

---

**Hydro 2000 Ltd.**

---

**Conservation and Demand Management  
2011 Annual Report**

**Submitted to:  
Ontario Energy Board**

**Submitted on September 30, 2012**

---

LDC 2011 CDM Annual Report

# TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b> .....	<b>3</b>
<b>BACKGROUND</b> .....	<b>4</b>
<b>1 BOARD-APPROVED CDM PROGRAMS</b> .....	<b>5</b>
1.1 INTRODUCTION.....	5
1.2 TOU PRICING .....	5
1.2.1 BACKGROUND.....	5
1.2.2 TOU PROGRAM DESCRIPTION .....	5
1.3 HYDRO 2000’S APPLICATION WITH THE OEB.....	6
<b>2 OPA-CONTRACTED PROVINCE-WIDE CDM PROGRAMS</b> .....	<b>7</b>
2.1 INTRODUCTION.....	7
2.2 PROGRAM DESCRIPTIONS .....	9
2.2.1 RESIDENTIAL PROGRAM .....	9
2.2.1.1 APPLIANCE RETIREMENT INITIATIVE (Exhibit D).....	9
2.2.1.2 APPLIANCE EXCHANGE INITIATIVE (Exhibit E).....	10
2.2.1.3 HVAC INCENTIVES INITIATIVE (Exhibit B).....	11
2.2.1.4 CONSERVATION INSTANT COUPON BOOKLET INITIATIVE (Exhibit A).....	12
2.2.1.5 BI-ANNUAL RETAILER EVENT INITIATIVE (Exhibit C).....	13
2.2.1.6 NEW CONSTRUCTION PROGRAM (Schedule B-2) .....	14
2.2.1.7 RESIDENTIAL DEMAND RESPONSE PROGRAM (Schedule B-3) .....	16
2.2.2 COMMERCIAL AND INSTITUTIONAL PROGRAM.....	17
2.2.2.1 EFFICIENCY: EQUIPMENT REPLACEMENT INCENTIVE (ERII) (Schedule C-2).....	17
2.2.2.2 DIRECT INSTALL INITIATIVE(DIL) (Schedule C-3) .....	19
2.2.2.3 NEW CONSTRUCTION AND MAJOR RENOVATION INITIATIVE (HPNC) (Schedule C-4) .....	20
2.2.2.4 ENERGY AUDIT INITIATIVE (Schedule C-1).....	21

2.2.3	INDUSTRIAL PROGRAM.....	22
2.2.4	LOW INCOME INITIATIVE (HOME ASSISTANCE PROGRAM) (Schedule E) .....	22
2.2.5	PRE-2011 PROGRAMS COMPLETED IN 2011 .....	22
2.3	PARTICIPATION .....	23
2.4	SPENDING.....	25
2.5	EVALUATION .....	28
2.5.1	EVALUATION FINDINGS .....	28
2.5.2	EVALUATION RESULTS .....	34
2.6	ADDITIONAL COMMENTS.....	37
<b>3</b>	<b>COMBINED CDM REPORTING ELEMENTS .....</b>	<b>38</b>
3.1	PROGRESS TOWARDS CDM TARGETS .....	38
3.2	CDM STRATEGY MODIFICATIONS .....	40

## Executive Summary

In accordance with the Conservation and Demand Management (“CDM”) Code issued on September 16, 2010 (EB-2010-0215), Hydro 2000 Ltd. hereby submits our 2011 Annual Report to the Ontario Energy Board (OEB).

This document outlines the progress made in 2011, by Hydro 2000 Ltd. towards achieving the mandated CDM targets of 1.040 GWh of Energy Savings and 0.190 MW of Summer Peak Demand Savings.

The annual report contains detailed participation levels and evaluation findings and results for each of the OPA-Contracted Province-Wide CDM Programs. These findings are reflective of the results provided by the Ontario Power Authority (OPA) through their Evaluation, Measurement and Verification process (EM &V).

Based on the OPA’s 2011 results, Hydro 2000’s verified portion of Peak Demand Savings Target achieved was 3.61%. Our verified portion of Cumulative Energy Target achieved was 25.78%.

