



**Serving the Community of Renfrew**

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September 26, 2014

Ontario Energy Board

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Toronto, ON M4P 1E4

Attention: Kirsten Walli - Board Secretary

**Re: Renfrew Hydro 2013 Conservation and Demand Management Annual Report**

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Renfrew Hydro is pleased to submit two hard copies of its 2013 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 2013 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 613-432-8785, ext. 224 or by email at [jtfreemark@RenfrewHydro.com](mailto:jtfreemark@RenfrewHydro.com)

Yours truly,

Name: Thomas Freemark

Title: President

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# **Renfrew Hydro**

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## **Conservation and Demand Management 2013 Annual Report**

**Submitted to:  
Ontario Energy Board**

**Submitted on September 30, 2014**

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## Executive Summary

This annual report is submitted by Renfrew Hydro in accordance with the filing requirements set out in the CDM Code (Board File No. EB-2010-0215), specifically Appendix C Annual Report Template, as a progress report and modification to Renfrew Hydro Strategy. Accordingly, this report outlines Renfrew Hydro CDM activities for the period of January 1, 2013 to December 31, 2013. It includes net peak demand and net energy savings achieved from 2011, 2012 and 2013, with discussion of the current/future CDM framework, CDM program activities, successes and challenges, as well as forecasted savings to the end of 2014.

Renfrew Hydro did not apply for any Board-Approved CDM Programs during 2013; however, as noted in the CDM guidelines, released April 26, 2012, the Ontario Energy Board (OEB) has deemed Time-of-Use (TOU) pricing a Province-wide Board-Approved CDM Program. The Ontario Power Authority (OPA) is to provide measurement and verification on TOU. At the time of this report the OPA has not released any verified results of TOU savings to Renfrew Hydro.

In 2011, Renfrew Hydro contracted with the Ontario Power Authority (OPA) to deliver a portfolio of OPA-Contracted Province-Wide CDM Programs to all customer segments including residential, commercial, institutional, industrial and low income. These programs were rolled-out by the OPA in June 2011. In 2011 Program activities were centered on building a foundation for full program execution over the next three years of the program term, including staffing, procurement, and program delivery.

In 2012, Renfrew Hydro focused their efforts on lead generation and program execution. In the Commercial and Industrial segments the focus was on leveraging marketplace delivery channels such as heating, cooling and lighting manufacturers, suppliers and distributors for maximum program uptake. Renfrew Hydro achieved program results by working with and through delivery channels and with property managers, high volume customers and the municipal, school and hospital (MUSH) segment. In the Residential segment, Renfrew Hydro focused on mass marketing, direct mail and on-line promotion to attract and enlist greater participation in this segment.

In 2013, Renfrew Hydro continued to focus on lead generation and program execution as efforts were beginning to deliver results. Residential outreach was a continuation of the activities in 2012.

To date Renfrew Hydro has achieved 0.1 MW of net incremental peak demand savings and 0.3 GWh of net incremental energy savings in 2013. A summary of the achievements towards the CDM targets is shown below:

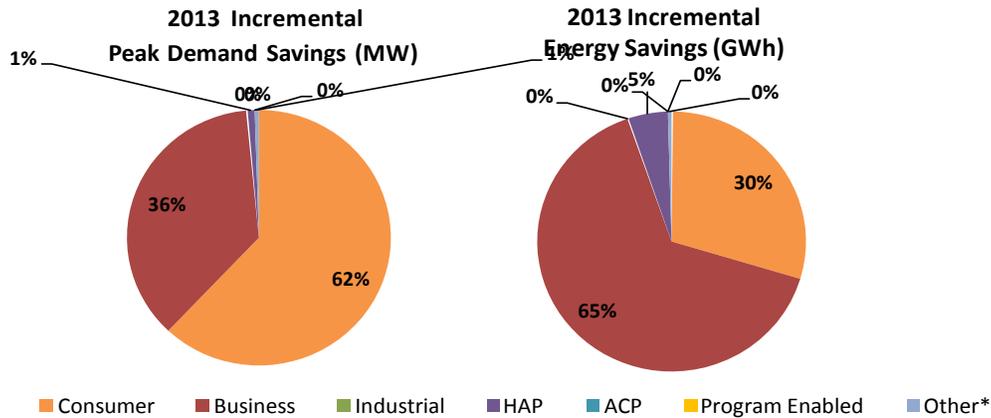
**OPA-Contracted Province-Wide CDM Programs Final Verified 2013 Results**

LDC: Renfrew Hydro Inc.

FINAL 2013 Progress to Targets	2013 Incremental	Program-to-Date Progress to Target (Scenario 1)	Scenario 1: % of Target Achieved	Scenario 2: % of Target Achieved
Net Annual Peak Demand Savings (MW)	0.1	0.3	30.8%	34.3%
Net Energy Savings (GWh)	0.3	3.9	79.7%	79.7%

Scenario 1 = Assumes that demand response resources have a persistence of 1 year  
 Scenario 2 = Assumes that demand response resources remain in the LDC service territory until 2014

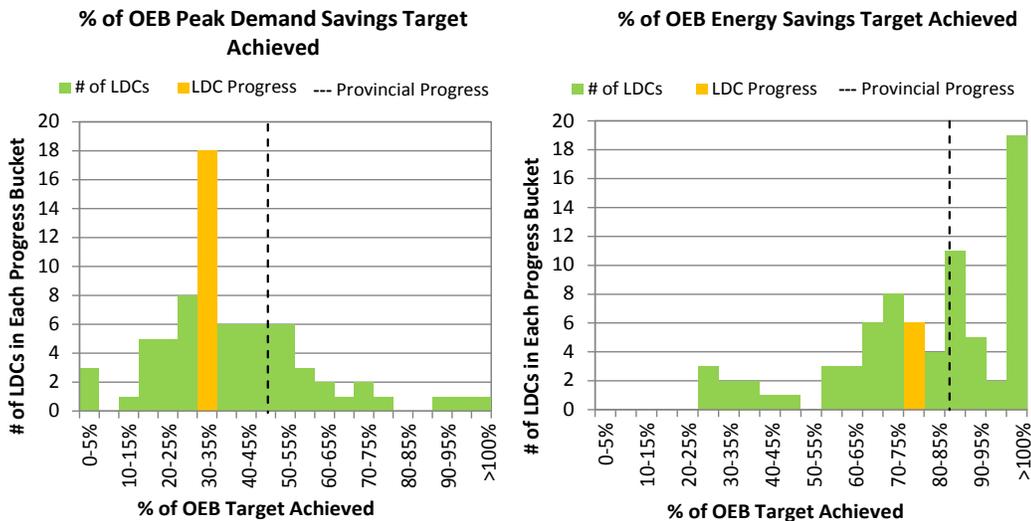
**Achievement by Sector**



\*Other includes adjustments to previous years' results and savings from pre-2011 initiatives

**Comparison: LDC Achievement vs. LDC Community Achievement (Progress to Target)**

The following graphs assume that demand response resources remain in the LDC service territory until 2014 (aligns with Scenario 2)



Renfrew Hydro expects to achieve the 2014 electricity energy savings target and 50% of the peak demand target. Renfrew Hydro continues to work actively on participant engagement. In addition Renfrew Hydro has partnered with other LDCs, and has been working with the Ontario Power Authority (“OPA”) and the Electrical Distribution Association (“EDA”) to improve program effectiveness, however it is Renfrew Hydro’s position that these actions will not fully overcome the forecasted peak demand savings shortfall.

## 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 Renfrew Hydro to require Renfrew Hydro, as a condition of its license, 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 licenses. 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 reports with the Board. This is the third Annual Report by Renfrew Hydro and has been prepared in accordance with the Code requirement and covers the period from January 1, 2013 to December 31, 2013.

Renfrew Hydro submitted its 2011 Annual Report on September 30, 2012 which summarized the CDM activities, successes and challenges experienced by Renfrew Hydro for the January 1, 2011 to December 31, 2011 period. The OEB's 2011 CDM Results report identified that the delay in the full suite of CDM Programs being made available by the OPA, and the absence of some programs negatively impacted the final 2011 results for the LDCs. This issue was also highlighted in Volumes I & II of the Environmental Commissioner's Report on Ontario's Annual Energy Conservation Progress.

