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# **Milton Hydro Distribution Inc.**

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## **Conservation and Demand Management 2011 Annual Report**

**Submitted to:  
Ontario Energy Board**

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## Executive Summary

Milton Hydro Distribution Inc. (“Milton Hydro”) achieved net demand savings of 1,086 kW and net energy savings of 4,113,188 kWh for the year-ended December 31, 2011. The contribution towards the OEB targets is summarized below:

CDM Measure	Target	Incremental 2011 Net Savings	Cumulative to 2014			
			No DR Persistence	DR Persistence	% of Target No DR Persistence	% of Target DR Persistence
Net Peak Demand Savings (KW)	8,050	1,085	825	1,085	10.2%	13.5%
Net Energy Savings (MWh)	33,500	4,113	16,412	16,452	49.0%	49.1%

The energy savings result was better than predicted, while the demand savings result, if one assumes no persistence for demand reduction projects, was marginally below Milton Hydro’s CDM Strategy filed in 2010. If one assumes persistence for demand reduction projects through 2014 then Milton Hydro’s demand saving was above the strategy milestone of 11.4% for 2011 as filed with the OEB.

The realization rate and net-to-gross ratio used for 2010 projects completed in 2011 produced lower net savings than for the same initiatives under the 2011 program. Many of the individual projects in this category were from applications made at the end of 2010. Businesses were uncertain of what the rules and incentives would be for the 2011-2014 initiatives so rushed to apply under the old program.

Milton Hydro’s results reported for 2011 will require adjustment once the OPA determines the measures and assumptions related to the energy savings associated with TOU. Milton Hydro converted all of its residential and small business customers to TOU pricing prior to 2011. It is expected that the contribution of this initiative towards targets may be significant.

Milton Hydro is in the process of working with its meter provider to introduce the Residential and Small Commercial Demand Reduction Initiative. Milton Hydro believes that once this problem has been addressed this Initiative will generate significant savings.

In spite of the slow start in introducing the new Initiatives in a program repositioning year, Milton Hydro is very encouraged that the 2011 results were ahead of plan, and remains confident that the 2014 targets will be met.

## Background

On March 31, 2010, the Minister of Energy and Infrastructure of Ontario, under the guidance of sections 27.1 and 27.2 of the *Ontario Energy Board Act, 1998*, directed the Ontario Energy Board (“OEB”) to establish Conservation and Demand Management (“CDM”) targets to be met by electricity distributors. Accordingly, on November 12, 2010, the OEB amended the distribution licence of Milton Hydro requiring Milton Hydro, as a condition of its licence, to achieve 33.5 GWh of energy savings and 8.05 MW of summer peak demand savings, over the period beginning January 1, 2011 through December 31, 2014.

In accordance with the same Minister’s directive, the OEB issued the Conservation and Demand Management Code for Electricity Distributors (the “Code”) on September 16, 2010. The code sets out the obligations and requirements with which electricity distributors must comply in relation to the CDM targets set out in their licences. To comply with the Code requirements, Milton Hydro submitted its CDM Strategy on November 1, 2010 which provided a high level of description of how Milton Hydro intended to achieve its CDM targets.

The Code also requires a distributor to file annual report with the Board. This Annual Report is therefore prepared accordingly and covers the period from January 1, 2011 to December 31, 2011.

# 1 Board-Approved CDM Programs

## 1.1 Introduction

In its Decision and Order dated November 12 2010 (**EB-2010-0215 & EB-2010-0216**), the OEB ordered that to meet its mandatory CDM targets, “Each licensed electricity distributor must, as a condition of its licence, deliver Board-Approved CDM Programs, OPA-Contracted Province-Wide CDM Programs, or a combination of the two”.

At this time, the implementation of Time-of-Use (“TOU”) Pricing is the only Board-Approved Conservation and Demand Management (“CDM”) program that is being offered in Milton Hydro’s service area.

## 1.2 TOU Pricing

### 1.2.1 BACKGROUND

In its April 26, 2012 CDM Guidelines, the OEB recognizes that a portion of the aggregate electricity demand target was intended to be attributable to savings achieved through the implementation of TOU Pricing. The OEB establishes TOU prices and has made the implementation of this pricing mechanism mandatory for distributors. On this basis, the OEB has determined that distributors will not have to file a Board-Approved CDM program application regarding TOU pricing. The OEB has deemed the implementation of TOU pricing to be a Board-Approved CDM program for the purposes of achieving the CDM targets. The costs associated with the implementation of TOU pricing are recoverable through distribution rates, and not through the Global Adjustment Mechanism (“GAM”).

In accordance with a Directive dated March 31, 2010 by the Minister of Energy and Infrastructure, the OEB is of the view that any evaluations of savings from TOU pricing should be conducted by the Ontario Power Authority (“OPA”) for the province, and then allocated to distributors. Milton Hydro will report these results upon receipt from the OPA. As of September 30, 2012, the OPA has not released its preliminary results of TOU savings to distributors. Therefore Milton Hydro is not able to provide any verified savings related to Milton Hydro’s TOU program at this time.

### 1.2.2 TOU PROGRAM DESCRIPTION

**Target Customer Types:** Residential and small business customers (up to 250,000 kWh per year).

**Initiative Frequency:** Year round

**Objectives:** TOU pricing is designed to incent the shifting of energy usage. Therefore peak demand reductions are expected, and energy conservation benefits may also be realized.

**Description:** In August of 2010, the OEB issued a final determination to mandate TOU pricing for Regulated Price Plan (“RPP”) customers by June 2011, in order to support the Government’s expectation for 3.6 million RPP consumers to be on TOU pricing by June 2011, and to ensure that smart meters funded at ratepayer expense are being used for their intended purpose.

The RPP TOU price is adjusted twice annually by the OEB. A summary of the RPP TOU pricing is provided below:

<b>RPP TOU Effective Date</b>	<b>Rates (cents/kWh)</b>		
	<b>On Peak</b>	<b>Mid Peak</b>	<b>Off Peak</b>
November 1, 2010	9.9	8.1	5.1
May 1, 2011	10.7	8.9	5.9
November 1, 2011	10.8	9.2	6.2
May 1, 2012	11.7	10.0	6.5

**Delivery:** The OEB sets the rates; LDCs install and maintain the smart meters; LDCs convert customers to TOU billing.

**Initiative Activities/Progress:**

Milton Hydro was one of the first LDC's to commit to the philosophy of TOU pricing. As such it began transitioning its RPP customers to TOU billing in October, 2005. Prior to January 2011, 100% of Milton Hydro's RPP customers were on TOU billing.

### **1.3 Milton Hydro's Application with the OEB**

Milton Hydro has not made an application to the OEB for Board-Approved CDM Programs.

## 2 OPA-Contracted Province-Wide CDM Programs

### 2.1 Introduction

Effective January 1, 2011, Milton Hydro entered into an agreement with the OPA to deliver CDM programs extending from January 1, 2011 to December 31, 2014. The Initiatives for each program are listed below. In addition, results will be reported from projects started pre-2011 that were completed in 2011:

Initiative	Schedule	Date schedule posted	Customer Class
<b>Residential Program</b>			
Appliance Retirement	Schedule B-1, Exhibit D	Jan 26 2011	All residential rate classes
Appliance Exchange	Schedule B-1, Exhibit E	Jan 26 2011	All residential rate classes
HVAC Incentives	Schedule B-1, Exhibit B	Jan 26 2011	All residential rate classes
Conservation Instant Coupon Booklet	Schedule B-1, Exhibit A	Jan 26 2011	All residential rate classes
Bi-Annual Retailer Event	Schedule B-1, Exhibit C	Jan 26 2011	All residential rate classes
Retailer Co-op		Jan 26 2011	All residential rate classes
Residential Demand Response	Schedule B-3	Aug 22 2011	All general service classes
New Construction Program	Schedule B-2	Jan 26 2011	All residential rate classes
<b>Commercial &amp; Institutional Program</b>			
Efficiency: Equipment Replacement	Schedule C-2	Jan 26 2011	All general service classes
Direct Install Lighting	Schedule C-3	Jan 26 2011	General Service < 50 kW
Existing Building Commissioning Incentive	Schedule C-6	Feb2011	All general service classes
New Construction and Major Renovation Initiative	Schedule C-4	Feb 2011	All general service classes
Energy Audit	Schedule C-1	Jan 26, 2011	All general service classes
Commercial Demand Response (part of the Residential program schedule)	Schedule B-3	Jan 26, 2011	All general service classes
Demand Response 3 (part of the Industrial program schedule)	Schedule D-6	May 31, 2011	General Service 50 kW & above

<b>Industrial Program</b>			
Process & System Upgrades	Schedule D-1	May 31, 2011	General Service 50 kW & above
Monitoring & Targeting	Schedule D-2	May 31, 2011	General Service 50 kW & above
Energy Manager	Schedule D-3	May 31, 2011	General Service 50 kW & above
Key Account Manager (KAM)	Schedule D-4	May 31, 2011	General Service 50 kW & above
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	Schedule C-2	May 31, 2011	General Service 50 kW & above
Demand Response 3	Schedule D-6	May 31, 2011	General Service 50 kW & above
<b>Home Assistance Program</b>			
Home Assistance Program	Schedule E-1	May 9, 2011	All residential rate classes
<b>Pre-2011 Programs completed in 2011</b>			
Electricity Retrofit Incentive Program	n/a	n/a	All general service classes

Several Initiatives that were included in the schedules were not in market in 2011. The OPA has communicated that the Initiatives listed in the table below were not in market in 2011 and that they represent a very small percentage\* of the forecasted energy and demand savings. During the 2011 program year, the OPA placed emphasis on supporting the implementation of Initiatives that would offer the greatest ratepayer value and greatest amount of persisting savings.

