
	Amount of DG installed (kW): Energy generated (kWh):				
	Peak energy generated (kWh):				
	Fuel type:				
	Other Programs (specify):  Metric (specify):				

Utility direct costs (\$):	Incremental capital: Incremental O&M:	\$ 4.51	\$ 28.80
	Incentive:		
	Total:		
Utility indirect costs (\$):	Incremental capital:		
(,)	Incremental O&M:		
	Total:		

E.	Assumptions & Comments:

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

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

(complete this Appendix for each program)

A.	Name of the Program:	Residental System Prototype and	d Pilot CD	M-100C
	Description of the program (include	ling intent, design, delivery, pa	rtnerships and evaluation):	
	Please see 2006 CDM Report (pag protype and pilot testing.	e 5) for additional description o	of this Program. A Residential ba	iseline measurement. System
	Measure(s):	Measure 1	Macaura 2 (if applicable)	Measure 3 (if applicable)
	Base case technology: Efficient technology:	ivieasure i	Measure 2 (if applicable)	ivieasure 3 (ii applicable)
	Number of participants or units delivered for reporting year:  Measure life (years):			
	Number of Partipants or unites delievered life to date			
В.	TRC Results:		Reporting Year	Life-to-date TRC Results:
	TRC Benefits (\$): TRC Costs (\$):		\$ -	\$ 16.20
		program cost (excluding incentives):  I Measure Costs (Equipment Costs)	\$ -	0
	Not TDO (in cook of the	Total TRC costs:		\$ 16.20
	Net TRC (in year CDN \$):	TD0.0		
_	Benefit to Cost Ratio (TRC Benefits/	,		
C.	Results: (one or more category may	арріу)		Cumulative Results:
	Conservation Programs: Demand savings (kW):	Summer Winter		
				Cumulative Cumulative
	Energy saved (kWh):	lifecycle	in year	Lifecycle Annual Savings
	Other resources saved :			
	Natural Gas (m3): Other (specify):			
	<u>Demand Management Programs:</u> Controlled load (kW)			
	Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak	(kWh):		
	Energy shifted Mid-peak to Off-peak	(kWh):		
	Demand Response Programs: Dispatchable load (kW): Peak hours dispatched in year (hour	·s):		
	Power Factor Correction Program Amount of KVar installed (KVar): Distribution system power factor at to Distribution system power factor at the	egining of year (%):		
	<u>Line Loss Reduction Programs:</u> Peak load savings (kW):	lifecycle	in year	
	Energy savngs (kWh):	mooyale	III your	
	Distributed Generation and Load I Amount of DG installed (kW): Energy generated (kWh): Peak energy generated (kWh): Fuel type:	Displacement Programs:		
	Other Programs (specify): Metric (specify):			

D. <u>Actual Program Costs:</u> <u>Reporting Year</u> <u>Cumlative Life to Date</u>

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

E. Assumptions & Comments	E.

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

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

(complete this Appendix for each program)

A.	Name of the Program:	Residential Customer Satisfaction	n Survey	CD	M-100D		
	Description of the program (include	ling intent, design, delivery, pa	rtnerships a	and evaluation):			
	Please see 2006 CDM Report (page 400 residential customers for 2006 c						ation of
	Measure(s):			0.00			
	Base case technology:	Measure 1	Measur	e 2 (if applicable)	Measure 3	(if applic	able)
	Efficient technology:						
	Number of participants or units delivered for reporting year:						
	Measure life (years):						
	Number of Dealiness to accomit						
	Number of Partipants or unites delievered Ife to date						
В.	TRC Results:		Rep	oorting Year	Life-to-date	TRC Re	sults:
	<sup>1</sup> TRC Benefits (\$): <sup>2</sup> TRC Costs (\$):						
	. ,	program cost (excluding incentives):	\$	15.70		\$	15.70
	Incrementa	Measure Costs (Equipment Costs)					
	Net TRC (in year CDN \$):	Total TRC costs:	\$	15.70	\$		15.70
		TDO 0(-):					
	Benefit to Cost Ratio (TRC Benefits/	<u>,                                      </u>					
C.	Results: (one or more category may	apply)			<u>Cumulati</u>	ve Resu	lts:
	Conservation Programs:						
	Demand savings (kW):	Summer					
		Winter					
					Cumulative	Cumula	
	Energy saved (kWh):	lifecycle		in year	Lifecycle	Annual	Savings
	Other resources saved :						
	Natural Gas (m3):						
	Other (specify):						
	<u>Demand Management Programs:</u> Controlled load (kW)						
	Energy shifted On-peak to Mid-peak						
	Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak	•					
	, ,	(NVIII).					
	<u>Demand Response Programs:</u> Dispatchable load (kW):						
	Peak hours dispatched in year (hour	s):					
	Power Factor Correction Programs	s:					
	Amount of KVar installed (KVar):	=					
	Distribution system power factor at b						
	Distribution system power factor at e	nd of year (%):					
	Line Loss Reduction Programs:						
	Peak load savings (kW):	lifecycle		in year			
	Energy savngs (kWh):	mecycle		iii yeai			
	Distributed Generation and Load I	Displacement Programs:					
	Energy generated (kWh):						
	Peak energy generated (kWh): Fuel type:						
	Other Programs (specify): Metric (specify):						