In 2011, Hydro 2000 opted to offer the Province-Wide CDM Programs that best matched the requirements of our customer base. Hydro 2000 employed a variety of marketing and program outreach campaigns to promote the various initiatives. Door to door promotion, education through public meetings, website promotions and one-on-one customer engagement were the primary marketing and advertising campaigns that were launched in 2011.

In 2011, several initiatives that were included in the OPA schedules were not in market. Additional time was also required for a number of initiatives to procure services, and resources before Hydro 2000 could market the initiatives to our customers. In 2011, the OPA did not provide marketing materials and participant agreements in French. In addition the saveONenergy website was only available in English. Customers and contractors that visited the saveONenergy site were discouraged from using the site due to language barriers. Hydro 2000’s customer base is primarily French speaking (93%). The lack of French program materials and on-line tools affected Hydro 2000’s ability to promote and register customers for a number of the OPA’s conservation initiatives.

Since Hydro 2000 has not offered the Direct Install Initiative in the past, we are targeting that 80-90% of our commercial customers will participate in this initiative during the remaining program term (2012-2014). High participation rates for the Direct Install Initiative will assist Hydro 2000 in reaching our CDM targets in the upcoming years.

Based on the reporting results achieved in 2011, Hydro 2000 has no immediate plans to modify our CDM strategy. Moving forward, Hydro 2000 plans to devote more internal resources to the marketing, promotion and delivery of the OPA’s Province-Wide CDM Programs.

Hydro 2000 is pleased with our progress to date towards our mandated CDM targets and we will continue to educate and assist our customers and service partners with the delivery of the OPA’s conservation initiatives.

## 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 license of Hydro 2000 to require Hydro 2000, as a condition of its license, to achieve 1.040GWh of energy savings and 0.190 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 licenses. To comply with the Code requirements, Hydro 2000 submitted its CDM Strategy on October 29, 2010 which provided a high level of description of how Hydro 2000 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 license, 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 Hydro 2000’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 OPA for the province, and then allocated to distributors. Hydro 2000 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 Hydro 2000 is not able to provide any verified savings related to Hydro 2000’s TOU program at this time.

### 1.2.2 TOU PROGRAM DESCRIPTION

**Target Customer Type(s):** 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</b>	<b>Rates (cents/kWh)</b>			
	<b>Effective Date</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:** OEB set rates; LDC installation and maintenance of the meter; LDC converts customers to TOU billing.

**Initiative Activities/Progress:**

All eligible customers were on TOU by billing as of February 1<sup>st</sup>, 2012.

### **1.3 Hydro 2000's Application with the OEB**

In 2011, Hydro 2000 did not apply for any additional OEB Approved CDM programs and all activities were OPA-Contracted-Provincial wide programs.

## 2 OPA-Contracted Province-Wide CDM Programs

### 2.1 Introduction

Effective March 3, 2011, Hydro 2000 entered into an agreement with the OPA to deliver CDM programs extending from January 1, 2011 to December 31, 2014.

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
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
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

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 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. The OPA has no plans to launch this initiative 2012
Demand Response 1	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 service for the actual electricity reduction provided during a demand response event.	No customer uptake for this initiative
<b>Industrial Program</b>		
Demand Response 1	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

### 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 located in Ontario.

**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 province-wide marketing, call centre, appliance pick-up and decommissioning process. LDC provides local marketing and coordination with municipal pick-up where available.

Additional detail is available:

- Schedule B-1, Exhibit D  
[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/Programs/Appliance-Retirement.aspx>

**Initiative Activities/Progress:**

- Promoted the initiative through posters displayed at a number of locations.
- Advertised the initiative through the Hydro 2000 Ltd. website.
- Worked with the township to modifying their website to include information on the Appliance Retirement Initiative.
- Provided training to the township employees on the details of the initiative.
- Trained representatives of the regional government on appliance retirement process for low income buildings.

**In Market Date:** March 3, 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.
- 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. These lower expectations have been taken into account when developing conservation portfolios.
- This initiative now faces some competition from independent retailers and municipalities.
- Results are very responsive to province wide advertising.
- This initiative has been run by the Alfred Plantagenet Township as the “Spring Cleanup Program” over the past ten years. The township would collect appliances from the street and recycle the materials through a contractor. Hydro 2000 approached the township and partnered with them to promote the OPA’s program through their website.

