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March 28, 2008

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

Dear Ms. Walli,

Re: 2007 Annual Report CDM Third Tranche Funding

Hydro One Brampton Networks Inc. (“Hydro One Brampton”) is pleased to file with the Ontario Energy Board (“the Board”), the annual reporting of CDM Initiatives for all CDM activities that occurred during 2007.

On March 3, 2008 the Board issued a Procedural Order which contained the reporting and filing requirements applicable to MARR CDM funding. The Board also issued the Guidelines to local distribution companies for Annual Reporting, which is intended to include reporting for funding under third tranche MARR. In this third and final report, Hydro One Brampton has complied with the requirements of the Procedural Order.

Please find attached to this cover letter:

- 3 hard Copies of Hydro One Brampton’s Annual Report
- 2-compact disks containing Hydro One Brampton’s Annual Report

We would be pleased to provide any additional information that the Board requires in the processing of this application. If additional information is required, please contact the undersigned.

Sincerely,

A handwritten signature in black ink that reads "Scott Miller". The signature is written in a cursive style with a large initial 'S'.

Scott Miller
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Hydro One Brampton Networks Inc.
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Roger A. Albert, President & CEO, Hydro One Brampton Networks Inc.
Jamie Gribbon, Vice President Finance and Administration, Hydro One Brampton Networks Inc.

Encl.

Hydro One Brampton Networks Inc.
Conservation and Demand Management Plan
Annual Report to December 31, 2007

RP-2004-0203
2007 Annual Report
CDM Third Tranche Funding

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1 ***Introduction***

2 On February 18, 2005 Hydro One Brampton Networks Inc. (“Hydro One Brampton”)
3 received final approval from the Board for their Conservation and Demand Management
4 Plan (“CDM Plan”) covering the period 2005 – 2007.

5
6 On October 5, 2004, the Board issued a *Procedural Order*, which contained the reporting
7 filing requirements (paragraphs 26 through 30) applicable to MARR CDM funding. On
8 December 21, 2005 the Board issued the *Guidelines* for Annual Reporting to the OEB.
9 In this second annual report, Hydro One Brampton has complied with the requirement of
10 the Procedural Order. Hydro One Brampton has provided the information requested in
11 the Guideline.

12
13 In preparing the CDM Plan, Hydro One Brampton based its initiatives on the following
14 objectives:

- 15 • Contribute to the creation of a conservation culture in Ontario
16 • Help consumers and businesses manage their electricity use
17 • Contribute to the Province’s target of reducing energy demand
18 • Support community-based programs and foster co-operation with municipal local
19 distribution companies

20
21 The following criteria were used to assist in program design and cost allocation:

- 22 • Customer Needs – programs meet the needs of Hydro One Brampton’s customer
23 base
24 • Benefit Allocation – benefits arising from the planned initiatives be distributed
25 across Hydro One Brampton’s customer base
26 • Benefit Assurance – potential to realize energy savings and cost of delivery
27 • Leveraging Partnerships – partnerships that will make use of economies
28 associated with greater scale of delivery or existing delivery channels
29 • Activities Support the Minister’s Plans – preferred concepts or initiatives fit
30 within the activities identified in the Minister’s May 31, 2004 letter to distributors

1 ***Results Summary***

2 Hydro One Brampton was successful at launching programs across various sectors,
3 including residential and commercial and industrial. Hydro One Brampton worked in
4 conjunction with the Ontario Power Authority (OPA) to promote their provincial
5 programs. In addition, Hydro One Brampton also participated in various communication
6 and education initiatives to contribute to the goal of culture change within the province.
7 Hydro One Brampton has undertaken various initiatives at its own facility in order to
8 demonstrate the effectiveness of new and emerging energy efficient technologies.

9

10 Hydro One Brampton developed various programs that were launched in 2005 or 2006.
11 Some of these programs were improved and were continued to be offered while others
12 were modified and others were terminated. Most pilot projects were completed by the end
13 of 2006 and were used as the bases for developing or improving other programs and
14 initiatives.

15

16 In addition to developing programs, Hydro One Brampton launched various programs
17 specifically for the residential, commercial and industrial markets. The residential
18 programs were designed to promote the use of energy efficient technologies. The
19 commercial and industrial programs were designed to encourage customers to undertake
20 energy efficient projects. Hydro One Brampton provided both educational support and
21 financial incentives to offset any potential financial barriers.

22

23 Hydro One Brampton's CDM Plan presented a balanced approach to both conservation
24 and load control initiatives. Our programs were designed to offer opportunities for all
25 customers within our service territory to contribute to and benefit from a culture of
26 conservation. Hydro One Brampton's programs delivered financial savings for our
27 customers, as well as kilowatthour (kWh) and kilowatt (kW) savings that contributed to
28 meeting the Province's goals.

29 Table 1 provides an overview of Hydro One Brampton's CDM approved budget, life to
30 date spending as at December 31, 2007, as well as kWh and KW savings earned
31 associated with the various programs. Various pilot projects and programs were

1 completed in 2005/6 and were not extended beyond their original scope. Extensive data
 2 and customer analysis resulting from the new technologies provided customers with
 3 opportunities to change behaviour resulting in significant savings.

4 **TABLE 1**

PROGRAM	3Year BUDGET (\$K)	LIFE TO DATE DEC 2007 (\$K)	LIFE TO DATE SAVINGS KW	LIFE TO DATE SAVINGS kWh	LIFECYCLE SAVINGS kWh	LIFECYCLE \$/kWh
Residential						
Smart Meters	140					
Real Time Monitoring Pilot	40	40.5				
Mass Market Coupon Initiative	500	531.8	166.2	26,926,042	138,572,233	0.00383
LED Residential Load Control Pilot	100	142.7		178,265	5,347,938	0.02668
	80	79.7				
Total	860	794.7	166.2	27,104,307	143,920,171	0.005552
Commercial/Industrial						
Conservation Assets Program (Interval Meters)	1,285	1,112.5				
C/I Power Factor Correction Pilot	150	145.0	7,445 kVAR		7,445kVAR	
C/I Load Control Technology Demonstration Project	500	765.1	601.6	3,132,978	16,627,602	0.04601
	135	90.0				
Total	2,070	2,112.6	601.6	3,132,978	16,627,602	0.12705
Common						
Distribution Loss Reduction	100	64.5	199.0	1,743,678	17,436,780	0.00369
Research Planning and Development	36	11.2				
Communication and Education	165	247.7				
Internal Building Efficiency	5	5.0				
Total	306	328.4	199.0	1,743,678	17,436,780	0.01882
Grand Total	3,236	3,235.7	966.8	31,980,963	177,984,553	0.01817

1 **OVERVIEW OF PROGRAMS**

2 *Residential Smart Metering Pilot Program*

3 **Description**

4 The provincial government set a target for installing smart meters on all residential
5 services in Ontario by 2010.

6
7 **Design**

8 Hydro One Brampton recognizes that many LDC's are undertaking smart metering pilot
9 projects, utilizing metering from various manufacturers. Hydro One Brampton reviewed
10 the results and lessons learned and commenced our initiative in the last quarter of 2006.

11
12 **Intent**

13 Smart meters will provide the ability to record consumption in time intervals that can be
14 matched to price signals, which differ throughout the day to reflect the true cost of power.
15 Understanding and reacting to proper price signals is an essential component to creating a
16 conservation culture and managing customer demand. The largest benefit of smart
17 meters is providing customers with the ability to understand their consumption patterns
18 so they can make effective decisions on usage.

