2007 ANNUAL REPORT, CDM THIRD TRAUNCHE FUNDING,
BARRIE HYDRO DISTRIBUTION INC.

INTRODUCTION

Barrie Hydro Distribution Inc. (BHDI) (ED-2002-0534) is pleased to submit this third annual CDM report. BHDI's CDM programs and spending in 2007 all relate to the "third traunche" programs, which were approved by the OEB in February of 2005. The budgeted dollars represented in these programs totals $1,907,855. BHDI's approved CDM Plan encompassed 10 separate programs, they are:

1. Building – Control of Lighting & Equipment, Lighting Retrofit, & Building Sealing

2. Building – Peak Shaving/Demand Response Generator Pilot

3. Building – Solar Hot Water Tank Demonstration Project

4. Distribution – System Optimization

5. Business – Power Factor Penalty Awareness

6. Municipal – LED Traffic Lights Pilot

7. Municipal Non- Profit Housing – Electrical Conservation Pilot

8. Residential/Small Business – Electrical Appliance Rebate Pilot

9. Consumer Education & Training

10. Conservation & Demand Management Research

BHDI's CDM plan focused on three areas; our customers, our municipal partners, and our plant.

This annual report will concentrate on those programs worked on with spending in 2007 as well as life to date program spending. The programs fall into two areas, those started and completed at the end of 2006, which are:

1. Building – Control of Lighting & Equipment, Lighting Retrofit, & Building Sealing

2. Building – Peak Shaving/Demand Response Generator Pilot

3. Residential/Small Business – Electrical Appliance Rebate Pilot

4. Distribution – System Optimization

The programs that fall into the second area; projects completed in 2007 are:

1. Municipal – LED Traffic Lights Pilot

2. Municipal Non- Profit Housing – Electrical Conservation Pilot

3. Conservation & Demand Management Research

4. Consumer Education & Training

5. Business – Power Factor Penalty Awareness

6. Building – Solar Hot Water Tank Demonstration Project

The total amount of actual spending in 2007 was $482,198. The spending in 2007 brings the total life to date spending to $1,907,855. All third traunche spending was completed in 2007.

LESSONS LEARNED

We have learnt many lessons from the implementation of CDM projects. One of these continues to be that residential customers appear to have the quickest uptake for participation in these conservation programs. This is reflected in the delivery breakdown of our programs in that the majority of programs for residential customers were completed first. We have observed though that those projects where business/municipalities were involved, while initially taking longer for start up, have the potential for large savings to be recognized.

A recap of our programs follows:

Residential/Small Business – Electrical Appliance Rebate Pilot program. This program enabled residential and small general service customers that purchased Energy Star qualified appliances to receive an 8% rebate on the cost of those appliances to a maximum of $200 per account from BHDI. This program was initiated in April 2005 and closed in November 2005 as all funds allocated to this program were expended. Participation by residential customers exceeded all expectations, and customers are already inquiring whether this program will be introduced again in the future. This program would definitely be considered a success, and if additional funds become available, should be continued. If this program were to be continued, one possible refinement would be to target appliances with high TRC values.

Business – Power Factor Penalty Awareness program – This program was completed in 2006, the only transaction relating to 2007 was a credit invoice from the 3rd party who

delivered the training. The program involved an education session for some of our larger customers with poor power factors. This education included understanding power factors and what can be done to improve power factors. These sessions were well attended but we found any follow up and bill tracking difficult, as in regards to determine if these customers' power factors improved. In early 2006 the final stage of this program was completed which encompassed training for BHDI staff. This training was to enable staff to provide ongoing support to customers concerning power factor inquiries.

Distribution – System Optimization program – This program mainly concentrated on voltage conversions to minimize line losses. Those sections included in the total program have been converted and we would expect to see reductions in our actual losses in future years. One lesson learned on this program is that different conversion projects can provide very different results from a TRC conservation aspect. Any evaluation of future conservation programs involving conversion projects should examine this aspect. The program was completed in 2006.

Building – Peak Shaving/Demand Response Generator Pilot program – This program was completed in late 2005. The intent of this program was to provide load displacement of approximately 281 kW during critical peak times identified by the IESO. BHDI's service area is a summer peaking area; therefore we will continue to monitor the IESO for critical peak times where this generation can help to alleviate those critical periods.

Consumer Education & Training program – The program has encompassed advertising concerning BHDI's CDM plan, and support of programs encouraging conservation and challenging customers to conserve (Mayor's Megawatt Challenge). As well we participated with our local food bank in the distribution of compact fluorescent light bulbs to those individuals using the food bank over the Christmas season. It was thought that this program would reach customers who might not be contacted through other means. In 2007 an additional 8,500 CFL's were distributed to customers in our service areas. As well we partnered with the local School Board to help develop and fund a Grade 5 curriculum item focusing on conservation. From these aspects we would term it a success. A key factor to gaining participation in conservation measures is to keep awareness of consumers high, this program has accomplished that.