Utility direct costs (\$):	Incremental capital:			
	Incremental O&M:	\$ 15.70		15.70
	Incentive:			
	Total:	\$ 15.70	5	15.70
Utility indirect costs (\$):	Incremental capital:			
	Incremental O&M:			
	Total:			

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

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

(complete this Appendix for each program)

A.	Name of the Program: Residential DSM Indentification -Water Heater Data				CDM-101		
	Description of the program (including intent, design, delivery, partnerships and evaluation):						
	Water Heater Extraction and update	e of information for Residential Lo	ad Control				
	Measure(s):	Measure 1	Measure 2 (if applicable)		Measure 3 (if applicable)		
	Base case technology: Efficient technology: Number of participants or units delivered for reporting year: Measure life (years):					, , ,	
	Number of Partipants or unites delievered Ife to date						
В.	TRC Results:		Reporting Year		Life-to-date	TRC Results:	
	TRC Benefits (\$):		<u></u>				
	<sup>2</sup> TRC Costs (\$): Utility	program cost (excluding incentives):	\$	0.65	\$ 0.65		
	Incrementa	al Measure Costs (Equipment Costs)  Total TRC costs:	<b>c</b>	0.65		0.05	
	Net TRC (in year CDN \$):	Total TRC costs.	<b>D</b>	0.65		0.65	
	Benefit to Cost Ratio (TRC Benefits/	TRC Costs):					
C.	Results: (one or more category may	apply)			Cumulati	ve Results:	
	Conservation Programs:						
	Demand savings (kW):	Summer Winter					
					Cumulative	Cumulative	
		lifecycle	in year		Lifecycle	Annual Savings	
	Energy saved (kWh): Other resources saved:						
	Natural Gas (m3):						
	Other (specify):						
	<u>Demand Management Programs:</u> Controlled load (kW)						
	Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak						
	Energy shifted Mid-peak to Off-peak						
	Demand Response Programs:						
	Dispatchable load (kW): Peak hours dispatched in year (hours):						
	Power Factor Correction Program	,					
	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):	modyolo	iii yeai				
	Distributed Generation and Load I	Displacement Programs:					
	Amount of DG installed (kW): Energy generated (kWh):						
	Peak energy generated (kWh): Fuel type:						
	Other Programs (specify):						
	Metric (specify):						

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

E.	Assumptions & Comment	s:

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.

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(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	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 Ife to date						
В.	TRC Results: TRC Benefits (\$):		Reporting Year	Life-to-date	TRC Results:		
	TRC Costs (\$):						
		program cost (excluding incentives):	\$ 40.7	78 \$ 172.80	1		
	incrementa	I Measure Costs (Equipment Costs)  Total TRC costs:	\$ 40.7	8 \$	172.80		
	Net TRC (in year CDN \$):						
	Benefit to Cost Ratio (TRC Benefits/	TRC Costs):					
C.	Results: (one or more category may	apply)		Cumulati	ve Results:		
	Conservation Programs:						
	Demand savings (kW):	Summer Winter					
		vvinter					
	Energy saved (kWh):	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings		
	Other resources saved :						
	Natural Gas (m3):						
	Other (specify):						
	<u>Demand Management Programs:</u> Controlled load (kW) Energy shifted On-peak to Mid-peak	(kM/b):					
	Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak	(kWh):					
	Demand Response Programs: Dispatchable load (kW):						
	Peak hours dispatched in year (hour	rs):					
	Power Factor Correction Programs Amount of KVar installed (KVar): Distribution system power factor at b Distribution system power factor at b	egining of year (%):					
	Line Loss Reduction Programs:						
	Peak load savings (kW):	lifecycle	in year				
	Energy savngs (kWh):	mecycle	iii yeai				
	Distributed Generation and Load I Amount of DG installed (kW): Energy generated (kWh): Peak energy generated (kWh): Fuel type:	Displacement Programs:					
	Other Programs (specify):  Metric (specify):						

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.

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

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

(complete this Appendix for each program)

A.	Name of the Program:	Smart Meter - Residential (Opera	ation Group Fee)						
	Description of the program (including intent, design, delivery, partnerships and evaluation):								
	Please see 2006 CDM Report (page Working Group membership fee	Please see 2006 CDM Report (page 11) for additional description of this Program. Smart Meter - Residential. Operations 2006 Working Group membership fee							
	Measure(s):	Magaura 1	Magaura 2 (if applicable)	Magaura 2	(if applicable)				
	Base case technology:	Measure 1	Measure 2 (if applicable)	Measure 3	(if applicable)				
	Efficient technology: Number of participants or units delivered for reporting year:								
	Measure life (years):								
	Number of Partipants or unites delievered Ife to date								
В.	TRC Results:  1 TRC Benefits (\$):		Reporting Year	Life-to-date	TRC Results:				
	<sup>2</sup> TRC Costs (\$):								
		program cost (excluding incentives):  I Measure Costs (Equipment Costs)	\$ 10.01		\$ 13.51				
		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)		<u>Cumulati</u>	ve Results:				
	Conservation Programs:								
	Demand savings (kW):	Summer Winter							
				Cuma dativa	Cumulative				
	Energy saved (kWh): Other resources saved:	lifecycle	in year	Cumulative Lifecycle	Annual Savings				
	Natural Gas (m3):								
	Other (specify):								
	<u>Demand Management Programs:</u> Controlled load (kW)								
	Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak								
	Energy shifted Mid-peak to Off-peak	• •							
	Demand Response Programs:								
	Dispatchable load (kW): Peak hours dispatched in year (hour	·a).							
	Power Factor Correction Programs  Amount of KVar installed (KVar):	<u>s:</u>							
	Distribution system power factor at b	pegining of year (%):							
	Distribution system power factor at e	end of year (%):							
	Line Loss Reduction Programs:								
	Peak load savings (kW):	lifecycle	in year						
	Energy savngs (kWh):								
	<u>Amount of DG installed (kW)</u> :	Displacement Programs:							
	Amount of DG installed (kW): Energy generated (kWh):	Displacement Programs:							
	Amount of DG installed (kW):	<u>Displacement Programs:</u>							

