



Serving the Community of Renfrew

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September 28, 2012

Ontario Energy Board
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Toronto, ON M4P 1E4

Attention: Kirsten Walli
Board Secretary

Re: Renfrew Hydro Inc. 2011 Conservation and Demand Management Annual Report

Renfrew Hydro Inc. is pleased to submit two hard copies of its 2011 Conservation and Demand Management ("CDM") Annual Report in accordance with section 2.2 of the Ontario Energy Board's (the "Board") CDM Code for Electricity Distributors, issued on September 16, 2010.

This report has also been submitted to the Board online using the Regulatory Electronic Submission System and made available for public review at our offices. In addition, the Annual Report has been posted on our website.

We trust that this 2011 Annual Report meets the Board's requirements. However, should clarification be required on any of its contents, please do not hesitate to contact the undersigned by phone at 613-432-4884 ext 224 or by email at jtfreemark@renfrewhydro.com.

Yours truly,

Thomas Freemark - President

Renfrew Hydro

Conservation and Demand Management 2011 Annual Report

Submitted to:

Ontario Energy Board

Submitted on September 30, 2012

Renfrew Hydro 2011 CDM Annual Report

09/30/2012

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Executive Summary

The Ontario Energy Board's (the "Board") Conservation and Demand Management ("CDM") Code for Electricity Distributors establishes the obligations and requirements with which electricity distributors must comply in relation to the CDM targets set out in their licences. The CDM Code also identifies the rules and conditions that licensed electricity distributors are required to follow if they choose to go beyond the current program and apply for Board-Approved CDM programs to meet their CDM targets. Furthermore, the CDM Code outlines the requirements for annual CDM reporting which must be filed with the Board on September 30th of each year starting in 2012.

The CDM Code was created in response to a Directive dated March 31, 2010 issued by the Minister of Energy and Infrastructure (the "Directive") pursuant to sections 27.1 and 27.2 of the *Ontario Energy Board Act, 1998*. The Board views the Ontario Power Authority ("OPA")-Contracted Province-Wide CDM programs as being the lead programs and initiatives for distributors to rely on for achieving their CDM targets.

In accordance with the Directive, the Board assigned CDM targets to each distributor ("LDC") with an aggregate total of 1,330 megawatts ("MW") of provincial peak demand persisting until the end of the four-year period and 6,000 gigawatthours ("GWh") of reduced electricity consumption accumulated over the four-year period. The Board considered information obtained from the OPA, developed in consultation with distributors, regarding the development and allocation of the CDM targets to individual LDCs. Renfrew Hydro Limited ("Renfrew Hydro") was allocated a demand reduction target of 1.05 MW and energy reductions totaling 4.86 GWh. Demand and Energy reductions are to be verified using the OPA's Evaluation, Measurement & Verification Protocols ("EM&V").

In accordance with the CDM Code, Renfrew Hydro provided the Board with a CDM Strategy (EB-2010-0215) for the period 2011 to 2014, as amended June 13, 2011, using the best information available at the time of submission. At that time there was a lack of information available to accurately estimate the impacts of the OPA-Contracted Province-Wide CDM programs.

This report details Renfrew Hydro's progress towards meeting its CDM Targets, an explanation for any significant variances between the annual milestones contained in the CDM Strategy and the verified results achieved for the reporting year, and an explanation of the potential impact that these variances may have with respect to the CDM targets.

For program year 2011 there were three primary OPA-Contracted Province-Wide CDM program areas: Consumer, Commercial & Institutional ("C&I") and Industrial. An OPA-Contracted Province-Wide Low-Income program was not introduced in Renfrew in 2011.

2011 was a transitional year for the Renfrew Hydro CDM program. In order to achieve targeted results, Renfrew Hydro continued its contracted relationship with Hydro Ottawa to deliver CDM programs.

Based on OPA verified results for 2011 Renfrew Hydro has had a successful year and achieved demand reductions of 0.18 MW and energy savings of 0.51 GWh. These 2011 accomplishments represent an

achievement of 14.24% of Renfrew Hydro's demand reduction target and 42.30% of the energy savings target.

Renfrew Hydro's customer base is primarily found in the Consumer and C&I markets. The Industrial market in Renfrew Hydro territory is limited to a few light manufacturing facilities. For that reason, Renfrew Hydro has seen modest results attributed to the Industrial market. While Demand Response makes up a generous part of many LDCs' MW results, Renfrew Hydro depends on Commercial retrofit projects for its demand savings.

Renfrew Hydro worked collaboratively through its relationship with Hydro Ottawa with many allies in the industry including Enbridge Gas, the Coalition of Large Distributors ("CLD"), Electricity Distributors Association ("EDA"), the Ontario Power Authority, Ministry of Energy staff, to share resources and materials and exchange strategies and expertise.

The limited availability of the OPA-Contracted Province-Wide CDM Programs presented some challenges that had an impact on our 2011 results. Many Program initiatives were late to launch in 2011 or, in some cases, didn't launch at all. Some programs had process and infrastructure flaws that couldn't be fixed quickly and eventually drove frustrated participants away. Attempting to address program shortcomings through the Change Management process has also led to significant delays, missed market opportunities and additional customer frustration. Given the late 2011 start, the reduced portfolio of available programs and the challenges with some of the programs that were launched, Renfrew Hydro feels that extending the program framework for one additional year (2011-2015) would be an appropriate method to compensate for the initial year that was fundamentally lost as a year of transition.