**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 that are in Ontario.**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\\_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.aspx>

**Initiative Activities/Progress:**

- There were no eligible retailers in Hydro 2000's service area. Hydro 2000 sent a utility representative to the nearest participating retailers to encourage them to promote the program and track the participating customers electricity provider.
- The participation uptake was only 5 units for this initiative in 2011, as there were no local retailers participating in this initiative.

**In Market Date:** March 3, 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 and LDCs are encouraged to convince 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\\_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.aspx>

Initiative Activities/Progress:

- Promoted the program to local area contractors.
- Assisted contractors with registration and educated them on available customer incentives for HVAC products.

**In Market Date:** March 3, 2011

**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.
- Small contractors in Hydro 2000's service area found the application process to be time consuming, as they do not have specialized staff to handle the paperwork. Hydro 2000 is only collecting approximately 10% of all HVAC contracts for this initiative.

#### 2.2.1.4 CONSERVATION INSTANT COUPON BOOKLET INITIATIVE (Exhibit A)

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

**Initiative Frequency:** Year round

**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. Downloadable coupons were also available at [www.saveoneenergy.ca](http://www.saveoneenergy.ca).

**Targeted End Uses:** ENERGY STAR® qualified Standard Compact Fluorescent Lights (CFLs), ENERGY STAR® qualified Light Fixtures lighting control products, weather stripping, hot water pipe wrap, electric water heater blanket, heavy duty plug-in Timers, Advanced power bars, clothesline, baseboard programmable thermostats

**Delivery:** OPA contracts centrally for the distribution of the coupon booklets across Ontario. LDC distributes coupons at local events. The OPA enters into agreements with retailers to honor the coupons.

Additional detail is available:

- Schedule B-1, Exhibit A  
[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.aspx>

**Initiative Activities/Progress:**

- Promoted the instant coupon booklet through Hydro 2000's website.
- Attended Public meetings to promote the use of the coupon booklet.
- Approached retailers to promote the initiative (Canadian Tire and Home Hardware).

**In Market Date:** March 3, 2011

**Lessons Learned:**

- The downloadable coupons proved to be more successful than the mailed out booklets.
- This Initiative may benefit from an enabler such as a Conservation Card / Loyalty Card to increase customer participation.
- The timeframe for retailer submission of redeemed coupons vary from retailer to retailer. This delays the results reporting, which in turn limits the OPA and LDC abilities to react and respond to initiative performance or changes in consumer behavior.
- Canadian Tire Rockland kept additional coupons on hand at check out and would let customers know if there were eligible coupons for them to use for their purchases.

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.

**Descriptor:** 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:** Same as the conservation instant coupon booklet initiative

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

Additional detail is available:

- Schedule B-1, Exhibit  
[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:**

- Promoted in-store coupon events through the Hydro 2000 website.
- Promoted the coupon events at Public meetings.
- Approached retailers to promote the initiative (Canadian Tire and Home Hardware).

**In Market Date:** March 3, 2011

**Lessons Learned:**

- The Product list has changed very little over the past four years.
- 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.
- 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 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 home, 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:**

- Hydro 2000 did not have any applications for the New Home Construction Initiative in 2011. Our service area does not have a large amount of new home construction. If new home builders start projects in our service area in 2012-2014, we will educate the builders on the available incentives and the application process.
- Those home builders that were building small subdivisions did not want to complete individual application for each home being built. The recent change to the application process may enable Hydro 2000 to obtain new applications.

**In Market Date:** March 3, 2011

**Lessons Learned:**

- There were limited (5) 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.



- Administrative requirements must align with perceived stakeholder payback. Changes are being processed through change management for 2012.

#### 2.2.1.7 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, 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:**

- Telephoned eligible customers to provide details on the initiative.
- Mailed out bill insert to eligible customers.
- Promoted the initiative through the Hydro 2000 website (full page ad).
- Promoted the initiative at Public meetings.

**In Market Date:** March 3, 2011

**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. Consequently, LDCs could not be in market with the Peaksaver Plus program until 2012.
- 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.
- Hydro 2000 has opted to deploy a ZigBee enabled IHD technology that communicates through the AMI. Hydro 2000 will have to upgrade their current version of EA\_MS to 8.0. to be able to deploy devices.