Municipal Non-Profit Housing – Electrical Conservation Pilot – This program was completed in 2007. The focus of this program was to review low-income housing units for potential conservation measures. In 2005 an energy audit was completed identifying areas where energy conservation can be realized in the buildings. The first project undertaken and completed from this audit was the retrofitting of light fixtures to energy efficient fixtures. In 2006 an appliance retirement program was implemented. The guidelines of the project were the replacement of refrigerators and dishwashers with new energy efficient Energy Star qualified appliances. This program funded 75% of the costs of purchase, installation and environmentally friendly disposal of the old appliances. In the TRC calculations the OEB approved reduction of 74 kWh per year for refrigerators was used. Barrie Hydro would note that these refrigerators were all in the 10 to 15 year old range, so that actual kWh savings were more in the range of 760 kWh (from TRC

sheet Avg existing stock 1200 kWh – Energy Star 440 kWh = 760 kWh). In 2007 working with the Non Profit Housing Corporation we completed this appliance program. Total appliances replaced were 857 refrigerators and 27 dishwashers.

Building – Control of Lighting & Equipment, Lighting Retrofit, & Building Sealing program - This focused on BHDI's administration & operations building at 55 Patterson Road in Barrie. This building was built in the late 1980's and while some energy efficient methods were designed in the building, new & improved conservation methods and equipment now are available. In 2005 two projects were initiated, automated controls of building lighting and HVAC fans; and resealing (caulking) of the building exterior. In 2006 the project undertaken was a change out of T12 to T8 lighting fixtures. This program was completed in 2006. We note that the projects within this program realized a significant TRC value.

Municipal – LED Traffic Lights Pilot – This program was partnered with the City of Barrie to replace any current technology Traffic Lights with energy efficient LED Traffic Lights. BHDI had budgeted as part of its third traunche CDM Plan to fund $350,000 towards this project. In late 2006 a portion of the material was purchased by the City of Barrie in the amount of $172,676, which BHDI funded. The installation of the new LED signals was completed in March of 2007. There were 124 traffic signals converted to LED's, with a total monthly savings in kWh of 89,544. For kW demand savings we equated the TRC sheet example of 3 W LED Exit sign at a summer peak demand savings of .027 kW to the number of LED lights in a traffic signal. We estimate the kW peak demand savings to be 21.092 kW in total. Final costs in 2007 were $169,364; total costs for this project were $342,040.

Conservation & Demand Management Research – The premise of this program is to encourage new technology, new types of conservation awareness programs, and any other new innovative programs that BHDI may develop or that may come to our attention. In 2006 BHDI helped to sponsor a conservation workshop for businesses in conjunction with the Ministry of Small Business & Entrepreneurship. As well CFL light bulbs were distributed at different events. In 2007 Barrie Hydro supported a "Switch to Cold Water Wash" which extolled the benefits of laundry washing using cold water, cost was $650. The major program which was funded in 2007 encompassed a program initiated by the City of Barrie to install a Wind Monitoring Station in the City to gather data on the viability of installing a Wind Generation turbine in the future. The information gathered from this station will be shared with groups interested in installing wind generation. Barrie Hydro contributed $30,000 to this project.

Building – Solar Hot Water Tank Demonstration Project – In 2007 we completed an innovative display project directed at our residential customers. At our operations center we installed a residential sized solar hot water heating system. In the lobby of our operations center a display panel was set up providing information on the benefits of such a system and providing real time data on kWh generated and potential savings to customers if a solar system was installed at their residence. We also entered into a partnership with Natural Resources Canada to evaluate and verify the solar panels

generation. While internal consumption for our operations center was reduced, the main purpose of this program was an awareness program of this technology to our customers.

CONCLUSION

BHDI feels that year three, the final year of our CDM “third traunche” program continued to build on the successes realized in year one and two of the program. Spending of $482,198 in year three and life to date spending of $1,907,855 represents 100% of our total CDM Plan amount. Through our programs we have raised customer awareness, strengthened the efficiency of our plant, provided emergency load displacement, and educated customers on conservation measures they can affect. Year three (2007) of our program saw significant accomplishments with the Non – Profit Housing appliance replacement program, the completion of the LED Traffic signal replacement program, distribution of CFL’s and education programs, an innovative solar hot water system display, and partnership funding of a wind monitoring station as a possible preclude to a wind turbine generator. From the knowledge gained from this initial CDM Plan we feel that we are in a stronger position to deliver and implement potential conservation programs and initiatives in the future.

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.

2007 Annual Report, CDM Third Tranche Funding, Barrie Hydro Distribution Inc.

	[5] Cumulative Totals Life-to-date	Total for 2007	Residential	Commercial	Institutional	Industrial	Agricultural	LDC System	[4] Smart Meters	Other #1	Other #2
Net TRC value ($):	*1885880*	**$ 971,187**	**$ (14,974)**	**$ -**	**$ 806,448**	**$ -**	**$ -**	**$ -**		**$ 179,713**	**$ -**
Benefit to cost ratio:	*2.45*	8.53	0.26	0.00	9.62	0.00	0.00	0.00		12.75	0.00
Number of participants or units delivered:	*187068*	*112860*	38,401		549					73,910	
Lifecycle (kWh) Savings:	*54169901*	24,641,361	67,155	0	21,038,206	0	0	0		3,536,000	0
Report Year Total kWh saved (kWh):	*4616820*	1,995,751	4,477	0	1,107,274	0	0	0		884,000	0
Total peak demand saved (kW):	*557.18*	29	1	0	28	0	0	0		0	0
Total kWh saved as a percentage of total kWh delivered (%):	0.31%	0.13%	0.0003%	0.00%	0.07%	0.00%	0.00%	0.00%		0.06%	0.00%
Peak kW saved as a percentage of LDC peak kW load (%):	*0.18%*	0.01%	0.0003%	0.00%	0.01%	0.00%	0.00%	0.00%		0.00%	0.00%
[1] *Report Year Gross C&DM expenditures ($):*	*1907855*	$ 482,198	$ 20,191	$ -	$ 398,703	-$ 1,113	$ -	$ -	$ -	$ 64,417	$ -
[2] *Expenditures per KWh saved ($/kWh):*	*0.035*	$ 0.02	$ 0.30	$ -	$ 0.02	$ -	$ -	$ -		$ 0.02	$ -
[3] *Expenditures per KW saved ($/kW):*	*3424.13*	$ 16,435.17	$ 19,756.36	$ -	$ 14,079.79	$ -	$ -	$ -		$ -	$ -