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:

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

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

### (complete this Appendix for each program)

	<b>(</b> -			, ,		
A.	Name of the Program:	<b>Customer Awareness Education</b>			CDM-108	
	Description of the program (include	ding intent, design, delivery, pa	rtne	erships and evaluation):		
	Please see 2006 CDM Report (pag factors in achieving a heightened chillustrate the principal areas of consuconservation. These programs could. An internet portal where customers electricity. Self registered programs that allow appliances. Implementation of tools that illustratindividual consumer. Implementation of campaigns to but consumption. Target users: All businesses and reservaluation: Radio advertisements a and spot visits of presentations.	ange in energy efficiency. Prograumption and demonstrate the save and the can create custom profiles of the customers to track their savings the the affect of weather, seasonal wild both general and targeted awastidents in the City of Oshawa. Bell	ms ings ings thro thro arer	will be targeted at home and a impact available through character or business and understands the changing behavior or additional occupants on a less and measure the impact as: Helping to kept energy efficient	business These anging consumpt and where they a copting more energy consumpt of direct marketicient use top of r	ee programs will ion patterns and are consuming rgy efficient tion for each ng on nind.
	Measure(s):					
	Measure(3).	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 Ife to date	168				
B.	TRC Results:			Reporting Year	Life-to-date	TRC Results:
1	TRC Benefits (\$):		\$	-		3.74767
	TRC Costs (\$):					
	Utility	program cost (excluding incentives):	\$	75.08		\$ 81.55
	Incrementa	al 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)			Cumulati	ve Results:
	O					
	Conservation Programs:	Cumamaa	0			
	Demand savings (kW):	Summer Winter	0			
		vviittei	J			
					Cumulative	Cumulative
		lifecycle		in year	Lifecycle	Annual Savings
	Energy saved (kWh):	0	0		63140	15785
	Other resources saved :					
	Natural Gas (m3):					
	Other (specify):					
	<u>Demand Management Programs:</u> Controlled load (kW)					
	Energy shifted On-peak to Mid-peak	(kWh):				
	Energy shifted On-peak to Off-peak	Energy shifted On-peak to Off-peak (kWh):				
	Energy shifted Mid-peak to Off-peak	(kWh):				
	<u>Demand Response Programs:</u> Dispatchable load (kW):					
	Peak hours dispatched in year (hour	rs):				
	Power Factor Correction Program					
	Amount of KVar installed (KVar):	<u>o.</u>				
	Distribution system power factor at the	negining of year (%)				
	Distribution system power factor at 6					
	,					
	Line Loss Reduction Programs:					

lifecycle

in year

	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:	\$ 75.0	08 \$ 81.55
		Incentive:		
		Total:		
	Utility indirect costs (\$):	Incremental capital:		
		Incremental O&M:		
		Total:		
E.	Assumptions & Comments:			
	Assumptions & Comments.			
	Benefits should be estimated if costs have been in	curred and the technology has been deployed. B	enetits reflect the present value of the measure	ire for the number of units deployed in the year, i.e.

Energy savngs (kWh):

**Distributed Generation and Load Displacement Programs:** 

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

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

(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 applie	abla)		
	Base case technology:	ivieasure i	ivieasure 2 (ii applicable)	Measure 3	(п аррпс	able)		
	Efficient technology: Number of participants or units delivered for reporting year:							
	Measure life (years):							
	Number of Partipants or unites delievered Ife to date							
В.	TRC Results: TRC Benefits (\$):		Reporting Year	Life-to-date	TRC Re	sults:		
	<sup>2</sup> TRC Costs (\$):							
		program cost (excluding incentives):  I Measure Costs (Equipment Costs)	\$ 53.82		\$	53.82		
	Not TDO (in cook of the	Total TRC costs:	\$ 53.82	\$		53.82		
	Net TRC (in year CDN \$):	TD0.0						
	Benefit to Cost Ratio (TRC Benefits/	·						
C.	Results: (one or more category may	apply)		<u>Cumulati</u>	ve Resu	<u>lts:</u>		
	Conservation Programs:  Demand savings (kW):	Summer						
	Demand Savings (KW).	Winter						
				Cumulative	Cumula	ative		
		lifecycle	in year	Lifecycle		Savings		
	Energy saved (kWh): Other resources saved:							
	Natural Gas (m3):							
	Other (specify):							
	<u>Demand Management Programs:</u> Controlled load (kW)							
	Energy shifted On-peak to Mid-peak	(kWh):						
	Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak							
	Demand Response Programs:	(11111).						
	Dispatchable load (kW):							
	Peak hours dispatched in year (hour	s):						
	Power Factor Correction Program	<u>s:</u>						
	Amount of KVar installed (KVar):  Distribution system power factor at b	pegining of year (%):						
	Distribution system power factor at e							
	Line Loss Reduction Programs:							
	Peak load savings (kW):	lifecycle	in year					
	Energy savngs (kWh):	esyele	you.					
	<u>Distributed Generation and Load I</u> Amount of DG installed (kW):	Displacement Programs:						
	Energy generated (kWh):							
	Peak energy generated (kWh): Fuel type:							
	Other Programs (specify):							