**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 Equipment Replacement Incentive Initiative (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:**

- Primarily focused on one-on-one promotion to commercial customers (only 12 customers available in our service area).
- Offered individual education sessions on eligibility requirements and incentive options to customers and contractors.

**In Market Date:** March 3, 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, to prove that the system was “ready for market.” 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.
- In 2011, the OPA did not provide marketing materials and participant agreements in the French language. Hydro 2000’s customer base is primarily French speaking (93%). The lack of French program materials impacted Hydro 2000’s ability to promote and register customers for the ERII initiative.

## 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 and agricultural facilities and multi-family buildings, for the purpose of achieving electricity savings and peak demand savings.

**Description:** The Direct Installed 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:**

**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:**

- In 2011, Hydro 2000 procured a third party delivery agent for this initiative. The initiative was not actively marketed until the end of 2011.
- Primarily focused one-on-one promotion to eligible customers.
- Offered individual education session on eligibility requirements and incentive options to customers and contractors.
- Provided customers with the OPA's initiative brochures (English only).

**In Market Date:** March 3, 2011

**Lessons Learned:**

- The Direct Installed 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.
- The cost of materials has experienced price volatility, reducing the margins of the electrical contractors and has led to a reduction in vendor channel participation in some regions.
- 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.
- In 2011, the OPA did not provide marketing materials and participant agreements in the French language. Hydro 2000's customer base is primarily French speaking (93%). The lack of French program materials impacted Hydro 2000's ability to promote and register customers for the DI initiative.

#### 2.2.2.3 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:**

- Hydro 2000's service area has limited commercial growth. This initiative will only be promoted when there are new commercial customers in our service area.

**In Market Date:** March 3, 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.
- 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.

#### 2.2.2.4 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:**

- Progress was limited for this initiative. Hydro 2000 will be looking to promote this program in 2013-2014.

**In Market Date:** March 3, 2011

**Lessons Learned:**

- Customer uptake in the beginning of 2011 was slow, and increased later in the year [DRAFT-subject to confirmation]. Hence, little if any savings were realized in 2011, but projects are expected for 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**

Hydro 2000 did not register to participate in the Industrial Programs. Hydro 2000 may have two eligible customers and we are in the process of confirming their eligibility. If there are eligible customers, Hydro 2000 will request funding for the Industrial program.

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

In 2011, Hydro 2000 did not offer the Low Income Initiative. In 2012 Hydro 2000 plans to investigate options for a delivery agent to assist with managing the Low Income initiative.

### **2.2.5 PRE-2011 PROGRAMS COMPLETED IN 2011**

Hydro 2000 did not offer any pre-2011 programs to their customers.

## 2.3 Participation

Table 1: Participation

#	Initiative	Activity Unit	Uptake/ Participation Units
<b>Consumer Program</b>			
1	Appliance Retirement	Appliances	17
2	Appliance Exchange	Appliances	5
3	HVAC Incentives	Equipment	9
4	Conservation Instant Coupon Booklet	Coupons	1,394
5	Bi-Annual Retailer Event	Coupons	339
6	Retailer Co-op	Items	0
7	Residential Demand Response	Devices	10
8	New Construction Program	Houses	0
<b>Business Program</b>			
9	Efficiency: Equipment Replacement	Projects	0
10	Direct Installed Lighting	Projects	0
11	Existing Building Commissioning Incentive	Buildings	0
12	New Construction and Major Renovation Incentive	Buildings	0
13	Energy Audit	Audits	0
14	Commercial Demand Response (part of the Residential program schedule)	Devices	7
15	Demand Response 3 (part of the Industrial program schedule)	Facilities	0
<b>Industrial Program</b>			
16	Process & System Upgrades*	Projects	0
	a) preliminary study		0
	b) engineering study		0



	c) project incentive		0
17	Monitoring & Targeting	Projects	0
18	Energy Manager	Managers	0
19	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	Projects	0
20	Demand Response 3	Facilities	0
<b>Home Assistance Program</b>			
21	Home Assistance Program	Units	0
<b>Pre 2011 Programs Completed in 2011</b>			
22	Electricity Retrofit Incentive Program	Projects	0
23	High Performance New Construction	Projects	0
24	Toronto Comprehensive	Projects	0
25	Multifamily Energy Efficiency Rebates	Projects	0
26	Data Centre Incentive Program	Projects	0
27	EnWin Green Suites	Projects	0