Utility discount rate (%):	6.81%

[1] Expenditures are reported on accrual basis.
[2] Expenditures include all utility program costs (direct and indirect) for all programs which primarily generate energy savings
[3] Expenditures include all utility program costs (direct and indirect) for all programs which primarily generate capacity savings.
[4] Please report spending related to 3rd tranche of MARR funding only. TRC calculations are not required for Smart Meters. Only actual expenditures for the year need to be reported.
[5] Includes total for the reporting year, plus prior year, if any (for example, 2006 CDM Annual report for third tranche will include 2005 and 2004 numbers, if any.

Appendix B - Discussion of the Program

(complete this Appendix for each program)

BARRIE HYDRO DISTRIBUTION INC. - RP-2004-0203\EB-2004-0532 - CONSERVATION AND DEMAND ANNUAL REPORT 200

A. **Name of the Program:** Residential/ Small Business Electrical Appliance Rebate Program

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

This program focused on rebates as an incentive to customers to purchase Energy Star rated appliances. The amount of the rebate was 8% of the purchase price. The customers submitted an application to BHDI and a credit for the 8% was entered on their utility bill. The response to the program was greater than expected and significant TRC savings were realized as indicated below. If this program was to be offered again in the future specific appliances might only be targeted based on the highest TRC values.

Measure(s):

	Refrigerator	Air Conditioner	Central Air	Clothes Washer	Dishwasher	Freezer	Stove/Range/Furnace
Base case technology:	514 kWh	880 kWh	1403 kWh	779 kWh	592 kWh	368 kWh	550 kWh
Efficient technology:	440 kWh	792 kWh	1052 kWh	299 kWh	492 kWh	331 kWh	495 kWh
Number of participants or units delivered for reporting year:							
Measure life (years):	19	12	14	14	13	21	18
Number of Participants or units delivered life to date	612	20	50	656	486	40	36

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*		*$ 394,775.00*
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):		$ 5,792.00
Incremental Measure Costs (Equipment Costs)		$ 231,768.00
Total TRC costs:		$ 237,560.00
Net TRC (in year CDN $):		$ 157,215.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		$ 1.66

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	*Summer*	0	40.97
	Winter		

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):			6391347	431538
Other resources saved :				
Natural Gas (m3):				
Other (specify):			280000	20000

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

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

Line Loss Reduction Programs:

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

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		

D. **Actual Program Costs:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*		$ -
	Incremental O&M:		$ 5,792.00
	Incentive:	$ -	$ 164,802.00
	Total:	$ -	$ 170,594.00
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Some Energy Star appliances were rebated which did not have information provided in the Assumptions and Measures sheets provided, these appliances were not included in the calculations. They included such things as dehumidifiers, enterainment, centers, etc. These appliances in total equated to 10 or less purchased. The incremental O&M cost of $5792 represents promotional costs such as bill inserts and staff training.

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

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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

BARRIE HYDRO DISTRIBUTION INC. - RP-2004-0203\EB-2004-0532 - CONSERVATION AND DEMAND ANNUAL REPORT 200

A. **Name of the Program:** Business - Power Factor Penalty Awareness

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

This program focused on educating our larger customers about power factor. The delivery of this program was through inviting 198 of our larger customers with poor power factors to attend a seminar. This seminar dealt with issues such as: defining power factors, identifying the costs of a poor power factor and suggesting ways in which power factors can be improved. Of the 198 customers invited 52 attended, approximately a 26% participation rate. In 2006 the amount of $5000 was spent for training on BHDI personnel. This training was to enable BHDI personnel to be able to respond to customers inquiries concerning power factor issues. The 2007 amount was a credit from the vendor that provided the training.

Measure(s):

	Workshop						
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	52						

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*		$ -
[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):		#DIV/0!

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

Conservation Programs:

		Reporting Year	Cumulative Results:	
Demand savings (kW):	*Summer*			
	Winter			
	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):			0	0
Other resources saved :				
Natural Gas (m3):				
Other (specify):			0	0

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

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

Line Loss Reduction Programs:

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

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):	PARTICIPATION RATE		26%

D. **Actual Program Costs:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*		$ -
	Incremental O&M:	-$ 1,113.00	$ 26,912.00
	Incentive:	$ -	$ -
	Total:	-$ 1,113.00	$ 26,912.00
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Incremental O&M costs of $26,912 represents the vendor costs to facilitate the seminars.

