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Susan Frank

Vice President and Chief Regulatory Officer
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BY COURIER

April 3, 2008

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

Dear Ms. Walli:

2007 Annual Report of CDM Initiative for Hydro One Networks Inc.

In accordance with the Ontario Energy Board's approval Hydro One Networks Inc.'s Conservation and Demand Management Plan, EB-2005-0198, I am pleased to submit the enclosed Annual Report of CDM Initiatives to December 31, 2007

Hydro One Networks Inc. has prepared this Annual Report using the Board's Guideline for Annual Reporting of CDM Initiative. As per the guideline's filing instruction please find enclosed three hard copies and two electronic copies of the Annual Report. The First electronic copy contains the entire report in PDF format while the second copy contains the A, B and C Appendices in Excel format.

I trust that the above will satisfy the Board's requirements and should you have any question please do not hesitate to contact Russell Smith at 416-345-5901 or myself.

Sincerely,

ORIGINAL SIGNED BY SUSAN FRANK

Susan Frank

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

RP-2004-0203 \ EB-2005-0198

March 31, 2008

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Introduction

On February 18, 2005 Hydro One Networks Inc. (Networks) received final approval from the Board for their Conservation and Demand Management Plan (CDM Plan) covering the period 2005 – 2007, for \$39.5 million.

The approval was conditional upon the re-allocation to other projects of \$7.1 million that Networks planned for smart meters in 2006. On November 1, 2005 the Board approved the re-allocation of the funds. The CDM Plan included Market Adjusted Rate of Return (MARR) funding in the amount of \$39.5 million. The initiatives approved by the Board satisfy the Minister's condition of a financial commitment to reinvest in CDM initiatives. In the decision of the Board, Networks, along with all other LDCs, was required to file both quarterly and annual reports tracking the progress of the CDM Plans. This report meets the requirement for the annual report for 2006.

On October 5, 2004, the Board issued a *Procedural Order*, which contained the reporting filing requirements (paragraphs 26 through 30) applicable to MARR CDM funding. On December 21, 2005 the Board issued the *Guideline* for Annual Reporting to the OEB, which is intended to include reporting for funding for the year ended 2005 and the third tranche MARR. On March 31, 2006 Networks submitted its first CDM Annual Report.

On October 2, 2006 the Board issued a revised TRC Guide. On March 1, 2007 changes to the reporting format were released which included a new schedule (Schedule C) and revisions to the existing schedules. On March 9, 2007 clarification regarding the schedules was also released. The second Annual report was submitted on April 2, 2007.

On May 22, 2007 the Board approved the extension of the deadline to complete CDM activities from September 30, 2007 to April 30, 2008.

On March 3, 2008 confirmation was received that the 2007 Annual Report guidelines had not changed from the 2006 report. In this third CDM Annual Report, Networks has complied with the requirement of the Procedural Order. Networks has also provided the information requested in the Guidelines.

Results Summary

Networks has been successful at managing and rolling out programs across all sectors, including residential, farm, commercial and industrial, as well as the Municipalities Universities Schools and Hospital (MUSH) sector. Networks has worked with partners from the retail sector, as well as with community-based organizations, schools and governmental bodies for the successful delivery of the Conservation and Demand Management programs and management of existing / prospective participants in various initiatives. The cooperation with other Local Distribution Companies has been a valuable strategy for the development and delivery of joint programs to all electricity customers. The portfolio of programs offered confirms the Company's commitment to contribute to the goal of culture change within the province through various communication and education activities.

Results achieved to date amount to annual energy savings of 272 million kWh. This is the equivalent of the electricity needed to power almost 23,000 homes for one year, or 178,000 tonnes of CO₂ emission reductions.

The expected energy savings over the lifetime of the equipment are just under 1.5 billion kWh. This translates to the electricity consumption of 121,000 homes for one year, or 950,000 tonnes of CO₂ emission reductions.

In addition, a summer peak demand reduction of 64 MW has been achieved.

Networks' CDM Plan was successfully implemented in 2007 to provide a balanced approach to both conservation and load control initiatives. Our programs offered opportunities for all customers within our service territory to contribute to and benefit from a culture of conservation. As mentioned in the 2005 and 2006 CDM Annual Reports, Networks' challenges are that it must cover most of the geography of the province, yet it only serves about 25% of the customers, a fact that is reflected in cost effectiveness of some individual programs. Networks' programs delivered financial savings for our customers, as well as kilowatt hour (kWh) and kilowatt (kW) savings to contribute to meeting the Province's goals.

The following figure provides an overview of Networks' CDM approved budget, life to date (LTD) spending as at December 31, 2007, as well as kWh and KW savings earned.

Figure 1: Summary of spending

PROGRAM	3 YEAR BUDGET (\$K)*	LTD SPENDING TO DEC 2007 (\$K)	Cumulative SAVINGS KW**	Cumulative ANNUAL SAVINGS kWh**	Cumulative LIFECYCLE SAVINGS kWh
Residential					
Smart Meters	7,800	7,800	-	-	-
Real Time Monitoring Pilot	470	466	38	401,482	2,007,410
Real Time Monitoring Program	5,085	5,082	4,767	22,946,131	114,732,007
Mass Markets	2,465	2,465	5,854	98,915,451	635,802,470
LED	430	424	-	546,454	16,393,624
Low Income/Social Housing	3,200	3,163	879	8,373,080	115,751,166
Load Control Pilot	710	710	358	-	-
Load Control Program	4,660	4,536	13,198	4,113,097	48,811,867
Energy Audit Analysis	215	213	-	-	-
Total	25,035	24,859	25,094	135,295,696	933,498,544
Commercial/Industrial, Farm, MUSH					
Interim Time of Use	1,130	997	-	-	-
C/I MUSH Conservation	1,040	948	2,011	14,503,166	210,511,025
C/I & Load Control	2,390	2,339	33,773	108,854,220	108,898,068
Farm Energy Efficiency & Farm Load control	510	458	349	1,970,695	17,454,329
Total	5,070	4,742	36,132	125,328,081	336,863,422
Common					
Distribution Loss Reduction	6,175	5,399	2,362	7,207,655	144,153,108
Program Management and Research	2,500	2,425	43	396,185	3,248,037
Communication and Education	765	744	140	3,649,933	30,145,133
Carrying Charge		25		-	-
Total	9,440	8,593	2,545	11,253,773	177,546,278
Grand Total	39,545	38,194	63,771	271,877,550	1,447,908,244

Note: *The budget has been reallocated from approved plan and the reallocations are within the 20% flexibility allowed by the Board.

** Cumulative annual and lifecycle KW and kWh savings are reported as per calculations in Appendices B.

As of year-end 2007, 97% of the 3rd tranche MARR budget had been spent. For the few programs not totally completed in 2007, approval was received from the OEB to operate these programs until April 2008. During 2007 Networks spent 45% of the triennial budget. This reflected Hydro One's strategy to:

- concentrate on pilot programs in 2005 in order to evaluate customer acceptance and effectiveness of new technologies.
- roll out larger scale programs in 2006, including in-home displays, residential load control, appliance pickup, residential coupon programs, social housing, low income and the first phase of smart meters.
- In 2007, expand programs that operate successfully, complete programs such as social housing and low income, while adding a few new programs (eg. online audits).

Transition of three programs to similar OPA programs also occurred, primarily in the third quarter (appliance pickup, residential load control, and the commercial /industrial conservation program).

Highlights for 2007:

- The CDM program portfolio to date has produced over \$3.40 of societal benefits for every \$1 spent on program costs, as measured through the Total Resource Cost (TRC) test. Net TRC benefits of \$88 million have been produced.
- Participation in Networks' CDM programs reached almost 1.2 million life-to-date.
- Real-time monitors were installed in over 31,000 homes – the largest deployment in North America. This product also won Blueline Innovations and Networks an award for best new energy efficient technology deployment from the Association of Energy Service Professionals (AESP).
- Customers' response to the Residential Load Control Program (SmartStat) continued to show a strong performance throughout 2007. Enrolment reached the target of 10,000 participants on schedule in June, 2007.
 - Hydro One initiated two successful load control events in July and August during the hottest days of the summer, reducing peak demand by up to 13 MW.
- Double Return program was launched in the winter of 2007 as a new demand response initiative targeted at Commercial/Industrial distribution-connected customers.
 - This program exceeded expectations by achieving 38MW in winter peak reduction and 33MW in the summer.
- Hydro One customers purchased 242,000 energy efficient products during the Spring Every Kilowatt Counts program.
- The Appliance Pickup program was very successful, attracting bookings in 2007 for over 7,200 operating refrigerators, freezers and room air conditioners and leading to expansion of the program from eastern Ontario to all of southern Ontario. The LTD program total reached 11,300 units.
- By the end of 2007, energy retrofits had been conducted for 112 Social Housing providers, representing over 5,500 housing units within Networks' territory.
- The PowerSaver Business Incentive program provided funding of over \$420,000 to more than 110 business and farm customers. The average incentive released was approximately \$4,000.
- An online audit was launched to allow residential and small business customers to understand their electricity usage and learn ways they can reduce their consumption

Program Overviews

Residential: Residential In-Home Display Program

The largest full scale deployment of real time in-home displays in North America, provided 31,000 Hydro One's residential customers in Northern Ontario with real time feedback on their actual electricity use and cost, thereby enhancing their ability to conserve.

Description:

During 2007, Networks completed its Residential In-Home Display Program by providing over 31,000 real-time monitor (RTM) units to residential customers in Northern Ontario. Customers used the Monitors to view and manage their electrical consumption in real-time. They were able to view their current usage rate and cumulative consumption in kWh, as well as an estimate of the cost of that consumption. Networks' initiative was the largest of its kind in North America.

Design:

Following the completion and evaluation of the pilot project in 2005, Hydro One decided to implement a full scale roll out of in-home displays in Northern Ontario.

During 2006 and 2007, Networks offered in-home display units to its 130,000 residential customers in Northern Ontario, on a "first come, first served" basis. Over 31,000 customers took up Network's offer. Eligible customers received the \$150 in-home display units for free, but paid handling costs of \$8.99 plus taxes.

Intent:

The objectives of the program were to provide a real-time feedback device to empower residential customers with the information needed to change behaviours and encourage efficiency. As reported in Networks 2005 annual report, an average of 6.5% decrease in electricity consumption was experienced by customers in the pilot.

Delivery:

All aspects other than program evaluation were awarded to BlueLine Innovations as part of a turn key contract following a competitive proposal process, including product supply, marketing, customer enrolment, product delivery and customer/product support.

Customers could order the product from BlueLine via a 1-800 number or from their website. BlueLine also held a number of community events across Northern Ontario where they demonstrated the unit and had stock available for customers to purchase.

Evaluation:

The program was launched in July 2006 and by May 2007 approximately 31,000 monitors had been delivered to Networks customers. Those customers, representing about 20% of the residential customers in Northern Ontario, are now equipped with in-home displays for their electricity consumption.

Networks staff is sample testing customer changes in electricity usage based on meter readings in 2007- 2008.

Program	LTD Spending to Dec 2007 (\$K)	Cumulative Annual Savings kWh	Cumulative Annual Savings KW	Cumulative Lifecycle kWh
Real Time Monitoring Pilot	466	401,402	38	2,007,410
Res. In-Home Display Program (30,950 participants)	5,082	22,946,131	4,767	114,732,007

Residential: Residential In-Home Display Program - First Nations

Based on the successful roll out of over 31,000 monitors to residential customers, Networks initiated the largest In-Home Display roll out for First Nations communities in North America.

Description:

During Fall 2007, Networks initiated the First Nations In-Home Display Program by providing real-time monitors to customers living in Northern Ontario First Nation communities at no cost.

Design:

After the major In-Home display campaign Networks found that First Nations communities had a lower uptake in monitor orders (only 5% penetration compared to the 20% achieved during the full scale deployment in Northern Ontario). Therefore, in consultation with First Nation stakeholders, Networks launched a new campaign targeting specifically those communities. As the \$8.99 shipping costs appeared to be the main cause for not receiving orders from First Nations customers, Networks decided to incur the shipping expenses as well as the cost of the in-home display unit, therefore offering monitors to First Nations at zero cost.

Intent:

The objectives of the program were to provide a real-time feedback device to empower First Nations customers with the information needed to change behaviours and encourage efficiency.

Delivery:

Several Organizations - including BlueLine, Ontario First Nation Technical Services Corporation and Seven Generations - were key for the successful delivery of the program.

Customers ordered the product from BlueLine via fax to the Ontario First Nation Technical Services Corporation or from the BlueLine website. BlueLine also provided a toll-free telephone number for enrolling in the In –Home display First Nations program. Networks also held a number of community demonstrations across Northern Ontario with the help of local residents in Northern Ontario First Nations and key organizations that work with First Nation communities.

Evaluation:

The campaign will close in the first quarter of 2008, and the preliminary results show the final uptake to be in line with the results of the major campaign. Close to 400 customers have participated by ordering a real-time monitor.

Program	LTD Spending to Dec 2007 (\$K)	Cumulative Annual Savings kWh	Cumulative Annual Savings KW	Cumulative Lifecycle kWh
Res. In-Home Display Program - First Nations (400 participants)	70	297,761	52	1,488,601

Residential: Residential Load Control Program (Smartstat)

Customers' response to the Residential Load Control program remained strong throughout 2007. Installations reached the target of 10,000 participants on schedule in June, 2007, allowing Hydro One to initiate two separate load control events in July and August, during the hottest days of the summer, reducing peak demand by up to 13 MW.

Description:

The Smartstat residential load control program was launched in July, 2006 with an initial target of 6,000 participants which was subsequently increased to 10,000 in 2007. This program was designed to achieve up to 13 MW summer peak demand reduction by controlling participants' central air-conditioning (AC) units using web-enabled programmable thermostats, and by cycling electric water heater loads using an off/on switch.

The program offered a top-of-the line programmable thermostat including free installation and programming for all eligible participants. With this thermostat Hydro One controls customers' central AC units to reduce peak summer load on the system. The customer, meanwhile, can benefit by saving energy throughout the year and have the ability to remotely change the temperature settings via the internet. In cases where the customer had an electric hot water system, a load control switch was also be installed plus an energy saving tank wrap and pipe insulation for additional energy savings. Finally, all participants received two free energy efficient CFLs upon installation of the thermostat. No cash incentives were offered in this program.

Design:

Load control is carried out through an event which involves increasing the air conditioning temperature set-point by two degrees Celsius in summer afternoons for four hours at minimal or no inconvenience to the home owner. The customer cannot override the event manually but can opt out of the event or the program by calling a toll free number to make their wishes known. During our first load control in July 2007, out of 10,000 participants 6 customers requested to opt out of the event with none choosing to leave the program. Our experience is consistent with those in other jurisdictions where opting out is a rare event.

Hydro One's load control strategy is as follows:

- Control Season: June 15 to September 15
- Control Events: 5-10 events /summer season
- AC control event duration: 4 hours (2:00-6:00 pm)
- DHW control event duration: 3 hours maximum (3:00-6:00pm)
- Air conditioning control Increase temperature by max 2 degrees C
- DHW control Switch off up to 3 hours during AC control
- Control on weekends & holidays None

Currently, the load control events are initiated in response to IESO public appeal for peak load curtailment in the hottest days of the summer.

Intent:

The program's target of 10,000 installations was met on schedule in June, 2007, providing Hydro One with up to 13MW of peak load control capacity. Hydro One exceeded the target in

terms of enrolments, reaching 12,000 customer requests to enrol in the program by June 2007. Thus Hydro One completed an additional 2,000 installations funded through Global Adjustment Mechanism under contract with OPA.

Owning a central AC was a pre-requisite for participation in the program. As a result of the program all program participants are now equipped with smart thermostats that are ready to receive a command during a control event. In the high peak days of the summer, Hydro One will take control of the thermostats remotely and setback the temperature by two degrees Celsius, reducing load by approximately 1 kW per household. If the homeowners happen to have an electric water heater, the load reduction will be in excess of 1.5 kW per customer.

Delivery:

The program management was out-sourced as a turnkey service to Goodcents Solutions. The vendor was accountable to Hydro One for the promotion, customer enrolment, deployment, equipment installation, call center management, customer care, and maintenance of the system for up to three years

The installation of the thermostats and the water heater switch devices were carried out by dedicated full time contractors trained and specifically assigned to the program. The installation of the equipment was only a component of what the installers were responsible for. They were required to encourage the home owner to view a DVD describing the program objectives and explaining the technologies involved and why their participation was important. This contributed to creating a culture of conservation as one of the key objectives of this program. The thermostat was also programmed by the installer for the first time based on the customer's instructions and a package was left behind including further information as well as two energy saving compact fluorescent light bulbs.

Evaluation:

Program installation progress was tracked and reported on a weekly basis. As described above, Hydro One directly initiates the load control events determining the duration and timing of the load reduction on the system. To verify the results, a professional monitoring and evaluation analysis was also undertaken to determine the load reduction impact as well as the corresponding customer response and satisfaction level.

Program	LTD Spending to Dec 2007 (\$)	Cumulative Annual Savings kWh	Cumulative Annual Savings KW	Cumulative Lifecycle kWh
Residential Load Control (SmartStat) (10,000 installations)	4,536	4,113,097	13,198	48,811,867
Residential Load Control Pilot (416 homes)	710	0	358	0

Residential: Cold Shoulder Appliance Pickup

Customers reacted very positively to this initiative and enrolled over 11,000 inefficient secondary fridges, freezers and room air conditioners for pick up and proper disposal.

Description:

The Cold Shoulder Appliance Pickup program, which launched in September 2006, provided customers with free in-home pickup of secondary, operating refrigerators, freezers and room air conditioners. The appliances were permanently removed from operation and disposed of in an environmentally responsible manner.

Design

This program was designed to retire old secondary operating appliances and provide customers with an energy efficient pack that includes educational material plus some energy efficient products, such as compact fluorescent lights (CFLs) and a timer. Networks targeted the customers through bill inserts, bill messaging, web page, newspaper and radio advertising.

Intent

The intent of the program was to reduce energy consumption and demand, save customers money on their electricity bills, increase customer understanding of the benefits of energy efficiency, and increase the usage of other energy efficiency technologies (eg. CFLs and timers).

Delivery

All aspects of the program, other than program marketing, are delivered through a turn key contract with the service provider, including customer enrolment, scheduling appointments, picking up and transporting the appliances, decommissioning and proper disposal. Networks planned and delivered an integrated marketing campaign to raise awareness of this initiative, utilizing bill inserts, bill messages, website, radio and newspaper advertisements.

Evaluation

Customer response was very favourable for this program, exceeding the targeted enrolment and leading to expansion of the program territory from Eastern Ontario to all of southern Ontario. Total participation reached 11,300 units.

The majority of participating customers indicated that they had learned about the program through either the bill insert or bill message, with newspaper advertising also generating significant enrolments.

The program was closed in July 2007 when the OPA's Great Refrigerator Roundup program became operational across the province.

Program	LTD Spending to Dec 2007 (\$K)	Cumulative Annual Savings kWh	Cumulative Annual Savings kW	Cumulative Lifecycle kWh
Appliance Pickup (11,300 units)	1,426	16,194,283	3,095	133,466,659

Residential: Every Kilowatt Counts

1.2 million energy efficient products were purchased with coupons in Spring 2007, of which over 240,000 were purchased by Networks' customers.

Description:

In 2006, the OPA assumed responsibility for the residential coupon initiative developed and implemented by Networks and the CLD in 2005. LDC participation increased to 80 in 2006 from the initial 27 and made available to all Ontario retailers, with over 3,000 stores taking part. Through this campaign Networks customers in Ontario received educational material on energy saving together with coupons for the purchase of energy efficient equipment.

In 2007 only the Spring campaign involved the use of third tranche MARR funds and thus only Spring results are reported.