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

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

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

(complete this Appendix for each program)

Incremental Measure Costs (Equipment Costs)  Total TRC costs: \$ 21.81 \$ 2  Net TRC (in year CDN \$):  Benefit to Cost Ratio (TRC Benefits/TRC Costs):  C. Results: (one or more category may apply)  Conservation Programs:  Demand savings (kW):  Summer  Winter  Cumulative Cumulative	A. Name of the Program:	Commercial and Industrial Syste	em Protype and Pilot		CDM-300A			
Measure (s):  Base case technology: Efficient technology: Number of participants or units delivered for reporting year: Measure Ille (years):  Number of Partipants or unites delivered life to date  B. TRC Results: TRC Benefits (\$):  TRC Costs (\$):  Utility program cost (excluding incentives): Incremental Measure Costs (Equipment Costs)  Total TRC costs:  Denefit to Cost Ratio (TRC Benefits/TRC Costs):  C. Results: (one or more category may apply)  Conservation Programs: Demand savings (kW):  Summer Winter  Natural Gas (m3): 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 Mid-peak (kWh): Energy shifted On-peak to Off-peak (kWh):	Description of the program (	rtnerships and evaluation):						
Measure 1 Measure 2 (if applicable)  Base case technology: Efficient technology: Number of participants or units delivered for reporting year: Measure life (years):  Number of Partipants or unites delivered file to date  B. TRC Results: ¹ TRC Benefits (\$): ² TRC Costs (\$):  Utility program cost (excluding incentives): Incremental Measure Costs (Equipment Costs)  Total TRC costs:  \$ 21.81 \$ 2  Net TRC (in year CDN \$):  Benefit to Cost Ratio (TRC Benefits/TRC Costs):  C. Results: (one or more category may apply)  Conservation Programs: Demand savings (kW):  Summer Winter    iifecycle   in year   Cumulative   Cumulative	System Protoype and pilot for	System Protoype and pilot for Commercial/ Industrial class customers						
Measure 1 Measure 2 (if applicable)  Base case technology: Efficient technology: Number of participants or units delivered for reporting year: Measure life (years):  Number of Partipants or unites delivered file to date  B. TRC Results: ¹ TRC Benefits (\$): ² TRC Costs (\$):  Utility program cost (excluding incentives): Incremental Measure Costs (Equipment Costs)  Total TRC costs:  \$ 21.81 \$ 2  Net TRC (in year CDN \$):  Benefit to Cost Ratio (TRC Benefits/TRC Costs):  C. Results: (one or more category may apply)  Conservation Programs: Demand savings (kW):  Summer Winter    iifecycle   in year   Cumulative   Cumulative								
Measure 1 Measure 2 (if applicable)  Base case technology: Efficient technology: Number of participants or units delivered for reporting year: Measure life (years):  Number of Partipants or unites delivered file to date  B. TRC Results: ¹ TRC Benefits (\$): ² TRC Costs (\$):  Utility program cost (excluding incentives): Incremental Measure Costs (Equipment Costs)  Net TRC (in year CDN \$):  Benefit to Cost Ratio (TRC Benefits/TRC Costs):  C. Results: (one or more category may apply)  Conservation Programs: Demand savings (kW):  Summer Winter    lifecycle   in year   Cumulative								
Measure 1 Measure 2 (if applicable)  Base case technology: Efficient technology: Number of participants or units delivered for reporting year: Measure life (years):  Number of Partipants or unites delivered file to date  B. TRC Results: ¹ TRC Benefits (\$): ² TRC Costs (\$):  Utility program cost (excluding incentives): Incremental Measure Costs (Equipment Costs)  Total TRC costs:  \$ 21.81 \$ 2  Net TRC (in year CDN \$):  Benefit to Cost Ratio (TRC Benefits/TRC Costs):  C. Results: (one or more category may apply)  Conservation Programs: Demand savings (kW):  Summer Winter    iifecycle   in year   Cumulative   Cumulative	Moasuro(s):							
Efficient technology: Number of participants or units delivered for reporting year: Measure life (years):  Number of Partipants or unites delivered life to date  B. TRC Results: TRC Benefits (\$): TRC Costs (\$):  Utility program cost (excluding incentives): Incremental Measure Costs (Equipment Costs) Total TRC costs:  Net TRC (in year CDN \$):  Benefit to Cost Ratio (TRC Benefits/TRC Costs):  C. Results: (one or more category may apply)  Conservation Programs: Demand savings (kW):  Summer Winter  Iffecycle in year  Cumulative Results:  Cumulative Results:  Cumulative Cumulative Lifecycle Annual Sav  Cumulative Cumulative Lifecycle Annual Sav  Controlled load (kWh):  Demand Management Programs: Controlled load (kWh): Energy shifted On-peak to Mid-peak (kWh): Energy shifted On-peak to Off-peak (kWh): Energy shifted On-peak to Off-peak (kWh): Energy shifted On-peak to Off-peak (kWh):	• •	Measure 1	Measure 2 (if applicable)	Measure 3 (	(if applicable)			
delivered for reporting year: Measure life (years):  Number of Partipants or unites delievered life to date  B. TRC Results:  TRC Benefits (\$):  **TRC Costs (\$):  **Utility program cost (excluding incentives): **Incremental Measure Costs (Equipment Costs) **Incremental Measure Costs (Equipment Cos	<del></del> -							
Measure life (years):  Number of Partipants or unites delievered life to date  B. TRC Results:  TRC Benefits (\$):  TRC Benefits (\$):  Utility program cost (excluding incentives): Incremental Measure Costs (Equipment Costs) Total TRC costs:  Net TRC (in year CDN \$):  Benefit to Cost Ratio (TRC Benefits/TRC Costs):  C. Results: (one or more category may apply)  Conservation Programs: Demand savings (kW):  Summer Winter  Winter  Iffecycle in year  Cumulative Cumulative Lifecycle Annual Sav  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):								
