



**MILTON HYDRO DISTRIBUTION INC.**

55 Thompson Road South, Milton, Ontario L9T 6P7  
Telephone (905) 876-4611 • Fax (905) 876-2044

March 31, 2009

Ms. Kirsten Walli, Board Secretary  
Ontario Energy Board  
P.O. Box 2319  
2300 Yonge Street, Suite 2700  
Toronto, Ontario  
M4P 1E4

Dear Ms. Walli:

**Re: Milton Hydro Distribution Inc RP-2004-0203\ ED 2005-0391  
2008 Conservation and Demand Annual Report**

Further to your Guideline for Annual Reporting of CDM Initiatives, Milton Hydro Distribution Inc. has enclosed three (3) hard copies and two (2) electronic copies of our annual report for the period ending December 31, 2008.

If you have any questions, please do not hesitate to contact me.

Yours truly,

Mary-Jo Corkum, C.A.  
Vice-President, Finance

**Re: Milton Hydro Distribution Inc RP-2004-0203\ ED 2005-0391  
2008 Conservation and Demand Annual Report**

**Introduction**

As reported for 2007, Milton Hydro Distribution Inc. (“Milton Hydro”) fundamentally believes that a significant change is required in the conservation ethic of consumers if we are to achieve a long-term supply-demand balance. Enabling technologies and programs in our plan and those that we have implemented over the last several years have that single goal in mind. The initiatives contained in our plan are intended to achieve behavioral change by directly engaging consumers in our community in making their energy use decisions.

**Evaluation of the CDM Plan**

Please refer to Appendix A and C as attached.

**Discussion of the Programs**

Please refer to Appendix B as attached outlining the various programs in Milton Hydro’s CDM Plan.

**Lessons Learned and Conclusion**

As was reported for 2007 regarding insights and barriers from our experiences to-date with CDM, we again offer the following comments. Milton Hydro is concerned that the focus on TRC undervalues many of our programs, which are targeted at helping to realize ‘the Conservation Culture’. Many of Milton Hydro’s programs are focused on demand response and we don’t consider it reasonable that the TRC Guide (p. ix, Appendix C) assigns a value of 0 \$/kW in 2006 and 2007 for demand avoided generation, avoided transmission capacity and avoided distribution capacity costs and demand response. We note that demand avoided generation, and avoided transmission capacity costs are assigned values for 2008.

The recent shift toward demand response initiatives in Ontario and throughout North America would seem to support this conclusion. Significant effort should be placed in reducing the customer transaction costs associated with demand response initiatives.

**Discussion of Remaining Balance**

Milton Hydro Distribution Inc. has spent its third tranche CDM budget on the various programs and does not have any remaining balance.

## 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.

	Total for 2008	Residential	<sup>5</sup> Low Income	Commercial	Institutional	Industrial	Agricultural	LDC System	<sup>4</sup> Smart Meters	Other #1	Other #2
<i>Net TRC value (\$):</i>	\$ -	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
<i>Benefit to cost ratio:</i>	0.00	0.00		0.00	0.00	0.00	0.00	0.00		0.00	0.00
<i>Number of participants or units delivered:</i>											
<i>Lifecycle (kWh) Savings:</i>	0	0		0	0	0	0	0		0	0
<i>Report Year Total kWh saved (kWh):</i>	0	0		0	0	0	0	0		0	0
<i>Total peak demand saved (kW):</i>	0	0		0	0	0	0	0		0	0
<i>Total kWh saved as a percentage of total kWh delivered (%):</i>											
<i>Peak kW saved as a percentage of LDC peak kW load (%):</i>											
<sup>1</sup> <i>Report Year Gross C&amp;DM expenditures (\$):</i>	\$ -	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<sup>2</sup> <i>Expenditures per kWh saved (\$/kWh):</i>	\$ -	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
<sup>3</sup> <i>Expenditures per kW saved (\$/kW):</i>	\$ -	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
<i>Utility discount rate (%):</i>	8.13%										

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

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

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

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

# Appendix B - Discussion of the Program

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

A. **Name of the Program:**

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

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
Efficient technology:	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
Number of participants or units delivered for reporting year:	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
Measure life (years):	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
Number of Participants or units delivered life to date	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>

<b>B. TRC Results:</b>	<b>Reporting Year</b>	<b>TRC Results:</b>
<sup>1</sup> TRC Benefits (\$):	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
<sup>2</sup> TRC Costs (\$):		
Utility program cost (excluding incentives):	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
Incremental Measure Costs (Equipment Costs)	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
Total TRC costs:	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
<b>Net TRC (in year CDN \$):</b>		
<hr style="border-top: 3px double #000;"/>		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>

<b>C. Results:</b> (one or more category may apply)	<b>Cumulative Results:</b>
<b><u>Conservation Programs:</u></b>	
Demand savings (kW):	
Summer	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
Winter	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
lifecycle	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
in year	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
Energy saved (kWh):	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
Other resources saved :	
Natural Gas (m3):	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
Other (specify):	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
<b><u>Demand Management Programs:</u></b>	
Controlled load (kW)	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
Energy shifted On-peak to Mid-peak (kWh):	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
Energy shifted On-peak to Off-peak (kWh):	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
Energy shifted Mid-peak to Off-peak (kWh):	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
<b><u>Demand Response Programs:</u></b>	
Dispatchable load (kW):	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
Peak hours dispatched in year (hours):	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
<b><u>Power Factor Correction Programs:</u></b>	
Amount of KVar installed (KVar):	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
Distribution system power factor at beginning of year (%):	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>
Distribution system power factor at end of year (%):	<span style="background-color: #e0ffe0; display: inline-block; width: 100%; height: 15px;"></span>

**Line Loss Reduction Programs:**

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
Energy savings (kWh):			

**Distributed Generation and Load Displacement Programs:**

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

**Other Programs (specify):**

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

**E. Assumptions & Comments:**

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

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

# Appendix B - Discussion of the Program

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

A. **Name of the Program:** Demand Response Program (General Service >50kW)

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

**Intent:** To achieve behavioural change by directly engaging large volume consumers in our community in making their energy use decisions

**Design:** 1) The design of a meter retrofit program which includes ongoing evaluation of technologies and development of an implementation plan using MHDl's existing resources. 2) A customer information program that consists of an Internet-based customer tracking of consumption and analysis tool ("Powerview"), customer help-line, customer notification system (TVD system), and customer education to use these tools.