On December 21, 2012, the Minister of Energy directed the Ontario Power Authority (OPA) to fund CDM programs which meet the definition and criteria for OPA-Contracted Province-Wide CDM Programs for an additional one-year period from January 1, 2015 to December 31, 2015.

The Ministerial Directive did not amend the timelines for LDCs to achieve their energy savings and demand savings targets. Therefore, the main focus of the LDCs remains the achievement of CDM targets by December 31, 2014.

Renfrew Hydro submitted its 2012 Annual Report on September 30, 2013 which summarized the CDM activities undertaken by Renfrew Hydro for the January 1, 2012 to December 31, 2012 period. The OEB's 2012 CDM Results report identified that the majority of LDCs achieved close to 20% of their net peak demand (MW) target from their 2012 results. However, LDCs generally advised the Board that meeting their peak demand (MW) target is not likely and that a shortfall is expected.

LDCs collectively achieved approximately 8% of the energy savings (GWh) target, which is slightly below the 10% incremental annual savings needed each year to achieve the energy savings target. Overall the cumulative results represent approximately 65% of the net energy target of 6,000 GWh.

The report identified that although there have been improvements to programs there still remains some shortcoming to the design and delivery of certain initiatives that have resulted in a negative impact to some programs. In particular, the change management process still requires improvements to expedite enhancements

to initiatives. The report also noted that certain initiatives may be reaching the point of market saturation and that new initiatives may need to be developed in order to take the place of the existing initiatives.

# 1 Board-Approved CDM Program

## 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 has been deemed as a 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.

The OPA had retained The Brattle Group as the evaluation contractor and has been working with an expert panel convened to provide ongoing advice on methodology, data collection, models, savings allocation, etc. The initial evaluations were conducted in 2013 with five LDCs – Hydro One, THESL, Ottawa Hydro, Thunder Bay and Newmarket. Preliminary results from these five LDCs were issued to the five LDCs involved in the study in August 2013 and are now publically available on the OPA website. Preliminary results demonstrated load shifting behaviors from the residential customer class.

Three additional LDCs were added to the study in 2014 – Cambridge-North Dumphries, Powerstream and Sudbury. Preliminary results from this study are planned to be issued to the eight LDCs in September 2014. The OPA advised that the TOU study will be complete in the summer of 2015 and final verified savings will be available for LDCs to include in the 2014 Annual Report.

As of September 30, 2014, the OPA has not released any verified results of TOU savings to Renfrew Hydro. Therefore Renfrew Hydro is not able to provide any verified savings related to LDC’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
November 1, 2012	11.8	9.9	6.3
May 1, 2013	12.4	10.4	6.7
November 1, 2013	12.9	10.9	7.2

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

**Initiative Activities/Progress:**

Renfrew Hydro began transitioning its RPP customers to TOU billing on May 1, 2010. At December 31<sup>st</sup>, 2013, 3997 RPP customers were on TOU billing.

## 1.3 Renfrew Hydro’s Application with the OEB

Renfrew Hydro did not submit a CDM program application to the OEB in 2013.

## 1.4 Renfrew Hydro’s Application with the OPA’s Conservation Fund

In 2013, the OPA introduced the Conservation Fund to help meet LDC’s interest in the development and launch of new local, regional and province-wide initiatives. The Conservation Fund’s LDC Program Innovation Stream fast-tracks LDC-led program design and the launch of successfully piloted initiatives prior to full scale deployment. By driving program innovation through the Conservation Fund, LDCs have the opportunity to both realize additional

savings through the piloting and implementation of initiatives not currently addressed by the OPA portfolio and the means to test concepts for future local or province wide programs post 2014. As per the OPA, as of March 2014, three pilots have been contracted and are underway with Toronto Hydro and Niagara Peninsula Energy and ten others are in various stages of the contracting and development process.

In addition, building on LDC interest in social benchmarking services for the residential sector, in 2013 the Conservation Fund in collaboration with Hydro One, Milton Hydro and Horizon Utilities completed the procurement of three social benchmarking pilot projects. Beginning in 2014 these services will be offered to more than 100,000 customers for a one year period, with evaluation reports published shortly thereafter.

Renfrew Hydro did not submit a CDM program application to the OPA's Conservation Fund in 2013.

## 2 OPA-Contracted Province-Wide CDM Programs

### 2.1 Introduction

Effective February 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. Program details are included in Appendix A. In addition, results include projects started pre 2011 which were completed in 2011:

Initiative	Schedule	Date schedule posted	Renfrew Hydro in Market Date
<b>Residential Programs</b>			
Appliance Retirement	Schedule B-1, Exhibit D	Jan 26, 2011	February 2011
Appliance Exchange	Schedule B-1, Exhibit E	Jan 26, 2011	May 2011
HVAC Incentives	Schedule B-1, Exhibit B	Jan 26, 2011	February 2011
Conservation Instant Coupon Booklet	Schedule B-1, Exhibit A	Jan 26, 2011	March 2011
Bi-Annual Retailer Event	Schedule B-1, Exhibit C	Jan 26, 2011	April 2011
Retailer Co-op	n/a	n/a	n/a
Residential Demand Response	Schedule B-3	Aug 22, 2011	May 2012
New Construction Program	Schedule B-2	Jan 26, 2011	Fall 2011
Home Assistance Program	Schedule E-1	May 9, 2011	January 2013
<b>Commercial &amp; Institutional Programs</b>			
Efficiency: Equipment Replacement	Schedule C-2	Jan 26, 2011	February 2011
Direct Install Lighting <ul style="list-style-type: none"> <li>• General Service &lt;50 kW</li> </ul>	Schedule C-3	Jan 26, 2011	March 2011
Existing Building Commissioning Incentive	Schedule C-6	Feb 2011	March 2011
New Construction and Major Renovation Initiative	Schedule C-4	Feb 2011	July 2011
Energy Audit	Schedule C-1	Jan 26, 2011	March 2011
Commercial Demand Response <ul style="list-style-type: none"> <li>• General Service &lt;50 kW</li> </ul>	Schedule B-3	Jan 26, 2011	
<b>Industrial Programs - General Service 50 kW &amp; above</b>			
Process & System Upgrades	Schedule D-1	May 31, 2011	February 2011
Monitoring & Targeting	Schedule D-2	May 31, 2011	February 2011
Energy Manager	Schedule D-3	May 31, 2011	
Key Account Manager ("KAM")	Schedule D-4	May 31, 2011	
Efficiency Equipment Replacement Incentive <ul style="list-style-type: none"> <li>• (part of the C&amp;I program schedule)</li> </ul>	Schedule C-2	May 31, 2011	February 2011
Demand Response 3	Schedule D-6	May 31, 2011	October 2011

In addition, results were realized towards LDC's 2011-2014 target through the following pre-2011 programs:

- Electricity Retrofit Incentive Program
- High Performance New Construction

- Toronto Comprehensive
- Multifamily Energy Efficiency Rebates
- Data Centre Incentive Program
- EnWin Green Suites

As per the table below, several program initiatives are no longer available to customer or have not been launched in 2013.

Not in Market	Objective	Status
<b>Residential Program</b>		
Midstream Electronics	Encourages retailers to promote and sell high efficiency televisions, and for distributors to distribute high efficiency set top boxes.	Did not launch and removed from Schedule in Q2, 2013.
Midstream Pool Equipment	Encourage pool installers to sell and install efficient pool pump equipment in residential in-ground pools.	Did not launch and removed from Schedule in Q2, 2013.
Home Energy Audit Tool	This is a provincial online audit tool to engage customers in conservation and help drive customer participation to CDM programs.	Did not launch and removed from Schedule in Q2, 2013.
<b>Commercial &amp; Institutional Program</b>		
Direct Service Space Cooling	Offers free servicing of air conditioning systems and refrigeration units for the purpose of achieving energy savings and demand reduction.	Did not launch in 2011/2012. As per the OPA there no plans to launch this Initiative in 2013.
Demand Response 1 ("DR1")	This initiative allows distribution customers to voluntarily reduce electricity demand during certain periods of the year pursuant to the DR 1 contract. The initiative provides DR payment for service for the actual electricity reduction provided during a demand response event.	No customer uptake for this initiative. As a result this Initiative was removed from the Schedule in Q4, 2012.
<b>Industrial Program</b>		
DR1	As above	No customer uptake for this initiative. Removed in Q4, 2012.