19
20 **Delivery**

21 Hydro One Brampton was scheduled to implement this project in 2005. In light of the
22 uncertainty surrounding smart metering legislation during that year, Hydro One
23 Brampton staff contacted OEB staff to confirm if Hydro One Brampton should proceed
24 with this pilot. After discussing these issues it was decided by that it was better to delay
25 the implementation of this pilot until further clarification was provided. Hydro One
26 Brampton initiated its smart metering program under the smart metering funding, no
27 CDM funding was used.

28
29
30

1 **Evaluation**

2 There are no results to report.

Program	3 Year Budget (\$000)	Spending Life to Date (\$000)	Life to Date Savings kWh	Lifecycle kWh
Smart Meters	140	NIL	N/A	N/A

3 ***Residential Real Time Monitoring Pilot***

4

5 **Description**

6 In 2004, 45 customers were provided with monitors that measured the electrical
7 consumption of their homes in real-time. Customers were able to view their current
8 usage rate and cumulative consumption in kWh, as well as in dollars. The pilot field tests
9 were completed in the fall of 2005. This pilot was conducted together with Hydro One
10 Networks Inc. and was the largest pilot project of its kind in Canada.

11

12 **Design**

13 In order to assess the impact of the device on electricity consumption, the kWh usage was
14 monitored on a monthly basis. This data was compared to usage from a year prior to
15 determine the savings. The data was normalized for changes in weather, number of
16 household occupants and other relevant factors. A control group was also used to
17 determine if the savings could be attributed to the monitor. Customer questionnaires
18 were administered during the pilot to assess customer behaviour, as well as collect
19 relevant demographic data.

20

21 **Intent**

22 The objectives of the pilot were to determine whether provision of a real-time feedback
23 device is sufficient to empower residential customers with the information needed to
24 change behaviours so that they reduce their electricity consumption. In addition, whether
25 it could be determined from usage data, or a change in behaviour, be quantified in energy
26 savings.

1 **Delivery**

2 The delivery of the pilot consisted of five stages: pilot design, customer recruitment,
3 technology deployment, customer usage and data acquisition, and data analysis. External
4 consultants and service providers were employed during all stages to supplement
5 available Hydro One Brampton’s resources and expertise.

6

7 **Evaluation**

8 The model for the evaluation of this pilot, as well as the findings and conclusions, were
9 prepared by Professor Dean Mountain, McMaster Institute for Energy Studies. The
10 detailed findings for the province as a whole are as follows:

- 11 ▪ The results (for the entire study) indicate a significant positive impact on
12 customer usage. Overall, the aggregate reduction in electricity consumption
13 across the study sample was 6.5% at a high level of statistical accuracy. An
14 important observation from the study is that the behavioural response remained
15 persistent and did not decrease over time during the study period.
- 16 ▪ Within the overall sample, the households with non-electric heating showed
17 energy savings of 8.2% with a range within this sample of a 5.1% reduction (for a
18 non-electric water heating house) to a reduction of 16.7% (for an electric water
19 heating house). We also observed that households with electric heating are not
20 responding in a significant way to real-time feedback. Separating out the
21 feedback from the electric heating load and the rest of the load would be required
22 to encourage conservation in this sector.
- 23 ▪ No other price or conservation incentives were given to participants in the study.
24 Therefore, the conservation results observed in the pilot are interpreted as the
25 minimum to be garnered in the absence of other possible conservation incentives.
26 Thus, if a real time feedback monitor is used in conjunction with the provision of
27 additional literature and tips on conservation or price measures, an overall average
28 reduction of between 7% and 10% is feasible.

29

1 The favourable results from this project will be used for the basis of developing future
 2 programs.

Program	3 Year Budget (\$000)	Spending Life to Date (\$000)	Life to Date Savings kWh	Life to Date Savings KW	Lifecycle kWh
Real Time Monitoring Pilot	40	40.5	N/A	N/A	N/A

3

4 ***Residential Mass Market Coupon Initiative- Every Kilowatt Counts (EKC)***

5 **Description**

6 The OPA introduced two mass marketing coupon initiatives EKC in the spring and fall of
 7 2006 and 2007. Hydro One Brampton participated in these initiatives.

8

9 In addition to direct mailing programs Hydro One Brampton attended various civic
 10 functions also promoting the programs. This program included the distribution of
 11 compact fluorescent lights to all residences in Brampton.

12

13 **Design**

14 Using the Hydro One Brampton's customer database, customers were mailed a coupon
 15 booklet. Coupons were instantly redeemable at the point of purchase at various retail
 16 stores. The OPA tracked the results for reporting purposes.

17

18 **Intent**

19 The objective of the initiative was to heighten awareness of conservation among
 20 customers, as well as achieve energy savings in kWh and kW. The coupons encouraged
 21 customers to take simple, low-cost actions to save both energy and money.

22

23

24

25

1 **Delivery**

2 This was a joint project along with the OPA, other LDCs, and various retail partners to
 3 offer this coupon program to every household in Ontario. Each residential customer
 4 received a compact fluorescent lamp delivered to their house.

6 **Evaluation**

7 In 2006 a total of **52,601** coupons were redeemed at various retailers in Brampton during
 8 the two campaigns. The redeemed coupons amounted to **104,109** energy saving products
 9 being sold. Results for the 2007 EKC programs are unavailable.

Program	3 Year Budget (\$000)	Spending Life to Date (\$000)	Life to Date Savings kWh	Life to Date Savings KW	Lifecycle kWh
Mass Market Coupon Initiative and CFL distribution	500	531.8	24,380,122	166.2	128,388,553

10 ***Residential Seasonal Light Emitting Diodes (LED)***

11

12 **Description**

13 Brampton customers were encouraged to exchange their old incandescent holiday lights
 14 for efficient LED holiday lights. This was one for one exchange program. This program
 15 was designed for delivery in both 2005 and 2006.

16

17 **Design**

18 The program was designed so that it would receive significant community exposure. It
 19 was also executed with internal resources to curtail costs. Partnerships with the City of
 20 Brampton were established to help facilitate and promote this program.

21

22 **Intent**

23 The objective of the LED program was to create awareness of the benefits of LED lights
 24 to drive change in consumer behaviour and to reduce the seasonal load. LEDs use up to

1 95% less energy, last longer and emit less heat. These benefits equal both energy savings
 2 and cost savings for the customer.

3

4 **Delivery**

5 Hydro One Brampton partnered with the City of Brampton in their annual tree lighting
 6 ceremony as well as a local shopping mall. The program was promoted through various
 7 channels such as bill inserts, local print media and the City of Brampton flyers.

8

9 **Evaluation**

10 A product manufacturing defect caused a setback in 2006. Approximately 6300
 11 incandescent strings of lights were exchanged for either LED strings or gift cards towards
 12 the purchase of LED lights. Costs for the 2006 campaign continued to be incurred in
 13 2007. There is a settlement issue to be finalized in this matter with the manufacturer of
 14 the LEDs.

15 The program was delivered using internal Hydro One Brampton resources to minimize
 16 costs.

17 The uptake of the program during the two campaigns increased the awareness of the
 18 general public to the use of Seasonal LEDs. Despite the manufacturing defect this
 19 program was very effective at accelerating the adoption of Seasonal LEDs.