## 2.4 Spending

Table 2: Spending

#	Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
<b>Consumer Program</b>						
1	Appliance Retirement	613.89	0	0	0	613.89
2	Appliance Exchange	219.45	0	0	0	219.45
3	HVAC Incentives	1515.67	0	0	0	1515.67
4	Conservation Instant Coupon Booklet	8987.00	0	0	0	8987.00
5	Bi-Annual Retailer Event	841.60	0	0	0	841.60
6	Retailer Co-op	0	0	0	0	0
7	Residential Demand Response	7966.90	4200.00	250.00		12416.90
8	New Construction Program	175.00	0	0	0	175.00
<b>Business Program</b>						
9	Efficiency: Equipment Replacement	2790.00	0	0	0	2790.00
10	Direct Installed Lighting	9688.44	0	0	0	9688.44
11	Existing Building Commissioning Incentive	0	0		0	0
12	New Construction and Major Renovation Initiative	558.00	0	0	0	558.00
13	Energy Audit	1000.00	0	0	0	1000.00
14	Commercial Demand Response (part of the Residential program schedule)	0	0	0	0	0

15	Demand Response 3 (part of the Industrial program schedule)	0	0	0	0	0
Industrial Program						
16	Process & System Upgrades	0	0	0	0	0
	a) preliminary study	0	0	0	0	0
	b) engineering study	0	0	0	0	0
	c) program incentive	0	0	0	0	0
17	Monitoring & Targeting	0	0	0	0	0
18	Energy Manager	0	0	0	0	0
19	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	0	0	0	0	0
20	Demand Response 3	0	0	0	0	0
Home Assistance Program						
21	Home Assistance Program	0	0	0	0	0
Pre 2011 Programs Completed in 2011						
22	Electricity Retrofit Incentive Program	0	0	0	0	0
23	High Performance New Construction	0	0	0	0	0
24	Toronto Comprehensive	0	0	0	0	0
25	Multifamily Energy Efficiency Rebates	0	0	0	0	0
26	Data Centre Incentive Program	0	0	0	0	0
27	EnWin Green Suites	0	0	0	0	0
	<b>TOTAL Province-wide CDM PROGRAMS</b>	<b>\$34,355.95</b>	<b>\$4,200.00</b>	<b>\$250.00</b>	<b>0</b>	<b>\$38,8805.95</b>

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

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

## 2.5 Evaluation

### 2.5.1 EVALUATION FINDINGS

Table 3: Evaluation Findings

#	Initiative	Evaluation Findings
<b>Consumer Program</b>		
1	Appliance Retirement	<ul style="list-style-type: none"> <li>• Overall participation continues to decline year over year               <ul style="list-style-type: none"> <li>○ Participation declined 17% from 2010 (from over 67,000 units in 2010 to over 56,000 units in 2011)</li> </ul> </li> <li>• 97% of net resource savings achieved through the home pick-up stream               <ul style="list-style-type: none"> <li>○ Measure Breakdown: 66% refrigerators, 30% freezers, 4% Dehumidifiers and window air conditioners</li> </ul> </li> <li>• 3% of net resource savings achieved through the Retailer pick-up stream               <ul style="list-style-type: none"> <li>○ Measure Breakdown: 90% refrigerators, 10% freezers</li> </ul> </li> <li>• Net-to-Gross ratio for the initiative was 50%               <ul style="list-style-type: none"> <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> </li> </ul>
2	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)               <ul style="list-style-type: none"> <li>○ Measure Breakdown: 75% window air conditioners, 25% dehumidifiers</li> </ul> </li> <li>• Dehumidifiers and window air conditioners contributed almost equally to the net energy savings achieved               <ul style="list-style-type: none"> <li>○ Dehumidifiers provide more than three times the energy savings per unit than window air conditioners</li> </ul> </li> </ul> <p>Window air conditioners contributed to 64% of the net peak demand savings achieved</p>