The Master CDM Program Agreement includes program change management provision in Article 3. Collaboration between the OPA and the Local Distribution Companies (LDCs) commenced in 2011, and continued in 2012, 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

Full OPA-Contracted Province-Wide CDM Program descriptions are available on the OPA's website at <http://www.powerauthority.on.ca/lcd-province-wide-program-documents> and additional initiative information can be found on the saveONenergy website at <https://saveonenergy.ca>. The targeted customer types, objectives, and individual descriptions for each Program Initiative are detailed in Appendix A.

### 2.2.1 RESIDENTIAL PROGRAM

**Description:** Provides residential customers with programs and tools to help them understand and manage the amount of energy they use throughout their entire home and help the environment.

**Objective:** To provide incentives to both existing homeowners and developers/builders to motivate the installation of energy efficiency measures in both existing and new home construction.

**Discussion:**

The addition of LED measures to the Bi-Annual Retailer Event and in the Annual Coupon initiative in July 2013 has had a positive impact on customer participation. There was the added benefit of three LDC custom coded coupon options for LDCs to utilize in 2013. The Residential Demand Response program continues to be the largest contributor to demand savings in the Residential Program and has been generally well received by consumers. Unfortunately, there were no savings associated with the Energy Display attributed to LDCs in the OPA's 2012 verified results.

The Residential Program Portfolio is predominately a carryover of Initiatives from previous programs. It is mostly driven by retailers and contractors who many not have fully delivered what was anticipated. Three new initiatives (Midstream Electronics, Midstream Pool Equipment and Home Energy Audit Tool) were not launched and subsequently removed from the schedule in 2013 with no new additions.

Province-wide advertising was re-introduced in Q3 2013. This provided limited value due to the late market entry, especially for *peaksaver*PLUS.

Work to revitalize and increase the effectiveness and breadth of the Initiatives through the Residential Program continue to be a high priority. Opportunities within the Residential marketplace need to be identified, developed and offered to customers. The Version 5 Schedule changes implemented in Q1/Q2 2014 have increased the number of LDC coded coupons available and added new installations to the Heating and Cooling Incentive.

### **2.2.1.1     *Appliance Retirement Initiative (Exhibit D)***

#### **Initiative Activities/Progress:**

Print collateral   inclusion in the omnibus FOR HOME brochure

#### **Additional Comments:**

- Due to the duration of the program, and the revised eligibility requirements to a minimum of 20 years old, this Initiative appears to have reached market saturation and has been under consideration for removal from the Portfolio.
- As participation is very responsive to province wide advertising, OPA province-wide advertising should continue to play a key role if the initiative continues.

### **2.2.1.2     *Appliance Exchange Initiative (Exhibit E)***

#### **Initiative Activities/Progress:**

There was only a Spring Event hosted by Canadian Tire. Renfrew Hydro did not do any promotion or engagement for the event.

#### **Additional Comments:**

- The design of the Initiatives, including eligible measures and incentives amounts are developed through the Residential Working Group. Retail Partner(s) are contracted by the OPA to deliver the initiatives province-wide. Individual LDCs have the opportunity to stage in-store events to drive the distribution of LDC coded Coupons and promotion of other programs in the portfolio
- The restrictive, limited and sometimes non-participation of local stores can diminish the savings potential for this Initiative.
- To date there has only been one retailer participant in the Appliance Exchange Initiative.
- In 2012 there was a decrease in the number of window air conditioners being received through the program. A review of eligible measures in the Appliance Exchange program was conducted, and as these units are not cost effective on their own it was determined that they be removed from the program in order to improve the overall cost effectiveness of the Initiative
- Notification to LDCs regarding retailer participation and eligible measures continues to be delayed. Improved communications will aid in appropriate resource allocation and marketing of the Initiative.
- This Initiative may benefit from the disengagement of the retailer and allowing LDCs to conduct these events, possibly as part of a larger community engagement effort, with the backing of ARCA for appliance removal.

- The initiative appears to require more promotion from retailers and LDCs.

### **2.2.1.3 HVAC Incentives Initiative (Exhibit B)**

#### **Initiative Activities/Progress:**

Bill insert      October/November      multi program focus      all residential customers  
 Print collateral      inclusion in the omnibus FOR HOME brochure

#### **Additional Comments:**

- Incentive levels appear to be insufficient to prompt customers to upgrade HVAC equipment prior to end of useful life. An Air Miles incentive was introduced in 2013 to try and encourage early replacement.
- This Initiative is contractor driven with LDCs responsible for marketing efforts to customers. More engagement with the HVAC contractor channel should be undertaken to drive a higher proportion of furnace and CAC sales to eligible units.
- In an effort to build capability, mandatory training has been instituted for all participating HVAC contractors. This could present too much of a barrier for participation for some contractors as the application process already presents a restriction to contractor sales. It has been noted that there are approximately 4500-5000 HVAC contractors in the Province, however in 2013, only a total of 1,587 contractors completed the mandatory HVAC training and can participate in the program.
- There are cases where non-participating contractors are offering their own incentives (by discounting their installations to match value of the OPA incentive). As this occurs outside of the Initiative, savings are not credited to LDCs. OPA should consider this in future program impact evaluation studies.
- Changes to the Schedule in 2014 to allow for incentives for new installations, rather than strictly replacement units, may provide greater Initiative results.

### **2.2.1.4 Conservation Instant Coupon Initiative (Exhibit A)**

#### **Initiative Activities/Progress:**

Bill insert      June/July      multi program focus      all residential customers  
 Bill insert      October/November      multi program focus      all residential customers  
 Print collateral      inclusion in the omnibus FOR HOME brochure

#### **Additional Comments:**

- The timeframe for retailer submission of redeemed coupons varies depending on the retailer and in some cases has been lengthy. The delays and incomplete results reporting limits the ability to react and respond to Initiative performance or changes in consumer behavior.
- Coupon booklets were not printed and mailed out in 2013 so were not widely available to consumers without the ability to download and print online coupons. In addition, consumers may not have been aware of the online coupons. The Initiative may benefit from province-wide marketing as a substitute to a mail out campaign.
- The product list could be distinctive from the Bi-Annual Retailer Event Initiative in order to gain more consumer interest and uptake.
- Program evolution, including new products and review of incentive pricing for the coupon Initiatives, should be a regular activity to ensure continued consumer interest.
- In 2013, LDCs were provided with 3 custom coded coupons. All coupons have been provided with LDC custom coding in 2014 which allows LDCs to promote coupons based on local preferences.

Consumer experience is not always consistent between and among participating retailers and this can impact coupon redemption rates. The challenges vary from not accepting coupons, to having a specific procedure to static lists of eligible products.

### ***2.2.1.5 Bi-Annual Retailer Event Initiative (Exhibit C)***

#### **Initiative Activities/Progress:**

Event team      Canadian Tire Fall Event

#### **Additional Comments:**

- This Initiative is strongly influenced by the retail participants and has no direct involvement from the LDCs.
- LDCs have the opportunity to stage in-store events to drive the distribution of LDC coded Coupons and promotion of other programs in the portfolio however this requires cooperation from the local retailer and LDC staff bandwidth.
- The Product list has changed very little over the past five years.
- Program evolution, including new products and review of incentive pricing for the coupon Initiatives, must be a regular activity to ensure continued consumer interest.
- The Product list could be distinctive from the Conservation Instant Coupon Initiative in order to gain more consumer interest and uptake.
- A review conducted by the Residential Working Group identified three areas of need for Initiative evolution: 1) introduction of product focused marketing; 2) enhanced product selection and 3) improved training for retailers as retail staff tend not to be knowledgeable regarding the products or promotion.