**Delivery:** There was no activity in 2008. In 2007 an additional 42 large volume customers signed up for on-line customer inquiry allowing them access to their load data through the Powerview tool. The total number of active customers signed up as of December 31 2007 was 104.

**Partnerships:** None

**Evaluation :** In 2007, MHDl purchased a DSM module for its CIS system allowing on-line customer inquiry. This completed the Pilot project phase of the Demand Response Program. In 2008, the number of visits to the website by customers was down by more than 20% vs 2007, indicating that continuing education and reminders about the data available and its usefulness is required.

**Measure(s):**

	# of registered PowerView users	# of seminar attendees	Measure 3 (if applicable)
Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:			
Measure life (years):			
Number of Participants or units delivered life to date	128	40	

B. **TRC Results:**

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

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

**Cumulative Results:**

**Conservation Programs:**

	Summer	Winter	Cumulative Results:	
			Cumulative Lifecycle	Cumulative Annual Savings
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):			
Energy shifted Mid-peak to Off-peak (kWh):			

**Demand Response Programs:**

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

**Power Factor Correction Programs:**

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

**Line Loss Reduction Programs:**

Peak load savings (kW):			
	<i>lifecycle</i>	<i>in year</i>	
Energy 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):		
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<b>D. <u>Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
Utility direct costs (\$):	Incremental capital:	\$ -	\$ 54,700.00
	Incremental O&M:	\$ -	\$ 9,706.25
	Incentive:		
	Total:	\$ -	\$ 64,406.25
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

**E. Assumptions & Comments:**

none.

<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 numebr of units times the net present value per unit b

<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

# Appendix B - Discussion of the Program

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

A. **Name of the Program:** Aggregator Development Program (TDRP) (General Service >50kW)

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

**Intent:** Program participants will reduce their electricity costs when electricity is the most expensive, potentially impact the market price, as a whole, and help to increase the stability of the electricity grid. Small reductions of this type yield big benefits, because of the exponential increase in market prices under tight supply conditions. Participants will also contribute to the avoidance or improvement in smog conditions.

**Design:** Addition of incremental settlement software for the existing settlement system (Settlement One), in addition to program maintenance costs.

**Delivery:** There was no activity to report for 2008 and no funds were expended. There was \$2,000 spent in 2007 relating to the TDRP program. Total TDRP pilot program participants is 21; of these 5 consumers participated in the program during the first 3 months of 2007. This completes the Pilot project phase of the TDRP.

**Partnerships :** IESO

**Evaluation:** Milton Hydro met all of the technical and non-technical requirements for the IESO's transitional demand-response program; Although the program was developed for the TDRP program, its applicability is not limited to this program exclusively and can be readily adapted to other demand response programs such as the EDRP and the OPA's DR programs. Although Ontario's electricity system conditions and the weather in 2005 resulted in a significantly greater number of demand response events (1020 in 2005 vs 96 in 2006), the average demand response per event increased from 232kW in 2005 to 401 kW in 2006. In 2007 (MHD participated in first 3 months) there were 30 events, MHD participated in 21 events with average demand response being 260 kW in 2007

**Measure(s):**

	# of customers contacted	# of registered participants	Measure 3 (if applicable)
Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:			
Measure life (years):			
Number of Participants or units delivered life to date		21	

<b>B. TRC Results:</b>	<b>Reporting Year</b>	<b>Life-to-date TRC Results:</b>
<sup>1</sup> TRC Benefits (\$):	\$ -	\$ 573,482.96
<sup>2</sup> TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ -	
Incremental Measure Costs (Equipment Costs)	\$ -	
<b>Total TRC costs:</b>	<b>\$ -</b>	<b>\$ 23,091.60</b>
<b>Net TRC (in year CDN \$):</b>	<b>\$ -</b>	<b>\$ 550,391.36</b>
<b>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</b>		<b>24.84</b>

<b>C. Results: (one or more category may apply)</b>	<b>Cumulative Results:</b>	
<b>Conservation Programs:</b>		
Demand savings (kW):	Summer	
	Winter	
	lifecycle	in year
Energy saved (kWh):		Cumulative Lifecycle
Other resources saved :		Cumulative Annual Savings
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):	0	401
Peak hours dispatched in year (hours):	0	1,115

**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):		
Energy savngs (kWh):	lifecycle	in year

**Distributed Generation and Load Displacement Programs:**

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

**Other Programs (specify):**

Metric (specify):		
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D. <b><u>Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
Utility direct costs (\$):	Incremental capital:		\$ 7,071.60
	Incremental O&M:	\$ -	\$ 16,020.00
	Incentive:		
	Total:	\$ -	\$ 23,091.60
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

**E. Assumptions & Comments:**

The 2007 max single event occurred in March at 596 kW. The average demand reduction per demand response event was 260 kW.

<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 b

<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

# Appendix B - Discussion of the Program

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

A. **Name of the Program:** The Energy Drill Program (General Service >50kW)

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

**Intent:** An innovative program developed by Milton Hydro to enable customers to respond to market events by reducing their electricity demand, typically requiring little or no capital expenditures.

**Design:** The principle indicator of the need to reduce demand used in this pilot is the 3-hour ahead predispatch price exceeding \$120/MW. A building assessment is undertaken to develop the building's Energy Drill Action Plan, and identify on-going savings that may be cost-effectively implemented to reduce overall energy use at the premise. The Energy Drill Program, modeled after fire drills, will designate and train building "Energy Marshals" who will be responsible for taking actions to reduce electricity demand during periods when it will be particularly important to reduce demand, e.g. periods of anticipated constrained supply, elevated prices, smog alerts. It is anticipated that the development of the protocols and procedures for the Energy Drill Program will lead to the identification and implementation of both technological and behavioral actions to reduce energy use.

**Delivery:** In 2008, there were no new participants in the Energy Drill program and no funds were spent in support of the program.

**Partnerships:** Clean Air Foundation Cool Shops Program; the work with Halton Conservation is a joint project with the Halton LDCs (Burlington, Oakville, Halton Hills and Milton).