The lack of timely, accurate and transparent program results tracking and reporting caused some additional issues for the LDC community. The quarterly and annual reporting (unverified) from the OPA typically captured only a portion of the total results for the LDC. Results from applications submitted were tracked and applied to LDC quarterly or annual reports only after they were fully processed and vetted by the OPA. Because these processes took longer than expected, the Quarterly Results reports were typically inaccurate and unhelpful for the LDC community. Through 2012, the OPA has worked to improve these processes.

In the initial provincial projections Time-of-Use ("TOU") rates were to account for 308 MW of savings towards the provincial target. Renfrew Hydro anticipates a proportional attribution of these results towards our target. This is an important and sizeable contributor towards Renfrew Hydro's results. Final results will not be available until the OPA completes its EM&V in 2015.

Renfrew Hydro believes it is important that LDCs be given more direct control over initiative development and delivery processes. This would improve program management and accountability for achieving targeted results and also ensure that all CDM programs are developed with a stronger customer focus.

In support of our overall CDM efforts, it is considered imperative that the Province demonstrate a clear commitment to conservation beyond the end of 2014 to maintain momentum and to take advantage of the recently developed OPA and LDC infrastructure now in place. Larger qualifying conservation projects

could require timeframes extending beyond 2014 to be completed. These projects are typically larger retrofit opportunities and new commercial buildings with long construction cycles. Excluding these large projects from the current CDM initiatives (and incentives) does not support a sustained commitment to conservation.

Renfrew Hydro has demonstrated success with CDM initiatives since 2010 and is committed to continuing this success. Renfrew Hydro will continue to work with Hydro Ottawa towards the accomplishment of its targets.

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 Renfrew Hydro to require Renfrew Hydro, as a condition of its licence, to achieve 4.86 GWh of energy savings and 1.05 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, Renfrew Hydro submitted its CDM Strategy on June 13, 2011 which provided a high level of description of how Renfrew 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 Renfrew 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 OPA for the province, and then allocated to distributors. Renfrew 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 Renfrew Hydro is not able to provide any verified savings related to Renfrew Hydro’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:

RPP TOU Effective Date	Rates (cents/kWh)		
	On Peak	Mid Peak	Off Peak
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:

Renfrew Hydro began transitioning its RPP customers to TOU billing March 1, 2012. At December 31st, 2011, no RPP customers were on TOU billing.

~~1.3 RENFREW HYDRO’s Application with the OEB~~

2 OPA-Contracted Province-Wide CDM Programs

2.1 Introduction

Effective March 7, 2011 Renfrew Hydro entered into an agreement with the OPA to deliver CDM programs extending from January 1, 2011 to December 31, 2014, which are listed below. In addition, results will be reported from projects started pre 2011 which completed in 2011:

Initiative	Schedule	Date schedule posted	Customer Class
Residential Program			
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
Commercial & Institutional Program			
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	Feb 2011	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
Industrial Program			
Process & System Upgrades	Schedule D-1	May 31, 2011	General Service 50 kW &

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			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
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
Home Assistance Program			
Home Assistance Program	Schedule E-1	May 9, 2011	All residential rate classes
Pre-2011 Programs completed in 2011			
Electricity Retrofit Incentive Program	n/a	n/a	All general service classes
High Performance New Construction	n/a	n/a	All general service classes
Toronto Comprehensive	n/a	n/a	All general service classes
Multifamily Energy Efficiency Rebates	n/a	n/a	All general service classes
Data Centre Incentive Program	n/a	n/a	All general service classes
EnWin Green Suites	n/a	n/a	All general service classes

Several initiatives that were included in the schedules were not in market in 2011 as follows.

Initiative Not in Market in 2011	Objective	Status
Residential Program		
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	Not launched to market

	OPA and results are attributed to LDCs for reporting.	
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
Commercial & Institutional Program		
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
Industrial Program		
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_electricty_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdfand
- saveonenergy website: <https://saveonenergy.ca/Consumer/Programs/Appliance-Retirement.aspx>

Initiative Activities/Progress:

- Conservation team at Spring Home Show March 25-27
- Community newspaper ads September 26 and October 10

In Market Date: March 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.

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 and
- saveonenergy website: <https://saveonenergy.ca/Consumer.aspx>

Initiative Activities/Progress:

- Conservation team in-store at Canadian Tire in May

In Market Date: May 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_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf and
- saveonenergy website: <https://saveonenergy.ca/Consumer.aspx>

Initiative Activities/Progress:

- Conservation team at Spring Home Show March 25-27
- Community newspaper ads October 17 & 30

In Market Date: March 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.

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.

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 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_electricty_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf and
- saveonenergy website: <https://saveoneenergy.ca/Consumer.aspx>

Initiative Activities/Progress:

- Conservation team at Spring Home Show March 25-27
- Community newspaper ads October 10 and November 14

In Market Date: March 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 behaviour.

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: 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 honour related coupons. LDCs also refer retailers to the OPA.