Program	3 Year Budget (\$000)	Spending Life to Date (\$000)	Life to Date Savings kWh	Lifecycle kWh
SLEDs Distributed	100	142.7	178,265	5,347,938

20 ***Residential Load Control Pilot***

21

22 **Description**

23 In 2004, 30 Hydro One Brampton customers had load control units installed in their
 24 homes, controlling central air conditioners and pool pumps. Differing hours of
 25 interruption and incentive levels were offered to customers with particular profiles of

1 controllable variables, to ensure that the results would be representative of Hydro One
2 Brampton's customer base.

3

4 **Design**

5 An interval meter was installed in each home and set to collect five minute interval data
6 for the duration of the pilot. This level of consumption data was necessary in the pilot
7 phase to accurately estimate the load interruption that could be obtained from each device
8 during each control event. This approach provides information required to adequately
9 design a large scale residential load control program.

10

11 Over the course of the pilot, equipment was controlled for varying time intervals and at
12 various times of the day, using a programmed schedule. The schedule was designed so
13 that an analysis of the results would yield a "load interruption profile". This is effectively
14 a map of what load interruption could be achieved for each equipment type at any time of
15 the day and under varying circumstances. Customer questionnaires were administered
16 throughout the pilot to assess customer acceptance, as well as collect relevant
17 demographic data.

18

19 **Intent**

20 The objectives of this pilot were to determine the potential load impact of controlling
21 residential equipment during system peak periods through the installation of load control
22 units and to assess customer response to those interruptions. The amounts of monthly
23 incentives were also assessed.

24

25 **Delivery**

26 The delivery of the pilot consisted of five stages: pilot design, customer recruitment,
27 technology deployment, data acquisition and data analysis. External consultants and
28 service providers were employed during all stages to supplement available resources and
29 expertise.

30

31 **Evaluation**

1 Professor Dean Mountain, McMaster Institute for Energy Studies was retained to design
 2 the pilot and analyse the results. Results are as follows:

- 3 ▪ The average load savings during summer peak
- 4 ▪ 0.60 KW/unit for air conditioners
- 5 ▪ The number of units controlled
- 6 ▪ 27 air conditioners
- 7 ▪ Summer peak savings are 16.2 KW

8 The results for this pilot program are favourable. HYDRO ONE BRAMPTON believes
 9 there could be benefits in further development of load control programs.

Program	3 Year Budget (\$000)	Spending Life to Date (\$000)	Life to Date Savings kW
Res. Load Control Pilot	80	79.7	N/A

10 ***Commercial/Industrial Power Factor Correction Program***

11

12 **Description**

13 The program offers incentives to Hydro One Brampton’s commercial and industrial
 14 customers to install power factor correction equipment in their facilities. This reduces the
 15 KVA penalty which is beneficial to the customer. This benefits Hydro One Brampton as
 16 it increases the capacity of the distribution system.

17

18 **Design**

19 Hydro One Brampton offered an incentive that will reduce the cost barrier that impedes
 20 installation of power factor correction equipment. Customers with power factors below
 21 90%, with demands greater than 200 kW, will be educated about power factor and
 22 encouraged to install power factor correction capacitors. Individual customer power
 23 factor analyses were performed to determine a customer’s specific incentive.

24

25

26 **Intent**

1 The intent is to have customers who have poor power factors install power factor
 2 correction equipment thereby reducing the kVA demand on the grid. Encouraging
 3 commercial and industrial customers to correct low power factors will benefit both the
 4 customer and the electricity system as a whole. The benefit will be the reduction of
 5 system losses and increased capacity of the distribution system.

6

7 **Delivery**

8 The program will be delivered through a customer targeted direct mailings and
 9 workshops. The programs will be supported and administered by Hydro One Brampton
 10 staff.

11 The program was launched in April 2006 for all eligible customers.

12

13 **Evaluation**

14 Since the program's inception a total of 15 customers applied for the power factor
 15 incentive. Due to the long sales cycle for power factor correction to be installed 6 projects
 16 were completed in 2006 with the balance being completed in 2007. This resulted in 7,445
 17 kVAR of capacitance being added to the grid. This was a very successful program.

Program	3 Year Budget (\$K)	Spending Life to Date (\$K)	Life to Date kVAR Added
Power Factor Correction	150	145.0	7,445

18 ***Commercial/Industrial Conservation Assets Program***

19

20 **Description**

21 Interval metering provides the ability to record customer consumption for specific time
 22 intervals. This consumption can be matched to price signals aligned to reflect the true
 23 cost of power. Hydro One Brampton's current phase of this project is to install interval
 24 metering on customers that have monthly demands greater than 150 kW. In conjunction
 25 with the installation of interval metering the customers are provided with an e-Meter data

1 presentment program where they can access their usage data via a secure web service.
2 This provides the customers with the ability to manage their usage accordingly.

3

4 **Design**

5 The Conservation Assets Program will be executed in two phases. Firstly, all customers
6 who have demands above 150 kW will be retrofitted with an interval meter. The second
7 phase of the project will be the introduction of and access to web based load profiling
8 service for all customers with interval metering.

9

10 **Intent**

11 The integration of interval metering and data warehousing provides the customer with
12 timely access to this data and also improves customer understanding of consumption
13 patterns as they occur. Customers once provided with the knowledge of how electricity
14 is consumed then have the ability to manage it accordingly.

15

16 **Delivery**

17 This program was launched during the first quarter of 2006 and was completed in 2007.
18 The delivery of this program was carried out using a contractor and was designed as a
19 turnkey project. The contractor in conjunction with Hydro One Brampton staff visited the
20 client to explain the program, coordinate the installation of both the phone line and
21 interval meter and provide detailed training for the web service.

22

23 **Evaluation**

24 There are no results to report at this time. During 2006/2007 there were 299 interval
25 meters installed along with phone lines. All customers were set up and trained how to use
26 the web service to identify energy conservation opportunities.

27

28

29

30

31

Program	3 Year Budget (\$000)	Spending Life to Date (\$000)	Life to Date Savings kWh	Lifecycle kWh
Conservation Assets Program	1,285	1,112.5	N/A	N/A

1 ***Commercial/Industrial Load Control Pilot Project***

2

3 **Description**

4 The program consisted of the commercial and industrial energy efficient lighting
 5 program. The installation of energy efficient lighting will provide both permanent load
 6 reduction and energy savings. The lighting incentive program was introduced in June of
 7 2006, where customers would receive an incentive of \$150.00 per kW of load reduced.

8 In conjunction with the energy efficient lighting program, an energy efficient lighting
 9 demonstration program was undertaken by Hydro One Brampton to illustrate the various
 10 types of energy efficient lighting solutions available to commercial and industrial
 11 customers.

12

13 To promote the use of renewable energy sources a photovoltaic demonstration project
 14 was also undertaken. This project was designed to promote the technology and to provide
 15 perspective users a facility where they can investigate firsthand how the technology may
 16 be used at their own facility. A small wind project was also undertaken at Hydro One
 17 Brampton's facility. It was the first of its type to be installed in North America and the
 18 first of its type to be grid connected. This project was designed to promote new
 19 technologies. In addition continuous metering and monitoring provide accurate data for
 20 perspective clients to use when evaluating these types of technologies.

21

22 Hydro One Brampton also undertook the retrofit of its HVAC system for both improved
 23 operation and reduction in energy consumption. This project was again to demonstrate
 24 where potential savings could be realized.

25

1 It has been Hydro One Brampton's goal to turn our office building into a demonstration
2 project for new and emerging energy efficient technologies. Through metering and
3 monitoring Hydro One Brampton can provide unbiased accurate information to its
4 customers about various technologies.