Design

The Spring 2007 campaign ran from April 16 to June 17, 2007. Educational booklets were sent to all residential customers along with coupons for related energy efficient products that could be redeemed at retail outlets across the province. Products promoted included : compact fluorescent lights, outdoor motion sensors, ceiling fans, outdoor solar lights, dimmer switches and furnace filters.

Intent:

The objectives of this program were:

- Provide homeowners and tenants with brochures on how to easily save energy in their home or apartment;
- Provide incentives to homeowners and tenants to purchase on one or more of the easy-to-do products identified in the campaign
- Achieve savings in terms of kWh and kW

Delivery:

Networks was actively involved in co-promoting the campaigns, providing direct mail data for its customers base to the OPA for addressing of the coupon books and co-branding them to encourage customer participation. Networks also advertised the program in newspaper ads, on its website, and produced bill messages to customers to promote the program.

Evaluation:

Results for the coupon program continued to be robust in Spring 2007, with products purchased totalling just under 1.2 million across the province. Networks estimates that approximately 20% of the coupons redeemed were for products purchased by its customers (or 242,000 products). The OPA evaluation report on this program is not yet available and thus OPA costs and load impacts for two products are unknown, therefore kWh are likely understated.

Program	LTD Spending to Dec. 2007 (\$K)	Cumulative Annual Savings kWh	Cumulative Annual Savings kW	Cumulative Lifecycle kWh
Every kW Counts (969,000 products)	212	75,044,621	1,215	443,927,250

Residential: PowerSaverPlus Online Audits

Over 4,000 customers took the self-administered Online Energy Audit program and received recommendations on how they could lower their usage and electricity bill.

Description:

Networks launched a self administered online energy audit in the fall of 2007. Two energy audit applications (branded Business PowerSaverPlus and Home PowerSaverPlus) were made available to Hydro One small- and medium-sized general service customers as well as residential and small farm customers.

Design:

Approximately one million Hydro One customers will be able to participate in the program and get online audit recommendations to make their homes and businesses more energy efficient.

Intent:

The PowerSaverPlus program was launched to provide customers with an assessment of their electricity usage and give recommendations on how they can lower their usage and electricity bill.

Delivery:

Aclara Software (formerly Nexus Energy Software), a leading service provider in North America, was competitively selected to provide the energy audit services for one year.

Evaluation:

The online audit program was launched in September 2007 and by December 31, 2007 over 4,000 customers had participated in the audits.

Residential: Low Income Program - CMHC / NRCan

Up to \$3,000 was available to low income home owners for energy efficient upgrades and retrofits.

Description:

Networks was offering up to \$3,000 to qualifying low income households to be used towards upgrades and retrofits to the home designed to achieve electrical energy savings. These funds were to be used in conjunction with the funds and services that were available from Canada Mortgage and Housing Corporation's (CMHC) Homeowner Residential Rehabilitation Assistance Program (RRAP) and Natural Resources Canada's (NRCan) EnerGuide for Houses Program. Combining the three programs was intended to help achieve maximum energy savings in low-income households in Networks' service territory and create synergies in the administration of the program. This was the first program of its kind in Canada, and was the first to bring the EnerGuide for Houses program to the low-income sector. Unfortunately, in May 2006 following a change in federal government, the EnerGuide for Houses program was cancelled. The arrangement remained intact for the 46 homes that had already received an EnerGuide audit but no further houses were eligible.

Design:

CMHC processed applicants through their RRAP program, which included criteria to determine low-income status. Qualifying applicants then received a health and safety assessment of their home, as well as an EnerGuide for Houses energy audit to determine the energy efficiency of their home. RRAP funding for health and safety retrofits was offered to the qualifying applicant and Networks' funds were used for energy improvements identified in the EnerGuide audit.

Networks funded the electricity improvements up to \$3,000 per home. NRCan funded the EnerGuide for Houses audits, one before and one after improvements were implemented, valued at \$300 - \$500 total.

CMHC processed applications, including screening for adherence to low income criteria, and handled all correspondence with the customer. RRAP did not fund energy efficiency improvements.

Intent:

The objective of this program was to assist low income homeowners in contributing to and benefiting from conservation. Low income customers tend to have a higher prevalence of electric water heating and electric heating in their homes and they spend proportionately more of their disposable income on energy costs. Low Income customers also have fewer means to improve the efficiency of their homes and would not otherwise have had access to the EnerGuide for Houses program.

Delivery:

All aspects of the program were delivered under the RRAP structure. Vehicles used to promote the program included various social agencies and municipal and provincial government agencies dealing with social and housing issues. Networks also directed customers with payment issues to the program.

Evaluation:

Negotiations took place between January 2005 and September 2005, with the program launch in September 2005. Reaching the target audience and getting them to come forward was a challenge as this was a group not easily defined or self identified. Forty-six applications had been received by the time the EnerGuide for Houses program was cancelled. Of those, under 30 customers had their pre-retrofit audit, 14 of whom completed their retrofits and received their payments in 2006 while the final 10 customers completed their retrofits in 2007.

Program	LTD Spending to Dec 2007 (\$K)	Cumulative Annual Savings kWh	Cumulative Lifecycle kWh
Low Income Program – CMHC / NRCan (24 customers)	71	177,185	4,429,625

Residential: Low Income Program - Retrofits

Leverage the OPA's Low Income Pilot to undertake extended measures in Hydro One Networks Territory.

Description:

The Ontario Power Authority (OPA) conducted a Low Income program Request for Proposals (RFP) in 2006. Five bids were received and evaluated. Envirocentre and Green Communities (the Vendors) were awarded contracts to deliver low income audit and retrofit pilots in several areas across the province, all of which encompassed or abutted portions of Hydro One's service territory. Hydro One reached agreements with each party and with the OPA to ensure that a significant number of Hydro One customers would be included in the pilot and that Hydro One would pay for the installation of extended measures.

Design:

With Hydro One covering the cost of extended measures (e.g. insulation) for its customers with electric heat (plus some basic measures and audits not covered by the OPA), the OPA was able to direct more of their pilot budget towards infrastructure development. The Vendors coordinated all work on behalf on Hydro One and the OPA and billed the appropriate party for relevant work.

Intent:

The objective of this program is to assist low income homeowners in contributing to and benefiting from conservation. Low income customers tend to have a higher prevalence of electric water heating and electric heating in their homes and they spend proportionately more of their disposable income on energy costs. Low Income customers also have fewer means to improve the efficiency of their homes and would not otherwise be in a position to undertake retrofits of this nature.

Delivery:

All aspects of the program are delivered by the Vendors. The Vendors worked with government agencies, municipalities, food banks, etc. to identify individuals and areas of low income and to contact potential eligible customers.

Hydro One screened customers for suspected electric heat and the Vendors compared those locations with known low income areas. In some cases Hydro One advised customers of the program via a bill message. Networks also directed customers within the eligibility areas with payment issues to the program.

The Vendors screened customers for eligibility (income level, electric heat, etc.), conducted the audits and coordinated installation of all basic and extended measures.

Evaluation:

A total of 259 customers received energy efficient retrofits from Hydro One under the Low Income Retrofit Program. While Hydro One and the OPA had separate contracts with the Vendors, the sharing of vendors, processes, measures, infrastructure, etc. was very beneficial in reducing the costs and extending the reach of the program.

The most difficult part of the Low Income Program was identifying and recruiting customers. One method tried was for Hydro One to screen customer consumption records and identify areas where electric heat appeared to be prevalent. A direct mail marketing piece directed to these areas resulted in 102 participants, producing by far the best results of the methods utilized.

Program	LTD Spending to Dec 2007 (\$K)	Cumulative Annual Savings kWh	Cumulative Annual Savings kW	Cumulative Lifecycle kWh
Low Income Program - Retrofits (259 customers)	364	709,439	97	11,350,915

Residential: Low Income – First Nations Retrofits

This initiative leverages work already performed for Natural Resources Canada (NRCAN) to undertake cost effective electricity efficiency retrofits in First Nations communities.

Description:

Under the EnerGuide for Houses Program, The Abor Group had been retained by NRCAN to perform audits on First Nations housing. Prior to the cancellation of the EnerGuide for Houses Program, Abor had completed “A” audits (pre-retrofit) on over 400 houses for which no “B” audits (post-retrofit) had been done since funds were lacking to undertake the identified measures. An assessment of these audits identified 55 electrically heated homes in 6 communities that required cost effective thermal envelope retrofits. The Abor Group was retained to retrofit the identified houses with thermal envelope and basic conservation measures and to do the same for any other houses identified as requiring those measures while they were in each community doing the work.

Design:

The design of the program was to take advantage of the audits that had already been conducted and paid for under the EnerGuide for Houses program, thereby directing more of Hydro One’s funds towards actual measures. Thermal envelope measures (attic insulation, basement insulation, air sealing, and programmable thermostats where warranted) were the primary focus, but basic measures (water tank wrap, pipe wrap, and CFLs) were also installed while in the home. 55 previously identified houses formed the backbone for the program, with other homes added while in the community. In all, 125 houses received some conservation measures.

Intent:

The objective of the program was to lower the disproportionate energy burden faced by the First Nation community and address some of the known issues identified by the EnerGuide for Houses Program. This objective was also in line with the Ministerial Directive to reduce energy consumption in low income housing.

Delivery:

The Abor Group, who had conducted the original audits for NRCAN and had established a working relationship in the subject communities was contracted to deliver all aspects of the program.

Evaluation:

Leveraging the existing EnerGuide for Houses “A” audits allowed a number of communities to be identified where sufficient known retrofits were necessary to justify, on a TRC basis, the outlay for travel and accommodation required to undertake a retrofit program in those communities. While in those communities additional cost effective retrofits were identified and undertaken. Basic measures undertaken resulted in annual savings of more than 170,000 kWh, while thermal envelope measures contributed annual savings of more than 530,000 kWh.

The current avoided cost factors do not place any value on winter peak demand reductions nor on environmental or other indirect benefits. It is important that avoided costs be kept up to date so that positive savings opportunities are not forgone.

Program	LTD Spending to Dec 2007 (\$K)	Cumulative Annual Savings kWh	Cumulative Annual Savings KW	Cumulative Lifecycle kWh
Low Income – First Nations Retrofits (125 homes)	128	708,063	2	13,596,532

Residential: Low Income – First Nations Pilot

Establishes a viable approach to the delivery of electricity efficiency retrofits and education in First Nations communities.

Description:

The First Nations Energy Conservation Project provided an integrated approach to energy conservation at the Chippewas of Georgina Island First Nation reserve, encompassing conservation education and housing retrofits. The Chippewas of Georgina Island First Nation was selected for the pilot program due to the community's location (York Region) and its demonstrated knowledge and receptiveness to issues of conservation and renewable energy. In this community, Hydro One identified a total of 91 homes eligible for this program. Hydro One assigned the delivery of the program (audit, effectiveness studies and retrofit) to Windfall Ecology.

Design:

The goal of this pilot program was to assess and improve the energy efficiency of the entire community. The First Nation Energy Conservation Project was comprehensive, addressing appliances, hot water, lighting, building envelope, and heating systems. The delivery process consisted of 3 phases with an education component running throughout the duration of the project:

Phase I – Auditing and installation of basic energy conservation measures;

Phase II – Installation of extended energy conservation measures;

Phase III – Verification and evaluation

All houses in the community were to be provided with education, basic energy efficiency measures and a home energy efficiency audit. The audit data for electrically heated homes was assessed with a TRC evaluation tool developed by the Program Manager, Windfall Ecology Centre, in cooperation with Green Communities Canada, to determine if extended measure retrofits were justified.

Intent:

The objective of the program was to lower the disproportionate energy burden faced by the First Nation community and pilot a community approach. This objective was also in line with the Ministerial Directive to reduce energy consumption in low income housing.

Delivery:

Windfall Ecology Centre, who had worked with the community over a period of time, was contracted to deliver all aspects of the program. The cancellation of EnerGuide for Houses caused some delay while Windfall pursued alternative audit funding. The OPA came on board to fund the audit portion and to expand the educational component of the program.

Evaluation:

There were ninety-one houses belonging to the Chippewas of Georgina Island First Nation. Seventy homes received the basic energy conservation measures and a home energy efficiency audit, eleven houses had been abandoned due to their poor condition and ten residents declined to participate. The basic measures, including compact fluorescent light bulbs, water heater pipe wrap, low flow showerheads and faucet aerators contribute an average annual savings of 256 kWh/year from each home. Fifteen electrically heated homes benefited from extended conservation measures aimed at the building envelope (attic/basement/crawl space insulation and comprehensive air sealing).

As a result of both the basic measures and the retrofits, a 5% reduction in community electricity usage was achieved. Retrofits accounted for 79% of total savings and basic measures 21%.

Retrofits for a number of houses did not quite pass TRC. The IPSP identifies a number of additional factors that are not reflected in the current avoided cost factors, which also do not place any value on winter peak demand reductions. Adjustments to the avoided costs to reflect the IPSP may result in these retrofits passing TRC. It is important that avoided costs be kept up to date so that positive savings opportunities are not forgone.

Program	LTD Spending to Dec 2007 (\$K)	Cumulative Annual Savings kWh	Cumulative Annual Savings KW	Cumulative Lifecycle kWh
Low Income – First Nations Pilot (70 homes)	64	173,783	3	2,209,686

Residential: Social Housing Program

The Social Housing Program is an effective tool in significantly reducing energy costs of operating social housing building stock and educating tenants in the wise use of energy. Hydro One led the way in this innovative program, with over 5000 homes in over 100 buildings participating.

Description:

This program built on the success of the Social Housing Pilot Program launched in 2005. That pilot program consisted of three social housing providers in Networks' service territory, representing 811 housing units that participated in a program to improve the energy efficiency of their buildings. Networks contributed a total of \$550 per unit. The pilot program funding included \$50 per housing unit towards energy audits and up to \$500 per housing unit for the implementation of measures designed to achieve electrical energy savings (\$450 per housing unit), as well as energy awareness training (\$50 per housing unit). The pilot program was well received by the participating housing providers. Only minor administrative changes were required for the full program that was rolled out across the province in 2006. This program, called The Green Light Initiative, was part of the Social Housing Services Corporation's (SHSC) Energy Management Program. Program participants had an on-site energy audit conducted and used these findings to generate an energy management plan for their buildings. SHSC reviewed the plans and then developed a funding plan for the properties' retrofit, utilizing both public and private funding. The social housing property managers and their respective boards approved the energy improvement plan and the energy efficiency measures were implemented.

Intent:

The objective of this program was to assist social housing providers to increase the energy efficiency in their housing stock resulting in lower electricity bills, which for the most part are paid by the housing providers. Social housing properties tended to be older and often lack the funding to pursue measures to improve their energy efficiency.

Delivery:

Housing Providers received an on-site energy audit. The results of the audit were made available to the property managers to use in the development of an energy management plan. This plan had to be approved by their municipalities or boards before it was presented to the SHSC. The SHSC developed a plan to secure various funding partners in order for the retrofits to proceed. Networks offered up to \$550 per unit for social housing properties in Networks' service territory.

Evaluation:

This program hit full stride in 2007 as the program gained momentum in the social housing sector. The final results exceeded all expectations as 112 buildings represented 5,626 housing units enrolled in the program. This exceeded the initial projection of 4,500 housing units enrolling into the program. A total of 96 buildings, representing 5,040 housing units, underwent retrofits and implemented a combined total of 22,000 energy efficiency measures. The recommended energy saving measures varied from items such as the accelerated purchase of energy efficient refrigerators and the installation of energy efficient lighting in common areas to the installation of programmable thermostats in individual units. There

were also some innovative solutions such as the installation of an exterior solar wall to offset building heating costs or implementation of control strategies in order to maximize energy efficiency in a building.

The program accomplished 6.3 million annual kWh and 83 million lifecycle kWh savings; these results were achieved primarily in 2007.

Program	LTD Spending to Dec 2007 (\$K)	Cumulative Annual Savings kWh	Cumulative Annual Savings kW	Cumulative Lifecycle kWh
Social Housing (5,626 participants)	2,476	6,316,850	722	82,675,807

Residential: Time-of-Use Pilot Project

411 customers participated in the time-of-use (TOU) pilot project. Pilot participants responded to the regulated pricing plan (RPP) TOU rates and were able to shift and conserve part of their load. For a typical pilot customer on the RPP TOU rates, the load-shifting impact was approximately 3.7% and conservation impact averaged 3.3%. For the customers on RPP TOU rates with Real Time Monitors, the conservation impact increased to 7.6%

Description:

Networks undertook a pilot project involving about 411 residential and farm customers for 5 months (May to September 2007). The pilot project assessed the response of customers to RPP TOU commodity rates versus the conventional RPP (non-TOU) commodity rates. Customers' actual electricity bills were based on differential rates where commodity costs differed during peak, mid peak and off peak hours.

Design:

The pilot consisted of 411 customers with the following groupings:

- 153 customers on RPP TOU rates with real-time in-home display monitors (RTM);
- 177 customers on RPP TOU rates with a \$50 incentive at the end of the pilot;
- 81 customers on regular RPP rates with RTM;

In addition, 75 customers on regular RPP rates were used as control group without RTM or incentives.

Customers on TOU rates received their bills based on these TOU rates.

Intent:

The main objectives of the pilot were:

- To assess the customer responses to RPP TOU rates versus the conventional RPP rates. Responsiveness is measured in the following categories:
 - shifting usage away from peak periods in kWh;
 - conservation impact; consumption decrease in kWh;
 - bill impact, savings in \$.
- To assess the effectiveness of the RTM in conjunction with RPP TOU rates;
- To assess the communication and settlement support required for implementing RPP TOU rates.

Delivery:

All aspects of the pilot were handled by Hydro One staff. Because TOU rates have not yet been implemented at Hydro One, monthly electricity bills were produced manually by Vertex.

Evaluation:

Major findings of this pilot are summarized below:

- Pilot participants responded to the RPP TOU rates and were able to shift and conserve part of their load. For a typical pilot customer on RPP TOU rates, the load-shifting impact approximated 3.7% and conservation impact averaged 3.3%.
- Providing RTMs to customers on RPP TOU rates helped them to respond even more. On a normal summer's day, the load-shifting impact averaged 5.5% while the conservation impact averaged 7.6%. On a hot summers day (over 30°C), the load-shifting impact was even more pronounced at 8.5%.

Program	LTD Spending to Dec 2007 (\$K)	Cumulative Annual Savings kWh	Cumulative Annual Savings KW	Cumulative Lifecycle kWh
TOU Pilot project (411 participants)	72	396,185	17	3,248,037

Residential: Seasonal LED Light Exchange

Residential customers responded to the Seasonal Light Exchange in all parts of the province. The numbers speak for themselves: over 115 community events and over 32,000 LED strings of light retired.

Description:

This program was intended to operate as a 2 year program – 2005 and 2006 and therefore did not operate in 2007. The program was delivered in three components: The first component was a SLED exchange, where customers exchanged incandescent light strings for a SLED string at Hydro One attended events. These typically larger events were, for the most part, well attended and were staffed by Hydro One staff and/or an outsourced event management firm.

The second phase consisted of communities self enrolling through a web based enrolment process. Individual communities that used the online application process described their event that they intended to hold and provided such details as the anticipated attendance. Initial expectations were that approximately 30 to 40 individual events would be enrolled through this process. In total almost 100 communities responded. Advertising funds were made available to the enrolled communities to assist with promotion of their events. These exchanges were community managed whereby event organizers leveraged their own festivals and events in order to obtain maximum customer participation.

The third component was a program in which SLEDs were given to municipalities for their community Christmas trees and other seasonal decorations, to replace their existing incandescent decorations. By far the largest event was providing lights to Canada's largest Christmas tree that was erected in Cobden, Renfrew County. This was a very high profile event, which received national television coverage. It was also attended by dignitaries such as the Prime Minister. A part of this third component also included the sponsorship of Owen Sound's Festival of Northern Lights, which attracts thousands of visitors annually. Funds were provided to increase the efficiency of their existing Christmas displays.