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 and
- saveonenergy website: <https://saveonenergy.ca/Consumer.aspx>

Initiative Activities/Progress:

- Conservation team at Canadian Tire for two days in October

In Market Date: October 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 ~~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 Initiative 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:

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: NA

In Market Date: NA

Lessons Learned:

- The availability of retailer and/or LDC staff with product knowledge and the ability to conduct demonstration in store during the events would be an asset. This could be a valuable role for LDCs.

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 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 and
- saveonenergy website: <https://saveonenergy.ca/Consumer.aspx>

Initiative Activities/Progress:

- this program was included in the FOR HOME brochure

In Market Date: May 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.

2.2.1.8 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, 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 and
- saveonenergy website: <https://saveonenergy.ca/Consumer.aspx>

Initiative Activities/Progress:

- Conservation team at the Spring Home Show March 25-27
- Bill insert April
- Community newspaper May 19, & 26, June 2 & 23, July 7 & July 21

In Market Date: March 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.

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 and
- saveonenergy website: <https://saveonenergy.ca/Business/Program-Overviews/Retrofit-for-Commercial.aspx>

Initiative Activities/Progress:

- two sessions (March and November) were held with potential channel partners and customers to introduce the saveONenergy programs for business customers

In Market Date: March 2011

- We could not register customers for the program until the iCon portal was launched in March.
- Ahead of the curve because of sales staff ramp up to develop effective channel strategies and target various high potential clients
- Channel focus included–
 - HVAC and electrical contractors, manufacturers, and distributors,
 - property managers, building owners
 - MUSH sector participants and
 - engineering and architecture firms

- Assist customers with application process as challenges with the implementation of the iCon system were many
- Having a trained sales team was critical to our early 2011 start because of the challenges that are inherent with any new online system and process. Changes to application process resulted in low customer satisfaction so our customer service level had to compensate to sustain the growth in number of applications being processed.
- With a small sales staff, we were able to address many channel partners, which in turn addressed many potential customers. In addition, saveONenergy incentives allowed channel partners to sell higher margin energy efficient equipment. We also paid special attention to associations. Networking within associations allows exposure to a much wider and diverse audience. Association activities increased our ability to make targeted presentations, increase awareness in various markets for our programs and increase the number of retrofit applications.

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.

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 enrol 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:

- two sessions (March and November) were held with potential channel partners and customers to introduce the saveONenergy programs for business customers

In Market Date: March 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.

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

Initiative Activities/Progress:

- two sessions (March and November) were held with potential channel partners and customers to introduce the saveONenergy programs for business customers

In Market Date: March 2011

Lessons Learned:

- There was no customer uptake for this Initiative. It is suspected that the scope of the Initiative being limited to space cooling contributed to the lack of participation. 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 broader building improvements 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:

- two sessions (March and November) were held with potential channel partners and customers to introduce the saveONenergy programs for business customers

In Market Date: March 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.

2.2.2.5 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 and
- saveonenergy website: <https://saveonenergy.ca/Business/Program-Overviews/Audit-Funding.aspx>

Initiative Activities/Progress:

- two sessions (March and November) were held with potential channel partners and customers to introduce the saveONenergy programs for business customers

In Market Date: March 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

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 distribution customers capital incentives and enabling initiatives to assist with the implementation of large projects and project portfolios;
- Implement system optimization project in systems which are intrinsically complex and capital intensive; and
- Increase the capability of distribution 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 projects costs
- c) A one year pay back

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 and
- saveonenergy website: <https://saveonenergy.ca/Business.aspx>

Initiative Activities/Progress:

- two sessions (March and November) were held with potential channel partners and customers to introduce the saveONenergy programs for business customers

In Market Date: March 2011

Lessons Learned:

- The PSUI program targets large customers that are undertaking large capital projects. There is typically a long sales cycle to sell these projects, and then a long project development cycle. As such, results from PSUI 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.
- 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 sustain 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:

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_e

[lectricity_contracts/pdfs/Schedule%20D-2%20Monitoring%20and%20Targeting%20Initiative.pdf](#)
and

- saveonenergy website: <https://saveonenergy.ca/Business.aspx>

Initiative Activities/Progress:

- two sessions (March and November) were held with potential channel partners and customers to introduce the saveONenergy programs for business customers

In Market Date: March 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 ERII 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:

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_electricity_contracts/pdfs/Schedule%20D-3%20Energy%20Manager%20Initiative%202011-2014.pdf and
- saveonenergy website: <https://saveonenergy.ca/Business.aspx>

Initiative Activities/Progress:

In Market Date:

Lessons Learned:

- The energy managers have proven to be a popular resource.
- At the beginning, 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:

Targeted End Uses:

Delivery:

Additional detail is available:

- Schedule D-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

Initiative Activities/Progress:

In Market Date:

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.