**Evaluation:** This completes the Pilot project phase of the Energy Drill Program.

**Measure(s):**

	# of participating buildings	total kW demand reductions achieved relative to the hour before the energy Drill
Base case technology:		
Efficient technology:		
Number of participants or units delivered for reporting year:		
Measure life (years):		
Number of Participants or units delivered lfe to date	16	

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

<b>Results:</b> (one or more category may apply)	<b>Cumulative Results:</b>	
<b>Conservation Programs:</b>		
Demand savings (kW):	Summer	
	Winter	
	<i>lifecycle</i>	<i>in year</i>
Energy saved (kWh):		
Other resources saved :		
Natural Gas (m3):		
Other (specify):		
	<i>Cumulative Lifecycle</i>	<i>Cumulative Annual Savings</i>

**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):		
Energy savngs (kWh):	<i>lifecycle</i>	<i>in year</i>

**Distributed Generation and Load Displacement Programs:**

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

**Other Programs (specify):**

Metric (specify):		
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<b>D. <u>Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
Utility direct costs (\$):	Incremental capital:	\$ -	\$ 4,498.33
	Incremental O&M:	\$ -	\$ 128,311.81
	Incentive:		
	Total:	\$ -	\$ 132,810.14
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

**E. Assumptions & Comments:**

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

<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

# Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Retrofit of Small Commercial/Industrial Customers less than 50kW

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

**Intent:** To provide low volume commercial/industrial consumers with access and the opportunity to benefit from the time-varying rates, potentially more options for retailers and participation in demand-response programs.

**Design:** Install interval/smart meters only on low volume commercial/industrial customers whose meters are subject to Measurement Canada re-verification requirements in 2004, 2005, and 2006.

**Delivery:** In 2005 Milton Hydro worked with the Clean Air Foundation and its "Cool Shops" program aimed at small commercial (< 50 kW) customers. Cool Shops is a program that identifies and helps implement in-store energy management practices to save on utility costs and improve environmental health. The program commenced the week of September 26th with a "street team" visiting those small commercial customers who have been retrofitted with an interval meter. The "street team" educated the customer about the TOU price structure, about Milton Hydro's Energy Drill program and "Powerview" product, its on-line account inquiry service and conduct the Cool Shop energy audit. One Compact Fluorescent Light (CFL) was distributed to each customer visited. The replacement bulbs are still providing energy savings.

**Partnerships:** Clean Air Foundation

**Evaluation:** This project is now complete. The original budget for the project was \$338,000 for capital expenditures. The costs of this project were \$414,224 consisting of final capital costs of \$376,971 and operating costs of \$37,253. The operating costs were related to the CoolShops program which was not part of the original plan.

**Measure(s):**

	# of customers contacted	# of palm pilot assisted audits	Measure 3 (if applicable)
Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:			
Measure life (years):			
Number of Participants or units delivered lfe to date	448	268	

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
<sup>1</sup> TRC Benefits (\$):	\$ -	\$ 7,812.64
<sup>2</sup> TRC Costs (\$):		
Utility program cost (excluding incentives):		
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	\$ -	\$ 414,224.13
Net TRC (in year CDN \$):	\$ -	-\$ 406,411.49
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	-	0.02

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

**Cumulative Results:**

**Conservation Programs:**

	Summer	Winter	Cumulative Lifecycle	Cumulative Annual Savings
Demand savings (kW):				
Energy saved (kWh):			329329	128310
Other resources saved :				
Natural Gas (m3):				
Other (specify): Greenhouse Gases			38.76 tonnes GH	

**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):		
Energy savngs (kWh):	<i>lifecycle</i>	<i>in year</i>

**Distributed Generation and Load Displacement Programs:**

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

**Other Programs (specify):**

Metric (specify):		
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D. <b><u>Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
Utility direct costs (\$):	Incremental capital:	\$ -	\$ 376,970.94
	Incremental O&M:	\$ -	\$ 37,253.19
	Incentive:		
	Total:	\$ -	\$ 414,224.13
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

**E. Assumptions & Comments:**

Energy and demand and greenhouse gas emissions results are attributed to the substitution of one incandescent 60 watt lightbulb with a 13 watt CFL. No energy savings in the year were attributed to the initial lightbulb substitution.

<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 numebr of units times the net present value per unit b

<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

# Appendix B - Discussion of the Program

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

A. **Name of the Program:** Partnership Building - Social Housing (Residential)

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

**Intent:** Identify energy savings opportunities, expected cost savings, and other energy efficiency improvements including resident comfort, operations and maintenance cost savings, renewal of plant & equipment, and reduction in emissions of greenhouse gas

**Design:** MHDl to participate in the province-wide SHSC Energy Management Program Pilot.

**Delivery:** In 2005 Milton Hydro participated in a pilot program sponsored by the Social Housing Services Corporation (SHSC), to implement a viable and measurable Conservation and Demand Management plan for social housing. No further action was taken in 2

**Partnerships:** Social Housing Services Corporation ; Milton Community Homes

**Evaluation :** No incremental costs were incurred in 2008 or in 2007. This pilot project is now complete.

**Measure(s):**

	# of audits completed	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:			
Measure life (years):			
Number of Participants or units delievered lfe to date	26		

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

Benefit to Cost Ratio (TRC Benefits/TRC Costs):

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

**Conservation Programs:**

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

**Demand Management Programs:**

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

**Demand Response Programs:**

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

**Power Factor Correction Programs:**

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

**Line Loss Reduction Programs:**

Peak load savings (kW):		
	<i>lifecycle</i>	<i>in year</i>
Energy 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):		
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<b>D. <u>Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:		\$ 1,300.00
	Incentive:		
	Total:	\$ -	\$ 1,300.00
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

**E. Assumptions & Comments:**

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

<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

# Appendix B - Discussion of the Program

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

A. **Name of the Program:** Partnership Building - EER Air Conditioner Pilot (Residential)

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

**Intent:** Milton Hydro has been supportative of Natural Resources Canada's (EnerCan) efforts to get manufacturers to report EER as well as SEER ratings, to assist consumers in making their energy-efficiency decisions

**Design:** In 2005 EnerCan approached Milton Hydro regarding our interest in a pilot program and demonstration the value of high EER-rated equipment