		<ul style="list-style-type: none"> <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>
3	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) <ul style="list-style-type: none"> <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> </ul> </li> <li>• The HVAC Incentives initiative continues to deliver the majority of both the energy (45%) and demand (83%) savings in the consumer program <ul style="list-style-type: none"> <li>○ Furnaces accounted for over 91% of energy savings achieved for this initiative</li> </ul> </li> <li>• Net-to-Gross ratio for the initiative was 17% higher than 2010 (from 43% in 2010 to 60% in 2011) <ul style="list-style-type: none"> <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> </li> </ul>
4	Conservation Instant Coupon Booklet	<ul style="list-style-type: none"> <li>• Customers redeemed nearly 210,000 coupons, translating to nearly 560,000 products <ul style="list-style-type: none"> <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> </ul> </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>

5	Bi-Annual Retailer Event	<ul style="list-style-type: none"> <li>• Customers redeemed nearly 370,000 coupons, translating to over 870,000 products <ul style="list-style-type: none"> <li>○ Majority of coupons redeemed were for multi-packs of standard spiral CFLs (49%), followed by multi-packs of specialty CFLs (16%)</li> </ul> </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 <ul style="list-style-type: none"> <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> </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>
6	Retailer Co-op	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
7	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 AC (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>
10	New Construction Initiative	<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>Business Program</b>		
11	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</li> </ul>

		<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> <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. <ul style="list-style-type: none"> <li>○ Strict eligibility requirements and improvements in the pre-approval process contributed to the improvement in net-to-gross ratios</li> </ul> </li> </ul>
12	Direct Installed 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> </ul> </li> </ul>
14	Existing Building Commissioning Incentive	Initiative was not evaluated in 2011, no completed projects in 2011
15	New Construction and Major Renovation Initiative	<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>
16	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>



17	Commercial Demand Response (part of the Residential program schedule)	<ul style="list-style-type: none"> <li>See residential demand response (#7)</li> </ul>
19	Demand Response 3 (part of the Industrial program schedule)	<ul style="list-style-type: none"> <li>See Demand Response 3 (#20)</li> </ul>
<b>Industrial Program</b>		
20	Process & System Upgrades	<ul style="list-style-type: none"> <li>Initiative was not evaluated in 2011, no completed projects in 2011</li> </ul>
21	Monitoring & Targeting	<ul style="list-style-type: none"> <li>Initiative was not evaluated in 2011, no completed projects in 2011</li> </ul>
22	Energy Manager	<ul style="list-style-type: none"> <li>Initiative was not evaluated in 2011, no completed projects in 2011</li> </ul>
23	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	<ul style="list-style-type: none"> <li>See Efficiency: Equipment Replacement (#9)</li> </ul>
25	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 <ul style="list-style-type: none"> <li>Industrial customers outperform commercial customers by provide 84% and 76% of contracted MW, respectively</li> </ul> </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>		
26	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>		
27	Electricity Retrofit Incentive Program	<ul style="list-style-type: none"> <li>Initiative was not evaluated</li> <li>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&amp;I buildings 77% realization rate and 52% net-to-gross ratio).</li> </ul>
28	High Performance New Construction	<ul style="list-style-type: none"> <li>Initiative was not evaluated</li> <li>Net-to-Gross ratios used are consistent with the 2010 evaluation findings (realization rate of 100% and net-to-gross ratio of 50%).</li> </ul>
29	Toronto Comprehensive	<ul style="list-style-type: none"> <li>Initiative was not evaluated</li> <li>Net-to-Gross ratios used are consistent with the 2010 evaluation findings</li> </ul>

30	Multifamily Energy Efficiency Rebates	<ul style="list-style-type: none"><li>• Initiative was not evaluated</li><li>• Net-to-Gross ratios used are consistent with the 2010 evaluation findings</li></ul>
31	Data Centre Incentive Program	<ul style="list-style-type: none"><li>• Initiative was not evaluated</li></ul>
32	EnWin Green Suites	<ul style="list-style-type: none"><li>• Initiative was not evaluated</li></ul>