5

6 **Design**

7 The program was designed and launched in 2006, providing a financial incentive for
8 commercial and industrial customers to overcome the financial barrier to installing
9 energy efficient lighting systems in their facilities.

10

11 **Intent**

12 The intent of the lighting incentive program is to provide complete load reduction for
13 both summer and winter.

14 The intent of the other programs is to provide customers with a place they can see and
15 learn about how the new technologies work and how they may be applied in their own
16 facilities,

17

18 **Delivery**

19 Hydro One Brampton introduced the lighting incentive program to all C&I customers
20 through various workshops and direct marketing with the customer class.

21 The technology demonstration projects were promoted by hosting various workshops and
22 events at Hydro One Brampton's facility to showcase the various technologies.

23

24 **Evaluation**

25 The long sales cycle for lighting retrofits was shortened by providing an incentive. The
26 projects that were completed in 2006 were generally early adopters who were committed
27 to the project prior to introduction of the program. The level of activity and customers
28 who applied for incentive in 2007 increased dramatically such that with the introduction
29 of the Ontario Power Authority ERIP program ensured that anyone who applied for
30 incentives, even after the Hydro One Brampton's program funding was exhausted the
31 customers would still be eligible for the same incentive levels through the OPA.

1 The technology demonstration projects have provided a location where customers can
 2 see firsthand how the new technologies work and how they can be applied. The
 3 customers inquiring about the new technologies are not limited to Brampton residents.

Program	3 Year Budget (\$000)	Spending Life to Date (\$000)	Life to Date Savings kWh	Life to Date Savings KW	Lifecycle kWh
C/I Load Control Pilot	500	765.1	3,132,978	601.6	16,627,602

4 ***Commercial/Industrial Technology Demonstration Project***

5

6 **Description**

7 This program will provide an incentive to Hydro One Brampton commercial and
 8 industrial customers to install emerging energy technologies. Such initiatives would serve
 9 as a new technology showcase, which could then be promoted to other Hydro One
 10 Brampton customers. Hydro One Brampton originally partnered with Peel Region to
 11 demonstrate a solar/wind hybrid generation system along with a near net zero townhouse
 12 project. The Region were unable to undertake either of these projects.

13

14 Hydro One Brampton in partnership with Hydro One Networks were able to offer two
 15 excellent demonstration projects. The first project was to offer an on line energy audit
 16 service for residential and commercial customers. Participating clients are able to log on
 17 to a secure web site input the details for their home and be provided with customized
 18 results and energy conservation recommendations that can be employed.

19

20 Hydro One Brampton partnered with Hydro One Networks as part of the Social Housing
 21 initiative. A multi-res high rise building was audited and retrofitted with energy efficient
 22 appliances. This undertaking will illustrate the impact of retrofitting and existing building
 23 with energy efficient appliances. An education component was also integral as each
 24 tenant was educated about wise use of electrical power.

25

1 **Design**

2 As with other components of its CDM program, Hydro One Brampton’s approach to
 3 energy efficiency has been to seek out beneficial partners wherever possible to deliver the
 4 appropriate technology to the customer.

6 **Intent**

7 The objective of the Technology Demonstration Project is to bring new and innovative
 8 technologies to customers, and where necessary, provide an incentive to encourage the
 9 installation of the new technologies. The energy savings will result in cost savings along
 10 with promoting the technologies.

11 The two projects that were selected clearly demonstrate the impact of new technologies
 12 and approaches to improving energy management.

14 **Delivery**

15 The online energy audit was launch in the 3rd quarter of 2007. It has been promoted at
 16 various civic events, and through various advertising mediums. The housing project was
 17 a turnkey operation that was contracted out through Hydro One Networks.

19 **Evaluation**

20 These initiatives were launched in 2007 and the online energy audit will be available for
 21 2 years the housing retrofit was completed in the fourth quarter of 2007. The number of
 22 hits to the online audit continues to increase. Presently there are no results to report.

Program	3 Year Budget (\$000)	Spending Life to Date (\$000)	Life to Date Savings kWh	Life to Date Savings KW	Lifecycle kWh
Technology Demonstration Project	135	90.0	N/A	N/A	N/A

24 ***Common Distribution System Loss Reduction***

25

26 **Description**

1 The Distribution System Loss Reduction Program involves the optimization of Hydro
2 One Brampton's distribution system. The specific focus was on power system load
3 balancing along with system optimization, voltage conversion, and power factor
4 correction.

5

6 **Design**

7 Software was sourced externally that could be used by internal resources. The
8 distribution grid was modeled into the software in 2006.

9 The distribution grid was modelled in its current configuration and studies were then
10 carried out to determine the most optimal system configuration.

11

12 **Intent**

13 The intent of the program was to optimize the distribution system in an effort to reduce
14 line losses.

15 Lowering distribution system delivery losses will reduce overall system demand and it
16 will also provide additional network capacity for growth. System delivery losses are
17 currently passed on to all customers therefore; improvements in this area will benefit all
18 customers.

19

20 **Delivery**

21 The modelling of the system commenced in 2005 and was completed in 2006. After
22 reviewing the optimization models the configuration with the greatest potential was
23 determined and the steps to change the distribution system to this configuration were
24 undertaken.

25

26

27

28 **Evaluation**

29 The optimal configuration results in an energy savings of 1,743,678 kWh with a demand
30 reduction of 199kW. This has been an excellent initiative.

Program	3 Year Budget (\$000)	Spending Life to Date (\$000)	Life to Date Savings kWh	Lifecycle kWh
Distribution System Loss Reduction	100	64.5	1,743,678	17,436,780

1 ***Common Research Planning and Development***

2

3 **Description**

4 Hydro One Brampton partnered with Hydro One Networks Inc. for various customer
 5 research projects. One of these projects consisted of a detailed residential appliance
 6 survey. This research has provided valuable data for design of other CDM programs and
 7 initiatives.

8

9 **Design**

10 The program was designed to establish baseline data using participant surveys which
 11 would then be used for developing specific CDM programs.

12

13 **Intent**

14 The intent is to develop a typical residential customer appliance load make up for Hydro
 15 One Brampton customers.

16

17 **Delivery**

18 External consultants and service providers were employed to supplement available Hydro
 19 One Brampton resources. This program was supported by bill messaging and bill inserts.

20

21

22

23 **Evaluation**

24 This program was started in 2005 and the final report was issued in 2006. The results can
 25 now be used for developing residential customer specific programs going forward.

Program	3Year Budget (\$000)	Spending Life to Date (\$000)	Life to Date Savings kWh	Lifecycle kWh
Research Planning and Development	36	11.2	N/A	N/A

1 ***Common Customer Communication and Education Program***

2

3 Hydro One Brampton undertook various initiatives intended to educate customers
 4 pertaining to the importance of conservation, as well as offer ideas on how to improve the
 5 electrical efficiency of their homes. Hydro One Brampton’s education initiatives were
 6 divided into four categories listed below. Hydro One Brampton also appeared at several
 7 forums, trade shows and community events to discuss conservation and demand
 8 management and our programs.

9 Hydro One Brampton developed various initiatives to help cultivate a conservation
 10 climate. All programs and initiatives were part of our “With A Little Energy You Can
 11 Save A Lot” theme.

12

13 **Energy Management Focused Web Site**

14 During 2006, Hydro One Brampton was in the process of redesigning the utility’s
 15 web site to provide a comprehensive energy awareness component for our
 16 customers to use. The web site provides information on energy usage along with
 17 tips for reducing energy usage. This was launched in the first quarter of 2006 and
 18 is continuously being improved.