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) payment for service to DR3 participants to compensate them for making available electricity demand response 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 energy payments for the actual energy 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:

Delivery: DR3 is delivered by Demand Response Providers, under contract to the OPA. The OPA administers contracts with all DRPs and Direct Participants that provide in excess of 5 MW of demand response capacity. OPA provides administration including settlement, measurement and verification, and dispatch. LDCs are responsible for 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
- saveonenergy website: <https://saveonenergy.ca/Business.aspx>

Initiative Activities/Progress:

- two sessions (March and November) were held with potential channel partners and customers to introduce the saveONenergy programs for business customers

In Market Date: March 2011

Lessons Learned:

- Customer data is not provided by the OPA on an individual customer basis due to contractual requirements with the aggregators. This limits LDCs' ability to effectively market to prospective participants. 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 uses based on results of audit

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: N/A

In Market Date: N/A

Lessons Learned:

- Difficulty identifying eligible customers.
- This Initiative Schedule was finalized later (May 2011) than the rest of the OPA Initiatives and 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:

Description: Refer to section 2.2.2.1

Targeted End Uses:

Delivery:

Initiative Activities/Progress:

- This program was not promoted during 2011. The sales team reached out to those customers with projects started in 2010 to remind them of the parameters of the program and to ensure that they did not miss out on available incentives for completed projects.
- 5 projects were processed under this initiative.

In Market Date: all year

- Legacy 2010 program applications were completed and processed for payment throughout the year.

Lesson Learned:

2.2.5.2 ~~HIGH PERFORMANCE NEW CONSTRUCTION~~

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

Initiative Frequency: Year round

Objective:

Description: Refer to section 2.2.2.5

Targeted End Uses:

Delivery:

Initiative Activities/Progress: NA

In Market Date: NA

Lesson Learned:

2.2.5.3 ~~TORONTO COMPREHENSIVE INITIATIVE~~

Target Customer Type(s): Commercial and Institutional Customers

Initiative Frequency: Year round

Objective:

Description: This Initiative is specific to Toronto Hydro's Service Area.

Targeted End Uses:

Delivery:

Initiative Activities/Progress: NA

In Market Date: NA

Lesson Learned:

2.2.5.4 ~~MULTIFAMILY ENERGY EFFICIENCY REBATES~~

Target Customer Type(s):

Initiative Frequency: Year round

Objective:

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:

Delivery:

Initiative Activities/Progress: NA

In Market Date: NA

Lesson Learned:

~~2.2.5.5 DATA CENTRE INCENTIVE PROGRAM~~

Target Customer Type(s):

Initiative Frequency: Year round

Objective:

Description: This Initiative is specific to PowerStream's Service Area.

Targeted End Uses:

Delivery:

Initiative Activities/Progress: NA

In Market Date: NA

Lesson Learned:

~~2.2.5.6 ENWIN GREEN SUITES~~

Target Customer Type(s):

Initiative Frequency: Year round

Objective:

Description: This Initiative is specific to EnWin's Service Area.

Targeted End Uses:

Delivery:

Initiative Activities/Progress: NA

In Market Date: NA

Lesson Learned:

2.3 Participation

Table 1: Participation

#	Initiative	Activity Unit	Uptake/ Participation Units
Consumer Program			
1	Appliance Retirement	Appliances	38
2	Appliance Exchange	Appliances	1
3	HVAC Incentives	Equipment	111
4	Conservation Instant Coupon Booklet	Coupons	404
5	Bi-Annual Retailer Event	Coupons	675
6	Retailer Co-op	Items	0
7	Residential Demand Response	Devices	53
10	New Construction Program	Houses	0
Business Program			
11	Efficiency: Equipment Replacement	Projects	2
12	Direct Installed Lighting	Projects	12
14	Existing Building Commissioning Incentive	Buildings	0
15	New Construction and Major Renovation Incentive	Buildings	0
16	Energy Audit	Audits	0
17	Commercial Demand Response (part of the Residential program schedule)	Devices	0
19	Demand Response 3 (part of the Industrial program schedule)	Facilities	0
Industrial Program			
20	Process & System Upgrades*	Projects	0
	a) preliminary study		0
	b) engineering study		0

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	c) project incentive		0
21	Monitoring & Targeting	Projects	0
22	Energy Manager	Managers	0
23	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	Projects	1
25	Demand Response 3	Facilities	0
Home Assistance Program			
26	Home Assistance Program	Units	0
Pre 2011 Programs Completed in 2011			
27	Electricity Retrofit Incentive Program	Projects	5
28	High Performance New Construction	Projects	0
29	Toronto Comprehensive	Projects	0
30	Multifamily Energy Efficiency Rebates	Projects	0
31	Data Centre Incentive Program	Projects	0
32	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
Consumer Program						
1	Appliance Retirement	3,996				3,996
2	Appliance Exchange	1,255				1,255
3	HVAC Incentives	4,416				4,416
4	Conservation Instant Coupon Booklet	4,416				4,416
5	Bi-Annual Retailer Event	1,675				1,675
6	Retailer Co-op	0				0
7	Residential Demand Response	11,717	18,069	1,325		31,111
10	New Construction Program	0				0
Business Program						
11	Efficiency: Equipment Replacement	4,901		6,000		10,901
12	Direct Installed Lighting	4,909	1,500	13,531		19,940
14	Existing Building Commissioning Incentive	694				694
15	New Construction and Major Renovation Initiative	2,777				2,777