## 2.5.2 EVALUATION RESULTS

Table 4: Evaluation Results

#	Initiative	NTG	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)
<b>Consumer Program</b>								
1	Appliance Retirement		2	13,378	1	6,931	1	27,624
2	Appliance Exchange		1	839	0	433	0	1,320
3	HVAC Incentives		5	10,735	3	6,378	3	25,513
4	Conservation Instant Coupon Booklet		2	37,541	2	41,915	2	167,659
5	Bi-Annual Retailer Event		1	10,480	1	11,449	1	45,797
6	Retailer Co-op		0	0	0	0	0	0
7	Residential Demand Response		6	15	6	15	0	15
8	New Construction Program		0	0	0	0	0	0
<b>Business Program</b>								
9	Efficiency: Equipment Replacement		0	0	0	0	0	0
10	Direct Installed Lighting		0	0	0	0	0	0

11	Existing Building Commissioning Incentive		0	0	0	0	0	0
12	New Construction and Major Renovation Incentive		0	0	0	0	0	0
13	Energy Audit		0	0	0	0	0	0
14	Commercial Demand Response (part of the Residential program schedule)		4	16	4	16	0	16
15	Demand Response 3 (part of the Industrial program schedule)		0	0	0	0	0	0
<b>Industrial Program</b>								
16	Process & System Upgrades		0	0	0	0	0	0
17	Monitoring & Targeting		0	0	0	0	0	0
18	Energy Manager		0	0	0	0	0	0
19	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)		0	0	0	0	0	0
20	Demand Response 3		0	0	0	0	0	0
<b>Home Assistance Program</b>								
21	Home Assistance Program		0	0	0	0	0	0
<b>Pre-2011 Programs completed in 2011</b>								
22	Electricity Retrofit Incentive Program		0	0	0	0	0	0
23	High Performance New Construction		0	0	0	0	0	0
24	Toronto Comprehensive		0	0	0	0	0	0
25	Multifamily Energy Efficiency Rebates		0	0	0	0	0	0
26	Data Centre Incentive Program		0	0	0	0	0	0
27	EnWin Green Suites		0	0	0	0	0	0

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	16	72,987	13	67,121	7	267,928
Commercial & Institutional Program Total	4	16	4	16	0	16
Industrial Program Total	0	0	0	0	0	0
Home Assistance Program Total	0	0	0	0	0	0
Pre-2011 Programs completed in 2011 Total	0	87	0	43	0	173
<b>Total OPA Contracted Province-Wide CDM Programs</b>	<b>21</b>	<b>73,090</b>	<b>18</b>	<b>37,180</b>	<b>7</b>	<b>268,118</b>

## 2.6 Additional Comments

In 2011, many of the Initiatives were in “start-up” mode as the OPA finalized the initiative schedules. While most of the initial aspects of the programs were ultimately delivered during the course of 2011, Hydro 2000 results suffered accordingly.

Prior to 2011, Hydro 2000 had limited participation in the OPA’s conservation programs. In 2011, Hydro 2000 focused on procuring resources, developing internal processes, and determining a marketing strategy. Hydro 2000 is the smallest utility in the province with two full-time employees and one part-time employee. In 2011, we determined the roles and responsibilities of internal staff for delivery of the OPA’s CDM initiatives.

By the end of 2011, we noted significant traction across the Residential and Commercial & Institutional program portfolios due to the ground work that was completed earlier in the year. In 2012, Hydro 2000 plans to be more aggressive with the marketing and promotion of the initiatives that best meet our customers’ needs and requirements.

We would like to note that Hydro 2000 is a winter peaking utility and we feel that the majority of the Province-Wide CDM Programs were designed for summer peaking utilities. It is Hydro 2000’s recommendation that the OPA make available specific programs for winter peaking LDCs (e.g. hot water tank programs).

### 3 Combined CDM Reporting Elements

#### 3.1 Progress Towards CDM Targets

3.1.1 The tables below illustrate that Hydro 2000 is trending below their CDM strategy milestones for Peak Demand and Energy Savings. The MW variance is 17.39% below target and the GWh variance is also below target at 11.23%.