- This Initiative may benefit from a more exclusive relationship with a retailer appropriate to the program. There should be a value proposition for both the retailer and LDC.

#### ***2.2.1.6 — Retailer Co-op***

##### **Initiative Activities/Progress:**

##### **Additional Comments:**

- This is a retailer Initiative with no direct benefit to the LDCs
- Limited engagement of local retailers can restrict the savings potential for this Initiative.
- 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, however many LDCs are limited by available resources and unable to participate.

#### ***2.2.1.7 — New Construction Program (Schedule B-2)***

##### **Initiative Activities/Progress:**

##### **Additional Comments:**

- This Initiative provides incentives to home builders for incorporating energy efficiency into their buildings. To support this, LDCs need to provide education to the consumers regarding the importance of choosing the energy efficient builder upgrade options without an immediate benefit to the consumer.
- In 2012 the application process was streamlined, however continues to be too cumbersome for most builders. This combined with low incentives has resulted in this Initiative continuing to under-achieve.
- Administrative requirements, in particular individual home modeling, must align with perceived stakeholder payback
- Performance applications are expected to increase in 2014 due to some industry players interest in the Initiative. However, it is anticipated that the performance track will be the primary track used in applications, which provides low savings for the incentive provided. Savings and associated incentives may need to be revised to an appropriate level.
- The addition of LED light fixtures, application process improvement and moving the incentive from the builder to the home-owner may increase participation.
- This Initiative may benefit from collaboration with the Natural Gas utilities.

### 2.2.1.8 Residential Demand Response Program (Schedule B-3)

#### Initiative Activities/Progress:

Bill insert	June/July	multi program focus	all residential customers
Direct mail	July	peaksaver PLUS	eligible customers – IHD offer
Bill insert	October/November	program specific	all residential customers
Newspaper	November	peaksaver PLUS	community English & French
Print collateral	inclusion in the omnibus FOR HOME brochure		

#### Additional Comments:

- This is the main Initiative within the Residential portfolio that was to drive savings for LDC, however the 2012 evaluation indicated savings realized from the In Home Display (IHD) were not statistically significant. LDCs were advised that the evaluation of the IHDs would continue with 2013 data. Data for the program EM&V was only reviewed in one geographical area within the province. HOL believes that because the Hawkesbury deliver model was strongly focused on customer education, it will lead to significantly different results.
- Verified demand savings in 2012 from the load control devices were less than originally anticipated. This prompted an increase to the load cycling strategy in 2013 in order to increase savings closer to the original business case.

### 2.2.2 COMMERCIAL AND INSTITUTIONAL PROGRAM

**Description:** Provides commercial, institutional, agricultural and industrial organizations with energy-efficiency programs to help reduce their electrical costs while helping Ontario defer the need to build new generation and reduce its environmental footprint. This Initiative included programs to help fund energy audits, to replace energy-wasting equipment or to pursue new construction projects that exceed our existing codes and standards. Businesses can also pursue incentives for controlling and reducing their electricity demand at specific times.

**Targeted Customer Type(s):** Commercial, Institutional, Agricultural, Multi-family buildings, Industrial

**Objective:** Designed to assist building owners and operators as well as tenants and occupants in achieving demand and energy savings, and to facilitate a culture of conservation among these communities as well as the supply chains which serve them.

#### Discussion:

Throughout 2011 to 2013 the Commercial and Institutional (C&I) Working Group has strived to enhance the existing C&I programs and rectify identified program and system deficiencies. This has proven to be a challenging undertaking. Overbuilt governance, numerous initiative requirements, complex program structure and lengthy change management have restricted growth without providing the anticipated improved Measurement and

Verification results. In addition, Evaluation, Measurement and Verification (EM&V) has not yet achieved transparency. LDCs are held accountable for these results but are not included in the EM&V process.

LDC program management has been hampered by varying rule interpretation, limited marketing ability, a somewhat inflexible online system of checks and balances and revolving OPA support personnel.

The C&I Working Group, working in cooperation with the OPA, continued to improve many of the issues which could be rectified. In particular, an accomplishment of 2012 was the advent of the expedited change management as means to accelerate certain program changes. 2013 saw the benefits of expedited change management process.

Looking ahead there is minimal opportunity to make valuable changes to the current program suite and have these changes reflected in LDC 2014 results. LDCs and the OPA should look beyond the current Initiatives and work to launch new programs, built on the strengths of the 2011-2014 programs, which will meet the needs of the industry and consumers.

### ***2.2.2.1 Efficiency: Equipment Replacement Incentive (ERII) (Schedule C-2)***

#### **Initiative Activities/Progress:**

Channel Sales Strategy

**Additional Comments:** A large proportion of LDC savings are attributed to ERII.

- Capability building programs from Industrial programs have had very positive contributions to ERII program.
- This Initiative is limited by the state of the economy and the ability of commercial/institutional facility to complete capital upgrades.
- Applicants and Applicant Representatives continue to express dissatisfaction and difficulty with the online application system. This issue has been addressed by LDCs through application training workshops, Key Account Managers, channel partner/contractor training and LDC staff acting as customer Application Representatives. Although this has been an effective method of overcoming these issues and encouraging submissions, it also reveals on the complexity and time consuming nature of the application process. As such, Applicant Representatives continue to influence the majority of applications submitted. Continued development of Channel Partners is essential to program success.
- Prescriptive and Engineered worksheets provide a much needed simplified application process for customers. However, the eligible measures need to be updated and expanded in both technology and incentive amounts to address changing product costs and evolution of the marketplace.
- A focus on demand incentives has limited some kWh project opportunities. In particular, night lighting projects have significant savings potential for customers but tend to have incentives of 10% of project cost or less.
- The requirement to have a customer invoice the LDC for their incentive is very burdensome for the customer and results in a negative customer experience and another barrier to participation.

- There is redundancy in the application process as customers may need to complete a worksheet and then enter most of that information over to the online application form. This can be cumbersome.
- Processing Head Office application became much easier for the Lead LDC after Schedule changes came into effect in August 2013. The largest beneficiary was the customer who could now deal with one LDC for all of their provincial locations.
- The application process for Head Office projects requires improvement. Applicants still need to manually enter one application per facility associated with the project. This can be extremely onerous, often requiring a dedicated resource.
- Streamlining of the settlements systems resulted in significant improvement in the payment process in 2013.

#### **2.2.2.2      *Direct Install Initiative (DIL) (Schedule C-3)***

##### **Initiative Activities/Progress:**

Channel Sales Strategy

##### **Additional Comments:**

- LED lighting was introduced in 2013 as a new measure and has been well received by customers who may not have previously qualified for DIL eligible upgrades. This is an efficient product with a long estimated useful life.
- Cold start high output lighting was removed from the program. This particularly affected the farming customers who now have limited options within the program.
- The inclusion of a standard incentive for additional measures increased project size and drove higher energy and demand savings results in some situations. However, LDCs are unable to offer these standard incentives to prior participants. The ability to return to prior participants and offer a standard incentive on the remaining upgrades has potential to provide additional energy and demand savings
- Electrical contractor's margins have been reduced due to no labour rate increase, increase cost of materials, greater distances between retrofit and more door knocking required before a successful sale. This has led to a reduction in vendor channel participation in some regions.
- Measure incentives and additional funding for fork lifts were introduced in September 2013 and were well received by installers.

#### **2.2.2.3      *Existing Building Commissioning Incentive Initiative (Schedule C-6)***

##### **Initiative Activities/Progress:**

Channel Sales Strategy

**Additional Comments:**

- Initiative name does not properly describe the Initiative.
- There was minimal participation for this Initiative. It is suspected that the lack of participation in the program is a result of the Initiative being limited to space cooling and a limited window of opportunity (cooling season) for participation.
- Participation is mainly channel partner driven.
- Customers would like to see the program expanded to include a broader range of measures for a more holistic approach to building re-commissioning. Chilled water systems used for other purposes should also be made an eligible measure.
- This initiative should be reviewed for incentive alignment with ERII, as currently a participant will not receive an incentive if the overall payback is less than 2 years.