<b>Initiative Not in Market in 2011</b>	<b>Objective</b>	<b>Status</b>
<b>Residential Program</b>		
Midstream Electronics	The objective of this initiative is to encourage retailers to promote, and sell, high efficiency televisions, and for distributors to distribute high efficiency set top boxes.	Not launched to market
Midstream Pool Equipment	The objective of this Initiative is to encourage pool installers to sell and install efficient pool pump equipment in residential in-ground pools.	Not launched to market
First Nations Program	First Nations programs are delivered by the OPA and results are attributed to LDCs for reporting.	Not launched to market
Home Energy Audit Tool	This is a provincial online audit tool to engage customers in conservation and help drive customer participation to CDM programs.	Not launched to market
<b>Commercial &amp; Institutional Program</b>		
Direct Service Space Cooling	The objective of this Initiative is to offer free servicing of air conditioning systems and refrigeration units for the purpose of achieving energy savings and demand reduction.	Not launched to market in 2011. As per the OPA, there are no plans to launch this Initiative 2012.
Demand Response 1 (DR1)	This Initiative allows distribution customers to voluntarily reduce electricity demand during certain periods of the year pursuant to the DR 1 contract. The Initiative provides DR payment for the actual electricity reduction provided during a demand response event.	No customer uptake for this Initiative
<b>Industrial Program</b>		
Demand Response 1 (DR1)	As above	No customer uptake for this Initiative

The Master CDM Program Agreement includes a program change management provisions in Article 3. Collaboration between the OPA and the Local Distribution Companies (“LDCs”) commenced in 2011 as the change management process was implemented to enhance the saveONenergy program suite. The change management process allows for modifications to the Master Service Agreement and Initiative Schedules. The program enhancements give LDCs additional tools and greater flexibility to deliver programs in a way that meets the needs of customers and further drives participation in the Initiatives.

## 2.2 Program Descriptions

This section sets out the OPA-Contracted Province-Wide CDM Programs and Initiatives that are being offered in Milton Hydro's service area including the targeted customer type(s), the objectives, activities and lessons learned.

### 2.2.1 RESIDENTIAL PROGRAM

#### 2.2.1.1 APPLIANCE RETIREMENT INITIATIVE (Exhibit D)

**Target Customer Type(s):** Residential Customers

**Initiative Frequency:** Year round

**Objectives:** Achieve energy and demand savings by permanently decommissioning certain older inefficient refrigeration appliances.

**Description:** This is an energy efficiency Initiative that offers individuals and businesses free pick-up and decommissioning of old large refrigerators and freezers. Window air conditioners and portable dehumidifiers will also be picked up if a refrigerator or a freezer is being collected.

**Targeted End Uses:** Large refrigerators, large freezers, window air conditioners and portable dehumidifiers.

**Delivery:** OPA centrally contracts for the province-wide marketing, call centre operations, appliance pick-up and decommissioning process. Milton Hydro provides local marketing.

Additional detail is available:

- Schedule B-1, Exhibit D  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricty\\_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricty_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf)and
- Saveonenergy website <https://saveonenergy.ca/Consumer/Programs/Appliance-Retirement.aspx>

**Initiative Activities/Progress:** During 2011, 172 appliances were picked up yielding a net contribution to targets of 9 kW and 283,759 kWh. The expectation was for 350 appliances based on OPA standard models for the province.

**In Market Date:** Milton Hydro began offering this program on February 18, 2011.

**Lessons Learned:**

- The Appliance Retirement Initiative (previously The Great Refrigerator Round-Up) has been offered by LDCs since 2007. This Initiative is approaching market saturation. This is especially true in the Milton Hydro area which has grown from 9,700 residential customers in 2001 to

26,600 customers at the end of 2010 and therefore does not have the normal base of older appliances to draw upon. The pick-ups in 2011 were less than in prior years.

- While the OPA and the LDCs have reviewed this Initiative to assess whether to include other products, appliances have a natural life cycle and the Initiative cannot be expected to continually deliver the high level of results in perpetuity.
- The Region of Halton is a competitor for this service as it offers free pick-up of appliances.
- Results are very responsive to province wide advertising.
- The net-to-gross ratio is almost 50%.

#### 2.2.1.2 APPLIANCE EXCHANGE INITIATIVE (Exhibit E)

**Target Customer Type(s):** Residential Customers

**Initiative Frequency:** Spring and Fall

**Objective:** The objective of this Initiative is to remove and permanently decommission older, inefficient window air conditioners and portable dehumidifiers.

**Description:** This Initiative involves appliance exchange events. Exchange events are held at local retail locations and customers are encouraged to bring in their old room air conditioners (AC) and dehumidifiers in exchange for coupons/discounts towards the purchase of new energy efficient equipment.

**Targeted End Uses:** Window air conditioners and portable dehumidifiers

**Delivery:** OPA contracts with participating retailers for collection of eligible units.

Additional detail is available:

- Schedule B-1, Exhibit C  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf) and
- Saveonenergy website <https://saveonenergy.ca/Consumer.aspx>

**Initiative Activities/Progress:** During 2011, 20 units were exchanged yielding a net contribution to targets of 2 kW and energy savings of 13,067 kWh. The expectation was for 25 exchanged units yielding a demand savings of 6 kW.

**In Market Date:** Milton Hydro began offering this program on February 18, 2011.

**Lessons Learned:**

- The spring event had the participation of 3 retailers with 300 – 400 locations across the province. However, the Fall 2011 event had no retailer participation, therefore savings budgeted by the LDCs did not materialize.
- Evaluation, Measurement, and Verification (“EMV”) results indicated that the value of savings for retired room AC has dropped.
- The Initiative may be achieving market saturation.
- The type of unit turned in is very dependent upon what is promoted by the retailers.

**2.2.1.3 HVAC INCENTIVES INITIATIVE (Exhibit B)****Target Customer Type(s):** Residential Customers**Initiative Frequency:** Year round**Objective:** The objective of this Initiative is to encourage the replacement of existing heating systems with high efficiency furnaces equipped with Electronically Commutated Motors (“ECM”), and to replace existing central air conditioners with ENERGY STAR qualified systems and products.**Description:** This is an energy efficiency Initiative that provides rebates for the replacement of old heating or cooling systems with high efficiency furnaces (equipped with ECM) and Energy Star qualified central air conditioners by approved Heating, Refrigeration, and Air Conditioning Institute (“HRAI”) qualified contractors.**Targeted End Uses:** Central air conditioners and furnaces**Delivery:** OPA contracts centrally for delivery of the program. LDCs provide local marketing and encourage local contractors to participate in the Initiative.

Additional detail is available:

- Schedule B-1, Exhibit B  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf) and
- Saveonenergy website <https://saveonenergy.ca/Consumer.aspx>

**Initiative Activities/Progress:** During 2011, 381 units were replaced, yielding a net contribution to targets of 103 kW and 747,740 kWh. The expectation was for 143 exchanged units yielding a demand savings of 17 kW. The mix of measures has yielded much more kW savings per measure than anticipated.**In Market Date:** Milton Hydro began offering this program on February 18, 2011. There are currently 9 local contractors on the OPA’s approved contractor listing.

**Lessons Learned:**

- Channel engagement is a highly effective method of connecting with customers; however channel partners require timeliness of the Rebate process to maintain a positive relationship between consumers, contractors, the OPA, and the participating LDC.
- There appears to be spillover from non-HRAI contractors who are ineligible for this Initiative. There are cases where smaller independent contractors are offering their own incentives (by discounting their installations to match value of the OPA incentive) to make the sale. As this occurs outside of the Initiative, these installations not being attributed to any LDC.

**2.2.1.4 CONSERVATION INSTANT COUPON BOOKLET INITIATIVE (Exhibit A)****Target Customer Type(s):** Residential Customers**Initiative Frequency:** Year round in 2011**Objective:** The objective of this Initiative is to encourage households to purchase energy efficient products by offering discounts.**Description:** This Initiative provides customers with year round coupons. The coupons offer instant rebates towards the purchase of a variety of low cost, easy to install energy efficient measures and can be redeemed at participating retailers. Booklets were directly mailed to customers and were also available at point-of-purchase and at Milton Hydro's offices. Downloadable coupons were also available at [www.saveonenergy.ca](http://www.saveonenergy.ca).**Targeted End Uses:** ENERGY STAR® qualified standard compact fluorescent lights ("CFLs"), ENERGY STAR® qualified light fixtures, lighting control products, weatherstripping, hot water pipe wrap, electric water heater blanket, heavy duty plug-in timers, advanced power bars, clothesline, baseboard programmable thermostats.**Delivery:** The OPA contracts centrally for the distribution of the coupon booklets across Ontario. LDCs distribute coupons at local events and market the Initiative locally. The OPA enters into agreements with retailers to honour the coupons.

Additional detail is available:

- Schedule B-1, Exhibit A  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf) and
- Saveonenergy website <https://saveonenergy.ca/Consumer.aspx>

**Initiative Activities/Progress:** 4,310 products were purchased using the coupons. Net contribution to targets was 9 kW and 624,509 kWh.