Design:

The design of this program was simple, yet effective. A series of community events were held, at which customers turned in incandescent strings of lights in exchange for a string of SLEDs. The incandescent lights that were collected were taken out of service and recycled in an environmentally friendly manner.

Hydro One also provided energy efficient holiday lights free of charge to any community in our service territory that held its own SLED Exchange. Community participation was obtained through direct marketing to over 250 communities in Hydro One territory.

Due to a Safety Alert related to the manufacturer of the SLEDs that Hydro One utilized for the Exchange Program, retailer gift cards were used as a replacement for the SLEDs at the exchanges in 2006.

Intent:

The objective of the SLED program was to create awareness of the benefits of SLED lights to drive market transformation and to reduce the seasonal electrical load associated with seasonal lights. SLEDs use up to 95% less energy, last longer and emit less heat. These benefits provide both energy savings and cost savings to the customer.

Delivery:

The program was designed to be delivered by Networks, directly to participating communities or alternately delivered by municipalities or community groups themselves. Communities leveraged their own events in the latter approach. This mode of delivery suited the program well, as communities were able to put their own “stamp” on their SLED exchange event.

Evaluation:

Sales figures from as early as the 2005 campaign showed that market transformation was well under way and that utilities were leading the charge.

Exchange Results:

Year	<i>SLED Distributed</i>	<i>Inc. Strings Retired</i>
2005	10,800	10,800
2006	18,500	21,800
Total	29,300	32,600

In 2006 close to 18,500 SLED strings and gift cards were provided to residential customers and to municipalities. A total of 12,500 incandescent strings were collected directly from customers during the 2006 exchange program. The distribution of gift cards for the purchase of SLEDs also contributed to additional incandescent light strings being retired. In total an estimated 32,000 incandescent light strings have been retired to date by the Networks program. The program did not operate in 2007.

Program	LTD Spending to Dec 2007 (\$K)*	Cumulative Annual Savings kWh	Cumulative Lifecycle kWh
SLED Lighting (More than 32,000 strings retired)	424	546,454	16,393,624

*In 2007 expenses were incurred that were related to the recall of defective SLEDs at the end of 2006.

Residential: PowerSaver Tour

Over 215,000 people visited the summer festivals across the province where the PowerSaver information booths were held, with 10,000 of those customers responding to a survey and receiving a free compact fluorescent light.

This program was not operational in 2007.

Description:

The PowerSaver Tour program was a joint initiative between Networks and The Home Depot aimed at promoting and achieving energy savings. During ten weeks, from June 2006 until September 2006, a co-branded truck travelled throughout rural Ontario and participated in 11 summer festival events where it displayed educational material and offered discounted energy efficient products for sale. The program was leveraged with another complementary program - Cool Shops, for small businesses.

Design

The program was designed to reach the rural areas of Hydro One territory throughout an integrated and co-branded marketing campaign. The participation of a large retail brand contributed to the delivery of the program and the penetration of a wide base of customers. The delivery of the PowerSaver Tour was done through Summerhill Group to eleven scheduled events during the summer of 2006. Summerhill representatives displayed promotional and educational material and sold discounted energy efficient products. A survey was administered at Tour events in order to understand customers' attitudes towards energy conservation and the effectiveness of this Hydro One program.

Intent:

The main objectives of this integrated mass market campaign were to:

- Promote customer education and contribute to culture change
- Improve the energy efficiency of small businesses and homes within Hydro One Networks rural territory
- Engage, communicate with and have a better understanding of a wide base of Hydro One customers

Delivery:

All aspects of the program were contracted through a turn key contract with an external service provider, who arranged the venues, promoted the booths, managed the survey and handled the supply and sales of all products. The Tour was also supported by a dedicated website. Customers at each event completing the survey were provided a free CFL sample.

Evaluation:

Over 215,000 people visited the PowerSaver information booths at summer festivals. More than 10,000 compact fluorescent lights (CFLs) were given away and just under 14,000 energy efficient products were sold at the PowerSaver information booths.

Program	LTD Spending to Dec 2007 (\$K)	Cumulative Annual Savings kWh	Cumulative Annual Savings kW	Cumulative Lifecycle kWh
PowerSaver Tour (23,969 products)	314	3,170,923	8.2	17,981,316

Residential: Keep Cool

Over 2,000 operational room air conditioners were removed from service and disposed of in an environmentally responsible manner.

This program was not operational in 2007.

Description:

The Keep Cool program was geared to removing old, but operating, room air conditioners (RACs) from service. It was developed by the Clean Air Foundation and run in conjunction with Hydro One and several other utilities in 2006.

Design and Delivery

Networks engaged the Clean Air Foundation to carry out the Keep Cool program under a turn key contract, which ran for three weekends from June 10, 2006 to June 28, 2006. An integrated marketing communication campaign was launched to reach electricity customers in the participating communities and inform them of the timeline for the program. People interested in the program brought their old RACs to one of the participating Home Depot or Home Hardware stores, where Clean Air representatives would collect the old units. After having filled a survey regarding the Keep Cool campaign awareness and cooling preferences, participants were given \$25 store gift card.

The program ran in Home Depot stores in York Region (Aurora and Newmarket), Owen Sound and Brockville, and also at 5 Home Hardware stores in eastern Ontario (Smith Falls, Carleton Place, Perth, Kemptville and Almonte).

Intent

The intent of the program was to shave summer peak demand by encouraging customers to retire old and inefficient RACs and by offering \$25 retailer gift cards.

Evaluation

Hydro One was successful in promoting the program to its customers. In total, Hydro One retired 2,036 room air conditioners.

Program	LTD Spending to Dec 2007 (\$K)	Cumulative Annual Savings kWh	Cumulative Annual Savings kW	Cumulative Lifecycle kWh
Keep Cool (2,036 units returned)	221	1,649,160	2,071	6,596,640

Residential : Communication and Education

Communication and education (C&E) are integral parts of every program delivered by Networks, the costs of which are incorporated into program budgets. In addition to such program specific C&E, Networks also undertakes general awareness C&E on an ongoing basis and a limited number of directed C&E programs. In 2007 Networks appeared at forums, trade shows and community events to discuss conservation and demand management and our programs and provided educational material in various bill related communications. In 2007, directed C&E programs included the SmartPak Initiative, the Turn Out the Light Campaign and grants to education based organizations.

SmartPak Initiative

The initiative was developed in 2006 and was delivered in 2007. The SmartPak Education initiative is a targeted to Grade 5 students as they cover the energy component of the prescribed science curriculum. This initiative encouraged elementary school students and their households to adopt energy conservation practices within Hydro One Networks' service territory.

The SmartPacks, which are backpacks containing energy efficiency measures, such as CFLs, low flow shower heads and LED night lights, supplemented the energy efficiency curriculum being taught in public schools for the fifth grade. The energy efficiency components provided the students with hands-on experience in installing and using the energy- and water-saving devices contained in the kits.

Not only will the SmartPack Program foster a culture of conservation among the students and their families, it will lead to real energy savings in the student's homes (3.1 million kWh in annual energy savings and 27 million kWh energy savings on a lifecycle basis). A total of 6,000 SmartPacks were distributed through 405 teachers located in 260 participating schools.

"Turn Out the Light" Campaign

Networks co-sponsored a 30-second public service announcement that features Nelly Furtado and a small army of children dancing down a school hallway reminding schools and families to conserve electricity by turning off unnecessary lights. The announcement appeared this summer on television stations across the province.

Grants:

Networks provided a grant to the Environmental Earth Angels for the Student Energy Challenge. The program is designed to teach students about their consumption behaviour at school and at home. It demonstrates that simple changes in behaviour can reduce energy

consumption, energy bills and the burning of fossil fuels. The program is directed at Grade 5 students and provides a hands-on teaching module.

Networks also provided a grant to the Simcoe County Board of Education in partnership with several area LDCs. The grant was used for the development of teaching materials for the Grade curriculum and training of Science teachers in the delivery of the Energy modules.

EnviroGirl – TVOKids

In 2006 Hydro One Networks entered a partnership with TVOKids to create a character, EnviroGirl, who is a champion of the environment. There are a series of video shorts on conservation and the environment that will play on the air and are available on the internet, related tip sheets and a multiplayer game. Although this is a corporate sponsorship and not funded from CDM funds, CDM staff consulted with TVOKids on content for all the materials.

Program	LTD Spending to Dec 2007 (\$K)*	Cumulative Annual Savings kWh	Cumulative Annual Savings kW	Cumulative Lifecycle kWh
Communication and Education (includes 6,000 SmartPaks)	744	3,649,933	140	30,145,133

Commercial/Industrial: PowerSaver Business Incentive Program

*For many, in this customer segment, energy conservation projects take a back seat to the “business” of operating a business. The **PowerSaver Business Incentive Program (PBIP)** brought awareness of the benefits of energy efficiency retrofits to the market place. This program can be characterised as a catalyst for customers to re-prioritize their energy retrofits and proceed with implementing them.*

Description:

This program provided up to \$50,000 in financial incentives per customer to all business, institutional and farm customers that undertook energy efficiency retrofits in their facilities. Incentives for technologies such as lighting, motors, cooling equipment and energy efficient transformers were provided to all these customer groups.

Design:

The program consisted of fixed financial incentives for predefined technologies (i.e. prescriptive) such as motors, cooling equipment, lighting technology transformers as well as agri-business equipment. There were also financial incentives for custom projects based on demand reduction. This program was application based and incentives were paid once retrofits were installed and operational. Qualifying customers had to obtain pre-approval for all custom applications. Under the prescriptive project, qualifying customers had the option of applying for rebates after project completion by including proof of purchase and installation with the application form. This design element was intended to influence customer energy efficiency projects that had a very short timeline; where pre-approval was not practical. It also was intended to influence customer equipment purchases that were typically unplanned such as motor replacements. The program underwent some design changes in early 2007 as agricultural technologies were added to enhance the program. In 2007 it was also necessary to increase the incentive level for the Custom portion of the program from \$150 per kW to \$250 per kW, in order to encourage customers to proceed with more comprehensive items in their facilities.

Intent:

This program addressed the need for a comprehensive CDM program targeted at the commercial, industrial, MUSH and farm sector. Segments within these sectors contained a large potential for energy conservation savings (reduced energy consumption in kilowatt hours). The intent was to promote earlier adoption of energy efficient technologies and influence purchasing decisions for all customers undertaking retrofits of their facilities.

Delivery:

Direct marketing campaigns were utilized to deliver this program to Networks' customers. Media advertising was also used to reach key customer segments. The program was designed to direct all customers to the Networks self-serve website. The interactive website was configured to provide all of the necessary applications and forms the customer required

to complete the application. The site also contained useful tools such as incentive calculators, technical guides, program guideline booklets, presentations and fact sheets.

Other marketing initiatives consisted of running workshops, engaging trade allies, such as electrical distributors, and key channel partners, such as government and industry associations. This was accomplished through face to face meetings with all of the organizations afore-mentioned as well as meeting with key customer groups.

Evaluation:

In 2007 this program gained significant momentum as the majority of applications were completed during the 3rd and 4th quarters of 2007.

Networks customers responded as they submitted approximately 230 applications for projects under this program. A total of 185 of these project applications were approved by Networks. In total 117 projects (including farm projects) , encompassing in excess of 30,000 measures were completed by program close.

All sectors participated in the program: Commercial, Industrial, MUSH and Agricultural. The agricultural sector was the largest group participating in PBIP, with 30% of applications coming from that sector, followed by the manufacturing sector with 25% and municipal sector with 13%.

The average incentive provided to customers was \$3,800, with farm customers receiving considerably less at \$1,650. This was mainly due to the fact that farm customers had considerably reduced project scopes, resulting in the reduced average incentive.

The PowerSaver Business Incentive Program exceeded initial targets as it achieved 13 million kWh in annual energy savings and 195 million kWh energy savings on a lifecycle basis for the business sector. Details for savings from the farm sector are reported on page 52 under the Agricultural programs section.

Program	LTD Spending to Dec 2007 (\$K)	Cumulative Annual Savings kWh	Cumulative Annual Savings kW	Cumulative Lifecycle kWh
PowerSaver Business Incentive Program – Business sector (78 projects completed and paid)	521	12,824,832	1,821	193,695,391

Commercial / MUSH: Toronto Region Conservation Authority Programs

Municipalities, schools and hospitals are looking for innovative ways to reduce costs as they work within very confined budgets. Benchmarking is a good tool to illustrate facility energy consumption.

Description:

Networks participated in four energy initiatives led by the Toronto Region Conservation Authority (TRCA) as part of their Community Transformation Programs. The programs targeted municipalities, hospitals and schools. Bench marking was a common component for all program participants to drive action. The projects in which Networks were involved:

- The Mayor's Megawatt Challenge – identified actions that could be taken to achieve energy savings in municipal buildings and single pad arenas
- Greening Health Care – encouraged hospitals to work together to achieve optimal energy savings
- Sustainable Schools – identified best practices in green design, commissioning and operations, enabling school boards to improve the energy performance of schools
- Archetype Housing Design Competition - this design competition engaged architects, engineers and graduate students from across Canada to design a mass production Green Home for new community development. The scope of the project has grown since its inception with a second, home to be built to the adjacent home. The first home will feature cutting edge energy efficient technology that is currently available. The second home will feature prototype technologies that have not been fully commercialized. The Archetype Housing Design Competition component of this initiative was separate from the components described above and was funded from the education portion of the Hydro One CDM portfolio.

Design:

The majority of the initiatives were comprehensive programs which included initial needs assessments and recommended initiatives to achieve savings, in addition to web-based applications to facilitate independent monitoring and benchmarking of performance to ensure savings were achieved. A key element of the program was the facilitation of information sharing among members so that best practices could be identified.

Intent:

The purpose of Networks involvement in the TRCA programs was to demonstrate support of community-based programs, as well as foster co-operation with municipal local distribution companies.

Delivery:

All elements relating to the delivery of programs was co-ordinated by the TRCA.

Evaluation:

- The Mayor's Megawatt Challenge – one municipality located in Hydro One territory enrolled in the program. Facility assessments were undertaken which resulted in energy efficiency retrofits being implemented. These energy savings were claimed in the PowerSaver Business Incentive Program. Generally participation in this program did not meet expectations. In April of 2007 funding was reallocated to the Greening Healthcare component of this program which gained considerable momentum.
- Greening Health Care – This component of the TRCA initiative performed very well. So much so, that funds from other components of this initiative were channelled to Greening Healthcare thus enabling additional hospital corporations to take part in this initiative. Workshops were held in several regions of the province and a total of 9 hospitals enrolled into Greening Healthcare.
- Sustainable Schools – A total of six schools located in Hydro One territory enrolled in the program. Facility assessments and workshops were delivered to several school boards taking part in the larger program. The results of this initiative were not positive with several schools reporting consumption increases in the short term. This effect is expected to be reversed with continued participation by these schools in the program.
- Archetype Housing Design Competition - A winning design was chosen in June of 2006, which incorporated LEED - Gold and Energy STAR for New Homes environmental ratings. Construction of 2 homes will be completed in 2008. The enlargement of scope of this project to two homes is a direct result of this initiative receiving considerable attention from the energy efficiency sector and the media.

Commercial / MUSH: Municipal Traffic Signal LED Retrofit Pilot & Program

Municipalities have recognized that conversion of their traffic signals to LED technology makes good business sense. Benefits include both reduced electricity consumption as well as reduced maintenance costs.

Design:

LED lights provide significant energy savings and substantially increased life expectancy which reduces overall maintenance costs. Networks provided monetary incentives to a pilot municipality, the City of Owen Sound, which worked with Networks to assess the costs and savings associated with the retrofit of traffic signals from incandescent to LED technology. These costs and savings were used to establish the TRC inputs and the fixed monetary incentives available under the full program.

Intent:

This program was designed to achieve energy conservation savings (reduced energy consumption in kilowatt hours). Currently, municipalities in Hydro One Networks' territory utilize inefficient incandescent traffic signal bulbs on a wide scale. LED signal lights are considerably more efficient, and Hydro One, through this program, provided monetary incentives in order to facilitate earlier adoption of this technology.

Delivery:

The first phase of this program was the execution of a pilot project in Owen Sound. The pilot served to validate the actual savings of retrofitting traffic signals. The program was then offered to all municipalities in Hydro One Networks distribution territory.

Municipalities were able to apply to Hydro One through both traditional applications as well as an online process. Hydro One supported municipalities in making their business case through useful tools such as the online energy savings calculator for traffic lights.

At program close, a total of 30 municipalities had applied to the program. This program was marketed directly to municipalities' through direct mail campaigns. Hydro One also promoted this program at relevant conferences and in relevant trade magazines.

Evaluation:

At year end, 16 municipalities with traffic signals had completed their retrofits under the program, saving approximately 1.7 million kWh annually. A total of 1,898 traffic signal components were replaced with LED technologies.

Program	LTD Spending to Dec 2007 (\$K)	Cumulative Annual Savings kWh	Cumulative Annual Savings kW	Cumulative Lifecycle kWh
Municipal LED Traffic Light (1,898 traffic signal components)	88	1,678,334	190	16,815,634

Commercial / MUSH: Cool Shops

250 energy efficiency audits were carried out for small business establishments.

This program was not operational in 2007.

Description:

Cool Shops is a program developed by the Clean Air Foundation whereby electrical distribution utilities fund free audits for small businesses in their service territory. Businesses are provided with some complementary energy efficient products (such as CFLs and LED exit sign lights) and the opportunity to order other energy efficient products through a discounted order form (30%-80%, in association with Home Depot).

Design and Delivery

Networks ran Cool Shops in conjunction with the PowerSaver Tour in 2006 as part of a turnkey contract. Tour representatives stopped at small businesses along their route and visited businesses near each event location. Business associations were advised in advance when the representatives would be in their area.

Intent:

The main objectives of this integrated Mass Market campaign were to:

- Promote business customer education and contribute to culture change
- Improve the energy efficiency of small businesses within Hydro One Networks rural territory

Evaluation:

Before the delivery of the program a target of 225 audits was set, and the objective was exceeded.

Program	LTD Spending to Dec 2007 (\$K)	Cumulative Annual Savings kWh	Cumulative Annual Savings kW	Cumulative Lifecycle kWh
Cool Shops (250 audits)	42	154,231	8	1,336,522

Industrial: Demand Response Program (Double Return)

This is a unique demand response program that attempts to reduce the system's peak load while at the same time providing customers with a range of behind-the-meter energy efficiency services including on-site visits, technical workshops, and employee engagement tools to raise awareness about conservation benefits. The customers responded exceptionally well to this program. Thus the achieved results, in terms of peak demand reduction at 38MW and 34MW, for winter and summer respectively, exceeded the program targets.

Description:

The Double Return program was launched in November 2006. The objective of the program was to reduce summer and winter peak demand in commercial and industrial facilities by up to 25 MW. The target customer group consisted of approximately 800 interval meter accounts, each with a peak load greater than 200kW but under 5MW. This customer group had an aggregate monthly peak load in excess of 1000 MW. To qualify for incentives, the customers needed to reduce their average peak demand by at least 5% to 10% during winter and/or summer peak months.

Design:

All Hydro One commercial and industrial distribution-connected customers with interval meters were eligible and therefore automatically enrolled in the program. To qualify for incentives, the participants need to achieve a minimum of 5% to a maximum of 10% peak load reduction against the corresponding monthly peak loads in the previous year. The target months in the program were December to February for the heating season and June to August for the summer.

The incentive payments were set equal to double the amount of reduction in distribution charges on the customer's bill resulting from achieving a minimum of 5-10% reduction in their peak load. For every distribution dollar the customer saved by reducing their peak demand, the program provided two dollars in incentive payments (i.e. "save once get paid twice").