**Delivery:** EnerCan completed the pilot design in Q1 2006.

**Partnerships:** Natural Resources Canada, OZZ Corporation

**Evaluation:** This project was cancelled as a result of the federal election and changes in direction at EnerCan.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
<i>Base case technology:</i>			
<i>Efficient technology:</i>			
<i>Number of participants or units delivered for reporting year:</i>			
<i>Measure life (years):</i>			
<i>Number of Partipants or units delievered lfe to date</i>			

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

<b>C. Results:</b> (one or more category may apply)	<b>Cumulative Results:</b>			
<b>Conservation Programs:</b>				
<i>Demand savings (kW):</i>	<i>Summer</i>			
	<i>Winter</i>			
	<i>lifecycle</i>	<i>in year</i>	<i>Cumulative Lifecycle</i>	<i>Cumulative Annual Savings</i>
<i>Energy saved (kWh):</i>				
<i>Other resources saved :</i>				
<i>Natural Gas (m3):</i>				
<i>Other (specify):</i>				
<b>Demand Management Programs:</b>				
<i>Controlled load (kW)</i>				
<i>Energy shifted On-peak to Mid-peak (kWh):</i>				
<i>Energy shifted On-peak to Off-peak (kWh):</i>				
<i>Energy shifted Mid-peak to Off-peak (kWh):</i>				

**Demand Response Programs:**

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

**Power Factor Correction Programs:**

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

**Line Loss Reduction Programs:**

Peak load savings (kW):		
	<i>lifecycle</i>	<i>in year</i>
Energy 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):		
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<b>D. <u>Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
Utility direct costs (\$):	Incremental capital:	\$ -	\$ -
	Incremental O&M:	\$ -	\$ -
	Incentive:		
	Total:	\$ -	\$ -
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

**E. Assumptions & Comments:**

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

<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

# Appendix B - Discussion of the Program

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

A. **Name of the Program:** Partnership Building - Energuide Program (Residential)

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

**Intent:** To promote existing CDM programs and inform consumers in our community in making their energy efficiency decisions as they apply to homeowners.

**Design:** In 2005 Milton Hydro worked with Halton REEP to deliver the Natural Resources Canada EnerGuide for Houses program. An insert was included with residential bills. No further action was taken in 2006 or 2007.

**Delivery:** No further action was taken in 2007.

**Partnerships:** Halton Residential Energy Efficiency Program (REEP); Natural Resources Canada

**Evaluation :** No incremental costs were incurred in 2008 or in 2007. This pilot project is now complete.

**Measure(s):**

	# of initial evaluations	# of follow -up evaluations	Measure 3 (if applicable)
Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:			
Measure life (years):			
Number of Participants or units delivered lfe to date	51	16	

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

C. <b>Results:</b> (one or more category may apply)	<b>Cumulative Results:</b>			
<b>Conservation Programs:</b>				
Demand savings (kW):	Summer			
	Winter			
	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):				
Other resources saved :				
Natural Gas (m3):				
Other (specify):				
<b>Demand Management Programs:</b>				
Controlled load (kW)				
Energy shifted On-peak to Mid-peak (kWh):				
Energy shifted On-peak to Off-peak (kWh):				
Energy shifted Mid-peak to Off-peak (kWh):				

**Demand Response Programs:**

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

**Power Factor Correction Programs:**

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

**Line Loss Reduction Programs:**

Peak load savings (kW):		
	<i>lifecycle</i>	<i>in year</i>
Energy 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):		
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<b>D. <u>Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
Utility direct costs (\$):	Incremental capital:	\$ -	\$ -
	Incremental O&M:	\$ -	\$ -
	Incentive:		
	Total:	\$ -	\$ -
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

**E. Assumptions & Comments:**

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

<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

# Appendix B - Discussion of the Program

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

A. **Name of the Program:** Partnership Building - 20/20 Clean Air Partnership 20/20 (Residential)

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

**Intent:** To promote existing Clean Air Foundation CDM programs and inform consumers in our community in making their energy efficiency decisions.

**Design:** In 2005 Milton Hydro worked with 20/20 The Clean Air Partnership; the program is funded by Environment Canada and in partnership with Toronto Public Health, Durham Region, Halton Region, Region of Peel, and York Region. The program is primarily directed at residential customers and provides a free planner to help reduce energy use by 20% at home and on the road.

**Delivery:** In 2007, McMaster University, with sponsorship support of Milton Hydro and other local utilities held a Sustainable Development in Communities Workshop and Exhibit at the Royal Botanical Gardens in Burlington. The project was completed in 2007.

**Partnerships:** The Clean Air Partnership; Environment Canada working in partnership with Toronto Public Health, Durham Region, Halton Region, Region of Peel, and York Region. McMaster University re Sustainable Developments in Communities.

**Evaluation :** This project is now complete. There was no activity in 2008

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:			
Measure life (years):			
Number of Participants or units delievered lfe to date			

B. **TRC Results:**

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

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

**Conservation Programs:**

	Summer		Winter	
	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
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):		
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):

Energy savngs (kWh):

*lifecycle*

*in year*

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**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:


**Other Programs (specify):**

Metric (specify):

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**D. Actual Program Costs:**

Utility direct costs (\$):

*Incremental capital:*

*Incremental O&M:*

*Incentive:*

*Total:*

Utility indirect costs (\$):

*Incremental capital:*

*Incremental O&M:*

*Total:*

**Reporting Year**

**Cumulative Life to Date**

	<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
	\$ -	\$ 6,410.09
	\$ -	\$ 6,410.09

**E. Assumptions & Comments:**

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

<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

# Appendix B - Discussion of the Program

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

A. **Name of the Program:** Rural Smart-Metering Pilot (Residential)

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

**Intent:** To identify and pilot one or more technologies in Milton's rural areas. Rural residential customers have more expensive manual meter reading costs and tend to have the highest electricity consumption within the residential class. The early adoption of smart metering for this customer group will provide the greatest benefit to the system and to participating customers through access to time-varying rates and other programs.

**Design:** To test the mesh technology and the economics of the smart meter network in a rural environment. The constraints in a rural environment include vegetation and the distance between the meters of residential homes. These constraints can be addressed, the question is how to make the system economically feasible.