**In Market Date:** Milton Hydro began offering this program on February 18, 2011.

**Lessons Learned:**

- The downloadable coupons proved to be more successful than the mailed out booklets.
- The Bi-Annual Retailer Event yielded more coupon redemptions and products purchased even though it “ran” for a fraction of the time. This may indicate that concentrating on Retailer events might provide a better return and more energy conservation.
- This Initiative may benefit from an enabler such as a Conservation Card / Loyalty Card to increase customer participation.
- The Product list should, at the very least, offer some different products from those offered by the Bi-Annual Retailer Event Initiative in order to gain more consumer interest and uptake.
- Program evolution, including new products (for example, LED lighting) and review of incentive pricing for the coupon Initiatives, should be a regular activity to ensure continued consumer interest.
- Retailer staff may need training in what constitutes a specialty CFL product versus a regular CFL.

2.2.1.5 BI-ANNUAL RETAILER EVENT INITIATIVE (Exhibit C)

**Target Customer Type(s):** Residential Customers

**Initiative Frequency:** Bi-annual events

**Objective:** The objective of this Initiative is to provide instant point of purchase discounts to individuals at participating retailers for a variety of energy efficient products.

**Description:** Twice a year (Spring and Fall), participating retailers host month-long rebate events. During the months of April and October, customers are encouraged to visit participating retailers where they can find coupons redeemable for instant rebates towards a variety of low cost, easy to install energy efficient measures.

**Targeted End Uses:** ENERGY STAR® qualified standard CFLs, ENERGY STAR® qualified light fixtures, lighting control products, weatherstripping, hot water pipe wrap, electric water heater blanket, heavy duty plug-in timers, advanced power bars, clothesline, baseboard programmable thermostats.

**Delivery:** The OPA enters into arrangements with participating retailers to promote the discounted products, and to post and honour related coupons.

Additional detail is available:

- Schedule B-1, Exhibit C  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf) and
- Saveonenergy website <https://saveonenergy.ca/Consumer.aspx>

**Initiative Activities/Progress:** 4,957 products were purchased using the coupons. Net contribution to targets was 10 kW and 669,504 kWh.

**In Market Date:** February 18, 2011

**Lessons Learned:**

- The Product list has changed very little over the past four years and this could lead to retailer and consumer fatigue.
- The Bi-Annual Retailer Event yielded more coupon redemptions and products purchased even though it “ran” for a fraction of the time. This may indicate that concentrating on Retailer events would provide a better return and more energy conservation.
- Program evolution, including new products (for example, LED lighting) and review of incentive pricing for the coupon Initiatives, must be a regular activity to ensure continued consumer interest.
- The Product list should, at the very least, offer some different products from those offered by the Conservation Instant Coupon Booklet Initiative in order to gain more consumer interest and uptake.
- A review conducted by the Residential Working Group in Q4 2011 identified three areas of need for Initiative evolution: 1) introduction of product focused marketing; 2) enhanced product selection and 3) improved training for retailers.

2.2.1.6 RETAILER CO-OP

**Target Customer Type(s):** Residential Customers

**Initiative Frequency:** Year round

**Objective:** Hold promotional events to encourage customers to purchase energy efficiency measures (and go above-and-beyond the traditional Bi-Annual Coupon Events).

**Description:** The Retailer Co-op funding provides LDCs with the opportunity to work with retailers in their service area by holding special events at retail locations. These events are typically special promotions that encourage customers to purchase energy efficiency measures (and go above-and-beyond the traditional Bi-Annual Coupon Events).

**Targeted End Uses:** As per the Conservation Instant Coupon Booklet Initiative

**Delivery:** Retailers apply to the OPA for co-op funding to run special promotions that promote energy efficiency to customers in their stores. LDCs can refer retailers to the OPA. The OPA provides each LDC with a list of retailers who have qualified for Co-Op Funding as well as details of the proposed special events.

**Initiative Activities/Progress:** Milton Hydro did not actively participate in this initiative in 2011.

**In Market Date:** Not applicable.

**Lessons Learned:**

- The provincial uptake of only 152 units under this initiative in 2011 indicates problems with the introduction and execution of this program.

#### 2.2.1.7 NEW CONSTRUCTION PROGRAM (Schedule B-2)

**Target Customer Type(s):** Residential Customers

**Initiative Frequency:** Year round

**Objective:** The objective of this Initiative is to provide incentives to participants for the purpose of promoting the construction of energy efficient residential homes in the Province of Ontario.

**Description:** This is an energy efficiency Initiative that provides incentives to homebuilders for constructing new homes that are efficient, smart, and integrated (applicable to new single family dwellings). Incentives are provided in two key categories as follows:

- Incentives for homebuilders who install electricity efficiency measures as determined by a prescriptive list or via a custom option.
- Incentives for homebuilders who meet or exceed aggressive efficiency standards using the EnerGuide performance rating system.

**Targeted End Uses:** All-off switch, ECM motors, ENERGY STAR qualified central a/c, lighting control products, lighting fixtures, Energuide 83 whole homes, Energuide 85 whole homes.

**Delivery:** Local engagement of builders will be the responsibility of the LDC and will be supported by OPA air coverage driving builders to their LDC for additional information.

Additional detail is available:

- Schedule B-1, Exhibit C  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20B-2%20New%20Construction%20Program.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-2%20New%20Construction%20Program.pdf) and
- Saveonenergy website <https://saveonenergy.ca/Consumer.aspx>

**Initiative Activities/Progress:** There were no participants for this initiative in 2011.

**In Market Date:** This initiative was made available as of February 18, 2011.

**Lessons Learned:**

- There were only a limited number (7) of participants in the program. Because the online application system is a one-to-one relationship, this program was only practical for custom builders who were building one home at a time. Tract builders who might build 250 homes in a single phase would have to submit 250 applications to qualify for incentives. This administrative challenge has deterred all tract builders from participating in the program to date.
- Many homebuilders in the GTA area are active in many different LDCs, making it difficult for a smaller LDC to influence corporate decision making. In addition, conversations with homebuilders indicate that customers are usually trying to get the best price on a new home which excludes costly energy-saving options from being selected. It may be more efficient and less costly to the industry to specify desired energy efficient measures in the Ontario Building Code. This would allow manufacturers and homebuilders the economies of scale required to reduce prices for energy efficient measures and would deliver energy savings for every new house.
- Administrative requirements must align with perceived stakeholder payback. Changes are being processed through change management for 2012.

2.2.1.8 RESIDENTIAL DEMAND RESPONSE PROGRAM (Schedule B-3)

**Target Customer Type(s):** Residential and Small Commercial Customers

**Initiative Frequency:** Year round

**Objective:** The objectives of this Initiative are to enhance the reliability of the IESO-controlled grid by accessing and aggregating specified residential and small commercial end uses for the purpose of load reduction, increasing consumer awareness of the importance of reducing summer demand and providing consumers their current electricity consumption and associated costs.

**Description:** In *peaksaver*PLUS™ participants are eligible to receive a free programmable thermostat or switch, including installation. Participants also receive access to price and real-time consumption information on an In Home Display (“IHD”). LDCs were given the choice to continue to offer the standard load control program (programmable thermostat or switch with a \$25 bill credit) for the first 8 months of 2011 (referred to as *peaksaver*®Extension). After August 2011, the Extension ended and the program (including marketing) ceased until new IHD product were available.

**Targeted End Uses:** Central air conditioning, electric hot water heaters and pool pumps

**Delivery:** LDC’s recruit customers and procure technology

Additional detail is available:

- Schedule B-1, Exhibit C  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/SCHED\\_2011\\_ResDR\\_B\\_3\\_110727%28MJB%29v15\\_redacted.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/SCHED_2011_ResDR_B_3_110727%28MJB%29v15_redacted.pdf) and
- Saveonenergy website <https://saveonenergy.ca/Consumer.aspx>

**Initiative Activities/Progress:** Milton Hydro’s meter supplier has not yet delivered the software required to communicate with the selected In Home Display Unit/Thermostat and therefore this initiative has not yet been offered to customers. The OPA is working with the supplier in an effort to expedite delivery.

**In Market Date:** This Initiative has not yet been actively offered in Milton.

**Lessons Learned:**

- The schedule for Peaksaver Plus was posted in August 2011, but this did not provide adequate time for product procurement for 2011, and part of 2012. The product procurement process uncovered that the In Home Display units that communicate with installed smart meter technology were still in development and not ready for market deployment. In Milton Hydro’s case, the In Home Display unit is ready but the smart meter requires the ability to communicate with it. Consequently, Milton Hydro could not go to its market with the Peaksaver Plus program in 2011.
- Introduction of new technology requires incentives for the development of such technology. Appropriate lead times for LDC analysis and assessment, product procurement, and testing and integration into the Smart Meter environment are also required. Making seemingly minor changes to provincial technical specifications can create significant issues when all LDCs attempt to implement the solution in their individual environments.
- Where a provincial solution is not available to all participants, attention to addressing specific LDC concerns is needed.

## 2.2.2 COMMERCIAL AND INSTITUTIONAL PROGRAM

### 2.2.2.1 EFFICIENCY: EQUIPMENT REPLACEMENT INCENTIVE (“ERII”) (Schedule C-2)

**Target Customer Type(s):** Commercial, Institutional, Agricultural and Industrial Customers

**Initiative Frequency:** Year round

**Objective:** The objective of this Initiative is to offer incentives to non-residential distribution customers to achieve reductions in electricity demand and consumption by upgrading to more energy efficient equipment for lighting, space cooling, ventilation and other measures.