The defining characteristic of this initiative was the simplicity of its design. For instance, the eligible customers were automatically enrolled in the program without having to complete an application form. The only demand made on the participants was to ask them to reduce their own peak demand to qualify for incentives. In addition, to make it easier for the customers to set targets and take action, the incentives were calculated based on the actual metered load data without any weather normalization. This was deemed particularly prudent in view of the historical low weather-sensitivity of the target customer group.

Intent:

The program target was to reduce the distribution system peak demand by up to 25 MW in both winter and summer seasons while raising awareness and promoting a culture of conservation.

Delivery:

The unique feature of this demand response program was its heavy emphasis on education and technical assistance to enable customer to reduce their peak demand. The services offered to the participants included a secure webpage for each customer to access their historical load data; free expert site-visits provided on demand; technical workshops; employee engagement kits; and on-line consultations.

The key components of the program (web-site, marketing, workshops, and on-site-visits) were professionally handled by a number of specialized vendors including Summerhill Consulting Group (marketing), Kinectrics Inc. (expert visits and technical audits), Marcom Group Inc. (website development and operations) and Leapfrog Consulting (workshops). Hydro One directly managed program and coordinated the vendor activities.

Evaluation:

The participants' response to the program was exceptional and the results exceeded the program targets by a significant margin. The customers also showed genuine enthusiasm for the behind-the meter services. This program came as a pleasant surprise to many in this customer class which has been traditionally left to their own devices to reduce their energy costs, contributing to overall customer satisfaction.

This is a cost-effective program both in terms of total cost/kW as well as the TRC benefit/cost ratio. The total cost was approximately \$70/kW and based on the actual results, the TRC benefit cost ratio was 24.

Program	LTD Spending to Dec 2007 (\$)	Cumulative Annual Savings kWh	Cumulative Annual Savings KW	Cumulative Lifecycle kWh
Double Return	2,339	108,854,220	33,773	108,898,068

Industrial: Leamington Demand Response Pilot

This project was initiated in 2005 to provide Hydro One with practical experience in assessing the merits and limitations of integrating distributed generation in our grid which is an emerging challenge for Hydro One. This project makes it possible for commercial and industrial customers to connect existing standby generators to the distribution system to dispatch loads into the market during peak demand. The dispatching and project management is done through an existing local aggregator, GenSet, working directly with the customers and IESO.

Description:

A reliable supply of electricity is critical for most commercial and industrial operations. Thus, the customers have installed significant back-up generation that is currently used only when there is a power system failure. In the Leamington area, a group of customers have made arrangements with a local aggregator (GenSet) to allow existing standby generation to be connected to the distribution system to export power to the electricity grid.

These types of connections are not common in this market due to process and cost barriers and the lack of motivation on the part of the owners of back up generators for whom generation is not their primary business. The generators cannot be net metered as the goal is to sell into the market, it is not renewable generation and the generators are above the size allowable for net metering. As such, the changes required to the farmers' facilities are complicated and costly. GenSet has worked with the Independent Electricity System Operator (IESO), the Ontario Energy Board (OEB), the Electrical Safety Authority (ESA) and Hydro One to understand processes and have developed an acceptable connection arrangement and operating infrastructure. As a result, they can offer a standard connection arrangement to minimize the process requirements.

The pilot is a test case enabling the development of a Hydro One *Distributed Generation Strategy of back up facilities*. In addition, with current limitations in the local transmission facilities supplying the area, the project provides an opportunity to assess the practical feasibility of utilizing demand response as an alternative to upgrading transmission infrastructure.

Design:

The GenSet aggregation services provide the participating operators with access to the 10-minute Non-spinning Operating Reserve Market and the corresponding revenues through the sale of energy in the electricity market. The arrangement is to provide an economic demand response by operating back up generation during peak demand for approximately 150 to 200 hours per year. However, the cost of the initial connection set-up is prohibitive to most potential participants. Hydro One supports this initiative by providing incentives equal to 50% of the initial set-up cost for each site up to \$50,000 per 1MW of generation connection.

The aggregated generation will operate independently in the Market. Hydro One's support will only help with the investment required for the connection set-up at the generator's site. In return Hydro One will claim the connected facilities and the resulting actual demand reduction

in 2008. The primary benefit of the project, however, is the valuable insight into the merits and limitations of distributed generation and demand response activities.

Intent:

The objective of this project is to assess the merits and limitations of aggregating standby generation power across a number of C/I operations and to successfully dispatch load during peak demand to the power system through IESO. Hydro One provided financial assistance towards the cost of connection set ups in return for gaining practical experience in this area.

Delivery:

GenSet is the aggregator and a turn key project manager for this initiative. The aggregator's responsibilities include the initial recruitment, installation and commissioning of grid connections, dispatch and settlement. Hydro One will provide incentives for completed installations and monitor the project to assess its effectiveness but Hydro One will not be a direct participant in the project.

Evaluation: GenSet completed four installations in 2007 connecting a total of 3.8 MW of standby generation capacity for which Hydro One provided \$190,000 in total incentives. The program costs are born by the participants and the associated dispatched load is claimed and accounted for by IESO as a part of their demand response efforts.

Industrial: Industrial Energy Efficiency Assessments

This project was initiated as a pilot in 2005 to assess the effectiveness of employing a systemic approach to assisting commercial and industrial customers to identify energy efficiency opportunities. The project was completed in 2007 and the primary lesson learned from the exercise was that while the standard audit approach is appropriate for some customers, it is not necessarily a good fit for all cross sections of our industrial customers with different levels of awareness and engagement in conservation activities. This has been a worthwhile project and we have learned a great deal from it, however, we are not planning to continue with the approach in 2008.

Description:

The first phase of this pilot project used the energy diagnostic tool, *One-2-Five Energy Diagnostic*, to provide customers with an assessment and benchmarking report of their current energy management practices. Fifteen of Networks' large distribution connected industrial customers had this interactive workshop performed on their premises. This workshop provided the customer with information on their energy management practices in relation to the company's own operating costs and to other similar industries, as well as suggestions on key areas for improvement and an estimation of potential energy cost savings.

The second phase of the pilot includes further detailed on-site assessments to identify specific energy efficiency measures to develop a work plan.

Design:

A total of 15 industrial distribution customers participated in the project and each customer was visited by the energy auditors and received a diagnostic report, a benchmarking report, as well as an indication of the level of savings that can be achieved in their facility. We also secured agreement from four of the fifteen customers to proceed with a second phase site assessment which included a more in-depth energy review to identify on-site key energy savings opportunities and the development of an action plan. Once the detailed audits were completed, a repeat diagnostic session was conducted to summarize the improvements and to develop the next steps.

Intent:

The objective of this program is to enable large industrial customers (above 2MW) to realize savings from conservation and demand management projects in their facilities. Different customer types, including forestry, food and beverage, automobile and processing were targeted so that the findings can be used to target and develop future CDM programs.

Delivery:

The vendor completed the two phases of this pilot in 2007 by providing diagnostic sessions for 15 selected customers plus four additional phase all detailed on-site energy audits leading to actionable work plans.

Evaluation: For the 15 participants, the initial assessments identified generic potential savings in excess of \$17M per year. For the 4 customers that engaged in the second phase and developed specific plans to take action, 18 million kWh in potential savings were identified. This project, however, was intended to be a pilot to assess the viability of the approach in the business markets and as such, the reported potential savings are not credited as results to this effort (the realized savings are captured in other CDM programs such as PowerSaver Business Incentive program described on page 37).

This project was initiated as a pilot to assess effectiveness of the *One-2-Five Energy Diagnostic*. The primary lesson learned from this exercise was that the standard audit approach is appropriate for some customers but by and large our customers are at different levels of engagement and awareness with regards to conservation efforts and thus one standard approach is not sufficient to address the needs of our customers. While we are not planning to continue with this approach, this has been a worthwhile project and we have learned a grate deal in the process.

Industrial: Interim Time of Use Pilot

Description:

The pilot offers customers rate incentives through the application of rates that help to shift electricity demand away from periods of maximum demand and into the off-peak periods. Depending on the difference in demand between the two time periods, customers could realize substantial savings in their distribution bills. Networks currently has three customers participating in the pilot.

Design:

Hydro One Distribution received approval from the Ontario Energy Board to implement distribution time of use rates for customers whose off-peak demand consumption (kW) was at least twice their on-peak demand consumption. The demand rate is set to zero for the off peak period defined as 7pm to 7am Monday to Friday, and all day on weekends and holidays.

Intent:

Determining if customers will modify their consumption patterns to take advantage of time of use rates will indicate whether Distribution charges are an impediment or a significant factor, as compared to the generation component, in promoting load shifting by customers. Encouraging commercial and industrial customers to shift their demand away from the peak will benefit both those customers and the electricity system as a whole.

Delivery:

Customers whose operation patterns qualify for the interim time of use rate will be eligible to participate in the pilot. Their demand in the off peak hours must be twice that in the on peak period.

Evaluation:

While there has been some interest in learning about the details of the time of use rate by several companies, no additional customers have yet been willing to modify their operation patterns in order to qualify for the interim time of use rate. Early indications are that the distribution component of electricity rates is a not significant enough factor in the customer's total cost structure to warrant such changes to operating procedures. Another reason that no new customers have elected this price option is the interim nature of the rate. Ski resort operators expressed interest if the rate would be made permanent.

Common: Distribution System Loss Reduction

Reduces distribution line losses, directly benefiting all Networks customers as well as reducing provincial demand during peak demand periods.

Description:

The Distribution System Loss Reduction Program involves identifying and implementing projects where incremental investments will result in an overall economic benefit to customers by reducing system delivery losses.

Design:

A research report was commissioned in 2005, updated in 2006 to better reflect the distribution system, to identify the areas where Networks could pursue projects that would economically reduce system delivery losses. Identified opportunities were in the areas of power factor correction (by installation of capacitor banks) and feeder phase balancing.

Intent:

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

Delivery:

Distribution line studies are undertaken to determine which lines require power factor correction, what size capacitor bank is appropriate, the proper location for the capacitor bank and to establish any phase balancing that may be required. Following the study period, capacitor banks are purchased and installed, with any line balancing taking place at the time of installation. All work is carried out with Networks staff.

Evaluation:

By December 31, 2007 over 70% of the projects had been completed. The remainder will be completed by April 2008, under the extension approved by the OEB.

Program	LTD Spending to Dec 2007 (\$K)	Cumulative Annual Savings kWh	Cumulative Annual Savings kW	Cumulative Lifecycle kWh
Distribution Line Loss Reduction (219 projects completed)	5,399	7,207,655	2,362	144,153,108

Farms: Farm Energy Efficiency

A cooperative relationship has been established among the key organizations concerned with energy farm energy efficiency, which has led to the implementation of general product incentives applicable for farm activities as well as agriculture specific products and to the provision of related education material.

Description:

Networks has undertaken several initiatives to assist the farming community with electrical conservation and efficiency. These initiatives included conducting energy audits, producing informational material, as well as the signing of a Memorandum of Understanding (MOU) with the Ministry of Agriculture, Food and Rural Affairs, Ontario Power Authority, Ontario Ministry of Energy and the Ontario Federation of Agriculture, to co-operate with the development of agricultural energy efficiency initiatives.

Design:

As with other aspects of this CDM program, Networks' approach to farm energy efficiency has been to seek out beneficial partners wherever possible. This has led to many co-operative efforts with the Ministry of Agriculture, Food and Rural Affairs, Ontario Power Authority, Ontario Ministry of Energy and the Ontario Federation of Agriculture, as well as other parties. These efforts contributed to the design of the prescriptive portion of the PowerSaver Business Incentive Program (lighting and motors). The prescriptive portion has been expanded to include a number of agriculture specific products.

Intent:

The objective of the Farm Energy Efficiency Program is twofold: to offer the farming community the information and the tools necessary to realize savings in the energy consumption of their farms, and provide customers with incentives for moving to energy efficient agricultural technologies.

Delivery:

Co-operative efforts commenced with a series of energy efficiency audits of dairy, poultry and swine operations. These efforts involved the development of audit software, tools and training materials, as well as the execution of the audits.

Assessment of the audits and the state of the industry led to the development of informational material to increase farmers' knowledge and awareness of efficiency improvements that could be applied to their operations. Fact sheets, educational television segments, as well as informational DVDs were produced.

Advertising for the PowerSaver Business Incentive Program geared towards agriculture customers is being conducted by Hydro One and its MOU partners at relevant conferences and through agricultural publications.

In 2007, HONI provided funding to Ag Energy Co-Operative Ltd. for its 'Lessons Learned' Total Energy Program designed to help agricultural and greenhouse operations in Ontario reduce their energy consumption of both heat and electricity by over 20%. Greenhouse and non-greenhouse operations were audited and energy efficient measures installed and

monitored. An energy management investment business plan was presented to producers for the greenhouse and non-greenhouse sectors at the Growing the Margins Energy Conference held on April 12-13, 2007 in London, Ontario.

Evaluation:

The farm videos and Fact Sheets continue to be well received at conferences and are available via the internet.

In 2007 the PowerSaver Business Incentive Program (PBIP) had a significant uptake in the Farm sector, with 34 projects completed and \$42,000 released as incentives. The majority of the measures implemented in these retrofit projects were heat pads for the swine industry and lighting technologies.

HONI continues to work with the Ontario Power Authority to expand the list of prescriptive measures for farms under their Electricity Retrofit Incentive Program, which has replaced HONI's PBIP.

Program	LTD Spending to Dec 2007 (\$K)	Cumulative Annual Savings kWh	Cumulative Annual Savings kW	Cumulative Lifecycle kWh
Farm Energy Efficiency (includes 34 PBIP Farm projects completed)	267	1,970,695	349	17,454,329

Other: Smart Meters

Paperless change meter processes for the large scale deployment of smart meters have been successfully developed and field tested.

Description:

The provincial government has set targets for installing smart meters in the homes of all Ontario residents by 2010, with the first provincial target of 800,000 smart meters by 2007. Networks is taking a leadership role in the implementation of smart meters.

Design:

The MARR funding for Smart Meters was intended to cover the development of business process activities related to meter installations. With the passage of Energy Act, Bill 21, Networks was able to restart the project with a pilot program in East Gwillimbury to test meter installation processes using some of the 25,000 meters purchased in 2005. By December 2007, Networks had installed 250,000 residential meters.

Intent:

The government's stated intent is that smart metering provide the ability to record consumption in time intervals that can be matched to price signals which differ throughout the day to reflect the true cost of power. Understanding and reacting to proper pricing is an essential component to creating a conservation culture and managing customer demand. The largest benefit of smart meters is providing customers with the ability to understand their consumption patterns so they can make effective decisions on usage.

Delivery:

Although Networks has installed about 250,000 residential meters, only **19,500** were funded through CDM. More importantly, Networks implemented a paperless change meter process where service information (e.g. change meter request, GPS, barcode, store old meter reading in the new meter, etc.) can be exchanged between head office groups and field staff automatically resulting in a faster and more efficient process for mass meter deployment. Previously, the change meter process was done manually via paper records.

Evaluation:

The government has not provided estimates for kWh savings and has not required the reporting of benefits for smart metering. The Smart Meter program approved by the OEB in 2005 as part of the overall CDM initiative was \$1.4 M in OM&A and \$6.4 M in capital for a total of \$7.8 M. About \$0.5 M of the approved amount was spent in 2005. In 2006 the expenditure of another \$7.3 M represented the remaining portion of the OEB's approval. No additional CDM funds were spent in 2007. Thus 19,500 meters were installed through the CDM funding. Also included in the costs are expenditures for developing and implementing the overall smart meter strategy; readying the AMR and billing systems and customer communication.

Program	LTD Spending to Dec 2007 (\$K)	Cumulative Annual Savings kWh	Cumulative Lifecycle kWh
Smart Meters (19,500 meters installed)	7,800	n/a	n/a

Other: Program Management and Research

A portion of Networks' project management and research budget has been spent on commissioning reports and sponsoring studies related to conservation and demand management. The results of these studies are being used to assist in program development and for further understanding the scope of conservation and demand management.

Some of the studies that Networks has commissioned, participated in, or funded to date include:

- Avoided Cost of Generations Study
 - Prepared by Navigant
- Distribution Loss Reduction Strategy
 - 2 reports prepared by Kinetrics
- Residential Appliance Survey
 - Networks surveyed residential, seasonal and farm customers to determine equipment penetration rates and demographics in order to facilitate the roll-out of conservation and demand management initiatives that will benefit our customer base
- Hydro One Overview of Residential Customer
 - Prepared by Antim Consulting, filed as an interrogatory response in the CDM generic hearing
- Demand Management Potential
 - Prepared by Kinetrics, filed as an interrogatory response in the CDM generic hearing

Networks is a member of the Customer Energy Solutions Interest Group (CESIG) of CEA Technologies Inc. – members include many of the provincial utilities across Canada, Natural Resources Canada and the National Rural Electric Cooperative Association out of the United States. Networks has participated in funding several CESIG initiatives, including the testing of Energy Star CFLs and the preparation of a series of reference guides similar to the Product Knowledge Guide series originally published by Ontario Hydro. Guides completed or under development include Lighting, Motors, Compressors, Heat Pumps, Power Quality, Electrotechnologies, Fans and Blowers, et cetera. Several guides are available on Networks' website and others will be made available as they are released.

Incremental staff costs associated with managing the CDM portfolio are charged to Program Management. Consultant and contract labour associated solely with a specific initiative are charged directly to that initiative.

Lessons Learned

Networks' efforts in Conservation and Demand Management have identified a number of lessons learned or key findings, which will be useful for Networks and others as CDM continues to evolve in Ontario.

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

Customer Feedback

- A significant fraction of customers (business and residential) are motivated to reduce their consumption of electricity and to reduce their peak demand. With access to information (in home displays, workshops, technology guides, etc.) and reasonable incentives, customers make not only technology changes, but also behavioural changes in order to reduce their electricity footprint. This was clearly demonstrated in programs such as Double Return and with in home displays.
- Prescriptive measures, where feasible, are easier for customers to understand and undertake and are easier for the utility to administer. Prescriptive measures need to be expanded and targeted to individual business sub-sectors (farm, industrial, commercial) to maximize each sector's participation.
- Program timing must be aligned with customer budget cycles, in particular for the Commercial, Industrial and MUSH sectors
- Customers, especially residential customers, respond well to non-monetary incentives and seem to be motivated by environmental concerns.
- CDM programs can be a powerful mechanism in changing customer behaviour and for encouraging development of innovative market transformation technologies, such as in-home displays.
- To run successful programs in small close knit communities, it is necessary to engage the community. Public events run in conjunction with local organizations provides an opportunity to become known to the community, to answer questions, promote the program and identify "early adopters" which are key to broad based participation.
- The use of skilled local contractors and trades people provides an additional level of comfort to participants and further enhancing the skill level of local people helps to retain expertise in the community, thereby extending the application of current energy efficiency techniques into the future and into additional houses.
- Bill Inserts are the most effective and cost-efficient method to reach residential and small business customers. They are also very useful for targeted programs where advertising spill would be an issue. For business customers direct mail and workshops have also proved effective.
- Initiatives which involve more complex decisions or newer technology may require an educational component and have a longer purchasing decision process.
- Programs which seek to gain greater penetration rates require increasing marketing efforts in order to gain incremental participants.