B. TRC Results:  TRC Results:  TRC Benefits (\$):  TRC Costs (\$):  Utility program cost (excluding incentives): Incremental Measure Costs (Equipment Costs) Total TRC costs:  Benefit to Cost Ratio (TRC Benefits/TRC Costs):  C. Results: (one or more category may apply)  Conservation Programs: Demand savings (kW):  Utility program cost (excluding incentives): Total TRC costs:  Summer Winter  Cumulative Results:  Cumulative Lifecycle In year  Cumulative Lifecycle Annual Sav.  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 On-peak to Off-peak (kWh): Energy shifted On-peak to Off-peak (kWh):								
B. TRC Results:  TRC Benefits (\$):  TRC Costs (\$):  Utility program cost (excluding incentives): Incremental Measure Costs (Equipment Costs) Total TRC costs:  Benefit to Cost Ratio (TRC Benefits/TRC Costs):  C. Results: (one or more category may apply) Conservation Programs: Demand savings (kW):  Utility program cost (excluding incentives): Total TRC costs:  Summer Winter  Cumulative Results:  Cumulative Results:  Cumulative Cumulative Lifecycle In year  Cumulative Cumulative Lifecycle Annual Sav.  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 On-peak to Off-peak (kWh):	Number of Partipants or unites							
1 TRC Benefits (\$):  2 TRC Costs (\$):  Utility program cost (excluding incentives): \$ 21.81 \$ 2 Incremental Measure Costs (Equipment Costs)  Total TRC costs: \$ 21.81 \$ 2 Incremental Measure Costs (Equipment Costs)  Net TRC (in year CDN \$):  Benefit to Cost Ratio (TRC Benefits/TRC Costs):  C. Results: (one or more category may apply)  Conservation Programs:  Demand savings (kW):  Summer Winter    lifecycle   in year   Cumulative   Cumulative	•							
2 TRC Costs (\$):  Utility program cost (excluding incentives): Incremental Measure Costs (Equipment Costs) Total TRC costs:  Net TRC (in year CDN \$):  Benefit to Cost Ratio (TRC Benefits/TRC Costs):  C. Results: (one or more category may apply)  Conservation Programs: Demand savings (kW):  Summer Winter  Utility program cost (excluding incentives):  Summer Winter  Cumulative Results:  Contended (kWh): Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak (kWh): Energy shifted On-peak to Off-peak (kWh): Energy shifted On-peak to Off-peak (kWh):			Reporting Year	Life-to-date	TRC Results:			
Incremental Measure Costs (Equipment Costs)  Total TRC costs: \$ 21.81 \$ 2  Net TRC (in year CDN \$):  Benefit to Cost Ratio (TRC Benefits/TRC Costs):  C. Results: (one or more category may apply)  Conservation Programs:  Demand savings (kW):  Summer Winter  Summer Winter  Lifecycle In year  Cumulative Cumulative Cumulative Cumulative Lifecycle Annual Sav  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):	***							
Total TRC costs: \$ 21.81   \$ 2			\$ 21.81		\$ 27.34			
Benefit to Cost Ratio (TRC Benefits/TRC Costs):  C. Results: (one or more category may apply)  Conservation Programs:  Demand savings (kW):  Summer  Winter   Summer  Winter   Cumulative Cumulative  Lifecycle in year  Cumulative  Lifecycle Annual Sav  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):			\$ 21.81	\$	27.34			
C. Results: (one or more category may apply)  Conservation Programs:  Demand savings (kW):  Summer Winter   Lifecycle  In year  Cumulative Cumulative Lifecycle Annual Sav  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):								
Conservation Programs:  Demand savings (kW):  Summer Winter   lifecycle  in year  Cumulative Lifecycle Annual Sav  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):								
Demand savings (kW):  Summer Winter   Lifecycle  In year  Cumulative Lifecycle Annual Sav  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):	C. Results: (one or more categor	y may apply)		<u>Cumulativ</u>	ve Results:			
Winter    lifecycle   in year   Cumulative   Cumulative   Annual Save   Cumulative   Annual Save   Cumulative   Annual Save   Cumulative   Cumulative   Annual Save   Cumulative   Cumulative   Annual Save   Cumulative   Cumulat		Summor						
Iifecycle in year Lifecycle Annual Save 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):	Demand Savings (KW).							
Energy saved (kWh): Other resources saved:  Natural Gas (m3): Other (specify):  Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak (kWh): Energy shifted On-peak to Off-peak (kWh):				Cumulative	Cumulative			
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):	Converse on and (IdM/h)	lifecycle	in year	Lifecycle	Annual Savings			
Other (specify):  Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak (kWh): Energy shifted On-peak to Off-peak (kWh):	• • • • • • • • • • • • • • • • • • • •							
Demand Management Programs:  Controlled load (kW)  Energy shifted On-peak to Mid-peak (kWh):  Energy shifted On-peak to Off-peak (kWh):								
Controlled load (kW)  Energy shifted On-peak to Mid-peak (kWh):  Energy shifted On-peak to Off-peak (kWh):		•						
Energy shifted On-peak to Off-peak (kWh):	Controlled load (kW)							
		, , , ,						
Demand Response Programs:		<u>:</u>						
Dispatchable load (kW):  Peak hours dispatched in year (hours):		(hours):						
Power Factor Correction Programs:								
Amount of KVar installed (KVar):	Amount of KVar installed (KVa	r):						
Distribution system power factor at begining of year (%):  Distribution system power factor at end of year (%):								
Line Loss Reduction Programs:	Line Loss Reduction Program	ns:						
Peak load savings (kW):  lifecycle in year	Peak load savings (kW):	lifocyolo	in year					
Energy savngs (kWh):	Energy savngs (kWh):	шесуые	ııı yeai					
Distributed Generation and Load Displacement Programs:		oad Displacement Programs:						
Amount of DG installed (kW):  Energy generated (kWh):	. ,							
Peak energy generated (kWh): Fuel type:	Peak energy generated (kWh).							
Other Programs (specify):	• •							
Metric (specify):	· · · · · · · · · · · · · · · · · · ·							