16	Energy Audit	694				694
17	Commercial Demand Response (part of the Residential program schedule)					
19	Demand Response 3 (part of the Industrial program schedule)					
Industrial Program						
20	Process & System Upgrades	366				366
	a) preliminary study					
	b) engineering study					
	c) program incentive					
21	Monitoring & Targeting	366				366
22	Energy Manager					
23	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)					
25	Demand Response 3	1,465				1,465
Home Assistance Program						
26	Home Assistance Program	0				0
Pre 2011 Programs Completed in 2011						
27	Electricity Retrofit Incentive Program			132303		132303
28	High Performance New Construction					

29	Toronto Comprehensive					
30	Multifamily Energy Efficiency Rebates					
31	Data Centre Incentive Program					
32	EnWin Green Suites					
	TOTAL Province-wide CDM PROGRAMS	43,647	19,569	153,159		216,375

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

#	Initiative	Program Administration Budget (PAB)
Initiatives Not In Market		
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)	1,465
33	Home Energy Audit Tool	
	TOTAL Province-wide CDM PROGRAMS Not In Market	1,465

2.5 Evaluation

2.5.1 EVALUATION FINDINGS

Table 3: Evaluation Findings

#	Initiative	OPA Province-Wide Key Evaluation Findings
Consumer Program		
1	Appliance Retirement	<ul style="list-style-type: none"> * Overall participation continues to decline year over year <ul style="list-style-type: none"> * Participation declined 17% from 2010 (from over 67,000 units in 2010 to over 56,000 units in 2011) * 97% of net resource savings achieved through the home pick-up stream <ul style="list-style-type: none"> * Measure Breakdown: 66% refrigerators, 30% freezers, 4% Dehumidifiers and window air conditioners * 3% of net resource savings achieved through the Retailer pick-up stream <ul style="list-style-type: none"> * Measure Breakdown: 90% refrigerators, 10% freezers * Net-to-Gross ratio for the initiative was 50% <ul style="list-style-type: none"> * Measure-level free ridership ranges from 82% for the retailer pick-up stream to 49% for the home pick-up stream * Measure-level spillover ranges from 3.7% for the retailer pick-up stream to 1.7% for the home pick-up stream
2	Appliance Exchange	<ul style="list-style-type: none"> * 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"> * Measure Breakdown: 75% window air conditioners, 25% dehumidifiers * Dehumidifiers and window air conditioners contributed almost equally to the net energy savings achieved <ul style="list-style-type: none"> * Dehumidifiers provide more than three times the energy savings per unit than window air conditioners

		<ul style="list-style-type: none"> * Window air conditioners contributed to 64% of the net peak demand savings achieved * Approximately 96% of consumers reported having replaced their exchanged units (as opposed to retiring the unit) * Net-to-Gross ratio for the initiative is consistent with previous evaluations (51.5%)
3	HVAC Incentives	<ul style="list-style-type: none"> * 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"> * Measure Breakdown: 64% furnaces, 10% tier 1 air conditioners (SEER 14.5) and 26% tier 2 air conditioners (SEER 15) * Measure breakdown did not change from 2010 to 2011 * 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"> * Furnaces accounted for over 91% of energy savings achieved for this initiative * 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"> * 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)
4	Conservation Instant Coupon Booklet	<ul style="list-style-type: none"> * Customers redeemed nearly 210,000 coupons, translating to nearly 560,000 products <ul style="list-style-type: none"> * Majority of coupons redeemed were downloadable (~40%) or LDC-branded (~35%) * Majority of coupons redeemed were for multi-packs of standard spiral CFLs (37%), followed by multi-packs of specialty CFLs (17%) * Per unit savings estimates and net-to-gross ratios for 2011 are based on a weighted average of 2009 and 2010 evaluation findings * Careful attention in the 2012 evaluation will be made for standard CFLs since it is believed that the market has largely been transformed
5	Bi-Annual Retailer Event	<ul style="list-style-type: none"> * Customers redeemed nearly 370,000 coupons, translating to over 870,000 products <ul style="list-style-type: none"> * Majority of coupons redeemed were for multi-packs of standard spiral CFLs (49%), followed by multi-packs of specialty CFLs (16%)

		<ul style="list-style-type: none"> * Per unit savings estimates and net-to-gross ratios for 2011 are based on a weighted average of 2009 and 2010 evaluation findings * 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 * 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 * Careful attention in the 2012 evaluation will be made for standard CFLs since it is believed that the market has largely been transformed.
6	Retailer Co-op	<ul style="list-style-type: none"> * 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"> * Approximately 20,000 new devices were installed in 2011 * 99% of the new devices enrolled controlled residential central AC (CAC) * 2011 only saw 1 atypical event (in both weather and timing) that had limited participation across the province * 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
8	Residential New Construction	<ul style="list-style-type: none"> * Initiative was not evaluated in 2011 due to limited uptake * Business case assumptions were used to calculate savings
Business Program		
9	Efficiency: Equipment Replacement	<ul style="list-style-type: none"> * Gross verified energy savings were boosted by lighting projects in the prescriptive and custom measure tracks * Lighting projects overall were determined to have a realization rate of 112%; 116% when including interactive energy changes * On average, the evaluation found high realization rates as a result of both longer operating hours and larger wattage reductions than initial assumptions