Program Management

- A turn key implementation approach for multifaceted or complex programs creates a clear understanding of where responsibility lies for all deliverables and results in a speedy resolution of any issues. This has been particularly useful in programs such as load control where promotion, enrolment, installation, and customer care are interdependent activities.
- For new and emerging technologies, or for new or high risk applications in the marketplace, pilots (such as for Load Control or In-Home Displays) and/or staged rollouts are very valuable in:
 - establishing the effectiveness of the device in either reducing energy consumption or shifting peak demand
 - refining logistics, incentive levels, and product selection,
 - assessing delivery channels, marketing and delivery costs,
 - determining customer acceptance and overcoming barriers to customer participation.
- Leverage existing channels such as the Social Housing Services Corporation
- Partnering with other organizations can bring existing skills and knowledge to bear and helps avoid duplicate or counter productive activities.
- The Hydro One service territory, due to its large size but low population density, is a difficult and less attractive one for retailers, suppliers and other partners to serve.
- Application based programs have a considerable “ramp up” time required to engage customers, educate them, and to receive & process applications, all of which is required before installations can take place. Interruptions in the continuity of the program offering can significantly curtail participation. Projects may take from 6-12 months or longer to design and implement, especially in the business market. In many cases the customer business cycle does not coincide with the LDC CDM cycle.
- Program incentives levels need to be at sufficient levels in order to catch the customer’s attention. Failure to set incentives at appropriate levels may result in capturing only early adopters and free riders, resulting in an inability to sustain growth in customer participation. Multi-tiered incentive structures are required to encourage the implementation of more expensive and/or more difficult measures.

Evaluation

- The assessment of conservation program success should be based on customer engagement and satisfaction as well as on numerical results.
- The Assumptions and Measures spreadsheet, which is used as the basis for TRC tests, should have its assumptions updated to reflect more current data and the breadth of measures expanded to cover additional products and services, especially those being promoted by LDCs.
- The assumption basis for TRC should provide value for winter peak, not only summer peak. Many local distribution systems, including parts of Hydro One Networks, are winter peaking.
- The assumptions for avoided costs in the OEB TRC Guide and those in the approved IPSP should be consistent.

- Savings on distribution charges only are not sufficient to encourage commercial and industrial customers to modify operations to off peak time of use rates. The generation commodity costs are much more significant savings opportunity for customers than are foregone distribution costs.

Conclusions

As we ended 2007 substantial results have been accomplished. Programs had been launched and completed, with significant results achieved.

- The CDM program portfolio to date has produced over \$3.40 of societal benefits for every \$1 spent on program costs, as measured through the Total Resource Cost (TRC) test. In addition net TRC benefits of \$88 million have been produced.
- Participation in Networks' CDM programs reached almost 1.2 million life-to-date.
- Customers' response to the Residential Load Control Program (SmartStat) continued to show a strong performance throughout 2007. Enrolment reached the target of 10,000 participants on schedule in June, 2007.
 - Hydro One initiated two successful load control events in July and August during the hottest days of the summer, reducing peak demand by up to 13 MW.
- Double Return program was launched in the winter of 2007 as a new demand response initiative targeted at Commercial/Industrial distribution-connected customers.
 - This program exceeded expectations by achieving 38MW in winter peak reduction and 33MW in the summer.
- The Mass Market programs produced very positive results.
 - The Cold Shoulder Appliance Pickup program gained considerable participation levels (over 11,000 appliances) which led to its expansion to all of southern Ontario in early 2007.
 - Over 242,000 energy efficient products were purchased through the Spring campaign of the Every Kilowatt Counts program.
- The Residential In-Home Display program reached distribution of 31,000 units in northern Ontario. Additionally, the Association of Energy Services Professionals (AESP) awarded their Energy Efficient Technology Deployment of the Year award in 2006 to Hydro One and Blue Line Innovations (the manufacturer of the product) for the successful deployment of the Power Cost Monitor. A pilot to test the efficacy in a time-of-use rate environment showed that there is substantial incremental peak and consumption savings value to in home displays under a time-of-use or any rate regime.
- The newly launched online audit generated participation by 6,000 residential and small business customers, and 4,000 completed audits, during the last quarter of 2007.
- The PowerSaver Business Incentive program provided incentives to 110 business and farm customers.
- The Low Income and Social Housing programs were completed and were models for other organizations to follow. These customer groups are among the least able to undertake retrofits on their own and require significant financial assistance.
- Smart Pack educational initiative was delivered to 6,000 grade 5 students in 2007.
- Almost three-quarters of the distribution line loss reduction projects were completed.

Programs that will continue up to April 2008 include:

- The remaining Line Loss Reduction projects will be completed
- The TOU Interim Pilot will be completed

Long-term secured funding must be in place for LDCs in order to provide a stable basis for CDM program planning and customer decision making. The 3rd tranche MARR funding from 2005-2007 was a successful model which provided this stability an allowed momentum to build for the LDC and the customer.

Appendices

Appendix A - Evaluation of the CDM Plan

	Cumulative Totals Life-to-date ⁵	Total for 2007	Residential	Commercial / MUSH	Industrial	Agricultural	LDC System	Smart Meters ⁴	Other
<i>Net TRC value (\$):</i>	\$ 88,341,183	\$ 42,818,333	\$ 21,352,015	\$ 9,864,878	\$ 6,963,387	\$ 572,175	\$ 4,843,221		\$ (777,343)
<i>Benefit to cost ratio:</i>	3.40	3.07	3.01	3.89	10.49	2.00	2.07		0.00
<i>Number of participants or units delivered:</i>	1,169,365	289,132	280,482	7,628	753	50	219		
<i>Lifecycle (kWh) Savings:</i>	1,447,908,244	811,957,203	333,218,785	208,640,922	108,898,068	17,046,320	144,153,108		0
<i>Report Year Total kWh saved (kWh):</i>	271,877,550	172,759,303	40,472,963	14,317,770	108,854,220	1,906,695	7,207,655		0
<i>Total peak demand saved (kW):</i>	63,771	53,143	14,678	1,989	33,773	340	2,362		0
<i>Total kWh saved as a percentage of total kWh delivered (%):</i>	0.36%	0.67%	0.35%	0.22%	3.85%	0.083%	0.00%		
<i>Peak kW saved as a percentage of LDC peak kW load (%):</i>	1.39%	1.16%	0.67%	0.18%	8.37%	0.08%	N/A		
<i>Report Year Gross C&DM expenditures ¹ (\$):</i>	\$ 38,193,700	\$ 17,756,290	\$ 8,704,035	\$ 663,416	\$ 2,746,855	\$ 343,393	\$ 4,521,248		\$ 777,343
<i>Expenditures per Lifecycle kWh saved ² (\$/kWh):</i>	\$ 0.02	\$ 0.02	\$ 0.02	\$ 0.00	\$ 0.02	\$ 0.01	\$ 0.03		
<i>Expenditures per kW saved ³ (\$/kW):</i>	\$ 214	\$ 114.31	\$ 219	\$ -	\$ 80.02	\$ -	\$ -		
<i>Utility discount rate (%):</i>	5.73								

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, 2007 CDM Annual report for third tranche will include 2006, 2005 and 2004 numbers, if any).

Appendix B - Discussion of the Program

A. **Name of the Program:** Residential In-Home Display Program

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

During 2006 and 2007, Networks made over 30,000 Power Cost Monitors™ available to residential customers in Northern Ontario. Customers use the Monitors to check and manage their electrical consumption in real-time. They are able to view their current usage rate and cumulative consumption in kWh, as well as an estimate of the cost of that consumption. Networks' initiative is the largest of its kind in North America.

Measure(s):

	Monitors		
Base case technology:	Ave. 11,500 kWh/yr.		
Efficient technology:	750 kWh savings - ave. 6.5%		
Number of participants or units delivered for reporting year:	10,652		
Measure life (years):	5		
Number of Participants or units delivered life to date	30,952		

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 2,947,762	\$ 8,479,985
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 90,337	\$ 101,439
Incremental Measure Costs (Equipment Costs)	\$ 1,887,535	\$ 5,422,323
Total TRC costs:	\$ 1,977,872	\$ 5,523,762
Net TRC (in year CDN \$):	\$ 969,890	\$ 2,956,223
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	1.5	1.5

C. Results: (one or more category may apply)	Cumulative Results:			
Conservation Programs:				
Demand savings (kW):	Summer	1,410	4,767	
	Winter	4,202	14,207	
	lifecycle	40,684,931	8,136,986	114,732,007
Energy saved (kWh):	in year		22,946,131	
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 savings (kWh):			

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kW):		
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 (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>	\$ 90,337	\$ 101,439
	<i>Incentive:</i>	\$ 1,749,260	\$ 4,980,637
	<i>Total:</i>	\$ 1,839,597	\$ 5,082,076
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>		
	<i>Total:</i>		

E. Assumptions & Comments:

Savings per participant of 749.9 kWh were based on the evaluation of the 2005 pilot program that found average savings were 6.5% of average consumption (ave.consumption is 11,500 kWh/yr. for Northern Ontario). Peak savings of 0.13kW were based on the TOU Pilot results conducted during summer 2007.

Customer equipment costs include cost of monitor, tax, shipping and the cost of replacing batteries.

Incentive costs include cost of monitor and tax.

\$2,500 were excluded from the TRC and added in the RTM First Nation program

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

A. **Name of the Program:** Residential Real Time Monitoring Pilot (2004-2005)

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

Objectives of this pilot were to assess residential customer behaviour and quantify potential energy savings arising from the provision of real-time energy usage and cost data. The real-time monitor is an in-home display device that receives a wireless signal from a sensor placed on the exterior electro-mechanical electricity meter. The study operated from July 2004 to August 2005, thus capturing both winter and summer peak periods. Customers were able to track their energy consumption (in kWh) and cost, and also receive instant feedback on actions taken.

Measure(s):

	Measure		
Base case technology:	Ave. 16,176 kWh/yr.		
Efficient technology:	1051 kWh savings - ave. 6.5%		
Number of participants or units delivered for reporting year:	382		
Measure life (years):	5		
Number of Participants or units delivered life to date	382		

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ -	\$ 127,038
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ -	\$ 463,411
Incremental Measure Costs (Equipment Costs)	\$ -	\$ 5,730
Total TRC costs:	\$ -	\$ 469,141
Net TRC (in year CDN \$):	\$ -	-\$ 342,103
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	0.0	0.3

C. Results: (one or more category may apply)	Cumulative Results:			
Conservation Programs:			Cumulative	Cumulative
			Lifecycle	Annual
				Savings
Demand savings (kW):	Summer	-		38
	Winter	-		114.4
Energy saved (kWh):	lifecycle	-	in year	2,007,410
Other resources saved :				401,402
Natural Gas (m3):				
Other (specify):				
Demand Management Programs:				
Controlled load (kW)				
Energy shifted On-peak to Mid-peak (kWh):				
Energy shifted On-peak to Off-peak (kWh):				
Energy shifted Mid-peak to Off-peak (kWh):				
Demand Response Programs:				
Dispatchable load (kW):				

Peak hours dispatched in year (hours):

Power Factor Correction Programs:

Amount of KVar installed (KVar):

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

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

Line Loss Reduction Programs:

Peak load savings (kW):

lifecycle in year

Energy savings (kWh):

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

Other Programs (specify):

Metric (specify):

D. Actual Program Costs:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:	<input type="text"/>	<input type="text"/>
	Incremental O&M:	\$ -	\$ 463,411
	Incentive:	-\$ 50	\$ 3,010
	Total:	-\$ 50	\$ 466,471
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:

Evaluation report prepared by external consultant (Dean Mountain) found 6.5% average savings.

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

A. **Name of the Program:** Residential Load Control (Smartstat)

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

Smartstat residential load control program was launched in July, 2006. This program is designed to achieve summer peak demand reduction by controlling air-conditioning (AC) temperature set-points using web-enabled programmable thermostats, and by cycling electric water heater loads using an off/on switch. The initial target of 6,000 enrolments was achieved well ahead of schedule in December 2006 and as a result a new goal of 10,000 participants was adopted to be achieved prior to the upcoming summer. All 10,000 installations were completed by June 2007

Measure(s):

	Prog Thermostats	Tank Wrap/Pipe wrap	15 w CFLs	Load Control
Base case technology:	18,103 kWh/yr	5,000 kWh/yr	139 kWh/yr	
Efficient technology:	16,637 kWh/yr	4,730 kWh/yr / 4,924 kWh/yr	35 kWh/yr	
Number of participants or units delivered for reporting year:	8313	755	12,626	8,313
Measure life (years):	18	6	4	18
Number of Participants or units delivered life to date	10,000	1092	16,000	10,000

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$)	\$ 10,518,328	\$ 13,301,164
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 832,948	\$ 1,453,382
Incremental Measure Costs (Equipment Costs)	\$ 875,654	\$ 1,054,943
Total TRC costs:	\$ 1,708,602	\$ 2,508,325
Net TRC (in year CDN \$):	\$ 8,809,726	\$ 10,792,839
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	6.2	5.3

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	Summer	11,029	11,174
	Winter	21830	22117

	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	40,031,219	3,306,662	48,811,867	4,113,097
Other resources saved :				
Natural Gas (m3):	9,011,708	500,650	10,840,796	602,266
Oil (litres):	3,311,404	183,967	3,982,606	221,256
Propane (litres):	1,000,677	55,593	1,202,907	66,828

Demand Management Programs:

Controlled load (kW)	9,974	11,998
Energy shifted On-peak to Mid-peak (kWh):	2,122,299	2,552,988
Energy shifted On-peak to Off-peak (kWh):	1,071,943	1,289,478
Energy shifted Mid-peak to Off-peak (kWh):		

Demand Response Programs:

Dispatchable load (kW):		
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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:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:	\$ 488,863	\$ 632,718
	Incremental O&M:	\$ 344,085	\$ 587,316
	Incentive (capital and O&M):	\$ 1,586,063	\$ 3,316,210
	Total:	\$ 2,419,011	\$ 4,536,244
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Assumed that half of the customers already have a programmable thermostat (50% free-ridership) pending analysis. Load control events are assumed to shift load, but not to save energy. Energy savings come from the provision of two CFLs to all participants, as well as the tank wrap and pipe insulation of homes with electric water heaters. A \$40 value was assumed for the capability to control the thermostat via the internet. The assumed value of a basic programmable thermostat without the load control features was \$60, and installation value was assumed to be \$50. The "residual" cost of the programmable thermostats of \$200 represents the utility's direct cost for the load control capability. \$101 included in direct costs was the unit cost of the water heater switches. Direct costs also included the costs of marketing, enrollment, project management, and Canon's load management system.

Direct program costs include switches for hot water heaters installed (but exclude switches in inventory). Direct costs also include the difference in value between the \$40 web access feature plus the \$110 installed cost of "basic" programmable thermostat, and the full cost of the installed thermostats (\$350) that included the load control features. Demand reduction of 0.5 kW for water heaters and 1.1 kW for cooling were based on the results from the pilot program.

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

A. **Name of the Program:** Residential Load Control Pilot (2005)

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

The objectives of this pilot were to assess residential customer response and potential load impact of controlling central air conditioning, pool pumps, and electric water heating during system peak periods, through installations of load control units and interval meters. Controls were placed on 581 devices in 416 randomly selected homes in three HONI service areas (Kingston, Simcoe, Newmarket). The project ran from July 2004 to December 2005. Participants were paid a monthly incentive for their participation.

Measure(s):

Base case technology:				
Efficient technology:				
Number of participants or units delivered for reporting year:	0			
Measure life (years):				
Number of Participants or units delivered life to date	416			

B. TRC Results:		<u>Reporting Year</u>	<u>Life-to-date TRC Results:</u>
¹ TRC Benefits (\$):		\$ -	\$ -
² TRC Costs (\$):			
	Utility program cost (excluding incentives):	\$ -	\$ 739,976
	Incremental Measure Costs (Equipment Costs)	\$ -	\$ -
	Total TRC costs:	\$ -	\$ 739,976
Net TRC (in year CDN \$):		-\$	739,976
Benefit to Cost Ratio (TRC Benefits/TRC Costs):			0

C. Results: (one or more category may apply)		<u>Cumulative Results:</u>			
Conservation Programs:					
Demand savings (kW):	Summer				
	Winter				
		<i>lifecycle</i>	<i>in year</i>	<i>Cumulative Lifecycle</i>	<i>Cumulative Annual Savings</i>
Energy saved (kWh):		0	0	0	0
Other resources saved :					
	Natural Gas (m3):				
	Other (specify):				
Demand Management Programs:					
Controlled load (kW)					358
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 savings (kWh):	<i>lifecycle</i>	<i>in year</i>

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:		\$ 669,520
	Incentive:		\$ 41,038
	Total:		\$ 710,558
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

The 358 kW in demand savings did not produce any TRC benefits due to the avoided costs for Demand being zero in 2005.

The credit to costs in 2006 reflected a correction to Hydro One Brampton's cost-sharing.

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

A. **Name of the Program:** Cold Shoulder Appliance Pickup program

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

The Cold Shoulder Appliance Pickup program provides customers with free in-home pickup of secondary, operating refrigerators, freezers and room air conditioners.

Measure(s):

	Refrigerators	Freezers	Room Air Conditioners
<i>Base case technology:</i>	1,200 kWh	900 kWh	900 kWh
<i>Efficient technology:</i>	0	0	0
<i>Number of participants or units delivered for reporting year:</i>	4,589	2,247	418
<i>Measure life (years):</i>	6	6	4
<i>Number of Participants or units delivered life to date</i>	7,141	3,489	695

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	5,495,122	\$ 8,580,027
² TRC Costs (\$):		
<i>Utility program cost (excluding incentives):</i>	\$ 925,908	\$ 1,340,793
<i>Incremental Measure Costs (Equipment Costs)</i>	\$ 706,721	\$ 1,101,140
<i>Total TRC costs:</i>	\$ 1,632,629	\$ 2,441,933
<i>Net TRC (in year CDN \$):</i>	\$ 2,275,601	\$ 2,275,601
<i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>	3.4	3.5

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

Cumulative Results:

Conservation Programs:

		in year	Cumulative Lifecycle	Cumulative Annual Savings
<i>Demand savings (kW):</i>	Summer	1,961		3,095
	Winter	1,626		3,390
<i>Energy saved (kWh):</i>	<i>lifecycle</i>	85,557,632	10,376,962	133,466,659
<i>Other resources saved :</i>				
<i>Natural Gas (m3):</i>				
<i>Oil (litres) :</i>				
<i>Propane (litres):</i>				

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

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

Line Loss Reduction Programs:

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

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. Actual Program Costs:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 925,908	\$ 1,340,793
	Incentive:	\$ 53,804	\$ 84,947
	Total:	\$ 979,712	\$ 1,425,740
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Participants received an energy efficiency pack at time of pickup which included 2 CFLs and a timer, along with information on how customers could save energy in their home.

Assumptions for Room Air Conditioners -

1. For Base case technology 900 kWh/yr. is used (this is a conservative estimate since average model being sold today is 880 kWh/yr. as per OEB spreadsheet, and current models will be more efficient than the older models being picked up under this program). Average peak demand used is 1.129 kW (as per Keep Cool results).
2. For Measure Life 4 years is used. This is based on calculating the remaining life of a recycled unit is the same proportion of technology life as was used for Refrigerators in OEB spreadsheet (6 yrs. remaining life / 19 yrs. total life = approx. 1/3). Thus 1/3 of the technology life of 12 years for a room air conditioner is therefore 4 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 benefit specified in the TRC Guide.

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

Appendix B - Discussion of the Program

A. **Name of the Program:** Every Kilowatt Counts

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

The Every Kilowatt Counts program was a residential education and coupon incentive campaign of the Ontario Power Authority. The Spring 2007 campaign ran from April 15 to June 17, 2007. Products included in Spring campaign were CFLs, ceiling fans, dimmer switches, outdoor motion sensors, outdoor solar lights and furnace filters.