**Delivery:** In 2007, MHDI installed smart meters, 2 mesh gates and 4 repeaters in a rural test site (280 customers). Total cost incurred for this pilot program is \$40,214.83.

**Partnerships:** None

**Evaluation:** MHDI's test results, both from a technology and economic standpoint were favourable and, as a result, smart meters are being rolled out to the rest of Milton's rural customers. Once all the meters and other equipment is installed Milton will begin billing using Time of Use pricing, probably starting in May, 2009.

**Measure(s):**

	Rural smart meters	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:	280		
Measure life (years):			
Number of Participants or units delivered life to date	280		

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

C. <b>Results:</b> (one or more category may apply)	<u>Cumulative Results:</u>			
<b>Conservation Programs:</b>				
Demand savings (kW):	Summer			
	Winter			
	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):				
Other resources saved :				
Natural Gas (m3):				
Other (specify):				
<b>Demand Management Programs:</b>				
Controlled load (kW)				
Energy shifted On-peak to Mid-peak (kWh):				
Energy shifted On-peak to Off-peak (kWh):				
Energy shifted Mid-peak to Off-peak (kWh):				

**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):

Energy savngs (kWh):

lifecycle

in year

**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

**Other Programs (specify):**

Metric (specify):

**D. Actual Program Costs:**

Utility direct costs (\$):

Incremental capital:

Incremental O&M:

Incentive:

Total:

Utility indirect costs (\$):

Incremental capital:

Incremental O&M:

Total:

**Reporting Year**

**Cumulative Life to Date**

\$ - \$ 40,214.83

\$ - \$ 40,214.83

**E. Assumptions & Comments:**

[Redacted area]

<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 numebr of units times the net present value per unit b

<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

# Appendix B - Discussion of the Program

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

A. **Name of the Program:** Low Income & Vulnerable Customers Program

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

**Intent:** To evaluate the impact of TOU pricing on Low Income and Vulnerable (Senior) customers.

**Design:** Milton Hydro is working with the University of Waterloo on a project involving low income and vulnerable customers. Milton Hydro identified two social housing complexes and two senior housing complexes as sample sites to collect residential electrical consumption data. In total, these four housing complexes comprise 201 households. Each household was retrofitted with a Smart Meter at the end of May 2007 and TOU pricing commenced in June/July. The results of the program will be shared with the Ministry of Energy, the IESO and the OEB.

**Delivery:** In 2007, MHD installed smart meters in four housing complexes comprising 201 households. Total cost incurred for this pilot program is \$45,425.96.

**Partnerships:** University of Waterloo

**Evaluation:** The final report to be issued by the University of Waterloo is not yet available. The residential electricity consumption data collected from the sample sites will be used to evaluate the change in the cost of electricity and consumption patterns upon the implementation of TOU rates. The electricity consumption data collected from individual households will be evaluated to determine:

- how the cost of electricity is expected to change with the introduction of TOU rates given their previous consumption patterns under the flat rate structure,
- the change cost of electricity after the implementation of TOU rates,
- the change the amount of electricity consumed after the implementation of TOU rates, and
- the change in the consumption patterns in response to TOU rates.

The consumption data will be analyzed statistically for relationships to several socioeconomic and structural characteristics of the household. Socioeconomic characteristics (eg. income and number of people living in the household) was collected from the households using brief household questionnaires. Structural characteristics (eg. number of bedrooms, appliance characteristics) was collected from the property managers of the sample sites.

collected from the property managers of the sample sites.

**Measure(s):**

	Smart Meter in Households	Measure 2 (if applicable)	Measure 3 (if applicable)
<i>Base case technology:</i>			
<i>Efficient technology:</i>			
<i>Number of participants or units delivered for reporting year:</i>	201		
<i>Measure life (years):</i>			
<i>Number of Participants or units delivered life to date</i>	201		

B. **TRC Results:** **Reporting Year**      **Life-to-date TRC Results:**

<sup>1</sup> TRC Benefits (\$):		
<sup>2</sup> TRC Costs (\$):		
<i>Utility program cost (excluding incentives):</i>		
<i>Incremental Measure Costs (Equipment Costs)</i>		
<i>Total TRC costs:</i>		

*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:**

<i>Demand savings (kW):</i>	<i>Summer</i>			
	<i>Winter</i>			
<i>Energy saved (kWh):</i>	<i>lifecycle</i>	<i>in year</i>	<i>Cumulative Lifecycle</i>	<i>Cumulative Annual Savings</i>

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 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):		
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<b>D. <u>Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
Utility direct costs (\$):	Incremental capital:	\$ -	\$ 45,425.96
	Incremental O&M:		
	Incentive:		
	Total:	\$ -	\$ 45,425.96
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

**E. Assumptions & Comments:**

[Redacted area]

<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 b

<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

# Appendix B - Discussion of the Program

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

A. **Name of the Program:** Partnership Building - Net Zero Energy (Residential)

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

**Intent:** MH is a member of the Net Zero Energy Home Coalition and has had preliminary discussions with innovative technology manufacturers who are designing technologies that would allow homes to be net zero electricity consumers. MH will pursue these opportunities along with discussing with potential subdivision developers the possibility of developing a net zero energy home pilot program in Milton.

**Design:** Milton Hydro confirmed with the Federation of Canadian Municipalities (FCM) Green Municipal Funds, its intent to participate as a Contributing Partner in the Integrated Energy – Smart Home Project. In 2006 Milton Hydro contributed \$20,000 to build at least one of the resulting homes. The Clean Energy Developments (CED) is partnering with the Town of Milton, Milton Hydro and OZZ Corporation to study and plan for a new energy efficient residential community.

**Delivery:** No costs were incurred in 2008 or 2007. In March 2006, the CED recently notified Milton Hydro that a signed grant agreement was in place with the FCM's Green Municipal Funds. In 2006 Mattamy installed the systems in two of their model homes. CED submitted an Intent to Apply together with Mattamy to the Green Municipal Funds to roll out the Integrated Energy Smart Home and EcoTech Village concepts into a 500 home development in Milton.