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.	Accumption	ne &	Comments:
⊏.	ASSUMPLIC	JIIS Q	Comments:

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

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

A.	Name of the Program:	Independent Market Operator De	emand Re	esponse Pilot Project	CDM-303	
	Description of the program (include	ling intent, design, delivery, pa	rtnership	s and evaluation):		
	Please see 2006 CDM Report (page Independent Electricity System Oper The program identifies customers who Target users Customers who have the Benefits: To the IESO to see how must evaluating the cost benefit of continuous	rator to enroll and work with custon no can shed load on short notice. ne ability to drop load uch load can be dropped in an en	mers to s The notif	hed load. ication is driven by a pri	ce spike and delivered to then	n by e-mail.
	Measure(s):	Measure 1	Mea	sure 2 (if applicable)	Measure 3 (if application	able)
	Base case technology: Efficient technology: Number of participants or units delivered for reporting year: Measure life (years):	Wedsure 1	Wicas	sare 2 (ii applicable)	тевзие з (п аррпо	ablej
	Number of Partipants or unites delievered Ife to date					
B.	TRC Results:  1 TRC Benefits (\$):		ļ	Reporting Year	Life-to-date TRC Re	sults:
		program cost (excluding incentives): al Measure Costs (Equipment Costs) Total TRC costs:	\$	9.82	œ.	\$ 21.99
	Net TRC (in year CDN \$):	Total TRC costs.	Ψ	9.02	Ф	21.99
	Benefit to Cost Ratio (TRC Benefits/	TRC Costs):				
C.	Results: (one or more category may	apply)			Cumulative Resul	ts:
	Conservation Programs: Demand savings (kW):	Summer Winter				Cumulativ
		lifecycle		in year	Cumulative Lifecycle	e Annual Savings
	Energy saved (kWh): Other resources saved : Natural Gas (m3): Other (specify):		88000			
	Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak	(kWh):				
	Demand Response Programs:  Dispatchable load (kW):  Peak hours dispatched in year (hour	, ,				
	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 (%):					
	<u>Line Loss Reduction Programs:</u> Peak load savings (kW):	lifecycle		in year		
	Energy savngs (kWh):	mooyoto		y Juli		
	Distributed Generation and Load E Amount of DG installed (kW): Energy generated (kWh): Peak energy generated (kWh): Fuel type:	Displacement Programs:				

#### Other Programs (specify):

Metric (specify):

D.	Actual Program Costs:		Rep	orting 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:					

#### Assumptions & Comments:

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

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.