Measure(s):

	Spring campaign	Fall campaign	Total
Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:	241,823		241,823
Measure life (years):			
Number of Participants or units delivered life to date	531,639	437,175	968,814

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 3,793,513	\$ 43,682,703
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 1,195,100	\$ 3,328,762
Incremental Measure Costs (Equipment Costs)	\$ 396,767	\$ 2,993,468
Total TRC costs:	\$ 1,591,867	\$ 6,322,230
<u>Net TRC (in year CDN \$):</u>	<u>\$ 2,201,646</u>	<u>\$ 37,360,473</u>
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	2.4	6.9

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

Cumulative Results:

Conservation Programs:

	Summer	Winter	Cumulative Lifecycle	Cumulative Annual Savings
Demand savings (kW):	50	3,336	443,927,260	75,044,621
Energy saved (kWh):	61,859,334	11,373,451	443,927,260	75,044,621
Other resources saved :				
Natural Gas (m3):				1,244,800
Oil (litres)				803,787
Propane (litres)				253,413

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. <u>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>	\$ 95,100	\$ 211,679
	<i>Incentive:</i>	\$	-
	<i>Total:</i>	\$ 95,100	\$ 211,679
Utility indirect costs (\$):	<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:

OPA has not provided any data on 2007 EKC results except for number of coupons per product, for the province as a whole. Thus we have assumed the same proportion of provincial results for Hydro One Networks as last year, based on customer counts (20.5%).

We have also assumed that OPA program costs are similar to last year, and then taken 20.5% of that number, or \$1.1 million, as program delivery costs from OPA.

Load impacts for solar garden lights and furnace filters are currently unavailable and thus those two products have no energy or demand results.

¹ We also have no impact per unit for outdoor solar lights or furnace filters and so no results are being counted from these products.

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 customer are not a component of the TRC costs. However, payments made to a third party service provider to run an incentives program are program costs, and are to be included as TRC costs under the "Utility Program Costs" line.

Appendix B - Discussion of the Program

A. **Name of the Program:** Low Income - CMHC/NRCan Program

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

Hydro One's Low Income program (Home Energy Efficiency grant) provides financial incentives for energy efficiency upgrades to low income Hydro One customers who heat their homes with electricity. The program offers up to \$3,000 per qualifying household. The program launched in September 2005; 24 audits and retrofits were completed by the end of 2007. Home improvements include basement, wall and attic insulation, doors and window upgrades, weatherstripping and caulking.

Measure(s):

<i>Base case technology:</i>			
<i>Efficient technology:</i>			
<i>Number of participants or units delivered for reporting year:</i>	10		
<i>Measure life (years):</i>			
 <i>Number of Participants or units delivered life to date</i>	 24		

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 70,426	\$ 210,103
² TRC Costs (\$):		
<i>Utility program cost (excluding incentives):</i>	\$ -	\$ 8,758
<i>Incremental Measure Costs (Equipment Costs)</i>	\$ 23,356	\$ 61,930
<i>Total TRC costs:</i>	\$ 23,356	\$ 70,688
<i>Net TRC (in year CDN \$):</i>	\$ 47,070	\$ 139,415
<i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>	3.0	3.0

C. Results: (one or more category may apply)	Cumulative Results:			
<u>Conservation Programs:</u>				
<i>Demand savings (kW):</i>	<i>Summer</i>	0	0	0
	<i>Winter</i>			27
<i>Energy saved (kWh):</i>	<i>lifecycle</i>	1,484,800	<i>in year</i>	59,392
<i>Other resources saved :</i>			<i>Cumulative Lifecycle</i>	4,429,625
	<i>Natural Gas (m3):</i>		<i>Cumulative Annual Savings</i>	177,185
	<i>Other (specify):</i>			
<u>Demand Management Programs:</u>				
<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>				
<u>Demand Response Programs:</u>				
<i>Dispatchable load (kW):</i>				
<i>Peak hours dispatched in year (hours):</i>				

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 savings (kWh):	<i>lifecycle</i>	<i>in year</i>

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. Actual Program Costs:		Reporting Year	Cumulative Life to Date
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ -	\$ 8,758
	Incentive:	\$ 23,356	\$ 61,930
	Total:	\$ 23,356	\$ 70,688
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions and Comments :

Results are based on pre- and post-audits conducted on each home.

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

A. **Name of the Program:** First Nations Retrofit

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

Under the EnerGuide for Houses Program, The Abor Group had been retained by NRCan to perform audits on First Nations housing. An assessment of these audits identified 55 electrically heated homes in 6 communities that required cost effective thermal envelope retrofits. In all, 125 houses received some conservation measures.

Measure(s):

	Homes		
Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:	125		
Measure life (years):			
Number of Participants or units delivered life to date	125		

B. <u>TRC Results:</u>	<u>Reporting Year</u>	<u>Life-to-date TRC Results:</u>
¹ TRC Benefits (\$):	\$ 662,448	\$ 662,448
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 19,385	\$ 19,385
Incremental Measure Costs (Equipment Costs)	\$ 109,447	\$ 109,447
Total TRC costs:	\$ 128,832	\$ 128,832
Net TRC (in year CDN \$):	\$ 533,616	\$ 533,616
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	5.1	5.1

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

Conservation Programs:

Demand savings (kW):	Summer	2	2	2	2
	Winter	676	676	676	676
	lifecycle	in year	Cumulative Lifecycle	Annual Savings	
Energy saved (kWh):	13,596,532	708,063	13,596,532	708,063	
Other resources saved :					
Other (propane):					
Other (water):					

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 savings (kWh):	<i>lifecycle</i>	<i>in year</i>

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. <u>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>	\$ 19,385	\$ 19,385
	<i>Incentive:</i>	\$ 108,781	\$ 108,781
	<i>Total:</i>	\$ 128,165	\$ 128,165
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>		
	<i>Total:</i>		

E. Assumptions & Comments:

Assumptions:

- 1) CFLs 15W - OPA Low income report
- 2) Airsealing: Abor Group assumptions based on CMHC's Renovating for Energy Savings, October 2004 and OEB TRC Guide; load shape from OEB Measures and Assumptions list
- 3) Full Airsealing: The Abor Group assumptions based on CMHC's Renovating for Energy Savings, October 2004 and 2006 OEB TRC guide
- 4) Attic and Basement Insulation: The Abor Group Based data from CMHC's Renovating for Energy Savings, October 2004 and load shape from OEB Measures and Assumptions list

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

A. **Name of the Program:** Low Income - Retrofit - Green Communities Canada

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

With Hydro One covering the cost of extended measures (i.e. weatherstripping and insulations) for its customers with electric heat (plus some basic measures and audits not covered by the OPA), the OPA was able to direct more of their pilot budget towards infrastructure development. The Vendors coordinated all work on behalf on Hydro One and the OPA and billed the appropriate party for relevant work. A total of 54 homes had measures installed through this project.

Measure(s):

	Homes Retrofitted		
Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:	54		
Measure life (years):			
Number of Participants or units delivered life to date	54		

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 135,564	\$ 135,564
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 10,598	\$ 10,598
Incremental Measure Costs (Equipment Costs)	\$ 72,915	\$ 72,915
Total TRC costs:	\$ 83,513	\$ 83,513
Net TRC (in year CDN \$):	\$ 52,051	\$ 52,051
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	1.6	1.6

C. Results: (one or more category may apply)	Cumulative Results:			
Conservation Programs:				
Demand savings (kW):	Summer	6	6	
	Winter	70	70	
			Cumulative	Annual
Energy saved (kWh):	lifecycle	in year	Lifecycle	Savings
Other resources saved :	2,731,179	114,522	2,731,179	114,522
Other (propane):				
Other (water):				
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. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	<i>Incremental capital:</i>	<input type="text"/>	\$ -
	<i>Incremental O&M:</i>	\$ 10,598	\$ 10,598
	<i>Incentive:</i>	\$ 70,561	\$ 70,561
	<i>Total:</i>	\$ 81,159	\$ 81,159
Utility indirect costs (\$):	<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:

For Fridge savings (15' and 18'), the OPA Low income Report was used.
 For Attic, Basement and Draft insulation, data based on advanced models provided by the vendor were used

TRC results are reported in Appendix C together with the Low Income - Retrofit project implemented by Envirocentre under the heading "Low Income-Retrofits"

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

A. **Name of the Program:** Low Income - Retrofit - Envirocentre

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

With Hydro One covering the cost of extended measures (i.e. weatherstripping and insulations) for its customers with electric heat (plus some basic measures and audits not covered by the OPA), the OPA was able to direct more of their pilot budget towards infrastructure development. The Vendor coordinated all work on behalf on Hydro One and the OPA and billed the appropriate party for relevant work. In this project a total of 221 homes had measures installed.

Measure(s):

	Homes retrofitted		
Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:	205		
Measure life (years):			
Number of Participants or units delivered life to date	205		

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 471,670	\$ 471,670
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 34,493	\$ 34,493
Incremental Measure Costs (Equipment Costs)	\$ 219,941	\$ 219,941
Total TRC costs:	\$ 254,434	\$ 254,434
Net TRC (in year CDN \$):	\$ 217,236	\$ 217,236
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	1.9	1.9

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

Conservation Programs:

Demand savings (kW):		<i>Summer</i>	91	91
		<i>Winter</i>	228	228
				Cumulative
	<i>lifecycle</i>	<i>in year</i>	<i>Cumulative Lifecycle</i>	<i>Annual Savings</i>
Energy saved (kWh):	8,619,736	594,917	8,619,736	594,917
Other resources saved :				
<i>Other (propane):</i>				
<i>Other (water):</i>	7,820	652	7,820	652

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:

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 savings (kWh):	lifecycle	in year

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
<i>Utility direct costs (\$):</i>	<i>Incremental capital:</i>		\$ -
	<i>Incremental O&M:</i>	\$ 34,493	\$ 34,493
	<i>Incentive:</i>	\$ 247,978	\$ 247,978
	<i>Total:</i>	\$ 282,472	\$ 282,472
<i>Utility indirect costs (\$):</i>	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>		
	<i>Total:</i>		

E. Assumptions & Comments:

For basic measures (e.g. CFLs, Detergent, pipe wrap, thermostats), OPA Low income assumptions were utilized when available. For basic measures not identified in the OPA Low Income report, the October 2006 -OEB Measures and Assumption list - or supporting research done by the vendor Envirocentre was used.

For insulation the OEB October 2006 Measures and assumptions list was used.

TRC results are reported in Appendix C together with the Low Income - Retrofit project implemented by Green Communities Canada under the heading "Low Income-Retrofits"

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

A. **Name of the Program:** Low Income - First Nations Pilot

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

The First Nations Energy Conservation Project provided an integrated approach to energy conservation at the Chippewas of Georgina Island First Nation reserve, encompassing conservation education and housing retrofits. The Chippewas of Georgina Island First Nation was selected for the pilot program due to the community's location and its demonstrated knowledge and receptiveness to issues of conservation and renewable energy. In this community, Hydro One identified a total of 91 homes eligible for this program. Hydro One assigned the delivery of the program (audit, effectiveness studies and retrofit) to Windfall Ecology Centre.

Measure(s):

Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:	0		
Measure life (years):			
Number of Participants or units delivered life to date	70		

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ -	\$ 152,356
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ -	\$ 7,704
Incremental Measure Costs (Equipment Costs)	\$ -	\$ 56,124
Total TRC costs:	\$ -	\$ 63,828
<u>Net TRC (in year CDN \$):</u>	\$ -	\$ 88,528
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		1.7

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):	0	1				
Energy saved (kWh):	-	-	-	-	2,209,686	163,783
Other resources saved :						
Other (propane):						96
Other (water):		-				2,100

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. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:	\$	-
	Incremental O&M:	\$	7,704
	Incentive:	\$ 6,521	\$ 56,711
	Total:	\$ 6,521	\$ 64,415
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:

Costs incurred in 2007 refer to adjustments for

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

A. **Name of the Program:** RTM First Nations

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

During Fall 2007, Networks initiated the First Nations In-Home Display Program by providing real-time monitors to customers living in Northern Ontario First Nation communities at no cost.

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	0		

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 203,606	\$ 203,606
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 11,809	\$ 11,809
Incremental Measure Costs (Equipment Costs)	\$ 70,348	\$ 70,348
Total TRC costs:	\$ 82,157	\$ 82,157
Net TRC (in year CDN \$):	\$ 121,449	\$ 121,449
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	2.5	2.5

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

Conservation Programs:

Demand savings (kW):	Summer	52	52
	Winter	155	155
			Cumulative
			Annual
	lifecycle	in year	Lifecyle Savings
Energy saved (kWh):	1,488,601	297,761	1,488,601 297,761
Other resources saved :			
Other (propane):			
Other (water):			-

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 savings (kWh):	<i>lifecycle</i>	<i>in year</i>

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. <u>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>	\$ 11,809	\$ 11,809
	<i>Incentive:</i>	\$ 59,326	\$ 59,326
	<i>Total:</i>	\$ 71,135	\$ 71,135
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>		
	<i>Total:</i>		

E. Assumptions & Comments:

Savings per participant of 749.9 kWh were based on the evaluation of the 2005 pilot program that found average savings were 6.5% of average consumption (ave.consumption is 11,500 kWh/yr. for Northern Ontario). Peak savings of 0.13kW were based on the TOU Pilot results conducted during summer 2007.

Customer equipment costs include cost of monitor, tax, shipping and the cost of replacing batteries. \$2,500 was moved from the RTM campaign to the First Nation campaign as these expenses were truly due to the RTM campaign

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

A. **Name of the Program:** Social Housing Program

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

This program built on the success of the Social Housing Pilot Program launched in 2005. Hydro One, with over 5,000 homes in over 100 buildings, has become one of the the largest partner in Ontario SHSC programs. The funding included \$50 per unit towards audits, up to \$450 per unit for the implementation of measures designed to achieve electrical energy savings, as well as \$50 per unit for energy awareness training.

Measure(s):

	Measures (Lighting, fridges, etc)	Audits
<i>Base case technology:</i>		
<i>Efficient technology:</i>		
<i>Number of participants or units delivered for reporting year:</i>	21956	1065
<i>Measure life (years):</i>		
<i>Number of Participants or units delivered life to date</i>	21995	2777

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 4,858,691	\$ 4,865,991
² TRC Costs (\$):		
<i>Utility program cost (excluding incentives):</i>	\$ 472,604	\$ 514,724
<i>Incremental Measure Costs (Equipment Costs)</i>	\$ 1,938,043	\$ 1,941,940
<i>Total TRC costs:</i>	\$ 2,410,647	\$ 2,456,664
<u><i>Net TRC (in year CDN \$):</i></u>	<u>\$ 2,448,044</u>	<u>\$ 2,486,761</u>
<i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>	2.0	2.0

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

Cumulative Results:

Conservation Programs:

		Cumulative Results:	
		Cumulative Lifecycle	Annual Savings
<i>Demand savings (kW):</i>	Summer	722	725
	Winter	2086	2090
<i>Energy saved (kWh):</i>	<i>lifecycle</i>	82,566,568	6,316,850
	<i>in year</i>	6,304,348	6,316,850
<i>Other resources saved :</i>			
<i>Natural Gas (m3):</i>	67764	16005	16005
<i>Other (water):</i>	5940	495	495

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 savings (kWh):		
	<i>lifecycle</i>	<i>in year</i>

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 138,830	\$ 514,725
	Incentive:	\$ 1,938,049	\$ 1,955,057
	Total:	\$ 2,076,879	\$ 2,469,782
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

For measures included in the February 2006 OPA low income/social housing sector report (i.e. CFLs, Fridges, LED exit signs, showerhead), the assumptions from that report were utilized. For measures not included in that report but available in the 2006 OEB Measures and Assumption list, this report was used. For MUA and Building Automation system, the savings from the SHSC post audits were utilized.

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

A. **Name of the Program:** Time of Use Pilot

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

411 customers participated in the time-of-use (TOU) pilot project. Pilot participants responded to the regulated pricing plan (RPP) TOU rates and were able to shift and conserve part of their load. For a typical pilot customer on the RPP TOU rates, the load-shifting impact approximated 3.7% and conservation impact averaged 3.3%. For the customers on RPP TOU rates with Real Time Monitors, the conservation impact increased to 7.6%

Measure(s):

	Participants		
Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:	411		
Measure life (years):			
Number of Participants or units delivered life to date	411		

B. <u>TRC Results:</u>	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 190,055	\$ 190,055
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 71,107	\$ 71,107
Incremental Measure Costs (Equipment Costs)	\$ 45,686	\$ 45,686
Total TRC costs:	\$ 116,793	\$ 116,793
Net TRC (in year CDN \$):	\$ 73,262	\$ 73,262
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	1.6	1.6

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

Conservation Programs:

Demand savings (kW):		Summer	43		43
		Winter			
				Cumulative	
				Annual	
		lifecycle	in year	Cumulative Lifecycle	Annual Savings
Energy saved (kWh):	3,248,037		396,185	3,248,037	396,185
Other resources saved :					
Other (propane):					
Other (water):					-

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 savings (kWh):	lifecycle	in year

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		\$ -
	Incremental O&M:	\$ 71,107	\$ 71,107
	Incentive:		\$ -
	Total:	\$ 71,107	\$ 71,107
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Savings calculations were based on actual savings obtained during this pilot

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

A. **Name of the Program:** PowerSaverPlus - Online Energy Audits

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

Over 4,000 customers took the self-administered Online Energy Audit program and received recommendations on how they could lower their usage and electricity bill.

Measure(s):

	Participants		
Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:	4000		
Measure life (years):			
Number of Participants or units delivered life to date	4000		

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):		\$ -
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 212,670	\$ 212,670
Incremental Measure Costs (Equipment Costs)		\$ -
Total TRC costs:	\$ 212,670	\$ 212,670
Net TRC (in year CDN \$):		\$ -
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	0.0	0.0

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

Conservation Programs:

Demand savings (kW):		Summer				0
		Winter				
					Cumulative	
					Annual	
					Lifecycle	
Energy saved (kWh):			in year		Lifecycle	-
Other resources saved :					Annual	-
Other (propane):						
Other (water):						-

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 savings (kWh):	<i>lifecycle</i>	<i>in year</i>

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		\$ -
	Incremental O&M:	\$ 212,670	\$ 212,670
	Incentive:		\$ -
	Total:	\$ 212,670	\$ 212,670
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

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

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

Appendix B - Discussion of the Program

A. **Name of the Program:** Keep Cool Program

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

Hydro One worked with Clean Air Foundation to sponsor and monitor the Keep Cool program in June, 2006. This program contributed to the implementation of sustainable solutions and helped shave summer peak demand while reducing pollution emissions. In particular, through Keep Cool customers were given the opportunity to retire old RACs for free and receive \$25 retailer gift cards. During the three weeks, 2,036 HydroOne customers retired their old RACs and received the gift cards.

Measure(s):

	Room Air Conditioners		
Base case technology:	900 kWh		
Efficient technology:			
Number of participants or units delivered for reporting year:	2,036		
Measure life (years):	4		
Number of Participants or units delivered life to date	2,036		

B. TRC Results:	<u>Reporting Year</u>	<u>Life-to-date TRC Results:</u>
¹ TRC Benefits (\$):		\$ 906,043
² TRC Costs (\$):		
Utility program cost (excluding incentives):		\$ 180,732
Incremental Measure Costs (Equipment Costs)		\$ 36,648
Total TRC costs:		\$ 217,380
<u>Net TRC (in year CDN \$):</u>		<u>\$ 688,663</u>
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		4.2

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

Conservation Programs:

Demand savings (kW):				
	Summer			2,071
	Winter			0

	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):			6,596,640	1,649,160
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 savings (kWh):		

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:		\$ 180,733
	Incentive:		\$ 40,720
	Total:		\$ 221,453
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Assumptions for Room Air Conditioners -

1. For Base case technology 900 kWh/yr. is used (this is a conservative estimate since average model being sold today is 880 kWh/yr. as per OEB spreadsheet, and current models will be more efficient than the older models being picked up under this program). Average peak demand used is 1.129 kW.
2. For Measure Life 4 years is used. This is based on calculating the remaining life of a recycled unit is the same proportion of technology life as was used for Refrigerators in OEB spreadsheet (6 yrs. remaining life / 19 yrs. total life = approx. 1/3). Thus 1/3 of the technology life of 12 years for a room air conditioner is therefore 4 years.