**2.2.2.4 New Construction and Major Renovation Initiative (HPNC) (Schedule C-4)****Initiative Activities/Progress:**

Channel Sales Strategy

**Additional Comments**

- With the Ministerial Directive issued December 21, 2012, facilities with a completion date near the end of 2015 have some security that they will be compensated for choosing efficient measures. However, buildings that are in the planning phase with completion dates post-2015 may not participate due to funding and program uncertainty.
- Participants estimated completion dates tend to be inaccurate and are usually six months longer. This could result in diminished savings towards target when facilities are not substantially completed by December 31, 2014.
- The custom application process requires considerable customer support and skilled LDC staff. The effort required to participate through the custom stream exceeds the value of the incentive for many customers.
- There are no custom measure options for items that do not qualify under the prescriptive or engineered track as the custom path does not allow for individual measures, only whole building modelling.
- This Initiative has a very low net-to-gross ratio, which results in more than 50% of the expected savings being 'lost'. This factor may force LDC to remove the program from portfolios in the future as the program delivers strong savings for the customer, but minimal verified results from the OPA.
- The requirement to have a customer invoice the LDC for their incentive is very burdensome for the customer and results in a negative customer experience and a potential barrier to participation.

### 2.2.2.5 *Energy Audit Initiative*

#### **Initiative Activities/Progress:**

Channel Sales Strategy

#### **Additional Comments:**

- The introduction of the new audit component for one system (i.e. compressed air), has increased customer participation.
- The energy audit Initiative is considered an ‘enabling’ Initiative and ‘feeds into’ other saveONenergy Initiatives.
- Evaluators in 2012 and 2013 recognized savings towards LDCs targets as a result of customers implementing low/no cost recommendations from their energy audits.
- Audit reports from consultants vary considerably and in some cases, while they adhere to the Initiative requirements, do not provide value for the Participant. A standard template with specific energy saving calculation requirements should be considered.
- Customers look to the LDCs to recommend audit companies. A centralized prequalified list provided by the OPA may be beneficial.
- Participation has been limited to one energy audit per customer which only allowed the customer to review and audit one area of their business. This has been revised in 2014 and LDCs are now able to consider additional customer participation when presented with a new scope of work.

### 2.2.3 **INDUSTRIAL PROGRAM**

**Description:** Large facilities are discovering the benefits of energy efficiency through the Industrial Programs which are designed to help identify and promote energy saving opportunities. It includes financial incentives and technical expertise to help organizations modernize systems for enhanced productivity and product quality, as well as provide a substantial boost to energy productivity. This allows facilities to take control of their energy so they can create long-term competitive energy advantages which reach across the organization.

**Targeted Customer Type(s):** Industrial, Commercial, Institutional, Agricultural

**Objective:** To provide incentives to both existing and new industrial customers to motivate the installation of energy efficient measures and to promote participation in demand management.

#### **Discussion:**

The Industrial Program Portfolio has been able to provide significant incentives and valuable resources to large facilities to help them with energy efficiency upgrades and process system improvements. The Engineering Studies in particular as well as the Monitoring and Targeting initiative provide a unique opportunity for a customer to

complete a comprehensive analysis of an energy intensive process that they otherwise may not undertake. The Energy Manager Initiative provides customers with a skilled individual whose only role is to assist them with conservation initiatives. To date these Energy Managers have played a key role in customer participation.

Due to the size, scope and long lead time of these Initiatives and associated projects, the Ministerial Directive provides some security for the continuation of the conservation programs and associated compensation for the participant; however the subsequent savings would not be attributed to an LDC's current target for projects that go into service after 2014.

Extensive legal documents, complex program structure and lengthy change management have restricted the change and growth of this Portfolio. While the expedited change management has benefited the Commercial Portfolio, the Industrial Portfolio has not seen the same results due to the narrow scope of the process. For 2013 the change to the threshold for small capital projects and the new small capital project agreement are expected to improve the number of projects and savings achieved within PSUI. Likewise, a decision to proceed with 2012 natural gas load displacement generation projects applications will also increase uptake although the limited time to bring new projects into service is a barrier.

### **2.2.3.1 Process & Systems Upgrades Initiative (PSUI) (Schedule D-1)**

#### **Initiative Activities/Progress:**

Channel Sales Strategy

#### **Additional Comments:**

- Numerous energy studies have been submitted and completed. This is a strong indication that there is the potential for large projects with corresponding energy savings. Many of these studies have been initiated through the Energy Manager and KAM resources.
- This Initiative is limited by the state of the economy and the ability of a facility to complete large capital upgrades.
- There is typically a long sales cycle for these projects, and then a long project development cycle. As such, limited results were generated in 2013. The majority of the results are expected in 2014 with a much reduced benefit to cumulative energy savings targets.
- Delays with processing funding payments have caused delayed payments to Participants beyond contract requirements. In some cases, LDCs have developed a separate side agreement between the LDC and Participant acknowledging that the Participant cannot be paid until the funds are received.
- The contract required for PSUI is a lengthy and complicated document. A key to making PSUI successful is a new agreement which is a simplified with less onerous conditions for the customer.
- To partially address this, changes were made to the ERII Initiative which allowed smaller projects to be directed to the Commercial stream. Most industrial projects to-date have been submitted as ERII projects due to less onerous contract and M&V requirements.

- A business case was submitted by the Industrial Working Group in July 2012 which would change the upper limit for a small project from 700 MWh to 1 million dollars in incentives. This would allow more projects to be eligible for the new small capital project agreement and increase participant uptake, while still protecting the ratepayer. This small capital project agreement was finalized in August 2013.
- While there is considerable customer interest in on-site Load Displacement (Co-Generation) projects, in 2012 the OPA was accepting waste heat/waste fuel projects only. Natural gas generation projects were on hold awaiting a decision on whether PSUI will fund these types of projects. In June 2013, a decision was made to allow natural gas load displacement generation projects to proceed under PSUI. It is expected that a number of projects will proceed although results may not be counted towards LDC targets due to in-service dates beyond 2014.
- The requirement to have a customer invoice the LDC for their incentive is very burdensome for the customer and results in a negative customer experience and another barrier to participation.

### **2.2.3.2 *Monitoring & Targeting Initiative (Schedule D-2)***

#### **Initiative Activities/Progress:**

Channel Sales Strategy

#### **Additional Comments:**

- The M&T initiative is 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. As such, a limited number of applications have been received to date.
- The savings target required for this Initiative can present a significant challenge for smaller customers.
- Changes were made to ERII in 2013 to allow smaller facilities to employ M&T systems.

### **2.2.3.3 *Energy Manager Initiative (Schedule D-3)***

#### **Initiative Activities/Progress:**

#### **Additional Comments:**

- The Energy Managers have proven to be a popular and useful resource for larger customers.
- LDCs that are too small to qualify for their own REM are teaming up with other utilities to hire an REM to be shared by the group of utilities.
- Some LDCs and Customers are reporting difficulties in hiring capable Roving and Embedded Energy Managers (REM/EEM), in some instances taking up to 7 months to have a resource in place.

- New energy managers require training, time to familiarize with facilities and staff and require time to establish “credibility”. Energy Managers started filling their pipeline with projects in 2012 but few projects were implemented until 2013.

#### **2.2.3.4 ~~Key Account Manager (Schedule D-4)~~**

##### **Initiative Activities/Progress:**

##### **Additional Comments**

- 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. In addition, the short-term contract discourages some skilled applicants resulting in longer lead times to acquire the right resource.