19

20 **Event Activity Team (Civic Functions and Tradeshow)**

21 Hydro One Brampton attended numerous workshops and community events with
 22 a display that is solely focused on energy efficiency and tips on how to reduce
 23 usage. Hydro One Brampton also appeared at commercial and industrial customer
 24 facilities to assist them in their energy awareness campaigns that they run for their

1 employees. The event team have attended over 50 civic events during 2006 and
 2 2007.

3
 4 **Literature Program**

5 Hydro One Brampton developed an energy conservation awareness series of
 6 billing inserts. These inserts covered off various topics of energy conservation and
 7 were delivered in 2007.

8
 9 **School Programs**

10 Hydro One Brampton also made presentation to various schools to educate
 11 students on how to conserve and use less electricity.

12
 13 **Evaluation**

14 These programs were designed to be educational and contribute towards a culture
 15 of conservation.

Program	3 Year Budget (\$000)	Spending Life to Date (\$000)	Life to Date Savings kWh	Lifecycle kWh
Communication and Education	165	247.7	N/A	N/A

16 ***Common Internal Building Efficiency***

17
 18 **Description**

19 This program was designed for Hydro One Brampton’s own facility and is aligned with
 20 the government’s goal of reducing energy consumption by 5% in all government
 21 buildings. This program identified opportunities to reduce energy consumption in our
 22 facility. The most significant savings will be realized through a lighting retrofit to more
 23 energy efficient lighting, which were undertaken as part of the load reduction program.

1 The internal efficiency program was limited to the identification for areas of conservation
2 to reach the provincial goal and the implementation of the conservation actions identified
3 will be part of specific programs.

4

5 **Design**

6 A lighting audit was completed of our facility and the resulting efficiency measures
7 became the basis for the lighting retrofit that was undertaken. An increased maintenance
8 program of the internal heat pump system was undertaken to increase the efficiency of
9 the units. The building energy usage was profiled to identify other conservation and
10 energy reduction opportunities.

11

12 **Intent**

13 The intent of the program was to reduce overall peak demand and energy consumption in
14 the Hydro One Brampton facility.

15

16 **Delivery**

17 The program was designed in house and identified various areas of opportunity. The
18 actual work was undertaken by competent contractors.

19

20 **Evaluation**

21 As a result of evaluating energy reduction opportunities at Hydro One Brampton, four
22 specific permanent load control demonstration projects were undertaken. These being
23 Energy Efficient Lighting, HVAC retrofit, Photovoltaic Demonstration and a Micro Wind
24 Turbine demonstration project.

25

26

27

28

Program	3 Year Budget (\$000)	Spending Life to Date (\$000)	Life to Date Savings kWh	Lifecycle kWh
Internal Building Efficiency	5	5.0	N/A	N/A

1 ***Lessons Learned***

2

3 Our efforts in Conservation and Demand Management over the last three years have
 4 identified a number of key findings, which will be utilized or emphasized as we move
 5 forward.

6 Some of these findings were on a macro level, based on broader policy, structures and
 7 inter-relationships, while others are more program specific. Some of these findings are
 8 listed below

9

- 10 • As electricity prices continue to increase conservation and demand
 11 management is becoming a higher priority for customers in all sectors.
- 12 • Customers want to be able to control their electricity bill, but do not want to
 13 sacrifice comfort.
- 14 • Government and Ontario Power Authority should address those areas that
 15 utilities can not – codes, standards, and broader policies.
- 16 • Doing things fast is easy. Doing things right takes time and is not so easy i.e.
 17 in launching two C&I programs (power factor correction and energy efficient
 18 lighting) we experienced a significant lead time from introduction of the
 19 program to uptake by customers. There are barriers that need to be overcome
 20 when introducing new programs such as financing of projects, recognizing the
 21 customers budgeting process and their natural purchasing selection process.
- 22 • For new and emerging technologies, or for new or high risk applications in the
 23 marketplace, pilots or staged rollouts are very valuable in:

- 1 ▪ Establishing the effectiveness of the device in either reducing
- 2 energy consumption or shifting peak demand
- 3 ▪ Refining logistics, incentive levels, and product selection
- 4 ▪ Assessing delivery channels, marketing and delivery costs
- 5 ▪ Determining customer acceptance and overcoming barriers to
- 6 customer participation
- 7 • CDM programs can provide a powerful incentive for encouraging use of
- 8 innovative (pre-commercial) technologies and enabling “start-up” companies
- 9 to compete in the electricity sector.
- 10 • Using expertise available in Ontario universities can help to develop specific
- 11 initiatives and assessment tools that provide a basis for sound decisions.
- 12 • Partnering with organizations that have experience with targeted technologies
- 13 and/or targeted customers brings existing skills and knowledge to bear.
- 14 • Clearer direction and consistent communication on smart metering will lead to
- 15 a more efficient and effective implementation.

16 ***Conclusions***

17

18 All programs were completed by December 31 2007.

- 19 • The provincial EKC program produced sales of over 104,109 energy efficient
- 20 products and savings of over 113 million lifecycle kWh in 2006 . This
- 21 program was continued by OPA in 2007 however results are not yet available.
- 22 • The Real-Time Monitoring pilot determined that 7-10% energy savings were
- 23 possible through provision on a real-time energy and dollar monitor in the
- 24 home in 2006. No additional funds were available beyond the trial program.
- 25 • The power factor correction program has realized 4,715 KVAR of capacitance
- 26 being added to the grid with a total 7,445 KVAR has been added life to date.
- 27 • The energy efficient lighting program was implemented to deliver a reduction
- 28 601.6 kW and 3,132,979 kWh in 2007.

- 1 • The system optimization has resulted in a demand reduction of 199 kW with
2 an annual savings potential of 1,743,678 kWh in 2006. The system will
3 continually be optimized without adding any further cost.

4

5 Various initiatives undertaken through the OPA were and extension of programs that
6 Hydro One Brampton had previously offered.

7 The demonstration projects will continue to be in place to illustrate the potential of new
8 and emerging technologies.

9

10 In 2007 as Hydro One Brampton programs were completed various commercial programs
11 were migrated to the provincially based programs.

12 Programs that are expected to continue into 2008 include:

- 13 ▪ Technology Demonstration program to promote new and emerging alternate
14 energy alternatives.
- 15 ▪ Every Kilowatt Counts Program
- 16 ▪ On Line Energy Audit
- 17 ▪ Line loss reduction work will continue
- 18 ▪ Various educational initiatives

19

20 Hydro One Brampton will continue to promote and educate its customers as to the
21 benefits of energy conservation.

22

23

24

25

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30

Appendix A - Evaluation of the CDM Plan

Highlighted boxes are to be completed manually, white boxes are linked to Appendix C and will be brought forward automatically.