**Description:** The ERII offers financial incentives to customers for the upgrade of existing equipment to energy efficient equipment. Upgrade projects can be classified into either: 1) prescriptive projects where prescribed measures replace associated required base case equipment; 2) engineered projects where energy and demand savings and incentives are calculated for associated measures; or 3) custom projects for other energy efficiency upgrades.

**Targeted End Uses:** Lighting, space cooling, ventilation and other measures.

**Delivery:** LDC delivered.

Additional detail is available:

- Schedule C-2  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20C-2%20ERII%20Initiative.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20C-2%20ERII%20Initiative.pdf) and
- Saveonenergy website <https://saveonenergy.ca/Business/Program-Overviews/Retrofit-for-Commercial.aspx>

**Initiative Activities/Progress:** 12 projects were completed during 2011. Net contribution to targets was 132 kW and 2,979,944 kWh. Towards the end 2010, there was a great deal of uncertainty as to the nature of the 2011 follow-on initiative and the related incentives. The uncertainty led many companies to submit applications under the 2010 ERIP program, thereby shifting many potential 2011 projects to the old program.

**In Market Date:** Milton Hydro began offering this initiative on February 18, 2011.

**Lessons Learned:**

- ERII (previously Equipment Replacement Incentive Program – ERIP) has been offered by LDCs for many years. It is a high performing, cost-effective program, and there were many pre-2011 projects completing in 2011 (via ERIP).
- A major challenge for the ERII program in 2011 was payment delays. The centralized electronic processes were not ready as required by the Master Agreement. The lack of having these automated processes, exasperated by a greater than expected volume of pre-2011 projects completing in 2011, caused considerable payment delays. Based on the lessons learned in the 2011 process, the centralized process review used for 2012 project payment has been streamlined.
- In March 2011, the revised iCON system was launched by the OPA. This is the major online application system implemented to aid the 2011-2014 ERII application process. With system applications of this size and functionality, it was expected that there would be various issues identified at the time of the release, and on-going. Unfortunately, the resolution of these issues, with the corresponding time lags and workarounds, was seen to be a barrier to some customer participation in the 2011 program year. In addition, there were also on-going issues and limitations with the back-end CRM system that affected LDCs ability to effectively review and

approve applications. Some LDCs (and their third party service providers) have developed parallel systems to monitor their applications.

#### 2.2.2.2 DIRECT INSTALL INITIATIVE (“DIL”) (Schedule C-3)

**Target Customer Type(s):** Small Commercial, Institutional, Agricultural facilities and multi-family buildings

**Initiative Frequency:** Year round

**Objective:** The objective of this Initiative is to offer a free installation of eligible lighting and water heating measures of up to \$1,000 to eligible owners and tenants of commercial, institutional, agricultural and multi-family facilities, for the purpose of achieving electricity and peak demand savings.

**Description:** The Direct Install Lighting Initiative targets customers in the General Service <50kW account category. This Initiative offers turnkey lighting and electric hot water heater measures with a value up to \$1,000 at no cost to qualifying small businesses. In addition, standard prescriptive incentives are available for eligible equipment beyond the initial \$1,000 limit.

**Target End Uses:** Lighting and electric water heating measures

**Delivery:** Participants can enroll directly with the LDC, or would be contacted by the LDC/LDC-designated representative.

Additional detail is available:

- Schedule C-3  
<http://www.powerauthority.on.ca/sites/default/files/page/Schedule%20C-3%20Direct%20Install%20Initiative%20-%20redacted.pdf> and
- Saveonenergy website <https://saveonenergy.ca/Business.aspx>

**Initiative Activities/Progress:** Only 8 projects were installed in 2011. Net contribution to targets was 10 kW and 103,530 kWh. As mentioned below, this program has been in the market for a number of years. Milton Hydro and its contractor aggressively promoted this program in 2008 and 2009 with the result that almost all qualifying and interested customers participated in the program by the end of the 2010 program year. Milton Hydro is also limited with respect to this program because many qualifying general service customers are in premises built with the more modern T8 lighting rather than the T12 lights this initiative is aimed at.

**In Market Date:** Milton Hydro began offering this initiative on February 18, 2011. Milton Hydro’s strategy optimistically projected 107 participants for 2011. The Milton market has now been saturated for this program and it is not economical to use sales staff in active pursuit of leads; instead the incentives are offered to those making enquiries regarding the initiative.

**Lessons Learned:**

- The Direct Install Lighting Initiative is a continuation of the Power Saving Blitz Initiative offered by LDCs from 2008-2010. Successful execution of the previous rendition of this Initiative has resulted in diminished potential for the 2011-2014 Initiative in some LDC territories.
- The inclusion of a standard incentive for additional measures increased project size and drove higher energy and demand savings results in some situations.
- Due to backlogs in the payment system, participant incentive payment from the OPA to the LDC, and therefore to the customer, was commonly delayed.
- To address these issues, the LDCs have been working with the OPA through Change Management to address:
  - extending the target Initiative population to include small agricultural customers;
  - increasing the incentive envelope of \$1,000 to \$1,500 to ensure ongoing marketability of the program; and
  - reviewing the eligible measure price list to support contractor participation.

**2.2.2.3 EXISTING BUILDING COMMISSIONING INCENTIVE INITIATIVE (Schedule C-6)**

**Target Customer Type(s):** Commercial, Institutional, and Agricultural Customers

**Initiative Frequency:** Year round

**Objective:** The objective of this Initiative is to offer incentives for optimizing (but not replacing) existing chilled water systems for space cooling in non-residential facilities for the purpose of achieving implementation phase energy savings, implementation phase demand savings, or both.

**Description:** This Initiative offers Participants incentives for the following:

- scoping study phase
- investigation phase
- implementation phase
- hand off/completion phase

**Targeted End Uses:** Chilled water systems for space cooling

**Delivery:** LDC delivered.

Additional detail is available:

- Schedule C-6  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20C-6%20Commissioning%20Initiative.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20C-6%20Commissioning%20Initiative.pdf)and

- Saveonenergy website <https://saveonenergy.ca/Business/Program-Overviews/Existing-Building-Commissioning.aspx>

**Initiative Activities/Progress:** No projects were undertaken for this initiative, as was the case in the province as a whole.

**In Market Date:** This initiative was made available as of February 18, 2011.

**Lessons Learned:**

- There was no customer uptake for this Initiative. It is suspected that the lack of participation in the program is a result of the Initiative being limited to space cooling. Accordingly chilled water systems used for other purposes should be made eligible and considered through Change Management.
- The customer expectation is that the program be expanded to include a broader range of measures for a more holistic approach to building re-commissioning.

2.2.2.4 NEW CONSTRUCTION AND MAJOR RENOVATION INITIATIVE (“HPNC”) (Schedule C-4)

**Target Customer Type(s):** Commercial, Institutional, Agricultural and Industrial Customers

**Initiative Frequency:** Year round

**Objective:** The objective of this Initiative is to encourage builders of commercial, institutional, and industrial buildings (including multi-family buildings and agricultural facilities) to reduce electricity demand and/or consumption by designing and building new buildings with more energy-efficient equipment and systems for lighting, space cooling, ventilation and other Measures.

**Description:** The New Construction Initiative provides incentives for new buildings to exceed existing codes and standards for energy efficiency. The Initiative uses both a prescriptive and custom approach.

**Targeted End Uses:** Building modeling, lighting, space cooling, ventilation and other Measures

**Delivery:** LDC delivers to customers and design decision makers.

Additional detail is available:

- Schedule C-4  
<http://www.powerauthority.on.ca/sites/default/files/page/ScheduleC-4NewConstructionInitiativeV2.pdf> and
- Saveonenergy website <https://saveonenergy.ca/Business/Program-Overviews/New-Construction.aspx>

**Initiative Activities/Progress:** There were no participants in this program for 2011.

**In Market Date:** This program was made available to customers on February 18, 2011.

**Lessons Learned:**

- This is a continuation of the High Performance New Construction program previously delivered by Enbridge Gas under contract with the OPA (and subcontracted to Union Gas), which ran until December 2010.
- This initiative is complicated for LDC's to deliver. It may be more practical to regulate more efficient building standards than trying to incent expensive upgrades.
- For 2011, new industry participation was limited due to the delays in redesign of certain aspects of the Initiative such as:
  - 2011 prescriptive incentives needed to be aligned with ERII incentives
  - In the cases of delivering large projects (i.e. custom applications), 2011 participation was limited due to 1) building code changes and 2) level of documentation required.

2.2.2.5 ENERGY AUDIT INITIATIVE (Schedule C-1)

**Target Customer Type(s):** Commercial, Institutional, Agricultural and Industrial Customers

**Initiative Frequency:** Year round

**Objective:** The objective of this Initiative is to offer incentives to owners and lessees of commercial, institutional, multi-family buildings and agricultural facilities for the purpose of undertaking assessments to identify all possible opportunities to reduce electricity demand and consumption within their buildings or premises.

**Description:** This Initiative provides participants incentives for the completion of energy audits of electricity consuming equipment located in the facility. Energy audits include development of energy baselines, use assessments and performance monitoring and reporting.