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

[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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

BARRIE HYDRO DISTRIBUTION INC. - RP-2004-0203\EB-2004-0532 - CONSERVATION AND DEMAND ANNUAL REPORT 200

A. **Name of the Program:** Building - Peak Shaving / Demand Response Generator Pilot

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

This generator will be used for peak demand response during critical peak days. The IESO in 2005 issued 12 critical peak days, these last for 24 hours. Assuming 2005 as the base year we plan to use our generator to displace 281 kw of demand during these critical peak days and the associated kwh. This calculation is based on 12 days @ 12 hours = 144 hours/yr of critical peak time. The demand response generator will be used during these times to reduce peak demand by 281 kw less 67 kw (this was the capacity of our former generatorwhich was replaced) equating to 214 kw. Utility program costs of $162264 is comprised of $44449 of natural gas costs to operate the generator and $117765 of capital costs for the purchase of the generator.

Measure(s):

	Generator						
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	1						

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*		*$ 475,610.00*
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):		$ 162,264.00
Incremental Measure Costs (Equipment Costs)		$ -
Total TRC costs:		$ 162,264.00
Net TRC (in year CDN $):		$ 313,346.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		$ 2.93

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

Conservation Programs:

		Reporting Year	Cumulative Results:
Demand savings (kW):	*Summer*		
	Winter		

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):			0	0
Other resources saved :				
Natural Gas (m3):				
Other (specify):			0	0

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

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

Line Loss Reduction Programs:

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

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):	0	375
Energy generated (kWh):	0	30816
Peak energy generated (kWh):	0	30816
Fuel type:		Natural Gas

Other Programs (specify):

Metric (specify):		

D. **Actual Program Costs:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*		$ 117,765.00
	Incremental O&M:	$ -	$ 44,499.00
	Incentive:	$ -	$ -
	Total:	$ -	$ 162,264.00
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Natural gas costs were calculated at December 2005 rate of $.3543/cumt., future years rates increased 2.5%. Equipment life estimated at 20 years. The average monthly 2005 summer demand at 55 Patterson Road was 282kw

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

[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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

BARRIE HYDRO DISTRIBUTION INC. - RP-2004-0203\EB-2004-0532 - CONSERVATION AND DEMAND ANNUAL REPORT 200

A. **Name of the Program:** Consumer Education & Training

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

This program focused on consumer education and training. The components of this program were: 1/ Advertisements notifying customers in our service area of conservation, 2/ providing CFL's to be distributed to users of a local food bank within our service area, providing LED Christmas lights to our municipality, internal upgrade of a Energy Star appliance, 3/ A participant in the Mayor's Megawatt Challenge which the City of Barrie is a participant in. While the TRC benefits are high an additional benefit of this program was the advertising in our local newspaper, as well as having our logo on the Mayor's Megawatt Challenge website. Funding in 2007 was provided for school curriculums on conservation and the additional distribution of CFL's in our service territory.

Measure(s):

	15 W CFL	LED CHRISTMAS LIGHTS	REFRIGERATOR	ADVERTISING	15 W CFL	SCHOOL CURRICULUM
Base case technology:	139 kWh	19 kWh	514 kWh		139 KWH	
Efficient technology:	35 kWh	1 kWh	440 kWh		35 KWH	
Number of participants or units delivered for reporting year:	0	0	0		8500	
Measure life (years):	4	30	19		4	
Number of Participants or units delivered life to date	3400	50	1	65812	8500	4500

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	*$ 195,013.00*	*$ 277,698.00*
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):		$ -
Incremental Measure Costs (Equipment Costs)	$ 15,300.00	$ 21,578.00
Total TRC costs:	$ 15,300.00	$ 21,578.00
Net TRC (in year CDN $):	$ 179,713.00	$ 256,120.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	$ 12.75	$ 12.87

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

		Cumulative Results:
Conservation Programs:		
Demand savings (kW):	*Summer* 0	0.017
	Winter	

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*3536000*	884000	4970825	1239975
Other resources saved :				
Natural Gas (m3):				
Other (specify):			0	0

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

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

Line Loss Reduction Programs:

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

Distributed Generation and Load Displacement Programs

Amount of DG installed (kW):	0	
Energy generated (kWh):	0	
Peak energy generated (kWh):	0	
Fuel type:		

Other Programs (specify):

Metric (specify): Students	4500	4500

D. **Actual Program Costs:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*		$ -
	Incremental O&M:	$ 5,589.00	$ 14,746.60
	Incentive:	$ 28,177.20	$ 44,796.20
	Total:	$ 33,766.20	$ 59,542.80
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Advertising and Mayor's Megawatt Challenge costs equals $9,157. School curriculum funding is $5710.60.

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

[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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

BARRIE HYDRO DISTRIBUTION INC. - RP-2004-0203\EB-2004-0532 - CONSERVATION AND DEMAND ANNUAL REPORT 200

A. **Name of the Program:** Municipal Non- Profit Housing - Electrical Conservation Pilot

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

This program focused on conservation areas for low income customers. As part of this program, funding for the Barrie Municipal Non Profit Housing Corporation was provided to: 1/ conduct an energy audit of their properties and 2/ implement conservation initiatives identified in the audit. The audit was completed in the summer of 2005 and the first initiative implemented from that audit was a retrofit T12 fluorescent light fixtures to T8 fixtures. In 2005 50% of these two programs were funded by BHDI and 50% of the TRC benefits were claimed in the 2005 CDM annual report. In 2006 a Energy Star appliance changeout program was undertaken. BHDI funded 75% of the changeout program of older refrigerators and dishwashers to new energy efficient Energy Star appliances. This program was continued in 2007 at the same funding. 75% of the TRC benefits are being claimed for in this report.