	⁵ Cumulative Totals Life-to-date	Total for 2007	Residential	Commercial	Institutional	Industrial	Agricultural	LDC System	⁴ Smart Meters	Other #1	Other #2
<i>Net TRC value (\$):</i>	\$ 7,843,085.37	\$ 1,372,402	\$ 977,230	\$ 12,101	\$ -	\$ 384,445	\$ -	\$ (1,373)	NA	\$ -	\$ -
<i>Benefit to cost ratio:</i>	3.32	1.96	6.38	0.00	0.00	1.31	0.00	0.00	NA	0.00	0.00
<i>Number of units delivered:</i>	306,528	48,848	48,784	0	0	64	0	0	NA	0	0
<i>Lifecycle (kWh) Savings:</i>	178,064,828	35,199,266	18,571,664	0	0	16,627,602	0	0	NA	0	0
<i>Report Year Total kWh saved (kWh):</i>	31,997,019	7,775,895	4,642,916	0	0	3,132,979	0	0	NA	0	0
<i>Total peak demand saved (kW):</i>	985	602	0	0	0	602	0	0	NA	0	0
<i>Total kWh saved as a percentage of total kWh delivered (%):</i>	0.36%	0.20%	NA	NA	NA	NA	NA	NA	NA	NA	NA
<i>Peak kW saved as a percentage of LDC peak kW load (%):</i>	0.127%	0.078%	NA	NA	NA	NA	NA	NA	NA	NA	NA
¹ <i>Report Year Gross C&DM expenditures (\$):</i>	\$ 3,235,501	\$ 1,415,383	\$ 295,476	-\$ 12,101	\$ -	\$ 1,130,634	\$ -	\$ 1,373	\$ -	\$ -	\$ -
² <i>Expenditures per kWh saved (\$/kWh):</i>	\$ 0.018	\$ 0.040	\$ 0.0159	\$ -	\$ -	\$ 0.0680	\$ -	\$ -	\$ -	\$ -	\$ -
³ <i>Expenditures per kW saved (\$/kW):</i>	\$ 3,286.07	\$ 2,352.66	\$ -	\$ -	\$ -	\$ 1,879.35	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Utility discount rate (%):</i>	7.87										

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

A. **Name of the Program:** CFL DISTRIBUTED BY HYDRO ONE BRAMPTON

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

An events activity team was created to attend various civic event throughout 2007. CFL's were distributed to customers during these events. A direct condominium delivery program was delivered in 2007 for condos in Brampton. A partnership with the Brampton Public Library developed the Kill A Watt Save A Lot Program which was continued in 2007. This allowed customers to borrow energy meters from library branches and receive CFLs.

Measure(s):

	Compact Fluorescent Lights	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	139 kWh/yr		
Efficient technology:	35 kWh/yr		
Number of units:	48784		
Measure life (years):	4		
Number of Participants or unites delivered lfe to date	48784		

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 1,158,880.00	\$ 4,310,215.00
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 3,027.98	\$ 59,583.51
Incremental Measure Costs (Equipment Costs)	\$ 90,004.00	\$ 332,862.00
Total TRC costs:	\$ 93,031.98	\$ 392,445.51
Net TRC (in year CDN \$):	\$ 1,065,848.02	\$ 3,917,769.49
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	\$ 12.46	\$ 10.98

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):	lifecycle 18,571,664	in year 4,642,916	138,572,233	26,926,042
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):

D. Actual Program Costs:		Reporting Year	Cumulative Life to Date
<i>Utility direct costs (\$):</i>	<i>Incremental capital:</i>	<input type="text"/>	<input type="text"/>
	<i>Incremental O&M:</i>	\$ 3,027.98	\$ 59,583.51
	<i>Incentive:</i>	\$ 178,080.30	\$ 472,227.80
	<i>Total:</i>	\$ 181,108.28	\$ 531,811.31
<i>Utility indirect costs (\$):</i>	<i>Incremental capital:</i>	<input type="text"/>	<input type="text"/>
	<i>Incremental O&M:</i>	<input type="text"/>	<input type="text"/>
	<i>Total:</i>	<input type="text"/>	<input type="text"/>

E. Assumptions & Comments:

The Program cost is the combination of the expenditure for EKC promotion, at various civic events in Brampton, and CFL distributed by Hydro One Brampton. The primary focus of these events was the promotion of energy conservation and the use of CFL's. the EKC programs were promoted as a method for customers to purchase products at discounted prices.

Appendix B - Discussion of the Program

A. **Name of the Program:** Commercial & Industrial Power Factor Correction Program

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

This program was launched in April, 2006 and targetted the customers having load equal and above 200 kW with an average power factor of 83% or low. A total of nine customers took advantage of this program in 2007 resulting in the addition of 4715 kVAR of capacitance.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	No Correction in Place		
Efficient technology:	Power Factor Correction Program		
Number of participants or units delivered for reporting year:	9		
Measure life (years):	15		
Number of Partipants or unites delievered lfe to date	15		

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 454,853.23	\$ 690,949.12
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 10,780.35	\$ 29,307.92
Incremental Measure Costs (Equipment Costs)	\$ 268,575.53	\$ 410,636.03
Total TRC costs:	\$ 279,355.88	\$ 439,943.95
Net TRC (in year CDN \$):	\$ 175,497.35	\$ 251,005.17
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	\$ 1.63	\$ 1.57

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

Conservation Programs:

Demand savings (kW):	Summer	in year	Cumulative Lifecycle	Cumulative Annual Savings
	Winter			
	lifecycle			
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):

D. Actual Program Costs:		Reporting Year	Cumulative Life to Date
Utility direct costs (\$):	Incremental capital:	<input type="text"/>	<input type="text"/>
	Incremental O&M:	\$ 10,780.35	\$ 31,748.32
	Incentive:	\$ 73,777.31	\$ 113,238.56
	Total:	\$ 84,557.66	\$ 144,986.88
Utility indirect costs (\$):	Incremental capital:	<input type="text"/>	<input type="text"/>
	Incremental O&M:	<input type="text"/>	<input type="text"/>
	Total:	<input type="text"/>	<input type="text"/>

E. Assumptions & Comments:

Appendix B - Discussion of the Program

A. **Name of the Program:** Holiday Light Exchange

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

There were three events held in 2006 for the Holiday Light Exchange. The first event was held at City Hall Brampton where lights exchanged on one for one basis maximum of two. The LED lights were subsequently recalled and at the two later events gift cards were distributed in exchange for the older inefficient lights. Customers who received the LED lights at the first event were encouraged to return them in exchange for gift cards. Gift certificates are continued to be paid in 2007.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	19.4 / 7.8 KWh/yr		
Efficient technology:	0.5 / 0.6 KWh/yr		
Number of units delivered for reporting year:	0		
Measure life (years):	30		
Number of Participants or units delivered lfe to date	0		

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ -	\$ 202,754.00
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ -	\$ 45,434.21
Incremental Measure Costs (Equipment Costs)	\$ -	\$ 23,405.00
Total TRC costs:	\$ -	\$ 68,839.21
Net TRC (in year CDN \$):	\$ -	\$ 133,914.79
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	0.00	2.95

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):	0	0	5,347,938	178,265	
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):

D. Actual Program Costs:

Utility direct costs (\$):

Incremental capital:

Incremental O&M:

\$ -

\$ 45,434.27

Incentive:

\$ 15,928.39

\$ 97,261.15

Total:

\$ 15,928.39

\$ 142,695.42

Utility indirect costs (\$):

Incremental capital:

Incremental O&M:

Total:

E. Assumptions & Comments:

Appendix B - Discussion of the Program

A. **Name of the Program:** Conservation Assets Program

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

This program consists of installation of interval (smart) meters for C&I customers down to demand 150 KW and providing customers with the e-Meter Data Presentment program. This involves educating our clients to understand their energy consumption usage pattern and to identify possible areas for energy reduction.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	Interval Meter		
Efficient technology:	Interval Meter with Telephone Line		
Number of participants or units delivered for reporting year:	41		
Measure life (years):	15		
Number of Participants or unites delivered lfe to date	299		

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):		
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 185,190.80	\$ 630,313.92
Incremental Measure Costs (Equipment Costs)	\$ -	\$ -
Total TRC costs:	\$ 185,190.80	\$ 630,313.92

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:

	Summer		Cumulative Lifecycle	Cumulative Annual Savings
	lifecycle	in year		
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 begining 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):	
-------------------	--

<u>D. Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>	\$ 185,190.80	\$ 630,313.92
	<i>Incentive:</i>	\$ 108,366.48	\$ 482,186.93
	<i>Total:</i>	\$ 293,557.28	\$ 1,112,500.85
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>		
	<i>Total:</i>		

E. Assumptions & Comments:

Appendix B - Discussion of the Program

A. **Name of the Program:** Hydro One Brampton Internal Efficiency

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

Program has designed to identify areas of potential savings within Hydro One Brampton. The three areas that were specifically targetted were the lighting for the facility, increased maintenance for the internal heatpumps and load profiling of the facility using the e-Meter service. The lighting retrofit was undertaken as part of the C&I load control program. The increased and modified heat pump maintenance was identified as part of this program but the cost to perform the maintenance was attributed to Hydro One Brampton's normal maintenance program.