**Targeted End Uses:** Various

**Delivery:** LDC delivered.

Additional detail is available:

- Schedule C-1  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20C-1%20Energy%20Audit%20Initiative.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20C-1%20Energy%20Audit%20Initiative.pdf) and
- Saveonenergy website <https://saveonenergy.ca/Business/Program-Overviews/Audit-Funding.aspx>

**Initiative Activities/Progress:** No audits were completed in 2011

**In Market Date:** This program was made available to customers on February 18, 2011.

**Lessons Learned:**

- Customer awareness and uptake in 2011 was slow. Audits are ongoing in 2012.
- Customers expect a greater connection with other CDM Initiatives as a result of completing the Energy Audit. The Initiative should be reviewed under Change Management for the means to readily incent Participants with Audits in hand to implement other electricity savings Initiatives.

**2.2.3 INDUSTRIAL PROGRAM****2.2.3.1 PROCESS& SYSTEMS UPGRADES INITIATIVE (“PSUI”) (Schedule D-1)**

**Target Customer Type(s):** Industrial, Commercial, Institutional and Agricultural Customers

**Initiative Frequency:** Year round

**Objectives:** The objectives of this Initiative are to:

- Offer customers capital incentives and enabling Initiatives to assist with the implementation of large projects and project portfolios;
- Implement optimization project in systems which are intrinsically complex and capital intensive; and
- Increase the capability of customers to implement energy management and system optimization projects.

**Description:** PSUI is an energy management Initiative that includes three Initiatives: (preliminary engineering study, detailed engineering study, and project incentive Initiative). The incentives are available to large distribution connected customers with projects or portfolio projects that are expected to generate at least 350 MWh of annualized electricity savings or, in the case of Micro-Projects, 100 MWh of annualized electricity savings. The capital incentive for this Initiative is the lowest of:

- a) \$200/MWh of annualized electricity savings
- b) 70% of project costs
- c) A one year payback

**Targeted End Uses:** Process and systems

**Delivery:** LDC delivered with Key Account Management support, in some cases.

Additional detail is available:

- Schedule D-1  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20D-1%20Process%20and%20Systems%20Upgrades%20Initiative.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20D-1%20Process%20and%20Systems%20Upgrades%20Initiative.pdf) and
- Saveonenergy website <https://saveonenergy.ca/Business.aspx>

**Initiative Activities/Progress:** No projects were undertaken in 2011, but there is activity in 2012.

**In Market Date:** This initiative was offered beginning February 18, 2011.

**Lessons Learned:**

- The PSUI program targets large customers that are undertaking large capital projects. There is typically a long sales cycle for these projects, and then a long project development cycle. As such, results did not appear in 2011. Limited results are expected to appear in 2012. The majority of the results are expected in 2013-2014, with a much reduced benefit to cumulative energy savings targets.
- The OPA retained Technical Reviewer, an integral component of this Initiative, was not in place until late Q4 2011, thereby limiting 2011 program uptake. In 2012, the Technical Reviewer has successfully worked through the project backlog and provided timely project reviews and recommendations.
- Steps are being taken in the 2012 change management process to simplify and streamline the micro-project application process and to allow smaller projects to be directed to the ERII stream.
- Given the size of the projects involved, the contract required for PSUI is a lengthy and complicated document. Attempts are being made through change management in 2012 to simplify the document while still protecting the ratepayer.
- With the considerable customer interest in on-site Load Displacement projects, the Initiative should be reviewed to ensure that these projects may be accepted as part of the PSUI Initiative.

#### 2.2.3.2 MONITORING & TARGETING INITIATIVE (Schedule D-2)

**Target Customer Type(s):** Industrial, Commercial, Institutional and Agricultural Customers

**Initiative Frequency:** Year round

**Objective:** This Initiative offers access to funding for the installation of Monitoring and Targeting systems in order to deliver a minimum savings target at the end of 24 months, and sustained for the term of the M&T Agreement.

**Description:** This Initiative offers customers funding for the installation of a Monitoring and Targeting system to help them understand how their energy consumption might be reduced. A facility energy manager, who regularly oversees energy usage, will now be able to use historical energy consumption performance to analyze and set targets.

**Targeted End Uses:** Process and systems

**Delivery:** LDC delivered with Key Account Management support, in some cases.

Additional detail is available:

- Schedule D-2  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20D-2%20Monitoring%20and%20Targeting%20Initiative.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20D-2%20Monitoring%20and%20Targeting%20Initiative.pdf)  
and
- Saveonenergy website <https://saveonenergy.ca/Business.aspx>

**Initiative Activities/Progress:** No projects were undertaken in 2011.

**In Market Date:** This initiative was offered beginning February 18, 2011.

**Lessons Learned:**

- The M&T Initiative was originally targeted at larger customers with the capacity to review the M&T data. This review requires the customer facility to employ an Energy Manager, or a person with equivalent qualifications, which has been a barrier for some customers. Through the change management process in 2012, changes are being made to both the M&T schedule and ER11 to allow smaller facilities to employ M&T systems.

### 2.2.3.3 ENERGY MANAGER INITIATIVE (Schedule D-3)

**Target Customer Type(s):** Industrial, Commercial, Institutional and Agricultural Customers

**Initiative Frequency:** Year round

**Objective:** The objective of this Initiative is to provide customers and LDCs the opportunity to access funding for the engagement of energy managers in order to deliver a minimum annual savings target.

**Description:** This Initiative provides customers the opportunity to access funding to engage an on-site, full time embedded energy manager, or an off-site roving energy manager who is engaged by the LDC. The role of the energy manager is to take control of the facility's energy use by monitoring performance, leading awareness programs, and identifying opportunities for energy consumption improvement, and spearheading projects. Participants are funded 80% of the embedded energy manager's salary up to \$100,000 plus 80% of the energy manager's actual reasonable expenses incurred up to \$8,000 per year.

Each embedded energy manager has a target of 300 kW/year of energy savings from one or more facilities. LDCs receive funding of up to \$120,000 for a Roving Energy Manager plus \$8,000 for expenses.

**Targeted End Uses:** Process and systems

**Delivery:** LDC delivered with Key Account Management support, in some cases.

Additional detail is available:

- Schedule D-3  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricty\\_contracts/pdfs/Schedule%20D-3%20Energy%20Manager%20Initiative%202011-2014.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricty_contracts/pdfs/Schedule%20D-3%20Energy%20Manager%20Initiative%202011-2014.pdf) and
- Saveonenergy website <https://saveonenergy.ca/Business.aspx>

**Initiative Activities/Progress:** No projects were undertaken in 2011, although there has been an enquiry concerning the initiative in 2012.

**In Market Date:** This initiative was offered beginning February 18, 2011.

**Lessons Learned:**

- The energy managers have proven to be a popular resource.
- At the outset of the initiative, it took longer than expected to set up the energy manager application process.
- Some LDCs are reporting difficulties in hiring capable Roving Energy Managers (“REM”).
- LDCs that are too small to qualify for their own REM, are teaming up with other utilities to hire an REM.

#### 2.2.3.4 KEY ACCOUNT MANAGER (“KAM”) (Schedule D-4)

**Target Customer Type(s):** Industrial, Commercial, Institutional and Agricultural Customers

**Initiative Frequency:** Year round

**Objective:** This Initiative offers LDCs the opportunity to access funding for the employment of a KAM in order to support them in fulfilling their obligations related to the PSUI. The KAM is considered to be a key element in assisting the consumer in overcoming traditional barriers related to energy management and help them achieve savings since the KAM can build relationships and become a significant resource of knowledge to the customer.

**Description:** LDC delivered

**Targeted End Uses:** Process and systems

**Delivery:**

Additional detail is available:

- ScheduleD-4  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/projects\\_programs/pdfs/PSUI%20Initiative%20Schedule%20D-4.Key%20Account%20Manager.20110322.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/projects_programs/pdfs/PSUI%20Initiative%20Schedule%20D-4.Key%20Account%20Manager.20110322.pdf)

**Initiative Activities/Progress:** This initiative was not pursued in 2011.

**In Market Date:** This initiative was available February 18, 2011.

**Lessons Learned:**

- Customers appreciate dealing with a single contact to interface with an LDC, a resource that has both the technical and business background who can communicate easily with the customer and the LDC. Finding this type of skill set has been difficult resulting in longer lead times to acquire the right resource.
- Clear communication is required between LDC staff, delivery agents, KAMs and Energy Managers to ensure customers are not approached multiple times, by multiple individuals and become confused with regards to the programs and their point of contact for the Initiatives.

#### 2.2.3.5 DEMAND RESPONSE 3 (Schedule D-6)

**Target Customer Type(s):** Industrial, Commercial, Institutional and Agricultural Customers

**Initiative Frequency:** Year round

**Objective:** This Initiative provides for Demand Response (“DR”) payments to contracted participants to compensate them for reducing their electricity consumption by a pre-defined amount during a demand response event.

**Description:** Demand Response 3 (“DR3”) is a demand response Initiative for commercial and industrial customers, of 50 kW or greater, to reduce the amount of power being used during certain periods of the year. The DR3 Initiative is a contractual resource that is an economic alternative to procurement of new generation capacity. DR3 comes with specific contractual obligations requiring participants to reduce their use of electricity relative to a baseline when called upon. This Initiative makes payments for participants to be on standby and payments for the actual electricity reduction provided during a demand response event. Participants are scheduled to be on standby approximately 1,600 hours per calendar year for possible dispatch of up to 100 hours or 200 hours within that year depending on the contract.

**Targeted End Uses:** Commercial and Industrial Operations

**Delivery:** DR3 is delivered by Demand Response Providers (“DRPs”), under contract to the OPA. The OPA administers contracts with all DRPs and Direct Participants (who provide in excess of 5 MW of demand response capacity). OPA provides administration including settlement, measurement and verification, and dispatch. LDCs are responsible for local customer outreach and marketing efforts.