Hydro 2000 will look to overcome the negative variances during the remaining program term, as described in more detail in the CDM modifications section of the report

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

Implementation Period	Annual (MW)			
	2011	2012	2013	2014
2011 - Verified	0.02	0.01	0.01	0.01
2012				
2013				
2014				
<b>Verified Net Annual Peak Demand Savings in 2014:</b>				<b>0.01</b>
<b>Hydro 2000 2014 Annual CDM Capacity Target:</b>				<b>.19</b>
<b>Verified Portion of Peak Demand Savings Target Achieved (%):</b>				<b>3.61%</b>
<b>Hydro 2000 CDM Strategy, Milestone submitted for 2011 (0.04/.19)</b>				<b>21.00%</b>
<b>Variance</b>				<b>-17.39</b>

## CDM Strategy Milestones (Expanded from CDM Strategy)

Implementation Period	Milestones in CDM Strategy Annual (MW)				(MW)
	2011	2012	2013	2014	2011-2014
2011	0.04	0.04	0.04	0.04	0.04
2012		0.06	0.06	0.06	0.06
2013			0.05	0.05	0.05
2014				0.06	0.06
<b>Hydro 2000 Strategy, Milestone submitted Peak Demand Savings 2011-2014:</b>					<b>0.21</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	0.07	0.07	0.07	0.07	0.27
2012					
2013					
2014					
<b>Verified Net Cumulative Energy Savings 2011-2014:</b>					<b>0.27</b>
<b>Hydro 2000 2011-2014 Cumulative CDM Energy Target:</b>					<b>1.04</b>
<b>Verified Portion of Cumulative Energy Target Achieved (%):</b>					<b>25.78%</b>
<b>Hydro 2000 CDM Strategy, Milestone submitted for 2011 (.385/1.04)</b>					<b>37.01%</b>
<b>Variance</b>					<b>-11.23%</b>



## CDM Strategy Milestones (Expanded from CDM Strategy)

Implementation Period	Milestones in CDM Strategy Annual (GWh)				Cumulative (GWh)
	2011	2012	2013	2014	2011-2014
2011	0.117	0.112	0.089	0.067	0.385
2012		0.181	0.181	0.181	0.543
2013			0.131	0.131	0.262
2014				0.134	0.134
<b>Hydro 2000 Strategy, Milestone submitted Energy Savings 2011-2014:</b>					<b>1.324</b>

### 3.2 CDM Strategy Modifications

In 2011, Hydro 2000 Net Peak Demand Savings and Net Cumulative Energy Savings were below the forecasted MW and GWh milestones, which was due to a number of contributing factors. In 2011, many of the Initiatives were in “start-up” mode as the OPA finalized schedules, and in some cases the delayed roll-out of the initiatives resulted in fewer saving than were originally forecasted.

The lack of French marketing materials and participant agreements in 2011 affected Hydro 2000’s ability to promote and register customers for a number of the OPA’s conservation initiatives. The forecasted savings for the Appliance Retirement initiative were lower than expected, as there were no participating retailers in our service area.

Hydro 2000 CDM strategy forecasted substantial savings from the *peaksaver* PLUS program in 2011 that were not attained. Hydro 2000 is deploying a ZigBee® enabled IHD technology that communicates through the AMI system. This new technology requires an upgrade of our existing EA\_MS system by our AMI provider. In 2011, Hydro 2000 only received savings from the *peaksaver* extension program.

Hydro 2000 has not offered the Direct Install Initiative in the past. In 2011, Hydro 2000 secured a delivery agent for the Direct Install Initiative. The Direct Install Initiative is scheduled to roll out to Hydro 2000’s customers in 2012. We are targeting that 80-90% of eligible customers will participate in this initiative during the remaining program term (2012-2014). Hydro 2000 is anticipating that a high enrollment in the Direct Install Initiative should offset some of the lost savings caused by the delays in rolling out the *peaksaver* PLUS initiative and the other initiatives that did not make it to market in 2011.

Hydro 2000 plans to devote more internal resources to the marketing, promotion and delivery of the OPA's Province-Wide CDM Programs. In 2012 Hydro 2000 plans to investigate options for a delivery agent to assist with managing the Low Income initiative. Based on the reporting results achieved in 2011, Hydro 2000 has no immediate plans to modify our CDM strategy that was submitted to the OEB on November 1st, 2010.