Measure(s):

	T12 4 ft to T8	T12 8 ft to T8	DISHWASHER	REFRIGERATOR 2006	REFRIGERATOR 2007
Base case technology:	624 kWh	736 kWh	592 KWH	514 KWH	514 KWH
Efficient technology:	232 kWh	448 kWh	492 KWH	440 KWH	440 KWH
Number of participants or units delivered for reporting year:	0	0	20	218	425
Measure life (years):	5	5	13	19	19
Number of Participants or units delivered life to date	253	37	20	218	425

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ 30,060.00	$ 85,913.00
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ -	$ -
Incremental Measure Costs (Equipment Costs)	$ 26,775.00	$ 56,542.00
Total TRC costs:	$ 26,775.00	$ 56,542.00
Net TRC (in year CDN $):	$ 3,285.00	$ 29,371.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	1.12	1.52

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	*Summer*	7.225	34.477
	Winter		

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*597550*	31450	1479218	159414
Other resources saved :				
Natural Gas (m3):				
Other (specify):			0	0

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

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

Line Loss Reduction Programs:

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

Distributed Generation and Load Displacement Programs

Amount of DG installed (kW):	0	
Energy generated (kWh):	0	
Peak energy generated (kWh):	0	
Fuel type:		

Other Programs (specify):

Metric (specify):		

D. **Actual Program Costs:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*		$ -
	Incremental O&M:	$ -	$ -
	Incentive:	$ 229,339.00	$ 397,436.00
	Total:	$ 229,339.00	$ 397,436.00
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Please note that the majority of the refrigerators replaced were 10 years or more old. We have used the TRC Resource Guide savings of 74 kwh per year for the calculation. We believe that due to the age of the refrigerators replaced that the kwh reduction is a greater amount.

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

[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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

BARRIE HYDRO DISTRIBUTION INC. - RP-2004-0203\EB-2004-0532 - CONSERVATION AND DEMAND ANNUAL REPORT 200

A. **Name of the Program:** LED Traffic Lights Pilot

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

The purpose of this program was the replacement of current technology traffic lights with LED traffic lights. This pilot program occurred within the City of Barrie. There were 124 traffic signals replaced in total, the average monthly KWH consumption for each of these traffic signals was 887 kwh per month. The average monthly consumption of the new LED traffic signals is 164 kwh per month. The resulting monthly kwh savings per traffic signal is 723 kwh per month. The overall monthly savings is 89,544 kwh. Total amount funded in 2006 was $172,676, the total amount funded in 2007 was $169,364, total project funding $342,040.

Measure(s):

	LED TRAFFIC SIGNALS	Measure 2 (if applicable)			
Base case technology:	887 KWH				
Efficient technology:	164 KWH				
Number of participants or units delivered for reporting year:	0				
Measure life (years):	19				
Number of Participants or units delivered life to date	124				

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ 869,956.00	$ 869,956.00
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ -	$ -
Incremental Measure Costs (Equipment Costs)	$ 66,793.00	$ 66,793.00
Total TRC costs:	$ 66,793.00	$ 66,793.00
Net TRC (in year CDN $):	$ 803,163.00	$ 803,163.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	13.02	13.02

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

			Cumulative Results:
Conservation Programs:			
Demand savings (kW):	*Summer*	21.0924	21.0924
	Winter		

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*20440656*	1075824	20440656	1075824
Other resources saved :				
Natural Gas (m3):				
Other (specify):			0	0

Demand Management Programs:	
Controlled load (kW)	
Energy shifted On-peak to Mid-peak (kWh):	
Energy shifted On-peak to Off-peak (kWh):	
Energy shifted Mid-peak to Off-peak (kWh):	
Demand Response Programs:	
Dispatchable load (kW):	
Peak hours dispatched in year (hours):	
Power Factor Correction Programs:	
Amount of KVar installed (KVar):	
Distribution system power factor at beginning of year (%):	
Distribution system power factor at end of year (%):	

Line Loss Reduction Programs:

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

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):	0	
Energy generated (kWh):	0	
Peak energy generated (kWh):	0	
Fuel type:		

Other Programs (specify):

Metric (specify):		

D. **Actual Program Costs:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*		$ -
	Incremental O&M:	$ -	$ -
	Incentive:	$ 169,364.00	$ 342,040.00
	Total:	$ 169,364.00	$ 342,040.00
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Some of the calculations for this project has been based on the TRC Guide Assumptions & measures list for a 3W LED EXIT sign. KW savings based on EXIT SIGN of .027kw X 6.3 = 0.1701 kw. 6.3 factor equates ratio of kwh savings from 1 traffic signal to 1 exit sign. TRC Equipment Costs based on Exit Sign amount of $95 X 6.3 = $598.50.