		<ul style="list-style-type: none"> * Low realization rates for engineered lighting projects due to overstated operating hour assumptions * Custom non-lighting projects suffered from process issues such as: the absence of required M&V plans, the use of inappropriate assumptions , and the lack of adherence to the M&V plan * The final realization rate for summer peak demand was 94% <ul style="list-style-type: none"> * 84% was a result of different methodologies used to calculate peak demand savings * 10% due to the benefits from reduced air conditioning load in lighting retrofits * 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. Strict eligibility requirements and improvements in the pre-approval process contributed to the improvement in net-to-gross ratios
10	Direct Install Lighting	<ul style="list-style-type: none"> * Though overall performance is above expectations, participation continues to decline year over year as the initiative reaches maturity * 70% of province-wide resource savings persist to 2014 <ul style="list-style-type: none"> * Over 35% of the projects for 2011 included at least one CFL measure * Resource savings from CFLs in the commercial sector only persist for the industry standard of 3 years * Since 2009 the overall realization rate for this program has improved <ul style="list-style-type: none"> * 2011 evaluation recorded the highest energy realization rate to date at 89.5% * The hours of use values were held constant from the 2010 evaluation and continue to be the main driver of energy realization rate * 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

11	Existing Building Commissioning Incentive	* Initiative was not evaluated in 2011, no completed projects in 2011
12	New Construction and Major Renovation Incentive	* Initiative was not evaluated in 2011 due to low uptake * Assumptions used are consistent with preliminary reporting based on the 2010 Evaluation findings and consultation with the C&I Work Group (100% realization rate and 50% net-to-gross ratio)
13	Energy Audit	* The evaluation is ongoing. The sample size for 2011 was too small to draw reliable conclusions.
14	Commercial Demand Response (part of the Residential program schedule)	* See residential demand response (#7)
15	Demand Response 3 (part of the Industrial program schedule)	* See Demand Response 3 (#20)
Industrial Program		
16	Process & System Upgrades	* Initiative was not evaluated in 2011, no completed projects in 2011
17	Monitoring & Targeting	* Initiative was not evaluated in 2011, no completed projects in 2011
18	Energy Manager	* Initiative was not evaluated in 2011, no completed projects in 2011

19	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	<ul style="list-style-type: none"> * See Efficiency: Equipment Replacement (#9)
20	Demand Response 3	<ul style="list-style-type: none"> * Program performance for Tier 1 customers increased with DR-3 participants providing 75% of contracted MW for both sectors * Industrial customers outperform commercial customers by provide 84% and 76% of contracted MW, respectively * 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. * 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
Home Assistance Program		
21	Home Assistance Program	<ul style="list-style-type: none"> * Initiative was not evaluated in 2011 due to low uptake * Business Case assumptions were used to calculate savings
Pre-2011 Programs completed in 2011		
22	Electricity Retrofit Incentive Program	<ul style="list-style-type: none"> * Initiative was not evaluated * 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)
23	High Performance New Construction	<ul style="list-style-type: none"> * 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%)
24	Toronto Comprehensive	<ul style="list-style-type: none"> * Initiative was not evaluated * Net-to-Gross ratios used are consistent with the 2010 evaluation findings

25	Multifamily Energy Efficiency Rebates	<ul style="list-style-type: none"> * Initiative was not evaluated * Net-to-Gross ratios used are consistent with the 2010 evaluation findings
26	Data Centre Incentive Program	<ul style="list-style-type: none"> * Initiative was not evaluated
27	EnWin Green Suites	<ul style="list-style-type: none"> * Initiative was not evaluated

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)
Consumer Program								
1	Appliance Retirement	52	4	32,076	2	16,747	2	66,989
2	Appliance Exchange	52	0	202	0	104	0	357
3	HVAC Incentives	60	61	121,113	37	72,160	37	288,640
4	Conservation Instant Coupon Booklet	113	0	13,614	0	14,982	1	59,928
5	Bi-Annual Retailer Event	111	0	20,851	1	22,780	0	91,121
6	Retailer Co-op	NA						
7	Residential Demand Response		30	77	30	77		77
10	New Construction Program		0	0	0	0	0	0
Business Program								
11	Efficiency: Equipment Replacement	68	106	300,136	71	208,027	71	832,106
12	Direct Installed Lighting	93	13	41,017	14	38,086	14	152,345
14	Existing Building Commissioning Incentive							

15	New Construction and Major Renovation Incentive							
16	Energy Audit							
17	Commercial Demand Response (part of the Residential program schedule)							
19	Demand Response 3 (part of the Industrial program schedule)							
Industrial Program								
20	Process & System Upgrades							
21	Monitoring & Targeting							
22	Energy Manager							
23	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	75	2	92,68	2	7,082	2	28,328
25	Demand Response 3							
Home Assistance Program								
26	Home Assistance Program	0						
Pre-2011 Programs completed in 2011								
27	Electricity Retrofit Incentive Program	54	41	248,153	22	133,738	22	534,951
28	High Performance New Construction	50		580		290		1,160
29	Toronto Comprehensive	NA						
30	Multifamily Energy Efficiency Rebates	NA						
31	Data Centre Incentive Program	NA						
32	EnWin Green Suites	NA						