### **2.2.3.5 Demand Response 3 (D-6)**

#### **Initiative Activities/Progress:**

Channel Sales Strategy

#### **Additional Comments:**

- Until early 2013 customer data was not provided on an individual customer basis due to contractual requirements with the aggregators. This limited LDCs' ability to effectively market to prospective participants and verify savings.
- No program improvements were made in 2013 however, it was accepted that prior participants who renew their DR3 contract within the 2011-2014 term will contribute to LDC targets.
- As of 2013, Aggregators were able to enter into contracts beyond 2014 which has allowed them to offer a more competitive contract price (5 year) than if limited to 1 or 2 year contracts.
- Metering and settlement requirements are expensive and complicated and can reduce customer compensation amounts, and present a barrier to smaller customers.
- Compensation amounts for new contracts and renewals have been reduced from the initial launch of this program (premium zones and 200 hour option have been discontinued) and subsequently there has been a corresponding decrease in renewal revenue.

### **2.2.4 LOW INCOME INITIATIVE (HOME ASSISTANCE PROGRAM) (Schedule E-1)**

#### **Initiative Activities/Progress:**

A third party was contracted to deliver this program on behalf of Renfrew Hydro. Outreach to the social housing provider was most effective. Available funding allowed for forty families to benefit from this program.

#### **Additional Comments:**

- The process for enrolling in social housing was complicated and time consuming. This was addressed in late 2012 and showed some benefits in 2013.
- The financial scope, complexity, and customer privacy requirements of this Initiative are challenging for LDCs and most have contracted this program out.

### **2.2.5 PRE-2011 PROGRAMS**

Savings were realized towards LDC's 2011-2014 target through pre-2011 programs. The targeted customer types, objectives, descriptions, and activities of these programs are detailed in Appendix B



**Table 1: Summarized Program Results**

Program	Gross Savings		Net Savings		Contribution to Targets	
	Incremental Peak Demand Savings (MW)	Incremental Energy Savings (GWh)	Incremental Peak Demand Savings (MW)	Incremental Energy Savings (GWh)	Program-to-Date: Net Annual Peak Demand Savings (MW) in 2014	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (GWh)
Consumer Program Total	.089	.135392	.062	.074811	.094	.901578
Business Program Total	.044	.202148	.037	.164104	.210	2.415621
Industrial Program Total	0	0	0	0	.002	.028328
Home Assistance Program Total	.001	.012344	.001	.012344	.001	.024492
Pre-2011 Programs completed in 2011 Total	0	0	0	0	.022	.536366
Other Adjustments	.001	.002291	.001	.001252	-.005	-.033302
<b>Total OPA Contracted Province-Wide CDM Programs</b>	<b>.135</b>	<b>.352175</b>	<b>.100</b>	<b>.252369</b>	<b>.323</b>	<b>3.873083</b>

## 3.2 Evaluation

See 3.4 Additional Comments

### 3.3 Spending

Table 3 and 4 summarize the total spending by initiative that Renfrew Hydro has incurred in 2013 and cumulatively since 2011. It is detailed by the Program Administration Budget (PAB), Participant Based Funding (PBF), Participant Incentives (PI) and Capability Building Funding (CBF).

**Table 3: 2013 Spending**

Initiative	PAB	PBF	PI	CBF	TOTAL
<b>Consumer Program</b>					
Appliance Retirement	17.87				17.87
Appliance Exchange	17.87				17.87
HVAC Incentives	35.77				35.77
Annual Coupons	788.24				788.24
Bi-Annual Retailer Event	35.77				35.77
<del>Retailer Co-op</del>					
Residential Demand Response	7,387.71		13,425.00		20,812.71
New Construction Program					
<b>Business Program</b>					
Equipment Replacement	9,714.78		15,479.28		25,194.06
Direct Installed Lighting	9,828.13	1,300.00	19,247.25		30,375.38
Existing Building Commissioning Incentive	1,394.33				1,394.33
New Construction and Major Renovation Initiative	5,577.37				5,577.37
Energy Audit	1,394.33				1,394.33
Small Commercial Demand Response					
Demand Response 3					
<b>Industrial Program</b>					
Process & System Upgrades	715.06				715.06
a) preliminary engineering study					
b) detailed engineering study					
c) program incentive					
Monitoring & Targeting	715.06				715.06
Energy Manager					
Key Account Manager ("KAM")					
Equipment Replacement					
Demand Response 3	2,860.17				2,860.17
<b>Home Assistance Program</b>					
Home Assistance Program	2,851.15		14,493.00		17,344.15
<b>Initiatives Not In Market</b>					
Midstream Electronics					
Midstream Pool Equipment					
Demand Service Space Cooling					
Demand Response 1	2,860.17				2,860.17
Home Energy Audit Tool					
<b>TOTAL SPENDING</b>	<b>46,193.78</b>	<b>1,300.00</b>	<b>62,644.53</b>		<b>110,138.31</b>

**Table 4: Cumulative Spending (2011-2014)**

Initiative	PAB	PBI	PI	CBF	TOTAL
<b>Consumer Program</b>					
Appliance Retirement	7,729.57				7,729.57
Appliance Exchange	1,349.81				1,349.81
HVAC Incentives	11,274.82				11,274.82
Annual Coupons	11,284.91				11,284.91
Bi-Annual Retailer Event	1,740.17				1,740.17
Retailer Co-op					
Residential Demand Response	24,325.23		39,430.00		63,755.23
New Construction Program					
<b>Business Program</b>					
Equipment Replacement	32,620.38		98,716.28		131,336.66
Direct Installed Lighting	30,032.12	4,000.00	43,269.11		77,301.23
Existing Building Commissioning Incentive	3,233.67				3,233.67
New Construction and Major Renovation Initiative	12,934.68				12,934.68
Energy Audit	3,233.67				3,233.67
Small Commercial Demand Response					
Demand Response					
<b>Industrial Program</b>					
Process & System Upgrades	1,668.52				1,668.52
a) preliminary engineering study					
b) detailed engineering study					
c) program incentive					
Monitoring & Targeting	1,668.52				1,668.52
Energy Manager					
Key Account Manager ("KAM")					
Equipment Replacement Incentive					
Demand Response 3	6,673.79				6,673.79
<b>Home Assistance Program</b>					
Home Assistance Program	3,215.06		14,493.00		17,708.06
<b>Pre 2011 Programs</b>					
Electricity Retrofit Incentive Program			135,327.38		135,327.38
High Performance New Construction					
Toronto Comprehensive					
Multifamily Energy Efficiency Rebates					
Data Centre Incentive Program					
EnWin Green Suites					
<b>Initiatives Not In Market</b>					
Midstream Electronics					
Midstream Pool Equipment					
Demand Service Space Cooling					
Demand Response 1	6,6673.79				6,673.79
Home Energy Audit Tool					
<b>TOTAL SPENDING</b>	<b>159,658.71</b>	<b>4,000.00</b>	<b>331,235.77</b>		<b>494,894.48</b>

### 3.4 Additional Comments

The design of OPA Province–Wide CDM Initiatives is not customer friendly and this has had an impact on Renfrew Hydro’s CDM program results. However, many of these design flaws have been identified and are being corrected.