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

[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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

BARRIE HYDRO DISTRIBUTION INC. - RP-2004-0203\EB-2004-0532 - CONSERVATION AND DEMAND ANNUAL REPORT 200

A. **Name of the Program:** Research

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

The purpose of this program was as a device to further innovative conservation technologies and ideas. The intent is for this program to cover a large spectrum of individual programs. In 2006 two funding initiatives occurred: 1/ BHDI sponsored along with others a seminar developed by the Ontario Governments Ministry of Small Business and Entrepenureship, targeted at business and industry, as to ways to reduce energy consumption. BHDI contributed $2,000; 2/ BHDI donated 600 CFL bulbs to a community event, cost was $2,805. In 2007 two programs were funded; billing inserts for the "Cold Water Wash" program were distributed for $650 and partial funding was provided for the installation of a Wind Monitoring Station to investigate the viability of a wind Turbine Generator being installed in the City of Barrie, this funding was $30,000.

Measure(s):

	CFL LIGHT BULBS	SEMINAR	COLD WATER WASH	WIND MONITORING STATION
Base case technology:	139 KWH			
Efficient technology:	35 KWH			
Number of participants or units delivered for reporting year:	600	20		
Measure life (years):	4			
Number of Participants or units delivered life to date	600	20	60909	1

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ -	$ 13,746.00
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ -	$ -
Incremental Measure Costs (Equipment Costs)	$ -	$ 1,080.00
Total TRC costs:	$ -	$ 1,080.00
Net TRC (in year CDN $):	$ -	$ 12,666.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	#DIV/0!	12.73

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

Cumulative Results:

Conservation Programs:

Demand savings (kW): Summer	0		
Winter			

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	0	0	249600	62400
Other resources saved :				
Natural Gas (m3):				
Other (specify):			0	0

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

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

Line Loss Reduction Programs:

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

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		0	
Energy generated (kWh):		0	
Peak energy generated (kWh):		0	
Fuel type:			

Other Programs (specify):

Metric (specify):	PARTICIPANTS & INSERTS	60910	60930

D. **Actual Program Costs:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*		$ -
	Incremental O&M:	$ 30,650.00	$ 32,650.00
	Incentive:	$ -	$ 2,805.00
	Total:	$ 30,650.00	$ 35,455.00
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

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

[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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

BARRIE HYDRO DISTRIBUTION INC. - RP-2004-0203\EB-2004-0532 - CONSERVATION AND DEMAND ANNUAL REPORT 200

A. **Name of the Program:** Building - Control of Lighting Equipment, Lighting Retrofit, & Building Sealing

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

This program focused on conservation projects associated with BHDI's administration & operations building at 55 Patterson Road. The projects completed in 2005 were; 1/ automated light controls, 2/ automated control of building fans, 3/ recaulking of windows & doors. The automated light control concentrated on installing a link to our current building automation system, so that lights would automatically be turned off between 12 and 18 hours a day. Four building fans have also been tied in to the building automation system resulting in a reduction in running time of 108 hours per week. The recaulking of the building will result in lower air loss in the summer months, therby reducing air conditioning use. In 2006 one project took place, the change out of 1,841 T12 to T8 lights

Measure(s):

	Lighting Control	Fan Control	Building Caulking	T8 LIGHTING	
Base case technology:	376972 kwh	39050 kwh	88229 kwh	624 KWH	
Efficient technology:	0 kwh	13946 kwh	83817 kwh	232 KWH	
Number of participants or units delivered for reporting year:	0	0	0	1841	
Measure life (years):	10	10	15	5	
Number of Participants or units delivered life to date	1	1	1	1841	

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ -	$ 476,048.00
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ -	$ 66,651.00
Incremental Measure Costs (Equipment Costs)	$ -	$ -
Total TRC costs:	$ -	$ 66,651.00
Net TRC (in year CDN $):	$ -	$ 409,397.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	#DIV/0!	7.14

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

		Reporting Year	Cumulative Results:
Conservation Programs:			
Demand savings (kW):	*Summer*	0	154.6
	Winter		

	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*0*	0	7695300	1128160
Other resources saved :				
Natural Gas (m3):				
Other (specify):			0	0

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

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

Line Loss Reduction Programs:

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

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):	0	
Energy generated (kWh):	0	
Peak energy generated (kWh):	0	
Fuel type:		

Other Programs (specify):

Metric (specify):		

D. **Actual Program Costs:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ -	$ 45,817.00
	Incremental O&M:	$ -	$ 20,834.00
	Incentive:	$ -	$ -
	Total:	$ -	$ 66,651.00
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Savings for lighting and fan control based on an internal study. Savings for caulking based on measures and assumptions data for commercial sealing section. Assumed housing unit 1000 sq ft, 55 Patterson Road building 40000 sq ft, extrapolated usage and savings to 40000 sq ft. Only included kwh savings in summer months for caulking, as building is heated with natural gas.

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

[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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

BARRIE HYDRO DISTRIBUTION INC. - RP-2004-0203\EB-2004-0532 - CONSERVATION AND DEMAND ANNUAL REPORT 200

A. **Name of the Program:** Distribution - System Optimization

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

This program encompassed two aspects; voltage conversion projects for selected areas of our plant and a capacitor study to determine the viability of placing capacitors on some of our feeders. The capacitor study was completed in 2005 by a consulting firm at a cost of $5,500. After review of the results it was determined not to proceed with capacitors. The voltage conversion projects commenced in 2005 and were completed by the end of 2006. As can be seen by the results, these projects resulted in a low TRC value. Upon closer review of the individual projects there was a wide variance in the TRC values. It would appear from this that when evaluating conversion projects from the view point of conservation that not all conversion projects will be justified purely by the conservation savings.