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	97	187,933	71	126,851	41	507,112
Commercial & Institutional Program Total	119	341,153	85	246,113	85	984,451
Industrial Program Total	2	9,268	2	7,082	2	28,328
Home Assistance Program Total	0.0	0.0	0.0	0.0	0.0	0.0
Pre-2011 Programs completed in 2011 Total	41	248,733	32	134,028	22	536,111
Total OPA Contracted Province-Wide CDM Programs	259	787,087	179	514,073	150	2,056,002

2.6 Additional Comments

Design of Targets

1. CDM targets were assigned under directive from the Minister in consultation with the OPA and LDC representatives. This was undertaken using customer data from the 2009 OEB yearbook. These targets although based on the best intention and information at the time have proven to be unrealistic in some cases. More relevant market data specific to each LDC is required to correctly establish unique and appropriate targets.
2. Demand reduction targets depend heavily on results from the OPA-Contracted Province-Wide demand response initiatives. The current initiatives are best suited to industrial customers with the ability to curtail equipment or processes. Renfrew Hydro's demand reduction target was apportioned without due consideration of the limited application of this initiative in the Renfrew market which offers very little industrial opportunity.
3. The CDM Code allows for targets to be achieved through the OPA-Contracted Province-Wide CDM programs as well as optional Board (OEB) approved programs. The lack of success that Hydro One and Toronto Hydro experienced with their 2011 applications for Board approved programs has made Renfrew Hydro and other LDCs particularly cautious in their desire to develop and apply for new Board approved programs. As a result, most new program ideas are being directed to the provincial Working Groups established by the OPA and the EDA.
4. LDCs are highly dependent on the OPA Province-wide programs to meet targets. To achieve these targets, additional OPA initiatives are required along with a much faster process for making these initiatives available. An Expedited Change Management process is being developed by the OPA and EDA and should reduce time-to-market and increase existing program effectiveness.
5. Renfrew Hydro's CDM Strategy also anticipated the impact of TOU rate implementation to deliver results towards its target. The OPA designed their province-wide programs to meet approximately 80% of the provincial target with TOU expected to deliver the balance. If, as a result of EM&V, the TOU savings are significantly lower than 20% it will have an impact on every provincial LDC's results. The OPA has advised the LDCs that final TOU results will not be available until 2015 (after the close of the 2011-2014 program) which will not allow LDCs to adjust their program strategies if necessary.

Program Development

1. OPA-Contracted Province-Wide CDM programs were launched without all the tools necessary for program marketing, delivery and administration in place. Program materials such as application forms, promotional materials, administration support, evaluation tools, reporting and payment processes were and are still under development.

2. CDM program experience demonstrates that successful programs must offer simplicity of the customer application process. Overly legal and onerous application processes are a barrier to participant engagement.
3. The Customer Relationship Management tool (iCon) provided by the OPA for customer interaction and application processing proved extremely unfriendly to users creating a crippling barrier to participation requiring additional LDC resources to educate customers and complete applications on their behalf.

Program launch

1. A number of program initiatives released in 2011 were not market ready. This significantly increased the requirement for customer support and had an impact on our target achievement. Renfrew Hydro, through its relationship with Hydro Ottawa, engaged with the OPA to improve initiative design and processes which proved time consuming.
2. Large Commercial and industrial projects involve long sales, planning and implementation cycles. These projects require more time for approval, financing, procurement, installation, commissioning, and reporting. The lead time required for such projects means many cannot be completed before the end of 2014 highlighting the need for a commitment to conservation programs well beyond 2014.
3. In the Consumer Program three initiatives (mid stream electronics, pool pumps and the energy audit tool) were not launched in 2011. .
4. Commercial and Institutional Program initiatives such as High Performance New Construction, Demand Response (DR1) and Process and Systems Upgrade (PSUI) were launched but not widely acceptable to the marketplace. Corrective actions are being addressed through the Change Management process.
5. Demand Response initiatives are critical to LDCs meeting their demand reduction targets. DR1 has no market uptake as it was voluntary and provided limited incentive for aggregators. DR3 is most suited to larger industrial customers. The Renfrew Hydro market consists of smaller industrial customers that are not as attractive to DR3 aggregators due to location and size.
6. Demand response results in 2011 were due to the extension of the 2010 Residential and Small Commercial Demand Response Initiative and not a result of the 2011- 2014 initiatives.

OPA Results Reporting

1. The quarterly reports provided by the OPA do not accurately reflect the LDC activity in the quarter because the results reporting is dependent on the OPA completing their payment process with the LDC. Delays in the OPA settlement process with the LDCs leads to understated quarterly results. Business decisions made based on the quarterly reports were misinformed.

2. LDCs do not have knowledge of the results associated with OPA centrally managed Initiatives such as DR3, HVAC, Appliance Recycling and Coupons. LDCs are dependent on OPA and require more accurate and timely tracking and reporting of these Initiatives to allow for market corrections and adjustments.