Incentives shown are based on a \$20 per unit for recycling.
Customer incremental equipment costs have been set at \$20 since the customer must transport the room air conditioner to the specified retail location on specified date. Benefit to customer is the free recycling of the unit.

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 customer are not a component of the TRC costs. However, payments made to a third party service provider to run an incentives program are program costs, and are to be included as TRC costs under the "Utility Program Costs" line.

Appendix B - Discussion of the Program

A. **Name of the Program:** Seasonal LED Light Exchange

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

The SLED (Seasonal Light Emitting Diode) Program was marketed to residential customers over the holiday season. 105 communities participated in the 2006 SLED Exchange. Due to a Safety Alert related to the SLEDs, Hydro One used retailer gift cards as a replacement for the SLEDs at all exchanges. Costs incurred in 2007 were due to the recall of the Greenlite Christmas lights.

Measure(s):

	Exchange - from 5 Watt bulbs	Exchange- From mini Lights	Exchange - from 7 Watt bulbs
Base case technology:	19 kWh/yr	8 kWh/yr	26 kWh/yr
Efficient technology:	1 kWh/yr	1 kWh/yr	1 kWh/yr
Number of participants or units delivered for reporting year:	4,362	9,378	8,069
Measure life (years):	30	30	30
Number of Participants or units delivered life to date	10,311	14,258	8,069

B. TRC Results:	Reporting Year		Life-to-date TRC Results:	
	¹ TRC Benefits (\$):		\$	
² TRC Costs (\$):				
Utility program cost (excluding incentives):	\$	128,108	\$	222,364
Incremental Measure Costs (Equipment Costs)			\$	55,826
Total TRC costs:	\$	128,108	\$	278,190
Net TRC (in year CDN \$):	-\$	128,108		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		0.0		2.9

C. Results: (one or more category may apply)		Cumulative Results:	
Conservation Programs:			
Demand savings (kW):	Summer		
	Winter		240
	<i>lifecycle</i>	<i>in year</i>	
Energy saved (kWh):			Cumulative Lifecycle 16,393,624
Other resources saved :			Cumulative Annual Savings 546,454
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 savings (kWh):		

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. <u>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>	\$ 128,108	\$ 206,049
	<i>Incentive:</i>		\$ 217,861
	<i>Total:</i>	\$ 128,108	\$ 423,910
	<i>Adjustments</i>		
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>		
	<i>Total:</i>		

E. Assumptions & Comments:

Costs incurred in 2007 were due to the recall of the Greenlite Christmas lights.

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

A. **Name of the Program:** PowerSaver Tour

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

The PowerSaver Tour Program was a joint initiative between The Home Depot and Hydro One Networks. This program aimed at promoting and achieving energy conservation savings while reinforcing HydroOne's corporate image. During ten weeks from June until September 2006, a co-branded truck travelled throughout rural Ontario and hosted 11 Hydro One supported summer Festival events where it displayed educational material, gave away product samples and sold energy efficient products. The program was leveraged with another Hydro One complementary program: Cool Shops.

Measure(s):

	CFLs- 27 watts give-aways	CFLs - 15 watts give-aways	Other Products Sold
Base case technology:	232 kWh	139 kWh	
Efficient technology:	63	35	
Number of participants or units delivered for reporting year:			
Measure life (years):	3	4	
Number of Participants or units delivered life to date	9,500	500	13,680

B. **TRC Results:**

Reporting Year

Life-to-date TRC Results:

¹ TRC Benefits (\$):		\$	1,182,561
² TRC Costs (\$):			
Utility program cost (excluding incentives):	\$	8,335	\$ 287,811
Incremental Measure Costs (Equipment Costs)			\$ 105,394
Total TRC costs:	\$	8,335	\$ 393,205
Net TRC (in year CDN \$):	-\$	8,335	\$ 789,356

Benefit to Cost Ratio (TRC Benefits/TRC Costs): - 3.0

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	Summer	8
	Winter	899

	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):			17,981,316	3,170,923
Other resources saved :				
Natural Gas (m3):				
Oil (litres) :				
Propane (litres):				

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 savings (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:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:	<input type="text"/>	<input type="text"/>
	Incremental O&M:	\$ 8,335	\$ 287,811
	Incentive:	<input type="text"/>	\$ 34,251
	Total:	\$ 8,335	\$ 322,062
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:

For Programmable Thermostats, participants for each fuel type were calculated using Hydro One Networks customers' fuel shares re-percentage using the percentage of homes with forced air systems (which was 7 8 %, based on excluding customers using electric baseboard heaters and wood).
The products sold included: Timers, CFLs 15, 23 and 27 Watt, CFL 15 Watt buglights, CFL trilight, 20 Watt par CFL 38 flood lights, Seasonal LEDs, Dimmers, regular Programmable Thermostats.
In 2007 minor costs were incurred that belonged to the 2006 campaign

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

A. **Name of the Program:** MASS MARKET COUPON INITIATIVE - 2005

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

This mass market residential program featured six energy efficient products for the home - compact fluorescent lighting, seasonal LED lights, programmable thermostats, indoor timers, outdoor timers, and ceiling fans. It was promoted through bill inserts to 1.1 million customers. Coupons with the product discounts were redeemed by the exclusive retailer (Canadian Tire) chosen through RFP process. The program was operated in cooperation with 27 other LDCs including the CLD utilities less Toronto. The program ran from October 1, 2005 to December 31, 2005.

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:**

	<u>Reporting Year</u>	<u>Life-to-date TRC Results:</u>
¹ TRC Benefits (\$):		\$ 6,711,739
² TRC Costs (\$):		
Utility program cost (excluding incentives):		\$ 51,227
Incremental Measure Costs (Equipment Costs)		\$ 384,485
Total TRC costs:		\$ 465,764
<u>Net TRC (in year CDN \$):</u>		\$ 6,245,975
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		14.4

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

Cumulative Results:

Conservation Programs:

			<u>Cumulative Lifecycle</u>	<u>Cumulative Annual Savings</u>
Demand savings (kW):	Summer	0	285	
	Winter	0	1,789	
Energy saved (kWh):	<i>lifecycle</i>	<i>in year</i>	70,142,678	7,261,874
Other resources saved :				
Natural Gas (m3):				3,806,658
Other (Oil, Propane):				4,069,924

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 savings (kWh):		

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:		\$ 51,227
	Incentive:		\$ 195,797
	Total:		\$ 247,024
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

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

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

Appendix B - Discussion of the Program

A. **Name of the Program:** SmartPak Initiative

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

The SmartPak Education initiative is a targeted to Grade 5 students as they cover the energy component of the prescribed science curriculum. This initiative encouraged elementary school students and their households to adopt energy conservation practices within Hydro One Networks' service territory.

Measure(s):

	SmartPak distributed		
Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:	6000		
Measure life (years):			
Number of Participants or units delivered life to date	6000		

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 2,548,721	\$ 2,548,721
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 101,752	\$ 101,752
Incremental Measure Costs (Equipment Costs)	\$ 165,744	\$ 165,744
Total TRC costs:	\$ 267,496	\$ 267,496
Net TRC (in year CDN \$):	\$ 2,281,225	\$ 2,281,225
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	9.5	9.5

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

Conservation Programs:

Demand savings (kW):		Summer	140	140	
		Winter	639	639	
				Cumulative	
				Annual	
				Lifecycle	Savings
Energy saved (kWh):	27,170,208	in year	3,128,005	27,170,208	3,128,005
Other resources saved :					
Other (propane):	255,830		25,583	255,830	25,583
Other (Gas)	1,271,700		127,170	1,271,700	127,170
Other (water):	1,753,682.40		146,140	1,753,682	146,140

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):		
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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 savings (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. <u>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>	\$ 101,752	\$ 101,752
	<i>Incentive:</i>	\$ 165,744	\$ 165,744
	<i>Total:</i>	\$ 267,496	\$ 267,496
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>		
	<i>Total:</i>		

E. Assumptions & Comments:

TRC assumptions are based on the 2006 OEB Measures and Assumption list. The Assumptions for the LED night light is based on the survey result done by Conservation Educational Services.

TRC results are reported in Appendix C under the heading "Education and Communication" , as this program was budgeted under that initiative

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

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

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

Communication and education (C&E) are integral parts of every program delivered by Networks, the costs of which are incorporated into program budgets. In 2007 Networks appeared at forums, trade shows and community events to discuss conservation and demand management and our programs and provided educational material in various bill related communications. In 2007, directed C&E programs included the Turn Out the Light Campaign and grants to education based organizations.

Measure(s):

	Giveaways			
Base case technology:				
Efficient technology:				
Number of participants or units delivered for reporting year:	1,800			
Measure life (years):				
Number of Participants or units delivered life to date	1,800			

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$)	\$ 103,889	\$ 177,687
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 13,212	\$ 468,573
Incremental Measure Costs (Equipment Costs)	\$ 7,258	\$ 5,490
Total TRC costs:	\$ 20,470	\$ 474,063
Net TRC (in year CDN \$):	\$ 83,419	-\$ 387,053
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	5.1	0.4

C. Results: (one or more category may apply)	Cumulative Results:			
Conservation Programs:				
Demand savings (kW):	Summer			0
	Winter	84.085		84.085
			Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	lifecycle	in year	2,974,925	521,928
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 savings (kWh):		

lifecycle in year

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. Actual Program Costs:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 13,212	\$ 468,573
	Incentive:		\$ 7,625
	Total:	\$ 13,212	\$ 476,198
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

The TRC benefits in 2007 reflect Timers and CFLs during corporate CDM events and workshops

TRC results reported in Appendix C include the savings from the SmartPak initiative, as this initiative was budgeted as part of Communication and Education.

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

A. **Name of the Program:** Municipal Traffic Signal LED Retrofit

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

This pilot program will provide monetary incentives to Municipalities for the retrofit of its traffic signals from incandescent to LED technology. LED lights provide significant energy savings and life expectancy which reduces overall maintenance costs space. This program is designed to achieve energy conservation savings (reduced energy consumption in kilowatt hours). LED signal lights are considerably more efficient, and Hydro One, through this program, will provide monetary incentives in order to facilitate earlier adoption of this technology. During 2006 one of the 24 Municipalities that enrolled in the program completed the installation of the new technology.

Measure(s):

	Red -12 "	Green- 12"	Green-8"
<i>Base case technology:</i>	135 watts	135 watts	60 watts
<i>Efficient technology:</i>	LED 10 watts	LED 12 watts	LED 15 watts
<i>Number of participants or units delivered for reporting year:</i>	406	506	0
<i>Measure life (years):</i>	10	10	10
<i>Number of Participants or units delivered life to date</i>	590	690	16

	Arrow 12"	Pedestrian	Total
<i>Base case technology:</i>	90 watts	60 watts	
<i>Efficient technology:</i>	LED 8 watts	6 watts	
<i>Number of participants or units delivered for reporting year:</i>	17	567	1496
<i>Measure life (years):</i>	16	10	
<i>Number of Participants or units delivered life to date</i>	34	568	1898

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 935,437	\$ 1,052,401
² TRC Costs (\$):		
<i>Utility program cost (excluding incentives):</i>		\$ 6,951
<i>Incremental Measure Costs (Equipment Costs)</i>	\$ 281,077	\$ 319,794
<i>Total TRC costs:</i>	\$ 281,077	\$ 326,745
<i>Net TRC (in year CDN \$):</i>	\$ 654,360	\$ 626,832
<i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i>	3.3	2.6

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

Cumulative Results:

Conservation Programs:

			Cumulative Lifecycle	Cumulative Annual Savings
<i>Demand savings (kW):</i>	Summer	169		190
	Winter	169		190
<i>Energy saved (kWh):</i>	<i>lifecycle</i>	14,945,531		
	<i>in year</i>	1,492,938	16,815,634	1,678,334

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 savings (kWh):		

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. Actual Program Costs:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ -	\$ 6,951
	Incentive:	\$ 51,119	\$ 81,119
	Total:	\$ 51,119	\$ 88,070
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Energy savings based on analysis of historical LED data.

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

A. **Name of the Program:** Cool Shops

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

The Cool Shops program was implemented in conjunction with the PowerSaver Tour Program. The staff from the Tour conducted the audits between the weekend events on the PowerSaver Tour. The primary goal was to educate the small commercial sector on actions they could undertake to save energy. Complementary CFLs and LED Exit lights were provided, and discounted product offer sheets were provided to all participants.

Measure(s):

	CFLs 15 Watts	CFLs 27 Watts	LED Exit Lghts
Base case technology:	139 kWh	232 kWh	263 kWh
Efficient technology:	35 kWh	63 kWh	26 kWh
Number of participants or units delivered for reporting year:	1,020	88	174
Measure life (years):	4	3	25

Number of Participants or units delivered life to date	1,020	88	174
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	CFLs 11 Watts	CFLs 23 watt	Total
Base case technology:	93		
Efficient technology:	26		
Number of participants or units delivered for reporting year:	6	88	1366
Measure life (years):	3		

Number of Participants or units delivered life to date	6	88	1366
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B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):		\$ 84,075
² TRC Costs (\$):		
Utility program cost (excluding incentives):		\$ 34,315
Incremental Measure Costs (Equipment Costs)		\$ 16,897
Total TRC costs:		\$ 51,212
Net TRC (in year CDN \$):		\$ 32,863
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		1.6

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	Summer		8
	Winter		30

	lifecycle	In year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):			1,336,522	154,231
Other resources saved :				
Natural Gas (m3):				

Other (specify):

Demand Management Programs:

Controlled load (kW)

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

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

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

Demand Response Programs:

Dispatchable load (kW):

Peak hours dispatched in year (hours):

Power Factor Correction Programs:

Amount of KVar installed (KVar):

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

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

Line Loss Reduction Programs:

Peak load savings (kW): lifecycle in year

Energy savings (kWh):

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

Other Programs (specify):

Metric (specify):

D. Actual Program Costs:

		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:	<input type="text"/>	<input type="text"/>
	Incremental O&M:	<input type="text"/>	\$ 34,315
	Incentive:	<input type="text"/>	\$ 7,564
	Total:	<input type="text"/>	\$ 41,879
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:

The number of CFLs includes both the products given to customers and the additional products purchased by the businesses which were audited. LED Exit lights were given to businesses audited. Number of 15 watt CFLs includes the number of fluorescent BR 15 watts and 16 watts. Number of 27W CFLs includes the number of 23 watt CFLs and Fluorescent PAR 23 watt sold.

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

A. **Name of the Program:** Toronto Region Conservation Authority initiatives

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

Networks is participating in four energy initiatives being led by the Toronto Region Conservation Authority (TRCA) as part of their Community Transformation Programs. The programs will target municipalities, hospitals, schools, as well as the residential sector. To date, the municipality of Uxbridge has enrolled four buildings, four schools have joined the Sustainable Schools program, and a design has been selected for the Archetype House that incorporates LEED - gold and Energy STAR for New Homes environmental ratings .

Measure(s):

	TRCA			
Base case technology:				
Efficient technology:				
Number of participants or units delivered for reporting year:	15			
Measure life (years):				
Number of Participants or units delivered life to date	15			

	<u>Reporting Year</u>	<u>Life-to-date TRC Results:</u>
B. TRC Results:		
¹ TRC Benefits (\$)	\$	-
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 109,000	\$ 187,500
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	\$ 109,000	\$ 187,500
Net TRC (in year CDN \$):	\$ -	-\$ 78,500
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	-	-

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

Conservation Programs:

Demand savings (kW):					
	Summer				0
	Winter				0

	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):				
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 savings (kWh):	lifecycle	in year

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 109,000	\$ 187,500
	Incentive:		
	Total:	\$ 109,000	\$ 187,500
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

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

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

Appendix B - Discussion of the Program

A. **Name of the Program:** PowerSaver Business Incentive Program

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

This program provides financial incentives to all business and institutional customers that undertake energy efficiency retrofits in their facilities in order to increase their energy efficiency and lower their costs. Incentives for technologies such as lighting, motors, cooling equipment and energy efficient transformers are provided to this customer group. Networks received approximately 230 applications and approved 185 of them. In total 117 projects were completed by program close.

Measure(s):

	Measures implemented		
Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:	29,637		
Measure life (years):			
Number of Participants or units delivered life to date	29,650		

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$)	\$ 12,348,518.00	12,348,518.00
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 125,577	\$ 144,125
Incremental Measure Costs (Equipment Costs)	\$ 2,903,423	\$ 2,903,423
Total TRC costs:	\$ 3,029,000	\$ 3,047,548
Net TRC (in year CDN \$):	\$ 9,319,518	\$ 9,300,970
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	4.1	4.1

C. Results: (one or more category may apply)	Cumulative Results:			
Conservation Programs:				
Demand savings (kW):	Summer	1821	1821	
	Winter	1871	1871	
			Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	lifecycle	193,695,391	193,695,391	12,824,832
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 savings (kWh):	lifecycle	in year

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 125,577	\$ 144,124
	Incentive:	\$ 377,720	\$ 377,720
	Total:	\$ 503,297	\$ 521,845
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

The following sources were used for assumptions in the TRC inputs:
PRESCRIPTIVE PROJECTS:
 1) 2006 OEB Measures and Assumptions list - for measures such as CFLs, Exit Signs and Occupancy sensors
 2) 2006 Marbek Study (for measures such as T8 normal and High performance, Motors, Unitary AC, Transformers)
 3) 2006 Agviro Measures and Assumptions - for prescriptive Agricultural measures;
 4) Assumptions based on estimates actual data coming for technologies such as 6 lamp T8 Fixtures and T5 technologies.
CUSTOM PROJECT:
 Project specific savings and assumptions from the consultant evaluating the applications (i.e. Marbek) were used

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

A. **Name of the Program:** Industrial Energy Efficiency Assessments

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

The first phase of this pilot project uses the energy diagnostic tool, One-2-Five Energy Diagnostic, to provide customers with an assessment and benchmarking report of their current energy management practices. Thirteen of Networks' large distribution connected industrial customers had this interactive workshop performed on their premises. This workshop provided the customer with information on their energy management practices in relation to the company's own operating costs and to other similar industries, as well as suggestions on key areas for improvement and an estimation of potential energy cost savings. The second phase of the pilot includes further detailed on-site assessments to identify specific energy efficiency measures to develop a work plan.

Measure(s):

	Industrial Audits		
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	13		

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$)		\$ -
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 44,455	\$ 150,335
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	\$ 44,455	\$ 150,335
Net TRC (in year CDN \$):	-\$ 44,455	-\$ 150,335
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	-	-

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

Conservation Programs:

Demand savings (kW):	Summer			0
	Winter			0
	<i>lifecycle</i>	<i>in year</i>	<i>Cumulative Lifecycle</i>	<i>Cumulative Annual Savings</i>
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 savings (kWh): lifecycle in year

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kW):

Fuel type:

Other Programs (specify):

Metric (specify):

D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:	<input type="text"/>	<input type="text"/>
	Incremental O&M:	\$ 44,455	\$ 150,335
	Incentive:	<input type="text"/>	<input type="text"/>
	Total:	\$ 44,455	\$ 150,335
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:

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

A. **Name of the Program:** Double Return (Demand Response Program)

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

The Double Return program was launched in November 2006. The objective of the program is to reduce summer and winter peak demand in commercial and industrial facilities. The target customer group (phase I) consists of approximately 750 interval meter accounts with an aggregate monthly peak load in excess of 1000 MW. To qualify for incentives, the customers need to reduce their peak demand by 5% to 10% during winter and/or summer peak months. The achieved results, in terms of peak demand reduction at 38MW and 34MW, for winter and summer respectively, exceeded the program targets.