**Partnerships:** Net Zero Energy Home Coalition; Federation of Canadian Municipalities (FCM); Mattamy Homes Development Ltd.; Town of Milton, Clean Energy Developments; OZZ Corporation

**Evaluation:** In progress

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:			
Measure life (years):			
Number of Participants or units delivered lfe to date			

B. **TRC Results:**

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

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

**Conservation Programs:**

	Summer	Winter	Cumulative Lifecycle	Cumulative Annual Savings
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):		
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):		
Energy savngs (kWh):	lifecycle	in year

**Distributed Generation and Load Displacement Programs:**

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

**Other Programs (specify):**

Metric (specify):		
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D. <b><u>Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
Utility direct costs (\$):	Incremental capital:	\$ -	\$ -
	Incremental O&M:	\$ -	\$ 20,000.00
	Incentive:		
	Total:	\$ -	\$ 20,000.00
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

**E. Assumptions & Comments:**

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

<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

# Appendix B - Discussion of the Program

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

A. **Name of the Program:** Partnership Building - Union Gas Fuel Substitution (Residential)

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

**Intent:** To develop a new program to encourage fuel-switching from electricity to natural gas.

**Design:** No further action was taken in 2008 or 2007 for this pilot program.

**Delivery:** No further action was taken in 2008 or 2007.

**Partnerships:** Union Gas Ltd

**Evaluation :** No incremental costs were incurred in 2008 or 2007. This pilot project is now complete.

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
<i>Base case technology:</i>			
<i>Efficient technology:</i>			
<i>Number of participants or units delivered for reporting year:</i>			
<i>Measure life (years):</i>			
<i>Number of Partipants or units delievered lfe to date</i>			

B. **TRC Results:**

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

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

**Conservation Programs:**

		Cumulative Results:	
		Cumulative Lifecycle	Cumulative Annual Savings
<i>Demand savings (kW):</i>	<i>Summer</i>		
	<i>Winter</i>		
<i>Energy saved (kWh):</i>	<i>lifecycle</i>		
<i>Other resources saved :</i>	<i>in year</i>		
<i>Natural Gas (m3):</i>			
<i>Other (specify):</i>			
<b>Demand Management Programs:</b>			
<i>Controlled load (kW)</i>			
<i>Energy shifted On-peak to Mid-peak (kWh):</i>			
<i>Energy shifted On-peak to Off-peak (kWh):</i>			
<i>Energy shifted Mid-peak to Off-peak (kWh):</i>			

**Demand Response Programs:**

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

**Power Factor Correction Programs:**

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

**Line Loss Reduction Programs:**

Peak load savings (kW):		
	<i>lifecycle</i>	<i>in year</i>
Energy 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):		
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<b>D. <u>Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:		
	Incentive:		
	Total:	\$ -	\$ -
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

**E. Assumptions & Comments:**

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

<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

# Appendix B - Discussion of the Program

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

A. **Name of the Program:** 2006/2007 Every Kilowatt Counts Program

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

**Intent:** To provide every Ontario household with information on easy-to-do conservation activities within their house, condominium or apartment. To achieve energy and demand savings by providing meaningful incentives to households to undertake one or more easy-to-do energy saving actions.

**Design:** A continuation of the EKC Education and Incentive program for the mass market (residential sector) launched by the Conservation Bureau.

**Delivery:** as per the Conservation Bureau's provincial EKC Campaign. Milton Hydro did not participate in any incremental advertising or promotions specific to Milton.

**Partnerships:** Conservation Bureau/Ontario Power Authority

**Evaluation:** Nothing additional was done in 2008. Information provided is as of the end of 2007.

**Measure(s):**

	Direct mail coupons redeemed	In -Store coupons redeemed	Measure 3 (if applicable)
<i>Base case technology:</i>			
<i>Efficient technology:</i>			
<i>Number of participants or units delivered for reporting year:</i>			
<i>Measure life (years):</i>			
<i>Number of Participants or units delivered lfe to date</i>	1209	10318	

<b>B. TRC Results:</b>	<b>Reporting Year</b>	<b>Life-to-date TRC Results:</b>
<sup>1</sup> TRC Benefits (\$):		\$ 525,112.73
<sup>2</sup> TRC Costs (\$):		
<i>Utility program cost (excluding incentives):</i>		\$ 15,428.10
<i>Incremental Measure Costs (Equipment Costs)</i>		\$ 90,537.80
<i>Total TRC costs:</i>		\$ 105,965.90
<b>Net TRC (in year CDN \$):</b>	\$ -	\$ 419,146.83
<b>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</b>		4.9555

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

**Conservation Programs:**

			<i>Cumulative Lifecycle</i>	<i>Cumulative Annual Savings</i>
<i>Demand savings (kW):</i>	<i>Summer</i>			19.9572
	<i>Winter</i>			213.729
<i>Energy saved (kWh):</i>	<i>lifecycle</i>	<i>in year</i>	9,316,941	1,057,685
<i>Other resources saved :</i>				
<i>Natural Gas (m3):</i>				
<i>Other (specify):</i>				

**Demand Management Programs:**

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

**Demand Response Programs:**

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

**Power Factor Correction Programs:**

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

**Line Loss Reduction Programs:**

Peak load savings (kW):		
	<i>lifecycle</i>	<i>in year</i>
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):		
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<b>D. <u>Actual Program Costs:</u></b>		<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:		
	Incentive:		
	Total:	\$ -	\$ -
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

**E. Assumptions & Comments:**

TRC costs and benefits and total savings are estimated based on savings values provided by the OPA, and TRC Guide values where available. Those not available were estimated as follows: Ceiling fan cost \$100, Outdoor solar light cost: \$15, AC/Furnace Filter: \$10. Reported kW and kWh savings are after free ridership. Only Spring campaign results are available. Note the utility program cost used in the TRC calculation (\$15,428.10) is the program cost borne by the OPA. This cost was determined by prorating the total OPA program cost for both the Spring and Fall EKC campaigns Ontario-wide by the number of coupons redeemed in each program, and the number of coupons redeemed for Milton Hydro specifically.