Post 2014 - Influence the future

1. The business community and marketplace for CDM programs requires a clear commitment to conservation initiatives beyond 2014. Communication of this commitment to customers is required now to ensure no loss of momentum for potential projects that require timeframes extending beyond 2014 to complete.
2. The systems, processes and staff required to deliver CDM programs have taken time and resources to develop. These are assets that must be retained to serve this need beyond 2014. Examples include tracking systems, sales management tools, staff training and third party service providers.
3. LDCs require more direct control over initiative development and delivery to better manage their accountability for achieving targeted results. To support LDCs in exercising this accountability there is a need for centralized services at the OPA such as evaluation, analytics, market research and EM&V.

CDM Strategies

1. Renfrew Hydro's CDM Strategy was based on the assumption that initiatives and the processes to support them would be in place for January 2011 to allow for a full four years to reach targets. Delays in launching a number of OPA-Contracted Province-Wide Initiatives required us to limit our efforts to the initiatives that were in place at the time. It is the recommendation of this LDC that the current 2011-2014 Program framework be extended to include 2015 to compensate for the initial year that was fundamentally lost as a year of transition.

Collaboration

1. Renfrew Hydro, through its contracted relationship with Hydro Ottawa, collaborated with others such as the Enbridge, Ministry of Energy, the Coalition of Large Distributors (CLD), and Electricity Distributors Association (EDA) to share resources, exchange expertise and increase awareness of CDM opportunities and customer needs.

3 Combined CDM Reporting Elements

3.1 Progress Towards CDM Targets

Demand Savings

Renfrew Hydro’s Consumer Program delivered 0.071 MW, the Business Program delivered 0.085 MW, the Industrial Program delivered 0.002 MW and the pre-2011 programs contributed 0.022 MW for a total of 0.179 MW. These net savings are slightly above the target indicated in the CDM Strategy.

Results attributed to targets are applied using the current OPA policies. It’s important to understand that demand response results are only applied to one year by the OPA and do not persist for any of the following years out to 2014. This is why we see the demand savings discounted in 2012 and beyond as the demand response results have been removed. However, in 2014, all Demand Response resources active at that time will be recalculated and attributed to Renfrew Hydro’s overall results.

Because this was a transitional year and not all Initiatives were available for the full twelve months we believe that results delivered in future years will ensure target achievement.

Energy Savings

Renfrew Hydro’s Consumer Program delivered 0.127 GWh, the Business Program delivered 0.246 GWh, the Industrial Program delivered 0.007 GWh and the pre-2011 programs contributed 0.134 GWh for a total of 0.514 GWh. The OPA has verified that these savings will persist and provide cumulative savings equal to 2.06 GWh by the end of 2014. These results are 1.28 GWh above the original forecast of 0.78 GWh.

At the time the CDM Strategy was developed the cumulative effect of energy savings on the 2014 results was not included in forecasted results. Renfrew Hydro’s submission displayed confidence that the OPA province wide programs augmented by OEB approved programs, if necessary, would achieve the assigned targets. We feel it is prudent to clarify the energy targets identified in our CDM Strategy to more accurately present the accumulation of savings. Please see Table 8 for clarified targets.

Based on the methodology adopted by the OPA in calculating cumulative energy savings results, Renfrew Hydro is on track to accomplish its assigned net energy savings targets.

Verified net peak demand and energy savings for 2011 are presented here in Table 6 and Table 7 respectively.

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

Implementation Period	Annual (MW)			
	2011	2012	2013	2014
2011 - Verified	0.18	0.15	.015	0.15
2012				

Renfrew Hydro 2011 CDM Annual Report

2013				
2014				
Verified Net Annual Peak Demand Savings in 2014:				0.15
Renfrew Hydro 2014 Annual CDM Capacity Target:				1.05
Verified Portion of Peak Demand Savings Target Achieved in 2011 (%):				17.1%
Renfrew Hydro CDM Strategy, Milestone submitted for 2011				16%
Variance in MW to CDM Strategy	0.01			

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	0.51	0.51	0.51	0.51	2.06
2012					
2013					
2014					
Verified Net Cumulative Energy Savings 2011-2014:					2.06
Renfrew Hydro 2011-2014 Cumulative CDM Energy Target:					4.86
Verified Portion of Cumulative Energy Target Achieved in 2011(%):					42.30%
Renfrew Hydro CDM Strategy, Milestone submitted for 2011					16%
Variance in GWh to CDM Strategy					1.28

3.2 CDM Strategy Modifications

Renfrew Hydro intends to continue the relationship with Hydro Ottawa for delivery of conservation programs. This approach has proven successful in supporting and driving marketing activities in the Consumer market. We will continue to focus on the effective outreach and channel strategy for the C&I market.

Savings results associated with the implementation of Time of Use (TOU) rates are expected to contribute significantly towards Renfrew Hydro's results. The TOU results will not be provided by the OPA until 2015.

Table 8: Renfrew Hydro clarification of cumulative energy results provided in the CDM Strategy

Implementation Period	Annual (GWh)				Cumulative (GWh)
	2011	2012	2013	2014	2011-2014
2011 - Verified	0.51	0.51	0.51	0.51	2.06
2012		0.45	0.45	0.45	1.35
2013			0.50	0.50	1.00
2014				0.47	0.47
Net Cumulative Energy Savings 2011-2014:					4.86
Renfrew Hydro 2011-2014 Cumulative CDM Energy Target:					4.86