Measure(s):

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

B. TRC Results:

	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):		
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 1,373.47	\$ 4,955.85
Incremental Measure Costs (Equipment Costs)	\$ -	\$ -
Total TRC costs:	\$ 1,373.47	\$ 4,955.85

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:

	Summer		Cumulative	Annual
	lifecycle	in year		
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):

lifecycle

in year

Energy savngs (kWh):

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

Other Programs (specify):

Metric (specify):

D. Actual Program Costs:

Utility direct costs (\$):

Incremental capital:

Cumulative Life to Date

Incremental O&M:

Incentive:

Total:

Utility indirect costs (\$):

Incremental capital:

Incremental O&M:

Total:

E. Assumptions & Comments:

Appendix B - Discussion of the Program

A. **Name of the Program:** Hydro One Brampton Distribution Efficiency Program

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

This program involved the modelling of the Hydro One Brampton distribution grid on a modelling software that would allow the system to be modelled in various configurations to identify the most effective and efficient configuration. The original base modelling was done in 2005 and the most optimum configuration was determined in 2006. The system was reconfigured in 2006 to provide peak operating efficiency through optimized switching. No further funding provided for this program in 2007.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:			
Efficient technology:	Optimizing Switching Configurations		
Number of participants or units delivered for reporting year:	1		
Measure life (years):	10		
Number of Participants or unites delievered lfe to date			

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ -	\$ 1,075,289.00
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ -	\$ 64,465.11
Incremental Measure Costs (Equipment Costs)*	\$ -	0
Total TRC costs:	\$ -	\$ 64,465.11
Net TRC (in year CDN \$):	\$ -	\$ 1,010,823.89

Benefit to Cost Ratio (TRC Benefits/TRC Costs): #DIV/0! \$ 16.68

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

Conservation Programs:

	Summer		Cumulative Lifecycle	Cumulative Annual Savings
	Winter			
	lifecycle	in year		
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): 0
lifecycle *in year*
Energy savngs (kWh): 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: 0

Other Programs (specify):

Metric (specify): 0

<u>D. Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ -	\$ 64,465.11
	Incentive:		
	Total:	\$ -	\$ 64,465.11
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Appendix B - Discussion of the Program

A. **Name of the Program:** Residential Load Control Program

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

This program was delivered in 2005 and completed in 2006.

Measure(s):

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

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):		
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ -	\$ 66,302.00
Incremental Measure Costs (Equipment Costs)	\$ -	0.00
Total TRC costs:		\$ 66,302.00

Net TRC (in year CDN \$):

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

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

Conservation Programs:

Demand savings (kW):	Summer	-	16.2
	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):

lifecycle

in year

Energy savngs (kWh):

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

Other Programs (specify):

Metric (specify):

D. Actual Program Costs:

Utility direct costs (\$):

Incremental capital:

Incremental O&M:

Incentive:

Total:

Reporting Year

Cumulative Life to Date

\$	-	\$ 66,302.02
\$	9,820.80	\$ 13,360.52
\$	9,820.80	\$ 79,662.54

Utility indirect costs (\$):

Incremental capital:

Incremental O&M:

Total:

E. Assumptions & Comments:

Appendix B - Discussion of the Program

A. **Name of the Program:** C / I Load Control Program

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

This program consisted of four specific programs The Lighting Incentive Program, a photovoltaic project that consisted of a 20 kW commercial project and residential 1.5 kW unit, the third program was the installation of a 1.5 kW wind generator system. The fourth program was the retrofit of the lighting for Hydro One Brampton's facility.

Measure(s):

	Measure 1	Measure 2 (if applicable)	Measure 3 (if applicable)
Base case technology:	T12 and MH Lights	Nil	Nil
Efficient technology:	Energy Efficient Lights	PV System	Wind Generator
Number of participants or units delivered for reporting year:	14	1	1
Measure life (years):	5	20	10
Number of Participants or unites delievered lfe to date			

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 1,188,442.00	\$ 1,188,442.00
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 668,303.12	\$ 680,851.81
Incremental Measure Costs (Equipment Costs)	\$ 126,000.00	\$ 126,000.00
Total TRC costs:	\$ 794,303.12	\$ 806,851.81
Net TRC (in year CDN \$):	\$ 394,138.88	\$ 381,590.19
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	\$ 1.50	1.47

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

Conservation Programs:

Demand savings (kW):	Summer	601.61		
	Winter	601.61		
Energy saved (kWh):	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
	16627602	3132978.9	16627602	3132978.9
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):

D. Actual Program Costs:

Utility direct costs (\$):

Incremental capital:

Reporting Year

Cumulative Life to Date

Incremental O&M:

\$ 668,303.12

\$ 680,851.81

Incentive:

\$ 84,216.39

\$ 84,241.39

Total:

\$ 752,519.51

\$ 765,093.20

Utility indirect costs (\$):

Incremental capital:

Incremental O&M:

Total:

E. Assumptions & Comments:

Appendix B - Discussion of the Program

A. **Name of the Program:** Common Communication & Education Program

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

This program is the primary support program of CDM portfolio. It was designed to provide promotional support for all programs as they are launched and during each program life. An events activity team and vehicle were put in place in 2006. This team attended various civic functions to promote energy conservation. A complete conservation theme based series of billing inserts were designed in 2006 and delivered in 2007

Measure(s):

	Measure 1	Measure 2	Measure 3
<i>Base case technology:</i>	Standard Website		
<i>Efficient technology:</i>	Enhanced Website	Participation in all Community Events and Energy Forums	Literature
<i>Number of participants or units delivered for reporting year:</i>			
<i>Measure life (years):</i>			
<i>Number of Participants or unites delievered lfe to date</i>			

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):		
² TRC Costs (\$):		
<i>Utility program cost (excluding incentives):</i>	\$ 88,618.49	\$ 247,665.53
<i>Incremental Measure Costs (Equipment Costs)</i>		
Total TRC costs:	\$ 88,618.49	\$ 247,665.53
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:

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

<i>Dispatchable load (kW):</i>	
<i>Peak hours dispatched in year (hours):</i>	

Power Factor Correction Programs:

<i>Amount of KVar installed (KVar):</i>	
<i>Distribution system power factor at begining of year (%):</i>	
<i>Distribution system power factor at end of year (%):</i>	

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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D. Actual Program Costs:		Reporting Year	Cumulative Life to Date
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 88,618.49	\$ 247,665.53
	Incentive:		
	Total:	\$ 88,618.49	\$ 247,665.53
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Appendix B - Discussion of the Program

A. **Name of the Program:** Smart Metering Program

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

The HOB Smart Metering Pilot Project was started in December of 2006 with completion scheduled by the end of Q1 2007. There are no results to report

Measure(s):

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

B. **TRC Results:**

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

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

Conservation Programs:

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

E. Assumptions & Comments:

Appendix B - Discussion of the Program

A. **Name of the Program:** Technology Demonstration Project

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

There were two projects that were undertaken. The first was the introduction of a web based on line energy audit for residential and commercial customers. The second was in cooperation with Hydro One with the social housing initiative where a residential highrise building was retrofitted with energy efficient appliances.