Additional detail is available:

- Schedule D-6  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20D-6%20Demand%20Response%203%202011-2014.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20D-6%20Demand%20Response%203%202011-2014.pdf)  
and
- Saveonenergy website <https://saveonenergy.ca/Business.aspx>

**Initiative Activities/Progress:** Milton Hydro has 2 customers enrolled in the DR3 initiative.

**In Market Date:** This initiative was offered beginning February 18, 2011.

**Lessons Learned:**

- Customer data is not provided by the OPA on an individual customer basis due to contractual requirements with the aggregators. LDCs are now approaching the Aggregators individually and working to develop agreements in order to identify potential customers of this Initiative.

#### **2.2.4 LOW INCOME INITIATIVE (HOME ASSISTANCE PROGRAM) (Schedule E)**

**Target Customer Type(s):** Income Qualified Residential Customers

**Initiative Frequency:** Year round

**Objective:** The objective of this Initiative is to offer free installation of energy efficiency measures to income qualified households for the purpose of achieving electricity and peak demand savings.

**Description:** This is a turnkey Initiative for income qualified customers. It offers residents the opportunity to take advantage of free installation of energy efficient measures that improve the comfort of their home, increase efficiency, and help them save money. All eligible customers receive a Basic and Extended Measures Audit, while customers with electric heat also receive a Weatherization Audit. The Initiative is designed to coordinate efforts with gas utilities.

**Targeted End Uses:** End use measures based on results of an audit (i.e. compact fluorescent light bulbs).

**Delivery:** LDC delivered.

Additional detail is available:

- Schedule E  
<http://www.powerauthority.on.ca/sites/default/files/page/Low%20Income%20Schedule%20-%20redacted%20version.pdf>

**Initiative Activities/Progress:** Milton Hydro was not active with this initiative in 2011 but has since launched the program through GreenSaver, which is handling this initiative for a number of LDCs.

**In Market Date:** Due to many of the items mentioned in the Lessons Learned section, this Initiative was not launched until July of 2012.

**Lessons Learned:**

- Difficulty identifying eligible customers.
- This Initiative Schedule was finalized later (May 2011) than the rest of the OPA Initiatives and as a result, in 2011 only 2 LDCs were in market.
- Centralized payment processes were not developed in 2011, but were in place mid-2012. This resulted in some LDCs delaying their launch to market, or for some pulling out of the market until the payment processes were completed.
- The financial scope, complexity, and customer privacy requirements of this Initiative resulted in a lengthy procurement process. Some LDCs must adhere to very transparent procurement processes which meant that delivery of the program did not start in 2011.

## 2.2.5 PRE-2011 PROGRAMS COMPLETED IN 2011

### 2.2.5.1 ELECTRICITY RETROFIT INCENTIVE PROGRAM

**Target Customer Type(s):** Commercial, Institutional, and Agricultural Customers

**Initiative Frequency:** Year round

**Objective:** Refer to section 2.2.2.1

**Description:** Refer to section 2.2.2.1

**Targeted End Uses:** Lighting, space cooling, ventilation and other measures.

**Delivery:** LDC delivered.

**Initiative Activities/Progress:** 14 projects were completed in 2011. Many of these were initiated right at the end of 2010 as customers were unsure if there would be a 2012 program with similar incentives.

**In Market Date:** This initiative was in place in 2010 for projects to be completed by December, 2011.

**Lessons Learned:**

- When follow-up programs are planned to be offered upon the termination of existing programs, it would be more efficient to announce them with enough advance notice to prevent a last-minute rush to apply to the old program. In this case the resources of LDCs and their contractors were strained in December of 2010, and the large number of 2010 projects complicated the reporting and tracking of progress by both the LDCs and OPA.
- Even though the process and projects were very similar to the 2011-2014 Initiative, the combination of the Realization Rate and Net-to-Gross Ratio meant that only 40% of demand and energy savings were credited as contribution to targets.

### 2.2.5.2 HIGH PERFORMANCE NEW CONSTRUCTION

**Target Customer Type(s):** Commercial, Institutional, and Agricultural Customers

**Initiative Frequency:** Year round

**Objective:** Refer to section 2.2.2.4

**Description:** Refer to section 2.2.2.4

**Targeted End Uses:**

**Delivery:** LDC delivered

**Initiative Activities/Progress:** 2 projects were completed in 2011.

**In Market Date:** This initiative was in the market from 2008 to 2010.

**Lesson Learned:**

- Even though the older initiative was similar to the 2011-2014 Initiative, the Net-to-Gross Ratio meant that only 50% of demand and energy savings were credited as contribution to targets.

### 2.2.5.3 TORONTO COMPREHENSIVE INITIATIVE

**Description:** This Initiative is specific to Toronto Hydro's Service Area and therefore is not relevant for Milton Hydro.

#### 2.2.5.4 MULTIFAMILY ENERGY EFFICIENCY REBATES

**Target Customer Type(s):** Multifamily buildings of six units or more, including rental buildings, condominiums, and assisted social housing

**Initiative Frequency:** Year round

**Objective:** Provide financial incentives for prescriptive and custom measures and fund resident education.

**Description:** OPA's Multifamily Energy Efficiency Rebates ("MEER") Initiative applies to multifamily buildings of six units or more, including rental buildings, condominiums, and assisted social housing. The OPA contracted with GreenSaver to deliver the MEER Initiative outside of the Toronto Hydro service territory. Activities delivered in Toronto were contracted with the City.

Similar to ERII and ERIP, MEER provides financial incentives for prescriptive and custom measures, but also funds resident education. Unlike ERII, where incentives are paid by the LDC, all incentives through MEER are paid through the contracted partner (i.e. GreenSaver).

**Targeted End Uses:** Upgrade energy consuming controls, systems and appliances

**Initiative Activities/Progress:** No activity in 2011.

#### 2.2.5.5 DATA CENTRE INCENTIVE PROGRAM

**Description:** This Initiative is specific to Powerstream's Service Area and therefore is not relevant for Milton Hydro.

#### 2.2.5.6 ENWIN GREEN SUITES

**Description:** This Initiative is specific to EnWin's Service Area and therefore is not relevant for Milton Hydro..

## 2.3 Participation

Participation levels (i.e., the number of participants by customer type) for each of the OPA-Contracted Province-Wide CDM Programs that Milton Hydro offered in its service area are as listed in Table 1:

**Table 1: Participation**

Initiative	Activity Unit	Uptake/ Participation Units
<b>Consumer Program</b>		
Appliance Retirement	Appliances	172
Appliance Exchange	Appliances	20
HVAC Incentives	Equipment	381
Conservation Instant Coupon Booklet	Coupons	4,310
Bi-Annual Retailer Event	Coupons	4,957
Retailer Co-op	Items	0
Residential Demand Response	Devices	0
New Construction Program	Houses	0
<b>Business Program</b>		
Efficiency: Equipment Replacement	Projects	3
Direct Installed Lighting	Projects	8
Existing Building Commissioning Incentive	Buildings	0
New Construction and Major Renovation Incentive	Buildings	0
Energy Audit	Audits	0
Commercial Demand Response (part of the Residential program schedule)	Devices	0
Demand Response 3 (part of the Industrial program schedule)	Facilities	1

<b>Industrial Program</b>		
Process & System Upgrades*	Projects	0
a) preliminary engineering study		0
b) detailed engineering study		0
c) project incentive		0
Monitoring & Targeting	Projects	0
Energy Manager	Managers	0
Key Account Manager ("KAM")	Managers	0
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	Projects	9
Demand Response 3	Facilities	1
<b>Home Assistance Program</b>		
Home Assistance Program	Units	0
<b>Pre 2011 Programs Completed in 2011</b>		
Electricity Retrofit Incentive Program	Projects	14
High Performance New Construction	Projects	2
Toronto Comprehensive	Projects	0
Multifamily Energy Efficiency Rebates	Projects	0
Data Centre Incentive Program	Projects	0
EnWin Green Suites	Projects	0

## 2.4 Spending

Milton Hydro spent the following amounts in 2011 on the OPA-Contracted Province-Wide CDM Programs that Milton Hydro offered in its service area.