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:	<u>Reporting Year</u>	<u>Life-to-date TRC Results:</u>
¹ TRC Benefits (\$)	\$ 7,696,867.00	7,696,867.00
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 314,964	\$ 316,564
Incremental Measure Costs (Equipment Costs)	\$ 9,396	\$ -
Total TRC costs:	\$ 324,360	\$ 316,564
Net TRC (in year CDN \$):	\$ 7,372,507	\$ 7,380,303
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	23.7	24.3

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

Conservation Programs:

Demand savings (kW):	Summer	33,773	33,773
	Winter	37,833	37,833

	<i>lifecycle</i>	<i>in year</i>	<i>Cumulative Lifecycle</i>	<i>Cumulative Annual Savings</i>
Energy saved (kWh):	108,898,068	108,854,220	108,898,068	108,854,220

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 savings (kWh):		

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. <u>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>	\$ 314,964	\$ 316,564
	<i>Incentive:</i>	\$ 2,022,771	\$ 2,022,771
	<i>Total:</i>	\$ 2,337,735	\$ 2,339,335
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>		
	<i>Total:</i>		

E. Assumptions & Comments:

Actual savings calculated based on customer meter readings

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

A. **Name of the Program:** Interim TOU Rate Pilot

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

Interim Time of Use (TOU) rates were offered to general service customers who could achieve an off-peak demand (kW) at least twice their on-peak demand. Distribution rates were the same as for other comparable distribution customers but demand charges are only applied to the peak demand during on-peak hours.

The LTD costs are the difference in revenues that would have been collected at standard distribution rates and what is being collected at TOU distribution rates, plus initial set up costs. This program began in 2004 and is expected to run until 2007. Three customers below 5 MW are currently participating.

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		3		

B. TRC Results:		<u>Reporting Year</u>	<u>Life-to-date TRC Results:</u>
¹ TRC Benefits (\$)		\$ -	-
² TRC Costs (\$):			
	Utility program cost (excluding incentives):	\$ 364,665	\$ 997,072
	Incremental Measure Costs (Equipment Costs)		\$ -
	Total TRC costs:	\$ 364,665	\$ 997,072
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		0
	Winter		0
	<i>lifecycle</i>	<i>in year</i>	<i>Cumulative Lifecycle</i>
Energy saved (kWh):			0
Other resources saved :			0
	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 savings (kWh):	lifecycle	in year

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:		
	Incentive:	\$ 364,665	\$ 997,072
	Total:	\$ 364,665	\$ 997,072
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

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

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

Appendix B - Discussion of the Program

A. **Name of the Program:** Farm Efficiency - PowerSaver Business Incentive Program

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

Hydro One has undertaken many co-operative efforts with the Ministry of Agriculture, Food and Rural Affairs, Ontario Power Authority, Ontario Ministry of Energy and the Ontario Federation of Agriculture, as well as other parties. This relationship was formalized in the form of a Memorandum of Understanding (MOU) late in 2005. Cooperation commenced with the development of energy audit software, related tools and training materials and with audits of dairy, poultry and swine operations.

Subsequent additional audits and analysis have provided information regarding the opportunity to expand the PowerSaver Business Incentive Program into the Agricultural sector. By the end of 2007 34 retrofit projects have been completed.

Measure(s):

Retrofits implemented

Base case technology:			
Efficient technology:			
Number of participants or units delivered for reporting year:	35		
Measure life (years):			
Number of Participants or units delivered life to date	36		

B. **TRC Results:**

	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 1,146,577	\$ 1,453,780
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 15,838	\$ 127,126
Incremental Measure Costs (Equipment Costs)	\$ 274,224	\$ 289,112
Total TRC costs:	\$ 290,062	\$ 416,238
Net TRC (in year CDN \$):	\$ 856,515	\$ 1,037,542
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	4.0	3.5

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

Cumulative Results:

Conservation Programs:

Demand savings (kW):	Summer	340	349
	Winter	338	347

	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	17,046,320	1,906,695	17,454,329	1,970,695
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 savings (kWh):	lifecycle	in year

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):		
Energy generated (kWh):		
Peak energy generated (kW):		
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:	\$ 15,838	\$ 127,126
	Incentive:	\$ 43,215	\$ 46,035
	Total:	\$ 59,053	\$ 173,161
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Several sources were used for assumptions in the TRC inputs:
PRESCRIPTIVE PROJECTS:
 1) 2006 OEB Measures and Assumptions list - for measures such as CFLs, Exit Signs and Occupancy sensors
 2) 2006 Marbek Study (for measures such as T8 normal and High performance, Motors, Unitary AC, Transformers)
 3) 2006 Agviro Measures and Assumptions - for prescriptive Agricultural measures;
 4) Assumptions based on estimates actual data coming for technologies such as 6 lamp T8 Fixtures and T5 technologies.
CUSTOM PROJECT:
 Project specific savings and assumptions from the consultant evaluating the applications (i.e. Marbek) were used

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

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

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

This project was initiated in 2005 to provide Hydro One with practical experience in assessing the merits and limitations of integrating distributed generation in our grid which is an emerging new challenge for Hydro One. This project makes it possible for commercial and industrial customers to connect existing standby generators to the distribution system to dispatch loads into the market during peak demand. The dispatching and project management is done through an existing local aggregator, GenSet, working directly with the customers and IESO.

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:	<u>Reporting Year</u>	<u>Life-to-date TRC Results:</u>
¹ TRC Benefits (\$):		
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 190,000	\$ 190,000
Incremental Measure Costs (Equipment Costs)	\$ -	\$ -
Total TRC costs:	\$ 190,000	\$ 190,000
<hr/>		
Net TRC (in year CDN \$):		
<hr/>		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		

C. Results: (one or more category may apply)	<u>Cumulative Results:</u>			
<u>Conservation Programs:</u>				
Demand savings (kW):	Summer			
	Winter			
	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):				
Other resources saved :				
Natural Gas (m3):				
Other (specify):				
<u>Demand Management Programs:</u>				
Controlled load (kW)				
Energy shifted On-peak to Mid-peak (kWh):				
Energy shifted On-peak to Off-peak (kWh):				
Energy shifted Mid-peak to Off-peak (kWh):				
<u>Demand Response Programs:</u>				
Dispatchable load (kW):				
Peak hours dispatched in year (hours):				
<u>Power Factor Correction Programs:</u>				
Amount of KVar installed (KVar):				
Distribution system power factor at beginning of year (%):				
Distribution system power factor at end of year (%):				
<u>Line Loss Reduction Programs:</u>				
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):

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D. Actual Program Costs:

Utility direct costs (\$):

Incremental capital:

Incremental O&M:

Incentive:

Total:

Reporting Year

Cumulative Life to Date

	<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
\$	190,000	\$ 190,000
\$		\$ -
\$	190,000	\$ 190,000

Utility indirect costs (\$):

Incremental capital:

Incremental O&M:

Total:

E. Assumptions & Comments:

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

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

Appendix B - Discussion of the Program

A. **Name of the Program:** Farm Energy Audit

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

In 2007, HONI provided funding to Ag Energy Co-Operative Ltd. for its 'Lessons Learned' Total Energy Program designed to help agricultural and greenhouse operations in Ontario reduce their energy consumption of both heat and electricity by over 20%. Greenhouse and non-greenhouse operations were audited and energy efficient measures installed and monitored. An energy management investment business plan was presented to producers for the greenhouse and non-greenhouse sectors at the Growing the Margins Energy Conference held on April 12-13, 2007 in London, Ontario.

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 (\$):		
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 94,340	\$ 94,340
Incremental Measure Costs (Equipment Costs)	\$ -	\$ -
Total TRC costs:	\$ 94,340	\$ 94,340
Net TRC (in year CDN \$):		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		

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

Conservation Programs:

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

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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<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>	\$ 94,340	\$ 94,340
	<i>Incentive:</i>		\$ -
	<i>Total:</i>	\$ 94,340	\$ 94,340
Utility indirect costs (\$):	<i>Incremental capital:</i>		
	<i>Incremental O&M:</i>		
	<i>Total:</i>		

E. Assumptions & Comments:

Data are unavailable for calculation of TRC.

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

A. **Name of the Program:** Distribution Loss Reduction

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

The Distribution System Loss Reduction Program involves identifying and implementing projects where incremental investments will result in an overall economic benefit to customers by reducing system delivery losses. By December 31, 2007 over 70% of the projects had been completed. The remainder will be completed by April 2008, under the extension approved by the OEB.

Measure(s):

	Projects implemented	
Base case technology:		
Efficient technology:		
Number of participants or units delivered for reporting year:	219	
Measure life (years):		
Number of Participants or units delivered life to date		
	219	

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):	\$ 9,364,469.00	\$ 9,364,469.00
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 4,521,248	\$ 5,398,519
Incremental Measure Costs (Equipment Costs)	\$ -	
Total TRC costs:	\$ 4,521,248	\$ 5,398,519
Net TRC (in year CDN \$):	\$ 4,843,221	\$ 3,965,950
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	2.07	1.73

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

Conservation Programs:

Demand savings (kW):	Summer	2362	2362
	Winter		

	lifecycle	in year	Cumulative Lifecycle	Cumulative Annual Savings
Energy saved (kWh):	144,153,108	7,207,655	144,153,108	7,207,655

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 savings (kWh):			

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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<u>D. Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:	\$ 4,521,248	\$ 5,398,519
	Incremental O&M:		
	Incentive:		
	Total:	\$ 4,521,248	\$ 5,398,519
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

Savings calculated are based on data from Hydro One System Investment group.

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

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

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

The Smart Meter program approved for CDM by the OEB in 2005 was \$1.4M in OM&A and \$6.4M in capital. The funding was to cover activities related to meter installation in 2005 that would have put Hydro One in a position to begin deployment leading to 800,000 meters installed by the end of 2007. In preparation, Hydro One acquired 25,000 smart meters and related software. The installation of 25,000 meters has been almost completed in 2006, and all the funds from the OEB have been successfully utilized.

Measure(s):

	Smart Meters	
Base case technology:		
Efficient technology:		
Number of participants or units delivered for reporting year:	19,491	
Measure life (years):		
Number of Participants or units delivered life to date	19,491	

B. TRC Results:	Reporting Year	Life-to-date TRC Results:
¹ TRC Benefits (\$):		
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 7,281,000	\$ 7,800,000
Incremental Measure Costs (Equipment Costs)		
Total TRC costs:	\$ 7,281,000	\$ 7,800,000
Net TRC (in year CDN \$):	\$ 7,281,000	\$ 7,800,000
Benefit to Cost Ratio (TRC Benefits/TRC Costs):		

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

Conservation Programs:

Demand savings (kW):	Summer		
	Winter		

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

Demand Management Programs:

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

Demand Response Programs:

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

Power Factor Correction Programs:

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

Line Loss Reduction Programs:

Peak load savings (kW):
Energy savings (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. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:	\$ 6,400,000	\$ 6,400,000
	Incremental O&M:	\$ 881,000	\$ 1,400,000
	Incentive:		
	Total:	\$ 7,281,000	\$ 7,800,000
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

No results are shown as the saving benefits have not yet been determined

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

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

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

This program includes :

- CDM reports and studies commissioned or purchased in order to generate or evaluate CDM program concepts, or to assist in program development.
- market and technical research studies - Equipment Survey
- association membership fees
- trade publications

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 (\$)		
² TRC Costs (\$):		
Utility program cost (excluding incentives):	\$ 777,343	\$ 2,353,771
Incremental Measure Costs (Equipment Costs)	\$	-
Total TRC costs:	\$ 777,343	\$ 2,353,771
Net TRC (in year CDN \$):		
Benefit to Cost Ratio (TRC Benefits/TRC Costs):	0	0

C. Results: (one or more category may apply)	Cumulative Results:			
Conservation Programs:				
Demand savings (kW):	Summer			0
	Winter			0
		<i>lifecycle</i>	<i>in year</i>	<i>Cumulative Lifecycle</i>
Energy saved (kWh):				<i>Cumulative Annual Savings</i>
Other resources saved :				
Natural Gas (m3):				
Other (specify):				
Demand Management Programs:				
Controlled load (kW)				
Energy shifted On-peak to Mid-peak (kWh):				
Energy shifted On-peak to Off-peak (kWh):				
Energy shifted Mid-peak to Off-peak (kWh):				

Demand Response Programs:

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

Power Factor Correction Programs:

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

Line Loss Reduction Programs:

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

Distributed Generation and Load Displacement Programs:

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

Other Programs (specify):

Metric (specify):		
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D. <u>Actual Program Costs:</u>		<u>Reporting Year</u>	<u>Cumulative Life to Date</u>
Utility direct costs (\$):	Incremental capital:		
	Incremental O&M:	\$ 777,343	\$ 2,353,771
	Incentive:		-
	Total:	\$ 777,343	\$ 2,353,771
Utility indirect costs (\$):	Incremental capital:		
	Incremental O&M:		
	Total:		

E. Assumptions & Comments:

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

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

Appendix C - Program and Portfolio Totals

Report Year:

2007

1. Residential Programs

	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 (\$)
<i>Residential In-Home Display</i>	\$ 2,947,762	\$ 1,977,872	\$ 969,890	1.5	8,136,986	40,684,931	1,410	\$ 1,839,597
<i>Residential Load Control</i>	\$ 10,518,328	\$ 1,708,602	\$ 8,809,726	6.2	3,306,662	40,031,219	11,029	\$ 2,419,011
<i>Cold Shoulder Appliance Pickup</i>	\$ 5,495,122	\$ 1,632,629	\$ 3,862,493	3.4	5,817,321	47,909,027	1,134	\$ 979,712
<i>Every Kilowatt Counts</i>	\$ 3,793,513	\$ 1,591,867	\$ 2,201,646	2.4	11,373,451	61,859,334	50	\$ 95,100
<i>Low Income - CMHC/NRCan</i>	\$ 70,426	\$ 23,356	\$ 47,070	3.0	59,392	1,484,800	0	\$ 23,356
<i>Low Income - First Nations Retrofits</i>	\$ 662,448	\$ 128,832	\$ 533,616	5.1	708,063	13,596,532	2	\$ 128,165
<i>Low Income - Retrofits</i>	\$ 607,234	\$ 337,947	\$ 269,287	1.8	709,439	11,350,915	97	\$ 363,631
<i>In-Home Display - First Nations</i>	\$ 203,606	\$ 82,157	\$ 121,449	2.5	297,761	1,488,601	52	\$ 71,135
<i>Low income - First Nations Pilot</i>	\$ -	\$ -	\$ -	0.0	0	0	0	\$ 6,521
<i>Social Housing Program</i>	\$ 4,858,691	\$ 2,410,647	\$ 2,448,044	2.0	6,304,348	82,566,568	722	\$ 2,076,879
<i>Time of Use Pilot</i>	\$ 190,055	\$ 116,793	\$ 73,262	1.6	396,185	3,248,037	43	\$ 71,107
<i>Online Energy Audits</i>	\$ -	\$ 212,670	-\$ 212,670	0.0	0	0	0	\$ 212,670
<i>Seasonal LED Light Exchange</i>	\$ -	\$ 128,108	-\$ 128,108	0.0	0	0	0	\$ 128,108
<i>PowerSaver Tour</i>	\$ -	\$ 8,335	-\$ 8,335	0.0	0	0	0	\$ 8,335
<i>Communication and Education</i>	\$ 2,652,610	\$ 287,966	\$ 2,364,644	9.2	3,363,355	28,998,821	140	\$ 280,708
*Totals App. B - Residential	\$ 31,999,795	\$ 10,647,780	\$ 21,352,015	3.0	40,472,963	333,218,785	14,678	\$ 8,704,035
<i>Residential Indirect Costs not attributable to any specific program</i>	→							
Total Residential TRC Costs		\$ 10,647,780						
**Totals TRC - Residential	\$ 31,999,795	\$ 10,647,780	\$ 21,352,015	3.0				

2. Commercial / MUSH Programs

	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 (\$)
<i>Municipal Traffic Signal LED Retrofit</i>	\$ 935,437	\$ 281,077	\$ 654,360	3.3	1,492,938	14,945,531	169	\$ 51,119
<i>PowerSaver Business Incentive Progra</i>	\$ 12,348,518	\$ 3,029,000	\$ 9,319,518	4.1	12,824,832	193,695,391	1,821	\$ 503,297
<i>Toronto Region Conservation Authority</i>	\$ -	\$ 109,000	-\$ 109,000	0.0	0	0	0	\$ 109,000
*Totals App. B - Commercial / MUSH	\$ 13,283,955	\$ 3,419,077	\$ 9,864,878	3.9	14,317,770	208,640,922	1,989	\$ 663,416
<i>Commercial / MUSH Indirect Costs not attributable to any specific program</i>	→							
Total TRC Costs		\$ 3,419,077						
**Totals TRC - Commercial / MUSH	\$ 13,283,955	\$ 3,419,077	\$ 9,864,878	3.9				

3. Industrial Programs

	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 (\$)
<i>Industrial Energy Efficiency</i>	\$ -	\$ 44,455	-\$ 44,455	0.0	0	0	0	\$ 44,455
<i>Double Return (Demand Response)</i>	\$ 7,696,867	\$ 324,360	\$ 7,372,507	23.7	108,854,220	108,898,068	33,773	\$ 2,337,735
<i>Interim Time of Use</i>	\$ -	\$ 364,665	-\$ 364,665	0.0	0	0	0	\$ 364,665
*Totals App. B - Industrial	\$ 7,696,867	\$ 733,480	\$ 6,963,387	10.5	108,854,220	108,898,068	33,773	\$ 2,746,855
<i>Industrial Indirect Costs not attributable to any specific program</i>								
Total TRC Costs		\$ 733,480						
**Totals TRC - Industrial	\$ 7,696,867	\$ 733,480	\$ 6,963,387	10.5				

4. Agricultural Programs


	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 (\$)
<i>Farm Efficiency/PowerSaver Bus.Incen Leamington</i>	\$ 1,146,577	\$ 290,062	\$ 856,515	4.0	1,906,695	17,046,320	340	\$ 59,053
<i>Farm Energy Audits</i>		\$ 190,000	-\$ 190,000	0.0				\$ 190,000
		\$ 94,340	-\$ 94,340	0.0				\$ 94,340
*Totals App. B - Agricultural	\$ 1,146,577	\$ 574,402	\$ 572,175	2.0	1,906,695	17,046,320	340	\$ 343,393
<i>Agricultural Indirect Costs not attributable to any specific program</i>								
Total TRC Costs		\$ 574,402						
**Totals TRC - Agricultural	\$ 1,146,577	\$ 574,402	\$ 572,175	2.0				

5. LDC System Programs


	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 (\$)
<i>Distribution Loss Reduction System</i>	\$ 9,364,469	\$ 4,521,248	\$ 4,843,221	2.1	7,207,655	144,153,108	2,362	\$ 4,521,248
*Totals App. B - LDC System	\$ 9,364,469	\$ 4,521,248	\$ 4,843,221	2.1	7,207,655	144,153,108	2,362	\$ 4,521,248
<i>LDC System Indirect Costs not attributable to any specific program</i>								
Total TRC Costs		\$ 4,521,248						
**Totals TRC - LDC System	\$ 9,364,469	\$ 4,521,248	\$ 4,843,221	2.1				

6. 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 (\$) 

7. Other Programs

	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 (\$)
<i>Program Management & Research</i>	\$ -	\$ 777,343	-\$ 777,343	0.0	0	0	0	\$ 777,343
*Totals App. B - Other	\$ -	\$ 777,343	-\$ 777,343	0.0	0	0	0	\$ 777,343
<i>Other Indirect Costs not attributable to any specific program</i> 								
Total TRC Costs		\$ 777,343						
**Totals TRC - Other	\$ -	\$ 777,343	-\$ 777,343	0.0				

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	\$ 63,491,663	\$ 20,673,330	\$ 42,818,333	3.1	172,759,303	811,957,203	53,143	\$ 17,756,290
<i>Any other Indirect Costs not attributable to any specific program</i> 								
TOTAL ALL LDC COSTS		\$ 20,673,330						
**LDC' PORTFOLIO TRC	\$ 63,491,663	\$ 20,673,330	\$ 42,818,333	3.1				

* The savings and spending information from this row is to be carried forward to Appendix A.