Measure(s):

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:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	$ -	$ 590,844.00
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ -	$ 671,268.00
Incremental Measure Costs (Equipment Costs)	$ -	$ -
Total TRC costs:	$ -	$ 671,268.00
Net TRC (in year CDN $):	$ -	-$ 80,424.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	#DIV/0!	0.88

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

			Cumulative Results:	
Conservation Programs:				
Demand savings (kW):	*Summer*	0		
	Winter			
	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):				
Other resources saved :				
Natural Gas (m3):				
Other (specify):			0	0
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):		0		91
	lifecycle	*in year*		
Energy savings (kWh):	0	0	12875800	515032

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):	0	
Energy generated (kWh):	0	
Peak energy generated (kWh):	0	
Fuel type:		

Other Programs (specify):

Metric (specify):	0	0

D. **Actual Program Costs:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ -	$ 665,768.00
	Incremental O&M:	$ -	$ 5,500.00
	Incentive:	$ -	$ -
	Total:	$ -	$ 671,268.00
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Incremental O&M costs of $5500 represents capacitor study. Incremental capital costs of $665768 represents actual costs of conversion projects. Life of conversion projects is 25 years.

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

[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

Appendix B - Discussion of the Program

(complete this Appendix for each program)

BARRIE HYDRO DISTRIBUTION INC. - RP-2004-0203\EB-2004-0532 - CONSERVATION AND DEMAND ANNUAL REPORT 200

A. **Name of the Program:** Building - Solar HWT Demonstration Project

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

The purpose of this project was to install a residential sized solar panel at Barrie Hydro's operations center to supply the heating for the hot water in the building as a demonstration of what individuals could install at their residences. A real time display unit in our lobby displaying information regarding this project invited enquiries from customers. We receive approximately 3,200 walk in customers per month (38,400/yr) in our lobby, all of these customers are able to view the display unit. As well we have had numerous questions from customers regarding the system. The system has generated 4,777 kwh of energy during the first year of operation. We have also partnered with Natural Resources Canada on this project. They are receiving the daily data and are preparing monthly reports on the opertion of the system.

Measure(s):

	Solar Panel	Customer Awareness			
Base case technology:					
Efficient technology:					
Number of participants or units delivered for reporting year:					
Measure life (years):	15				
Number of Participants or units delivered life to date	1	38400			

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
[1] *TRC Benefits ($):*	*$ 5,217.00*	*$ 5,217.00*
[2] *TRC Costs ($):*		
Utility program cost (excluding incentives):	$ 20,191.00	$ 20,191.00
Incremental Measure Costs (Equipment Costs)	$ -	$ -
Total TRC costs:	$ 20,191.00	$ 20,191.00
Net TRC (in year CDN $):	-$ 14,974.00	-$ 14,974.00
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	0.26	0.26

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

			Cumulative Results:	
Conservation Programs:				
Demand savings (kW):	*Summer*	1.022		1.022
	Winter			
	lifecycle	*in year*	*Cumulative Lifecycle*	Cumulative Annual Savings
Energy saved (kWh):	*67155*	4477	67155	4477
Other resources saved :				
Natural Gas (m3):				
Other (specify):			0	0
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):		0		0
	lifecycle	*in year*		
Energy savings (kWh):	0	0	0	0

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):	0	
Energy generated (kWh):	0	
Peak energy generated (kWh):	0	
Fuel type:		

Other Programs (specify):

Metric (specify): Customer Contact	38400	38400

D. **Actual Program Costs:**

		Reporting Year	Cumulative Life to Date
Utility direct costs ($):	*Incremental capital:*	$ 19,912.00	$ 19,912.00
	Incremental O&M:	$ 279.00	$ 279.00
	Incentive:	$ -	$ -
	Total:	$ 20,191.00	$ 20,191.00
Utility indirect costs ($):	*Incremental capital:*		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

KW of 1.022 calculated as 4477 kwh/365 days/ 12 hours (avg operating time). Kwh distributed as 8 hours/day winter (split 50%/50% between on peak and mid peak). KWH distributed as 16 hours/day summer (split 50%/50% between on peak and mid peak). KWH distributed as 12 hours per day shoulder (100% mid peak).

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

[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

Appendix C - Program and Portfolio Totals

Report Year: 2007

2007 Annual Report, CDM Third Tranche Funding, Barrie Hydro Distribution Inc.

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 ($)
Residential/ Small Business Electrical Appliance Rebate Program				0.00				$ -
Building - Solar HWT Demonstration Project	$ 5,217	$ 20,191	-$ 14,974	0.26	4,477	67,155	1	$ 20,191
Name of Program C			$ -	0.00				
Name of Program D			$ -	0.00				
Name of Program E			$ -	0.00				
Name of Program F			$ -	0.00				
Name of Program G			$ -	0.00				
Name of Program H			$ -	0.00				
Name of Program I			$ -	0.00				
Name of Program J			$ -	0.00				
Totals App. B - Residential	$ 5,217	$ 20,191	-$ 14,974	0.26	4,477	67,155	1	$ 20,191
Residential Indirect Costs not attributable to any specific program →								
Total Residential TRC Costs		$ 20,191						
****Totals TRC - Residential**	**$ 5,217**	**$ 20,191**	**-$ 14,974**	**0.26**				