**Table 2: Spending**

Initiative	Program Administration Budget ("PAB")	Participant Based Funding ("PBF")	Participant Incentives ("PI")	Capability Building Funding ("CBF")	TOTAL
<b>Residential Program</b>	<b>9,524</b>	-	-	-	<b>9,524</b>
Appliance Retirement	2,550				2,550
Appliance Exchange					
HVAC Incentives	2,162				2,162
Conservation Instant Coupon Booklet	1,563				1,563
Bi-Annual Retailer Event	732				732
Retailer Co-op					
Residential Demand Response	2,284				2,284
New Construction Program	233				233
<b>Commercial &amp; Institutional Program</b>	<b>42,194</b>	<b>1,890</b>	<b>7,275</b>	-	<b>51,359</b>
Efficiency: Equipment Replacement	36,617				36,617
Direct Installed Lighting	3,911	1,890	7,275		13,076
Existing Building Commissioning Incentive					
New Construction and Major Renovation Initiative	266				266
Energy Audit	1,400				1,400
Commercial Demand Response (part of the Residential program schedule)					
Demand Response 3 (part of the Industrial program schedule)					
<b>Industrial Program</b>	<b>2,230</b>	-	-	-	<b>2,230</b>
Process & System Upgrades	132				132
a) preliminary engineering study	132				132
b) detailed engineering study					
c) program incentive					
Monitoring & Targeting	133				133
Energy Manager	233				233
Key Account Manager ("KAM")					
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)					
Demand Response 3	1,732				1,732

<b>Home Assistance Program</b>	<b>2,333</b>				<b>2,333</b>
Home Assistance Program	2,333				2,333
<b>Pre 2011 Programs Completed in 2011</b>	<b>-</b>	<b>-</b>	<b>408,162</b>	<b>-</b>	<b>408,162</b>
Electricity Retrofit Incentive Program			408,162		408,162
High Performance New Construction					
Toronto Comprehensive					
Multifamily Energy Efficiency Rebates					
Data Centre Incentive Program					
EnWin Green Suites					
<b>TOTAL Province-wide CDM PROGRAMS</b>	<b>56,281</b>	<b>1,890</b>	<b>415,437</b>	<b>-</b>	<b>473,608</b>

Table 2a: Allocation of PAB funding for Programs Not In Market

<b>Initiative</b>	<b>Program Administration Budget ("PAB")</b>
<b>Initiatives Not In Market</b>	
Midstream Electronics	0
Midstream Pool Equipment	0
Demand Service Space Cooling	0
Demand Response 1 (Commercial)	0
Demand Response 1 (Industrial)	0
Home Energy Audit Tool	0
<b>TOTAL Province-wide</b>	
<b>CDM PROGRAMS Not In Market</b>	

## 2.5 Evaluation

The following Tables provide the detailed EM&V results for each of the Milton Hydro's OPA-Contracted Province-Wide CDM Programs using the OPA EM&V Protocols for peak demand savings (kW) and electricity savings (kWh).

## 2.5.1 EVALUATION FINDINGS

Table 3: Evaluation Findings

Initiative	OPA Province-Wide Key Evaluation Findings
<b>Residential Program</b>	
Appliance Retirement	<ul style="list-style-type: none"> <li>* Overall participation continues to decline year over year</li> <li>* Participation declined 17% from 2010 (from over 67,000 units in 2010 to over 56,000 units in 2011)</li> <li>* 97% of net resource savings achieved through the home pick-up stream</li> <li>* Measure Breakdown: 66% refrigerators, 30% freezers, 4% Dehumidifiers and window air conditioners</li> <li>* 3% of net resource savings achieved through the Retailer pick-up stream</li> <li>* Measure Breakdown: 90% refrigerators, 10% freezers</li> <li>* Net-to-Gross ratio for the initiative was 50%</li> <li>* Measure-level free ridership ranges from 82% for the retailer pick-up stream to 49% for the home pick-up stream</li> <li>* Measure-level spillover ranges from 3.7% for the retailer pick-up stream to 1.7% for the home pick-up stream</li> </ul>
Appliance Exchange	<ul style="list-style-type: none"> <li>* Overall eligible units exchanged declined by 36% from 2010 (from over 5,700 units in 2010 to over 3,600 units in 2011)</li> <li>* Measure Breakdown: 75% window air conditioners, 25% dehumidifiers</li> <li>* Dehumidifiers and window air conditioners contributed almost equally to the net energy savings achieved</li> <li>* Dehumidifiers provide more than three times the energy savings per unit than window air conditioners</li> <li>* Window air conditioners contributed to 64% of the net peak demand savings achieved</li> <li>* Approximately 96% of consumers reported having replaced their exchanged units (as opposed to retiring the unit)</li> <li>* Net-to-Gross ratio for the initiative is consistent with previous evaluations (51.5%)</li> </ul>

HVAC Incentives	<ul style="list-style-type: none"> <li>* Total air conditioner and furnace installations increased by 14% (from over 95,800 units in 2010 to over 111,500 units in 2011)</li> <li>* Measure Breakdown: 64% furnaces, 10% tier 1 air conditioners (“SEER 14.5”) and 26% tier 2 air conditioners (“SEER 15”)</li> <li>* Measure breakdown did not change from 2010 to 2011</li> <li>* The HVAC Incentives initiative continues to deliver the majority of both the energy (45%) and demand (83%) savings in the consumer program</li> <li>* Furnaces accounted for over 91% of energy savings achieved for this initiative</li> <li>* Net-to-Gross ratio for the initiative was 17% higher than 2010 (from 43% in 2010 to 60% in 2011)</li> <li>* Increase due in part to the removal of programmable thermostats from the program, and an increase in the net-to-gross ratio for both Furnaces and Tier 2 air conditioners (“SEER 15”)</li> </ul>
Conservation Instant Coupon Booklet	<ul style="list-style-type: none"> <li>* Customers redeemed nearly 210,000 coupons, translating to nearly 560,000 products</li> <li>* Majority of coupons redeemed were downloadable (~40%) or LDC-branded (~35%)</li> <li>* Majority of coupons redeemed were for multi-packs of standard spiral CFLs (37%), followed by multi-packs of specialty CFLs (17%)</li> <li>* Per unit savings estimates and net-to-gross ratios for 2011 are based on a weighted average of 2009 and 2010 evaluation findings</li> <li>* Careful attention in the 2012 evaluation will be made for standard CFLs since it is believed that the market has largely been transformed</li> </ul>
Bi-Annual Retailer Event	<ul style="list-style-type: none"> <li>* Customers redeemed nearly 370,000 coupons, translating to over 870,000 products</li> <li>* Majority of coupons redeemed were for multi-packs of standard spiral CFLs (49%), followed by multi-packs of specialty CFLs (16%)</li> <li>* Per unit savings estimates and net-to-gross ratios for 2011 are based on a weighted average of 2009 and 2010 evaluation findings</li> <li>* Standard CFLs and heavy duty outdoor timers were reintroduced to the initiative in 2011 and contributed more than 64% of the initiative’s 2011 net annual energy savings</li> <li>* While the volume of coupons redeemed for heavy duty outdoor timers was relatively small (less than 1%), the measure accounted for 10% of net annual savings due to high per unit savings</li> </ul>

	<ul style="list-style-type: none"> <li>* Careful attention in the 2012 evaluation will be made for standard CFLs since it is believed that the market has largely been transformed.</li> </ul>
Retailer Co-op	<ul style="list-style-type: none"> <li>* Initiative was not evaluated in 2011 due to low uptake. Verified Bi-Annual Retailer Event per unit assumptions and free-ridership rates were used to calculate net resource savings</li> </ul>
Residential Demand Response	<ul style="list-style-type: none"> <li>* Approximately 20,000 new devices were installed in 2011 <ul style="list-style-type: none"> <li>* 99% of the new devices enrolled controlled residential central Air Conditioners (“CAC”)</li> </ul> </li> <li>* 2011 only saw 1 atypical event (in both weather and timing) that had limited participation across the province <ul style="list-style-type: none"> <li>* The ex ante impact developed through the 2009/2010 evaluations was maintained for 2011; residential CAC: 0.56 kW/device, commercial CAC: 0.64 kW/device, and Electric Water Heaters: 0.30 kW/device</li> </ul> </li> </ul>
Residential New Construction	<ul style="list-style-type: none"> <li>* Initiative was not evaluated in 2011 due to limited uptake</li> <li>* Business case assumptions were used to calculate savings</li> </ul>
<b>Commercial &amp; Institutional Program</b>	
Efficiency: Equipment Replacement	<ul style="list-style-type: none"> <li>* Gross verified energy savings were boosted by lighting projects in the prescriptive and custom measure tracks</li> <li>* Lighting projects overall were determined to have a realization rate of 112%; 116% when including interactive energy changes <ul style="list-style-type: none"> <li>* On average, the evaluation found high realization rates as a result of both longer operating hours and larger wattage reductions than initial assumptions</li> <li>* Low realization rates for engineered lighting projects due to overstated operating hour assumptions</li> </ul> </li> <li>* Custom non-lighting projects suffered from process issues such as: the absence of required M&amp;V plans, the use of inappropriate assumptions, and the lack of adherence to the M&amp;V plan</li> <li>* The final realization rate for summer peak demand was 94% <ul style="list-style-type: none"> <li>* 84% was a result of different methodologies used to calculate peak demand savings</li> <li>* 10% due to the benefits from reduced air conditioning load in lighting retrofits</li> </ul> </li> <li>* Overall net-to-gross ratios in the low 70’s represent an improvement over the 2009 and 2010 ERIP program where net-to-gross ratios were in the low 60’s and low 50’s, respectively.</li> </ul>

	<p>Strict eligibility requirements and improvements in the pre-approval process contributed to the improvement in net-to-gross ratios</p>
Direct Install Lighting	<ul style="list-style-type: none"> <li>* Though overall performance is above expectations, participation continues to decline year over year as the initiative reaches maturity</li> <li>* 70% of province-wide resource savings persist to 2014 <ul style="list-style-type: none"> <li>* Over 35% of the projects for 2011 included at least one CFL measure</li> <li>* Resource savings from CFLs in the commercial sector only persist for the industry standard of 3 years</li> </ul> </li> <li>* Since 2009 the overall realization rate for this program has improved <ul style="list-style-type: none"> <li>* 2011 evaluation recorded the highest energy realization rate to date at 89.5%</li> <li>* The hours of use values were held constant from the 2010 evaluation and continue to be the main driver of energy realization rate</li> <li>* Lights installed in “as needed” areas (e.g., bathrooms, storage areas) were determined to have very low realization rates due to the difference in actual energy saved vs. reported savings</li> </ul> </li> </ul>
Existing Building Commissioning Incentive	<ul style="list-style-type: none"> <li>* Initiative was not evaluated in 2011, no completed projects in 2011</li> </ul>
New Construction and Major Renovation Incentive	<ul style="list-style-type: none"> <li>* Initiative was not evaluated in 2011 due to low uptake</li> <li>* Assumptions used are consistent with preliminary reporting based on the 2010 Evaluation findings and consultation with the C&amp;I Work Group (100% realization rate and 50% net-to-gross ratio)</li> </ul>
Energy Audit	<ul style="list-style-type: none"> <li>* The evaluation is ongoing. The sample size for 2011 was too small to draw reliable conclusions.</li> </ul>
Commercial Demand Response (part of the Residential program schedule)	<ul style="list-style-type: none"> <li>* See residential demand response (#7)</li> </ul>