#### Consumer Programs

1. **Home Energy Audit Tool, Midstream Pool Equipment, Midstream Electronics Initiatives** were never launched and subsequently withdrawn with no new additions.
2. Due to the maturity of the **Appliance Retirement Initiative**, and the revised eligibility requirements to appliances at least 20 years old, this Initiative appears to have reached market saturation. It is currently under consideration for removal from the portfolio.
3. The **Appliance Exchange Initiative** is at the discretion of Participating Retailers. Only one retailer hosted a spring event in 2012. There was no fall event. The elimination of one event restricted participation and reduced results.
4. The **Instant Coupon Initiative** was ineffective for most of 2012 as the annual Instant coupons were not available to consumers until September 2012 and once they were offered, they were only available on line. For illustration purposes, Renfrew Hydro customers used 30,000 printed coupons in 2011 and only 1,700 online coupons in 2012.
5. The **Bi-Annual Retailer Event Initiative** is a contracted arrangement between the participating retailer and the OPA. LDCs have prescribed engagement opportunities with the participating retailers. The reporting of coupon redemption results is not timely due to the contracted reporting timelines.
6. The **New Construction Program** was burdened with a cumbersome administrative process that vastly outweighed the benefit to builders. Renfrew Hydro took on the administrative burden for the program on behalf of the local builders and has experienced some success with this program. We do not feel that this approach is sustainable and that there needs to be a streamlined process that builders will embrace.
7. Implementation of the **Residential Demand Response Program** was delayed until 2012 as changes to the provincial technical specifications were required to facilitate procurement. This program contributes heavily towards the Consumer Program overall results but constraints imposed by the program funding caps, technical specifications and real time data requirements should be reviewed to encourage a broader range of equipment, services and offerings for LDCs to maintain a relevant offer as this market evolves.
8. **In Home Displays (IHDs)** formed an important part of the residential offering for many customers. IHDs engage customers, which leads to a greater understanding of how and when electricity is being used in their homes. The OPA, for a second year in a row, has been unable to determine the savings value of IHDs through their EM&V process. The methodology for the EM&V was conducted the GTA which restricted the findings. It is felt that the restrictive nature of the EM&V paints all LDCs with the same brush when many LDCs used completely different

approaches to deploying IHDs. Some LDCs focused heavily on proper installation and customer education and others deployed a more generic approach. As a result, Renfrew Hydro has no savings to report for our efforts. This has a significant negative impact on our results based on the original business case for IHDs. Because there are no results to date and no certainty around future results, Renfrew Hydro is unsure if it should continue to pursue this program.

### **Business Program**

The Business Program has been hampered by inconsistent interpretation of program rules and eligibility, limited effectiveness of provincial marketing efforts, dated technologies and measures, cumbersome online administration systems and time consuming change management processes.

1. In the case of the **Efficiency: Equipment Replacement Incentive (ERII)** the OPA centralized application system (CRM) requires significant back office LDC processing to help participants navigate the application process. Eligible measures need to be updated and expanded in both technology and incentive amounts to address changing product costs and technology evolution.
2. The **Direct Install Initiative (DIL) has been in market since 2009**. The early success of the program was encouraging; however the program has not remained up to date with market needs and conditions. The product list for the program must be updated with current technologies and should be monitored and adjusted regularly. Product costs have also increased over time, eroding the contractor profit margins. This has led to a severe reduction in their participation.
3. **Existing Building Commissioning Incentive Initiative** has had minimal participation as it mostly limited to space cooling
4. There is typically a long sales cycle (3-5 years) associated with any **New Construction and Major Renovation Initiative (HPNC)**. These projects with their long project development cycle are impacted by the program end date and heavily discounted EMV results.
5. The **Direct Service Space Cooling Initiative** was never launched.

### **Industrial Program**

The Industrial initiatives have not generated significant savings in the Ottawa market because the region has a very light industrial base. However, Renfrew Hydro has rolled out these initiatives where possible.

1. The **Monitoring & Targeting Initiative** is targeted at larger customers with the capacity to analyze and respond to the M&T data. This requires the customer facility to employ an Energy Manager, or a person with equivalent qualifications, which has been a barrier for some customers. As such, a limited number of applications have been received to date. This combined with the savings target required has limited the initiative uptake for smaller customers.
2. One of the most successful elements of the Industrial program has been the capability building enabled by the **Embedded Energy Manager (EEM), Roving Energy Manager (REM) and Key Account Manager (KAM Initiatives)**. These resources are difficult to find and require time to establish themselves but once in place, they have been very successful at identifying and delivering energy

efficiency opportunities. To date, Renfrew Hydro has placed six EEMs, 1 REM and 1 KAM in specific key accounts.

3. The current **Demand Response 3 Initiative (DR3)** is targeted at Industrial customers and is not particularly well suited for the Ottawa market which is primarily comprised of Commercial and Institutional customers. Compensation amounts for new contracts and renewals have been reduced from the initial launch of this program (premium zones and 200 hour option have been discontinued). Metering and settlement requirements are expensive and complicated and present a participation barrier to smaller customers. Renfrew Hydro has had some limited success in this area.
4. The **Demand Response 1 Initiative (“DR1”)** has had no customer uptake and was removed from the Schedule in Q4, 2012.

### **Home Assistance Program**

The **Home Assistance Program** is only marginally cost effective and delivers exceedingly low results per participant. This ineffective program is not attractive to Social Housing providers as they perceive it to be time consuming and burdened with paperwork for minimal value.

### **LRAM**

Renfrew Hydro is concerned that the issues that have been identified above, namely programs that have not materialized, were delayed or for which the results are still under review (for example TOU pricing and Residential IHD), can adversely affect an LDC’s ability to be held whole in terms of lost revenue due to CDM. For those LDCs that claim a LRAM ex post, if the results are not available or are subsequently changed, then there is a disconnect between the lost revenue applied for and that actually lost and if there is a true up it would be done years after the lost revenue occurred.

For those utilities recovering the lost revenue through an ex ante adjustment to their load forecast, that adjustment normally reflects the anticipated CDM results based on expected programs and current EM&V methodologies. When program results do not match those anticipated then the utility is required to record the shortfall in the Lost Revenue Adjustment Mechanism Variance Account (LRAMVA) and may never be able to properly recover the appropriate lost revenue.

Renfrew Hydro’s results for 2012 were limited as a result of the above-mentioned shortcomings of OPA Province–Wide CDM Initiatives. The lack of success through OPA Province–Wide CDM Initiatives is further diminished by the difficult processes and negative experience with Board Approved CDM programs by those LDCs making application.

These limitations are easily addressed with a change to the CDM funding and regulatory structure that aligns LDC accountability with the requisite control over program design and delivery. OPA may continue to contribute in an ongoing and valuable role as a service provider to the LDCs providing centralized services for analytics, research and evaluation, but, they must not be in command and control of LDC success. To be successful, LDCs must be given greater control over this important condition of their distribution licence.

## 4 Combined CDM Reporting Elements

### 4.1 Progress Towards CDM Targets

Table 5: Net Peak Demand Savings at the End User Level (MW)

Implementation Period	Annual (MW)			
	2011	2012	2013	2014
2011 – Verified by OPA	0.2	0.2	0.2	0.2
2012 – Verified by OPA		0.1	0.1	0.1
2013 – Verified by OPA			0.1	.01
2014				
<b>Verified Net Annual Peak Demand Savings in 2014:</b>				<b>0.3</b>
<b>RENFREW HYDRO 2014 Annual CDM Capacity Target:</b>				<b>1.1</b>
<b>Verified Portion of Peak Demand Savings Target Achieved (%):</b>				<b>30.8%</b>

Table 6: Net Energy Savings at the End-User Level (GWh)

Implementation Period	Annual (GWh)				Cumulative (GWh)
	2011	2012	2013	2014	2011-2014
2011 – Verified by OPA	0.5	0.5	0.5	.05	2.1
2012 – Verified by OPA		0.4	0.4	0.4	1.3
2013 – Verified by OPA			0.3	0.3	0.5
2014					
<b>Verified Net Cumulative Energy Savings 2011-2014:</b>					<b>3.9</b>
<b>RENFREW HYDRO 2011-2014 Cumulative CDM Energy Target:</b>					<b>4.9</b>
<b>Verified Portion of Cumulative Energy Target Achieved (%):</b>					<b>79.7%</b>

### 4.2 Variance from Strategy

There is no variance from the current strategy.

### 4.3 Outlook to 2014 and Strategy Modifications

On March 31st, 2014 the Minister of Energy issued a directive entitled “Continuance of the OPA’s Demand Response Program under IESO management” which effectively halts new customer enrollments in the DR3 program until the IESO has a program in market. This is estimated to be some time in 2015.

The DR3 Initiative is a significant contributor to helping LDCs achieve their demands savings target. The program has taken some time to get traction and LDCs have been diligently working with their customers to encourage participation in the DR3 program. LDC customers are now in a position where many of them have contracted with an Aggregator but will be unable to participate due to the inability of the Aggregator to receive new contract schedules resulting in the current “pipeline” of potential DR contributors being stranded.