^	Name of the Brown	Overteen Outlinington	ODM 400			
A.	Name of the Program:	System Optimization	CDM-400			
	Description of the program (include	ling intent, design, delivery, par	tnerships and evaluation):			
	Please see 2006 CDM Report (page is to be able to identify the major cau from distribution lines and transforme information will be used to develop a mitigation on the distribution systems techniques on individual feeders. The justified.  The overall intent of the study would could be achieved. The loss reduction could be applied most easily by the udetermined.  Target users: The Distribution system Benefits: A reduction is energy losse.	ases of losses on OPUCN's distributers, and estimation of the percent loss reduction strategy. A further is. Detailed feeder modeling would is work would establish areas who be to illustrate where cost saving on techniques that utility to achieve the greatest return	oution feeders. This first involves age contribution of each to the to robjective would be to identify split be required to assess the finance ere implementation of loss reducts would be available and the met in with the least investment in time	a high level analysis of losses tal system losses. This pecific opportunities for loss cial impact of particular mitigation tion techniques could be cost hodology by which savings		
	Measure(s):					
	Base case technology:	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable	e)	
	Efficient technology:					
	Number of participants or units delivered for reporting year:					
	Measure life (years):					
	Number of Partipants or unites					
	delievered Ife to date					
B.	TRC Results:		Reporting Year	Life-to-date TRC Resu	lts:	_
	<sup>1</sup> TRC Benefits (\$): <sup>2</sup> TRC Costs (\$):					
	***	program cost (excluding incentives):	\$ 5.00		\$ 5.0	00
	Incrementa	I Measure Costs (Equipment Costs)				
	Net TRC (in year CDN \$):	Total TRC costs:	\$ 5.00	\$	5.0	0
	-	TDC Contol:				_
	Benefit to Cost Ratio (TRC Benefits/					
C.	Results: (one or more category may	арріу)		<u>Cumulative Results</u>	_	
	Conservation Programs:					
	Demand savings (kW):	Summer Winter				
		· · · · · · · · · · · · · · · · · · ·			Cumulat	
		lifecycle	in year	Cumulative Lifecycle	e Annua Savings	
	Energy saved (kWh):	mecycle	iii yeai	Camalatto Encoyolo	Cavingo	
	Other resources saved :					
	Natural Gas (m3):					
	Other (specify):					
	<u>Demand Management Programs:</u> Controlled load (kW)					
	Energy shifted On-peak to Mid-peak	(kWh):				
	Energy shifted On-peak to Off-peak					
	Energy shifted Mid-peak to Off-peak	(kWh):				
	Demand Response Programs:					
	Dispatchable load (kW):	a).				
	Peak hours dispatched in year (hour					
	Power Factor Correction Programs  Amount of KVar installed (KVar):	<u>3:</u>				
	Amount of KVar installed (KVar): Distribution system power factor at b	egining of year (%):				
	Distribution system power factor at e					
	Line Loss Reduction Programs:					
	Peak load savings (kW):					

Energy savngs (kWh):

<u>Distributed Generation and Load Displacement Programs:</u>	
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:			

#### **Assumptions & Comments:**

<sup>1</sup> Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of

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

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"

(complete this Appendix for each program)