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 ($)
Name of Program A			$ -	0.00				
Name of Program B			$ -	0.00				
Name of Program C			$ -	0.00				
Name of Program D			$ -	0.00				
Name of Program E			$ -	0.00				
Name of Program F			$ -	0.00				
Name of Program G			$ -	0.00				
Name of Program H			$ -	0.00				
Name of Program I			$ -	0.00				
Name of Program J			$ -	0.00				
Totals App. B - Commercial	$ -	$ -	$ -	0.00	0	0	0	$ -
Commercial Indirect Costs not attributable to any specific program →								
Total TRC Costs		$ -						
****Totals TRC - Commercial**	**$ -**	**$ -**	**$ -**	**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 ($)
Municipal Non- Profit Housing - Electrical Conservation Pilot	$ 30,060	$ 26,775	$ 3,285	1.12	31,450	597,550	7	$ 229,339
LED Traffic Lights Pilot	$ 869,956	$ 66,793	$ 803,163	13.02	1,075,824	20,440,656	21	$ 169,364
Building - Control of Lighting Equipment, Lighting Retrofit, & Building Sealing	$ -	$ -	$ -	0.00	0	0	0	$ -
Name of Program D			$ -	0.00				
Name of Program E			$ -	0.00				
Name of Program C			$ -	0.00				
Name of Program G			$ -	0.00				
Name of Program H			$ -	0.00				
Name of Program I			$ -	0.00				
Name of Program J			$ -	0.00				
Totals App. B - Institutional	$ 900,016	$ 93,568	$ 806,448	9.62	1,107,274	21,038,206	28	$ 398,703
Institutional Indirect Costs not attributable to any specific program →								
Total TRC Costs		$ 93,568						
****Totals TRC - Institutional**	**$ 900,016**	**$ 93,568**	**$ 806,448**	**9.62**				

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 ($)
Business - Power Factor Penalty Awareness	$ -	$ -	$ -	0.00	0	0	0	-$ 1,113
Name of Program C			$ -	0.00				
Name of Program C			$ -	0.00				
Name of Program D			$ -	0.00				
Name of Program E			$ -	0.00				
Name of Program F			$ -	0.00				
Name of Program G			$ -	0.00				
Name of Program H			$ -	0.00				
Name of Program I			$ -	0.00				
Name of Program J			$ -	0.00				
***Totals App. B - Industrial**	$ -	$ -	$ -	0.00	0	0	0	-$ 1,113
Industrial Indirect Costs not attributable to any specific program →								
Total TRC Costs		$ -						
****Totals TRC - Industrial**	**$ -**	**$ -**	**$ -**	**0.00**				

5. Agricultural Programs

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

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

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

6. LDC System Programs

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

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

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

0

	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 ($)
Building - Peak Shaving / Demand Response Generator Pilot	$ -	$ -	$ -	0.00	0	0	0	$ -
Consumer Education & Training	$ 195,013	$ 15,300	$ 179,713	12.75	884,000	3,536,000	0	$ 33,767
Research	$ -	$ -	$ -	0.00	0	0	0	$ 30,650
Name of Program D			$ -	0.00				
Name of Program E			$ -	0.00				
Name of Program F			$ -	0.00				
Name of Program G			$ -	0.00				
Name of Program H			$ -	0.00				
Name of Program I			$ -	0.00				
Name of Program J			$ -	0.00				
***Totals App. B - Other #1**	$ 195,013	$ 15,300	$ 179,713	12.75	884,000	3,536,000	0	$ 64,417
Other #1 Indirect Costs not attributable to any specific program								
Total TRC Costs		$ 15,300						
****Totals TRC - Other #1**	**$ 195,013**	**$ 15,300**	**$ 179,713**	**12.75**				

9. Other #2 Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
Name of Program A			$ -	0.00				
Name of Program B			$ -	0.00				
Name of Program C			$ -	0.00				
Name of Program D			$ -	0.00				
Name of Program E			$ -	0.00				
Name of Program C			$ -	0.00				
Name of Program G			$ -	0.00				
Name of Program H			$ -	0.00				
Name of Program I			$ -	0.00				
Name of Program J			$ -	0.00				
***Totals App. B - Other #2**	$ -	$ -	$ -	0.00	0	0	0	$ -
Other #2 Indirect Costs not attributable to any specific program								
Total TRC Costs		$ -						
****Totals TRC - Other #2**	**$ -**	**$ -**	**$ -**	**0.00**				

LDC's CDM PORTFOLIO TOTALS

	TRC Benefits (PV)	TRC Costs (PV)	$ Net TRC Benefits	Benefit/Cost Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures ($)
***TOTALS FOR ALL APPENDIX B**	$ 1,100,246	$ 129,059	$ 971,187	8.53	1,995,751	24,641,361	$ 29	$ 482,198
*Any **other** Indirect Costs not attributable to any specific program*								
TOTAL ALL LDC COSTS		$ 129,059						
****LDC' PORTFOLIO TRC**	$ 1,100,246	$ 129,059	$ 971,187	8.53				

* 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.