The results reported for 2013 are lower than originally expected due to a number of factors. Major impacts include:

- no TOU results available and an expectation that any forthcoming results will be significantly lower than originally forecast.
- no results for IHDs
- removal of DR
- retrospective EM&V coming 1.5 years after the fact does not allow time to make adjustment

## Conclusion

Over the course of 2013, Renfrew Hydro has achieved 0.3 MW in peak demand savings and 3.9 GWh in energy savings, which represents 30.8% and 79.7% of Renfrew Hydro 2014 target, respectively. These results are representative of a considerable effort expended by Renfrew Hydro, in cooperation with other LDCs, customers, channel partners and stakeholders to overcome many operational and structural issues that limited program effectiveness across all market sectors. This achievement is a success and the relationships built within the 2011-2014 CDM program term will aid results in a subsequent CDM term.

However, despite continuing improvements to existing programs Renfrew Hydro faces challenges in the remaining years of the current CDM framework. With the current slate of available OPA Programs, and the current forecast of implementation and projected savings, Renfrew Hydro expects to meet its 4.9 GWh consumption savings target but will be very challenged to meet its 1.1 MW demand savings target.

Looking ahead there is limited time to make impactful changes to the current program portfolios and have these changes reflected in LDC 2014 results. However, LDCs and the OPA can build on the strengths and key successes of the 2011-2014 programs to launch new programs which will meet the needs of the industry and consumers.

## Appendix A: Initiative Descriptions

### Residential Program

#### APPLIANCE RETIREMENT INITIATIVE (Exhibit D)

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

**Initiative Frequency:** Year round

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

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

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

**Delivery:** OPA centrally contracts for the province-wide marketing, call centre, appliance pick-up and decommissioning process. LDC's provides local marketing and coordination with municipal pick-up where available.

**Additional Detail:** Schedule B-1, Exhibit D on the OPA extranet and saveONenergy website

#### 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. Window ACs were discontinued from the program in 2013.

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

**Delivery:** OPA contracts with participating retailers for collection of eligible units. LDCs provide local marketing.

**Additional Detail:** Schedule B-1, Exhibit C on the OPA extranet and saveONenergy website

#### HVAC INCENTIVES INITIATIVE (Exhibit B)

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

**Initiative Frequency:** Year round

**Objective:** The objective of this Initiative is to encourage the replacement of existing heating systems with high efficiency furnaces equipped with Electronically Commutated Motors (ECM), and to replace existing central air conditioners with ENERGY STAR qualified systems and products.

**Description:** This is an energy efficiency Initiative that provides rebates for the replacement of old heating or cooling systems with high efficiency furnaces (equipped with ECM) and ENERGY STAR® qualified central air conditioners by approved Heating, Refrigeration, and Air Conditioning Institute (HRAI) qualified contractors.

**Targeted End Uses:** Central air conditioners and furnaces

**Delivery:** OPA contracts centrally for delivery of the program. LDCs provide local marketing and encourage local contractors to participate in the Initiative.

**Additional Detail:** Schedule B-1, Exhibit B on the OPA extranet and saveONenergy website

#### CONSERVATION INSTANT COUPON 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:** The OPA develops the electronic version of the coupons and posts them online for download. Three LDC specific coupons were made available for local marketing and utilization by LDCs. The OPA enters into agreements with retailers to honor the coupons.

**Additional Detail:** Schedule B-1, Exhibit A on the OPA extranet and saveONenergy website

#### 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:** As per the Conservation Instant Coupon 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 and market this initiative locally.

**Additional Detail:** Schedule B-1, Exhibit C on the OPA extranet and saveONenergy website

#### 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:** As per the Conservation Instant Coupon Initiative

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

#### 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:** Schedule B-1, Exhibit C on the OPA extranet and saveONenergy website

#### 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 *peaksaverPLUS*™ 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).

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

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

**Additional Detail:** Schedule B-1, Exhibit C on the OPA extranet and saveONenergy website

## C&I Program

### 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:** Schedule C-2 on the OPA extranet and saveONenergy website

### 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 small commercial, institutional and agricultural facilities and multi-family buildings, for the purpose of achieving electricity 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:** Lighting and electric water heating measures

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

**Additional Detail:** Schedule C-3 on the OPA extranet and saveONenergy website

#### 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:** Schedule C-6 on the OPA extranet and saveONenergy website

#### 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/major renovators 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:** New building construction, building modeling, lighting, space cooling, ventilation and other Measures

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

**Additional Detail:** Schedule C-4 on the OPA extranet and saveONenergy website

#### 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:** Schedule C-1 on the OPA extranet Schedule C-1 and SaveONenergy website

## Industrial Program

#### 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:** Schedule D-1 on the OPA extranet and saveONenergy website

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

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

**Initiative Frequency:** Year round

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

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

**Targeted End Uses:** Process and systems

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

**Additional Detail:** Schedule D-2 on the OPA extranet and saveONenergy website

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

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

**Initiative Frequency:** Year round

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

**Description:** This Initiative provides customers the opportunity to access funding to engage an on-site, full time embedded energy manager, or an off-site roving energy manager who is engaged by the LDC. The role of the energy manager is to take control of the facility's energy use by monitoring performance, leading awareness programs, and identifying opportunities for energy consumption improvement, and spearheading projects. Participants are funded 80% of the embedded energy manager's salary up to \$100,000 plus 80% of the energy manager's actual reasonable expenses incurred up to \$8,000 per year. Each embedded energy manager has a target of 300 kW/year of energy savings from one or more facilities. LDCs receive funding of up to \$120,000 for a Roving Energy Manager plus \$8,000 for expenses.

**Targeted End Uses:** Process and systems

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

**Additional Detail:** Schedule D-3 on the OPA extranet and saveONenergy website

#### 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.

**Description:** This Initiative provides LDCs the opportunity to utilize a KAM to assist their customers. 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.

**Targeted End Uses:** Process and systems

**Delivery:** LDC delivered

**Additional Detail:** ScheduleD-4 on the OPA extranet.

## DEMAND RESPONSE 3 (Schedule D-6)

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

**Initiative Frequency:** Year round

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

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

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

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

**Additional Detail:** Schedule D-6 available on the OPA and saveONenergy website

## LOW INCOME INITIATIVE (HOME ASSISTANCE PROGRAM) (Schedule E-1)

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

**Initiative Frequency:** Year Round

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

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

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

**Delivery:** LDC delivered.

**Additional Detail:** Schedule E available on the OPA extranet.

## Appendix B: Pre-2011 Programs

### ~~ELECTRICITY RETROFIT INCENTIVE PROGRAM~~

**Target Customer Type(s):** Commercial, Institutional, and Agricultural 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 Program (ERIP) offered financial incentives to customers for the upgrade of existing equipment to energy efficient equipment. This program was available in 2010 and allowed customers up to 11 months following Pre-Approval to complete their projects. As a result, a number of projects Pre-Approved in 2010 were not completed and in-service until 2011. The electricity savings associated with these projects are attributed to 2011.

**Targeted End Uses:** Electricity savings measures

**Delivery:** LDC Delivered

### ~~HIGH PERFORMANCE NEW CONSTRUCTION~~

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

**Initiative Frequency:** Year round

**Objective:** The High Performance New Construction Initiative provided incentives for new buildings to exceed existing codes and standards for energy efficiency. The Initiative uses both a prescriptive and custom approach and was delivered by Enbridge Gas under contract with the OPA (and subcontracted to Union Gas), which ran until December 2010.

**Description:** 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.

**Targeted End Uses:** New Building construction, building modeling, lighting, space cooling, ventilation and other measures

**Delivery:** Through Enbridge Gas (and subcontracted to Union Gas)

## ~~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:**

## ~~MULTIFAMILY ENERGY EFFICIENCY REBATES~~

**Target Customer Type(s):** Residential Multi-unit buildings

**Initiative Frequency:** Year round

**Objective:** Improve energy efficiency of Multi-unit building

**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:** Electricity saving measures

**Delivery:** OPA contracted with Greensaver

## ~~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:**

~~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:**