<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 numebr of units times the net present value per unit b

<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

# Appendix B - Discussion of the Program

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

A. **Name of the Program:** Program Administration (All classes)

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

**Intent:** To capture the incremental cost of the program planning, coordination and administration of the CDM program

**Design:**

**Delivery:** No costs incurred in 2008.

**Partnerships**

**Evaluation:**

**Measure(s):**

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:			
Measure life (years):			
Number of Participants or units delivered life to date			

B. **TRC Results:**

	<u>Reporting Year</u>	<u>Life-to-date TRC Results:</u>
<sup>1</sup> TRC Benefits (\$):		
<sup>2</sup> TRC Costs (\$):		
Utility program cost (excluding incentives):		
Incremental Measure Costs (Equipment Costs)		
<b>Total TRC costs:</b> \$	-	0
<b>Net TRC (in year CDN \$):</b>		

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 beginning of year (%):

Distribution system power factor at end of year (%):


**Line Loss Reduction Programs:**

Peak load savings (kW):

Energy savngs (kWh):

*lifecycle*

*in year*

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**Distributed Generation and Load Displacement Programs:**

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:


**Other Programs (specify):**

Metric (specify):

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**D. Actual Program Costs:**

Utility direct costs (\$):

*Incremental capital:*

*Incremental O&M:*

*Incentive:*

*Total:*

Utility indirect costs (\$):

*Incremental capital:*

*Incremental O&M:*

*Total:*

**Reporting Year**

**Cumulative Life to Date**

	<b><u>Reporting Year</u></b>	<b><u>Cumulative Life to Date</u></b>
\$	-	\$ 30,730.71
\$	-	\$ 30,730.71

**E. Assumptions & Comments:**

[Redacted area]

<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 numebr of units times the net present value per unit b

<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

# Appendix C - Program and Portfolio Totals

Report Year: 2008

## 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 (\$)
Demand Response			\$ -	0.00				
TDRP			\$ -	0.00				
Energy Drill Program			\$ -	0.00				
Social Housing			\$ -	0.00				
EER Pilot			\$ -	0.00				
Energuide Program			\$ -	0.00				
20 20 Clean Air Program			\$ -	0.00				
Retrofit Small Commercial			\$ -	0.00				
Rural Smart Metering			\$ -	0.00				
Low Income & Vulnerable			\$ -	0.00				
Net Zero Energy			\$ -	0.00				
Union Gas Fuel Substitution			\$ -	0.00				
Integrated Smart Energy Home			\$ -	0.00				
EKC Fall & Spring Program			\$ -	0.00				
Program Administration			\$ -	0.00				
<b>*Totals App. B - Residential</b>	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Residential Indirect Costs not attributable to any specific program	→							
<b>Total Residential TRC Costs</b>		\$ -						
<b>**Totals TRC - Residential</b>	\$ -	\$ -	\$ -	0.00				

## 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 (\$)
Demand Response			\$ -	0.00				
TDRP			\$ -	0.00				
Energy Drill Program			\$ -	0.00				
Social Housing			\$ -	0.00				
EER Pilot			\$ -	0.00				
Energuide Program			\$ -	0.00				
20 20 Clean Air Program			\$ -	0.00				
Retrofit Small Commercial			\$ -	0.00				
Rural Smart Metering			\$ -	0.00				
Low Income & Vulnerable			\$ -	0.00				
Net Zero Energy			\$ -	0.00				
Union Gas Fuel Substitution			\$ -	0.00				
Integrated Smart Energy Home			\$ -	0.00				
EKC Fall & Spring Program			\$ -	0.00				

Program Administration			\$ -	0.00				
<b>*Totals App. B - Commercial</b>	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
<i>Commercial Indirect Costs not attributable to any specific program</i>	→							
<b>Total TRC Costs</b>		\$ -						
<b>**Totals TRC - Commercial</b>	\$ -	\$ -	\$ -	0.00				

### 3. Institutional Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
Demand Response			\$ -	0.00				
TDRP			\$ -	0.00				
Energy Drill Program								
Social Housing								
EER Pilot								
Energuide Program								
20 20 Clean Air Program								
Retrofit Small Commercial			\$ -	0.00				
Rural Smart Metering			\$ -	0.00				
Low Income & Vulnerable			\$ -	0.00				
Net Zero Energy			\$ -	0.00				
Union Gas Fuel Substitution			\$ -	0.00				
Integrated Smart Energy Home			\$ -	0.00				
EKC Fall & Spring Program			\$ -	0.00				
Program Administration			\$ -	0.00				
<b>*Totals App. B - Institutional</b>	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
<i>Institutional Indirect Costs not attributable to any specific program</i>	→							
<b>Total TRC Costs</b>		\$ -						
<b>**Totals TRC - Institutional</b>	\$ -	\$ -	\$ -	0.00				

### 4. Industrial Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
Demand Response			\$ -	0.00				
TDRP			\$ -	0.00				
Energy Drill Program			\$ -	0.00				
Social Housing			\$ -	0.00				
EER Pilot			\$ -	0.00				
Energuide Program			\$ -	0.00				
20 20 Clean Air Program			\$ -	0.00				
Retrofit Small Commercial			\$ -	0.00				
Rural Smart Metering			\$ -	0.00				

Low Income & Vulnerable			\$	-	0.00				
Net Zero Energy			\$	-	0.00				
Union Gas Fuel Substitution			\$	-	0.00				
Integrated Smart Energy Home			\$	-	0.00				
EKC Fall & Spring Program			\$	-	0.00				
Program Administration			\$	-	0.00				
<b>*Totals App. B - Industrial</b>	\$	-	\$	-	0.00	0	0	0	\$ -
Industrial Indirect Costs not attributable to any specific program	→								
<b>Total TRC Costs</b>			\$	-					
<b>**Totals TRC - Industrial</b>	\$	-	\$	-	0.00				

## 5. Agricultural Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
Demand Response			\$	-	0.00			
TDRP			\$	-	0.00			
Energy Drill Program			\$	-	0.00			
Social Housing			\$	-	0.00			
EER Pilot			\$	-	0.00			
Energuide Program			\$	-	0.00			
20 20 Clean Air Program			\$	-	0.00			
Retrofit Small Commercial			\$	-	0.00			
Rural Smart Metering			\$	-	0.00			
Low Income & Vulnerable			\$	-	0.00			
Net Zero Energy			\$	-	0.00			
Union Gas Fuel Substitution			\$	-	0.00			
Integrated Smart Energy Home			\$	-	0.00			
EKC Fall & Spring Program			\$	-	0.00			
Program Administration			\$	-	0.00			
<b>*Totals App. B - Agricultural</b>	\$	-	\$	-	0.00	0	0	0 \$
Agricultural Indirect Costs not attributable to any specific program	→							
<b>Total TRC Costs</b>			\$	-				
<b>**Totals TRC - Agricultural</b>	\$	-	\$	-	0.00			