A.	Name of the Program:	CDM Web Infrastructure	CDM-40	01&CDM-402
	Description of the program (include	ling intent, design, delivery, pa	rtnerships and evaluation):	
	Set up of CDM Web infrastructure (c	one time fee). Software Design.		
	Measure(s):			
	Base case technology:	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
	Efficient technology: Number of participants or units			
	delivered for reporting year:			
	Measure life (years):			
	Number of Partipants or unites delievered Ife to date			
В.	TRC Results:		Reporting Year	Life-to-date TRC Results:
	<sup>1</sup> TRC Benefits (\$):			
	<sup>2</sup> TRC Costs (\$): Utility	program cost (excluding incentives):	\$ 70.80	\$ 141.43
	Incrementa	I Measure Costs (Equipment Costs)	<b>A</b> 70.00	0 444.40
	Net TRC (in year CDN \$):	Total TRC costs:	\$ 70.80	\$ 141.43
	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 vear	Cumulative Cumulative Lifecvcle Annual Savings
	Energy saved (kWh):	lifecycle	in year	Cumulative Cumulative Lifecycle Annual Savings
	Other resources saved :	lifecycle	in year	
	• • • • • • • • • • • • • • • • • • • •	lifecycle	in year	
	Other resources saved :  Natural Gas (m3):  Other (specify):  Demand Management Programs:	lifecycle	in year	
	Other resources saved :  Natural Gas (m3): Other (specify):  Demand Management Programs: Controlled load (kW)	·	in year	
	Other resources saved :  Natural Gas (m3): Other (specify):  Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak	(kWh): (kWh):	in year	
	Other resources saved :  Natural Gas (m3): Other (specify):  Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak	(kWh): (kWh):	in year	
	Other resources saved :  Natural Gas (m3): Other (specify):  Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak	(kWh): (kWh):	in year	
	Other resources saved :  Natural Gas (m3): Other (specify):  Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak	(kWh): (kWh): (kWh):	in year	
	Other resources saved:  Natural Gas (m3): Other (specify):  Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted Mid-peak to Off-peak Energy shifted On-peak to Mid-peak Energy shifted On-peak to Mid-peak Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted On-peak to Off-pea	(kWh): (kWh): (kWh):	in year	
	Other resources saved:  Natural Gas (m3): Other (specify):  Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted Mid-peak to Off-peak Energy shifted On-peak to Off-peak Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak En	(kWh): (kWh): (kWh): (kWh):	in year	
	Other resources saved:  Natural Gas (m3): Other (specify):  Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted Mid-peak to Off-peak Energy shifted On-peak to Mid-peak Energy shifted On-peak to Mid-peak Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted On-peak to Off-pea	(kWh): (kWh): (kWh): (s): ss:	in year	
	Other resources saved:  Natural Gas (m3): Other (specify):  Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Demand Response Programs: Dispatchable load (kW): Peak hours dispatched in year (hour Power Factor Correction Program Amount of KVar installed (KVar): Distribution system power factor at the Distribution system power factor at the Line Loss Reduction Programs:	(kWh): (kWh): (kWh): (s): ss:	in year	
	Other resources saved:  Natural Gas (m3): Other (specify):  Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Demand Response Programs: Dispatchable load (kW): Peak hours dispatched in year (hour Power Factor Correction Program Amount of KVar installed (KVar): Distribution system power factor at the	(kWh): (kWh): (kWh): (s): ss: begining of year (%): end of year (%):	in year	
	Other resources saved:  Natural Gas (m3): Other (specify):  Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Demand Response Programs: Dispatchable load (kW): Peak hours dispatched in year (hour Power Factor Correction Program Amount of KVar installed (KVar): Distribution system power factor at the Distribution system power factor at the Line Loss Reduction Programs:	(kWh): (kWh): (kWh): (s): ss:		
	Other resources saved:  Natural Gas (m3): Other (specify):  Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy savings (kW): Energy savings (kWh):  Distributed Generation and Load I	(kWh): (kWh): (kWh): s): segining of year (%): end of year (%): lifecycle		
	Other resources saved:  Natural Gas (m3): Other (specify):  Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Demand Response Programs: Dispatchable load (kW): Peak hours dispatched in year (hour Power Factor Correction Program Amount of KVar installed (KVar): Distribution system power factor at the Distribution system power factor at the Distribution system power factor at the Energy savings (kW): Energy savings (kWh):  Distributed Generation and Load I Amount of DG installed (kW): Energy generated (kWh):	(kWh): (kWh): (kWh): s): segining of year (%): end of year (%): lifecycle		
	Other resources saved:  Natural Gas (m3): Other (specify):  Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Demand Response Programs: Dispatchable load (kW): Peak hours dispatched in year (hour Power Factor Correction Program Amount of KVar installed (KVar): Distribution system power factor at to Distribution system power factor at to Distribution system power factor at to Eine Loss Reduction Programs: Peak load savings (kW): Energy savngs (kWh): Distributed Generation and Load I Amount of DG installed (kW): Energy generated (kWh): Peak energy generated (kWh):	(kWh): (kWh): (kWh): s): segining of year (%): end of year (%): lifecycle		
	Other resources saved:  Natural Gas (m3): Other (specify):  Demand Management Programs: Controlled load (kW) Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Energy shifted Mid-peak to Off-peak Demand Response Programs: Dispatchable load (kW): Peak hours dispatched in year (hour Power Factor Correction Program Amount of KVar installed (KVar): Distribution system power factor at the Distribution system power factor at the Distribution system power factor at the Energy savings (kW): Energy savings (kWh):  Distributed Generation and Load I Amount of DG installed (kW): Energy generated (kWh):	(kWh): (kWh): (kWh): s): segining of year (%): end of year (%): lifecycle		

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

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

(complete this Appendix for each program)

A.	Name of the Program: 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								
		1 2 2 2 2							
	Measure(s):		M 0 (11 11			<i>(</i> : <i>(</i>   1:			
	Base case technology:	Measure 1	Measure 2 (if applic	cable)	Measure 3	(if applic	able)		
	Efficient technology:								
	Number of participants or units delivered for reporting year:								
	Measure life (years):								
	Number of Partipants or unites								
	delievered Ife to date								
В.	TRC Results:		Reporting Yea	<u>ır</u>	Life-to-date	TRC Re	sults:		
	<sup>1</sup> TRC Benefits (\$): <sup>2</sup> TRC Costs (\$):								
	Utility	program cost (excluding incentives):	\$	4.75		\$	4.75		
	Incrementa	I Measure Costs (Equipment Costs)  Total TRC costs:	\$	4.75	¢		4.75		
	Net TRC (in year CDN \$):	Total TNO costs.	Ψ	4.73	Ψ		4.73		
	Benefit to Cost Ratio (TRC Benefits/	TRC Costs):							
C.	Results: (one or more category may	apply)			Cumulati	ve Resu	lts:		
	Conservation Programs:								
	Demand savings (kW):	Summer							
		Winter							
					Cumulative	Cumula			
	Energy saved (kWh):	lifecycle	in year		Lifecycle	Annuai	Savings		
	Other resources saved :								
	Natural Gas (m3): Other (specify):								
	Demand Management Programs:								
	Controlled load (kW)								
	Energy shifted On-peak to Mid-peak Energy shifted On-peak to Off-peak								
	Energy shifted Mid-peak to Off-peak								
	Demand Response Programs:								
	Dispatchable load (kW):								
	Peak hours dispatched in year (hour								
	Power Factor Correction Program.  Amount of KVar installed (KVar):	<u>s:</u>							
	Distribution system power factor at b	pegining of year (%):							
	Distribution system power factor at e	end of year (%):							
	Line Loss Reduction Programs:								
	Peak load savings (kW):	lifecycle	in year						
	Energy savngs (kWh):	,	, you.						
	Distributed Generation and Load I	Displacement Programs:							
	Amount of DG installed (kW): Energy generated (kWh):								
	Peak energy generated (kWh):								
	Fuel type:								
	Other Programs (specify):  Metric (specify):								

Utility direct costs (\$):	Incremental capital:	\$ 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:	

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

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