Measure(s):

	Measure 1	Measure 2	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 unites delievered lfe to date			

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):		
² TRC Costs (\$):		
Utility program cost (excluding incentives):	-\$12,101.00	-11,587.40
Incremental Measure Costs (Equipment Costs)	\$0.00	0.00
Total TRC costs:	-\$12,101.00	-11,587.40
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:

	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):		
	<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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D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	-\$12,101.00	-\$11,587.40
	Incentive:	\$0.00	\$101,557.91
	Total:	-\$12,101.00	\$89,970.51
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Appendix B - Discussion of the Program

A. **Name of the Program:** Common Research & Planning

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

No continuation of this program

Measure(s):

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

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):		
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ -	\$ 11,211.58
Incremental Measure Costs (Equipment Costs)	\$ -	\$ -
Total TRC costs:	\$ -	\$ 11,211.58

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:

			Cumulative Lifecycle	Cumulative Annual Savings
	Summer	Winter		
Demand savings (kW):				
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):

lifecycle

in year

Energy savngs (kWh):

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

Other Programs (specify):

Metric (specify):

D. Actual Program Costs:

Utility direct costs (\$):

Incremental capital:

Incremental O&M:

Incentive:

Total:

Reporting Year

Cumulative Life to Date

\$	-	\$ 11,211.58
\$	-	\$ -
\$	-	\$ 11,211.58

Utility indirect costs (\$):

Incremental capital:

Incremental O&M:

Total:

E. Assumptions & Comments:

Appendix B - Discussion of the Program

A. **Name of the Program:** RT Monitoring Pilot

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

This program was a pilot project that was undertaken in 2005

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 unites delievered lfe to date			

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ -	\$ 5,029.00
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ -	\$ 40,312.60
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	\$ -	\$ 40,312.60
Net TRC (in year CDN \$):		-\$ 35,283.60
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	-	0.12

C. Results: (one or more category may apply)	Cumulative Results:			
Conservation Programs:				
Demand savings (kW):	Summer			
	Winter			
		lifecycle	in year	Cumulative Lifecycle
Energy saved (kWh):				Cumulative Annual Savings
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):

D. Actual Program Costs:

Reporting Year

Cumulative Life to Date

Utility direct costs (\$):

Incremental capital:

Incremental O&M:

Incentive:

Total:

Utility indirect costs (\$):

Incremental capital:

Incremental O&M:

Total:

\$	-	\$ 40,312.60
\$		\$ 170.00
\$	-	\$ 40,482.60

E. Assumptions & Comments:

Appendix C - Program and Portfolio Totals

Report Year:

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/Co st Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
Spring EKC	\$ -	\$ -	\$ -	0.00				
Fall EKC	\$ -	\$ -	\$ -	0.00				
CFL Distributed by Hydro One Brampton	\$ 1,158,880	\$ 93,032	\$ 1,065,848	12.46	4,642,916	18,571,664	0	\$181,108.28
Holiday LightExchange	\$ -	\$ -	\$ -	0.00				\$15,928.39
Residential Load Control Program	\$ -	\$ -	\$ -	0.00				\$9,820.80
Communication & Education	\$ -	\$ 88,618	\$ -88,618	0.00				\$88,618.49
Residential Real Time Monitoring	\$ -	\$ -	\$ -	0.00				\$0.00
Research & Planning	\$ -	\$ -	\$ -	0.00				\$0.00
				0.00				
				0.00				
*Totals App. B - Residential	\$ 1,158,880	\$ 181,650	\$ 977,230	6.38	4,642,916	18,571,664	0	\$ 295,476
<i>Residential Indirect Costs not attributable to any specific program</i>	→							
Total Residential TRC Costs		\$ 181,650				4,642,916	18,571,664	
**Totals TRC - Residential	\$ 1,158,880	\$ 181,650	\$ 977,230	6.38				

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/Co st Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
<i>Technology DemonstrationProject</i>		-\$ 12,101	\$ 12,101	0.00				-\$ 12,101
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
*Totals App. B - Commercial	\$ -	-\$ 12,101	\$ 12,101	0.00	0	0	0	-\$ 12,101
<i>Commercial Indirect Costs not attributable to any specific program</i>	→							
Total TRC Costs		-\$ 12,101						
**Totals TRC - Commercial	\$ -	-\$ 12,101	\$ 12,101	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/Co st 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 - Institutional	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Institutional Indirect Costs not attributable to any specific program								
Total TRC Costs		\$ -						
**Totals TRC - Institutional	\$ -	\$ -	\$ -	0.00				

4. Industrial Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Co st Ratio	Report Year Total kWh Saved	Lifecycle (kWh) Savings	Total Peak Demand (kW) Saved	Report Year Gross C&DM Expenditures (\$)
Power fFactor Program	\$ 454,853	\$ 279,356	\$ 175,497	1.63				\$ 84,558
Conservation Assets Program	\$ -	\$ 185,191	-\$ 185,191	0.00				\$ 293,557
C - I Load Control Program	\$ 1,188,442	\$ 794,303	\$ 394,139	1.50	3,132,979	16,627,602	602	\$ 752,520
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
*Totals App. B - Industrial	\$ 1,643,295	\$ 1,258,850	\$ 384,445	1.31	3,132,979	16,627,602	602	\$ 1,130,634
Industrial Indirect Costs not attributable to any specific program								
Total TRC Costs		\$ 1,258,850						
**Totals TRC - Industrial	\$ 1,643,295	\$ 1,258,850	\$ 384,445	1.31				

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 (\$)
Hydro One Brampton Internal efficiency		\$ 1,373	-\$ 1,373	0.00				\$ 1,373
Hydro One Brampton Distribution efficiency			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
			\$ -	0.00				
*Totals App. B - LDC System	\$ -	\$ 1,373	-\$ 1,373	0.00	0	0	0	\$ 1,373
LDC System Indirect Costs not attributable to any specific program								
Total TRC Costs		\$ 1,373						
**Totals TRC - LDC System	\$ -	\$ 1,373	-\$ 1,373	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 (\$)
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 - Other #1	\$ -	\$ -	\$ -	0.00	0	0	0	\$ -
Other #1 Indirect Costs not attributable to any specific program								
Total TRC Costs		\$ -						
**Totals TRC - Other #1	\$ -	\$ -	\$ -	0.00				

9. Other #2 Programs

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

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

	TRC Benefits (PV)	TRC Costs (PV)	\$ Net TRC Benefits	Benefit/Co st 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/Co st 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	\$ 2,802,175	\$ 1,429,773	\$ 1,372,402	1.96	\$ 7,775,895	\$ 35,199,266	\$ 602	\$ 1,415,383
Any other Indirect Costs not attributable to any specific program	→							
TOTAL ALL LDC COSTS		\$ 1,429,773						
**LDC' PORTFOLIO TRC	\$ 2,802,175	\$ 1,429,773	\$ 1,372,402	1.96				

* 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.