## 6. LDC System Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
Demand Response			\$	-	0.00			
TDRP			\$	-	0.00			
Energy Drill Program			\$	-	0.00			
Social Housing			\$	-	0.00			

EER Pilot			\$	-	0.00				
Energuide Program			\$	-	0.00				
20 20 Clean Air Program			\$	-	0.00				
Retrofit Small Commercial			\$	-	0.00				
Rural Smart Metering			\$	-	0.00				
Low Income & Vulnerable			\$	-	0.00				
Net Zero Energy			\$	-	0.00				
Union Gas Fuel Substitution			\$	-	0.00				
Integrated Smart Energy Home			\$	-	0.00				
EKC Fall & Spring Program			\$	-	0.00				
Program Administration			\$	-	0.00				
<b>*Totals App. B - LDC System</b>	\$	-	\$	-	0.00	0	0	0	\$ -
<i>LDC System Indirect Costs not attributable to any specific program</i>	→								
<b>Total TRC Costs</b>		\$	-						
<b>**Totals TRC - LDC System</b>	\$	-	\$	-	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 (\$)
Demand Response			\$ -	0.00				
TDRP			\$ -	0.00				
Energy Drill Program			\$ -	0.00				
Social Housing			\$ -	0.00				
EER Pilot			\$ -	0.00				
Energuide Program			\$ -	0.00				
20 20 Clean Air Program			\$ -	0.00				
Retrofit Small Commercial			\$ -	0.00				
Rural Smart Metering			\$ -	0.00				
Low Income & Vulnerable			\$ -	0.00				
Net Zero Energy			\$ -	0.00				
Union Gas Fuel Substitution			\$ -	0.00				
Integrated Smart Energy Home			\$ -	0.00				
EKC Fall & Spring Program			\$ -	0.00				
Program Administration			\$ -	0.00				
<b>*Totals App. B - Other #1</b>	\$	-	\$	-	0.00	0	0	\$ -
<i>Other #1 Indirect Costs not attributable to any specific program</i>	→							
<b>Total TRC Costs</b>		\$	-					

<b>**Totals TRC - Other #1</b>	\$ -	\$ -	\$ -	0.00
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## 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 (\$)
Demand Response			\$ -	0.00				
TDRP			\$ -	0.00				
Energy Drill Program			\$ -	0.00				
Social Housing			\$ -	0.00				
EER Pilot			\$ -	0.00				
Energide Program			\$ -	0.00				
20 20 Clean Air Program			\$ -	0.00				
Retrofit Small Commercial			\$ -	0.00				
Rural Smart Metering			\$ -	0.00				
Low Income & Vulnerable			\$ -	0.00				
Net Zero Energy			\$ -	0.00				
Union Gas Fuel Substitution			\$ -	0.00				
Integrated Smart Energy Home			\$ -	0.00				
EKC Fall & Spring Program			\$ -	0.00				
Program Administration			\$ -	0.00				
<b>*Totals App. B - Other #2</b>	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
<i>Other #2 Indirect Costs not attributable to any specific program</i>								
<b>Total TRC Costs</b>		\$ -						
<b>**Totals TRC - Other #2</b>	\$ -	\$ -	\$ -	0.00				

## LDC's CDM PORTFOLIO TOTALS

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
<b>*TOTALS FOR ALL APPENDIX B</b>	\$ -	\$ -	\$ -	0.00	\$ -	\$ -	\$ -	\$ -
<i>Any other Indirect Costs not attributable to any specific program</i>								
<b>TOTAL ALL LDC COSTS</b>		\$ -						
<b>**LDC' PORTFOLIO TRC</b>	\$ -	\$ -	\$ -	0.00				

\* 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.

## Appendix D - Total Life Evaluation of the CDM Plan

Table is to be completed manually by totalling the information from each year of activity

	5 Cumulative Totals Life-to-date	Residential	6 Low Income	Commercial	Institutional	Industrial	Agricultural	LDC System	4 Smart Meters	Other #1	Other #2
<i>Net TRC value (\$):</i>	563,127	\$ 419,146.83		-\$ 406,411.49	\$	\$ 550,391.36	\$	\$		\$	\$
<i>Benefit to cost ratio:</i>	2.04	4.96		0.02		24.84					
<i>Number of participants or units delivered:</i>	12,558	11,604	201	284		189			280		
<i>Lifecycle (kWh) Savings:</i>	9,646,270	9,316,941		329,329							
<i>Total kWh saved (kWh):</i>	1,185,995	1,057,685		128,310							
<i>Total peak demand saved (kW):</i>	661.01	234		26		401					
<i>Total kWh saved as a percentage of total kWh delivered (%):</i>											
<i>Peak kW saved as a percentage of LDC peak kW load (%):</i>											
<i>1 Gross C&amp;DM expenditures (\$):</i>	\$ 778,613.71	\$ 58,440.80	\$ 45,425.96	\$ 547,034.27	\$	\$ 87,497.85	\$	\$	\$ 40,214.83	\$	\$
<i>2 Expenditures per kWh saved (\$/kWh):</i>	\$0.66	\$0.06	\$	\$4.26	\$	\$	\$	\$		\$	\$
<i>3 Expenditures per kW saved (\$/kW):</i>	\$1,177.92	\$250.08	\$	\$20,783.98	\$	\$218.20	\$	\$		\$	\$
<i>Utility discount rate (%):</i>	8.13%										

1 Expenditures are reported on cumulative 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. Actual expenditures for the total third tranche period need to be reported.

5 Includes total for the reporting year, plus prior years, if any (for example, 2008 CDM Annual report for third tranche will include 2007, 2006, 2005 and 2004 numbers, if any).

6 Includes totals from Low Income programs that fall under both commercial and residential.