Demand Response 3 (part of the Industrial program schedule)	* See Demand Response 3 (#20)
<b>Industrial Program</b>	
Process & System Upgrades	* Initiative was not evaluated in 2011, no completed projects in 2011
Monitoring & Targeting	* Initiative was not evaluated in 2011, no completed projects in 2011
Energy Manager	* Initiative was not evaluated in 2011, no completed projects in 2011
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	* See Efficiency: Equipment Replacement (#9)
Demand Response 3	<ul style="list-style-type: none"> <li>* Program performance for Tier 1 customers increased with DR-3 participants providing 75% of contracted MW for both sectors</li> <li>* Industrial customers outperform commercial customers by provide 84% and 76% of contracted MW, respectively</li> <li>* Program continues to diversify but still remains heavily concentrated with less than 5% of the contributors accounting for the majority (~60%) of the load reductions.</li> <li>* By increasing the number of contributors in each settlement account and implementation of the new baseline methodology the performance of the program is expected to increase</li> </ul>
<b>Home Assistance Program</b>	
Home Assistance Program	<ul style="list-style-type: none"> <li>* Initiative was not evaluated in 2011 due to low uptake</li> <li>* Business Case assumptions were used to calculate savings</li> </ul>
<b>Pre-2011 Programs Completed in 2011</b>	
Electricity Retrofit	* Initiative was not evaluated

Incentive Program	* Net-to-Gross ratios used are consistent with the 2010 evaluation findings (multifamily buildings 99% realization rate and 62% net-to-gross ratio and C&I buildings 77% realization rate and 52% net-to-gross ratio)
High Performance New Construction	* Initiative was not evaluated * Net-to-Gross ratios used are consistent with the 2010 evaluation findings (realization rate of 100% and net-to-gross ratio of 50%)
Toronto Comprehensive	* Initiative was not evaluated * Net-to-Gross ratios used are consistent with the 2010 evaluation findings
Multifamily Energy Efficiency Rebates	* Initiative was not evaluated * Net-to-Gross ratios used are consistent with the 2010 evaluation findings
Data Centre Incentive Program	* Initiative was not evaluated
EnWin Green Suites	* Initiative was not evaluated

2.5.2 EVALUATION RESULTS

Table 4: Evaluation Results

Initiative	Net-to-Gross Ratio		Gross Savings		Net Savings		Contribution to Targets	
	Peak Demand Savings	Energy Savings	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Program-to-Date: Net Annual Peak Demand Savings (kW) in 2014	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (kWh)
<b>Residential Program</b>								
Appliance Retirement	51%	52%	20	141,076	10	71,041	9	283,759
Appliance Exchange	52%	52%	5	6,700	2	3,453	2	13,067
HVAC Incentives	60%	60%	171	312,322	103	186,935	103	747,740
Conservation Instant Coupon Booklet	114%	111%	8	141,621	9	156,127	9	624,509
Bi-Annual Retailer Event	113%	110%	9	153,204	10	167,376	10	669,504
Retailer Co-op	-	-	0	0	0	0	0	0
Residential Demand Response	-	-	0	0	0	0	0	0
Residential New Construction	-	-	0	0	0	0	0	0
<b>Commercial &amp; Institutional Program</b>								
Efficiency: Equipment Replacement	75%	76%	151	807,072	113	613,680	113	2,454,718
Direct Install Lighting	93%	93%	10	27,874	10	25,882	10	103,530
Existing Building Commissioning Incentive	-	-	0	0	0	0	0	0
New Construction and Major Renovation Incentive	-	-	0	0	0	0	0	0
Energy Audit	-	-	0	0	0	0	0	0
Commercial Demand Response (part of the Residential program schedule)	-	-	0	0	0	0	0	0
Demand Response 3 (part of the Industrial program schedule)	n/a	n/a	129	3,820	98	3,820	0	3,820
<b>Industrial Program</b>								

Process & System Upgrades	-	-	0	0	0	0	0	0
Monitoring & Targeting	-	-	0	0	0	0	0	0
Energy Manager	-	-	0	0	0	0	0	0
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	75%	76%	25	171,840	19	131,306	19	525,226
Demand Response 3	n/a	n/a	192	9,498	162	9,498	0	9,498
<b>Home Assistance Program</b>								
Home Assistance Program	-	-	0	0	0	0	0	0
<b>Pre-2011 Programs completed in 2011</b>								
Electricity Retrofit Incentive Program	52%	52%	448	2,142,290	233	1,113,991	233	4,455,964
High Performance New Construction	50%	50%	635	3,260,158	317	1,630,079	317	6,520,316
Toronto Comprehensive	-	-	0	0	0	0	0	0
Multifamily Energy Efficiency Rebates	-	-	0	0	0	0	0	0
Data Centre Incentive Program	-	-	0	0	0	0	0	0
EnWin Green Suites	-	-	0	0	0	0	0	0

*Assumes demand response resources have a persistence of 1 year*

Table 5: Summarized Program Results

Program	Gross Savings		Net Savings		Contribution to Targets	
	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Program-to-Date: Net Annual Peak Demand Savings (kW) in 2014	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (kWh)
Residential Program Total	212	754,924	134	584,932	133	2,338,578
Commercial & Institutional Program Total	290	838,767	221	643,382	123	2,562,068
Industrial Program Total	217	181,338	180	140,805	19	534,724
Home Assistance Program Total	0	0	0	0	0	0
Pre-2011 Programs completed in 2011 Total	1,083	5,402,448	550	2,744,070	550	10,976,280
<b>Total OPA Contracted Province-Wide CDM Programs</b>	<b>1,802</b>	<b>7,177,477</b>	<b>1,085</b>	<b>4,113,188</b>	<b>825</b>	<b>16,411,650</b>

## 2.6 Additional Comments

2011 CDM efforts got off to a slow start as many Initiatives were in “start-up” mode as the OPA finalized Schedules, developed processes, and procured services and resources before the Initiatives could be marketed. The ERI Initiative was particularly slow in getting started due to problems with the application recording website. Uncertainty as to the nature of the Equipment Retrofit program in 2011 and its related incentives encouraged many companies considering applications to rush them in for approval right at the end of 2010. Unfortunately the Realization Rate and Net-to-Gross Ratio applied to 2010 ERIP projects completed in 2011 meant that these projects contributed significantly less savings toward the targets than would have been the case for projects started in 2011.

### 3.1 Progress Toward CDM Targets

#### 3.1.1 SUMMARY

Milton Hydro came close to meeting its net peak demand savings objective for 2011, and if persistence for demand reduction initiatives is factored in, actually exceeded its objective. The energy savings objective was surpassed, with 49% of the cumulative target met versus the 2011 objective of 23%.

**Table 6: Net Peak Demand Savings at the End User Level (MW)**

Implementation Period	Annual (MW)			
	2011	2012	2013	2014
2011 – Verified – no persistence	1.09			0.82
2012				
2013				
2014				
<b>Verified Net Annual Peak Demand Savings in 2014 – No Persistence:</b>				<b>.82</b>
<b>Milton Hydro 2014 Annual CDM Capacity Target:</b>				<b>8.05</b>
<b>Verified Portion of Peak Demand Savings Target Achieved (%):</b>				<b>10.25%</b>
<b>Milton Hydro Strategy, Milestone % submitted for 2011:</b>				<b>11.40%</b>
<b>Verified Net Annual Peak Demand Savings in 2014 – Persistence:</b>				<b>1.09</b>
<b>Verified Portion of Peak Demand Savings Target Achieved (%) - Persistence:</b>				<b>13.48%</b>

**Table 7: Net Energy Savings at the End-User Level (GWh)**

Implementation Period	Annual (GWh)				Cumulative (GWh)
	2011	2012	2013	2014	2011-2014
2011 - Verified	4.11	4.10	4.10	4.10	16.41
2012					
2013					
2014					
<b>Verified Net Cumulative Energy Savings 2011-2014:</b>					<b>16.41</b>
<b>Milton Hydro 2011-2014 Cumulative CDM Energy Target:</b>					<b>33.50</b>
<b>Verified Portion of Cumulative Energy Target Achieved (%):</b>					<b>48.99%</b>
<b>Milton Hydro Strategy, Milestone % submitted for 2011:</b>					<b>22.93%</b>

### 3.2 CDM Strategy Modifications

Milton Hydro is on track to meet its CDM targets. As such it will concentrate on executing its existing strategy to the best of its ability. The introduction of a well-managed Home Assistance Initiative should help generate savings. It is also expected that the OPA measures and assumptions related to Time-of-Use and the *peaksaver*PLUS™ Residential Demand Reduction Initiative will contribute significantly to Milton Hydro’s Conservation and Demand Management targets.