Burlington Hydro Inc.

Conservation and Demand Management

2013 Annual Report

Submitted to:

Ontario Energy Board

Submitted on September 30, 2014

TABLE OF CONTENTS

Executive Summary

This annual report is submitted by Burlington Hydro Inc. 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 Burlington Hydro Inc.'s strategy. Accordingly, this report outlines Burlington Hydro Inc.'s 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.

Burlington 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 Burlington Hydro Inc.

In 2011, Burlington Hydro Inc. 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, Burlington Hydro Inc. delivered the portfolio of OPA-Contracted Province-Wide CDM Programs to all of its customer segments. An active and aggressive approach was undertaken whereby a sales and technical team made best efforts to meet with every commercial, institutional and industrial customer in the City of Burlington and offer services to help customers identify energy management opportunities, estimate the resultant cost savings and CDM program incentives and to procure any required equipment and installation services. In cases where third-party agencies are able to deliver CDM programs more effectively due to prior experience or pre-developed processes, delivery contracts were entered into. Consumer Programs were delivered through targeted and mass marketing techniques developed closely with the technology delivery partners.

In 2013, Burlington Hydro Inc. expanded on its 2012 delivery mechanism by targeting customers within sectors that were known to have significant energy conservation opportunities as well as performing outreach to customers who had not previously taken advantage of conservation programs.

To date Burlington Hydro Inc. has achieved 6.3 MW (based on DR-3 Scenario 1) of net incremental peak demand savings and 8.2 GWh of net incremental energy savings in 2013. A summary of the achievements towards the CDM targets is shown below:

Net Peak Demand Savings at the End User Level (MW) (Scenario 1)

Implementation Period	Annual			
	2011	2012	2013	2014
2011 - Verified	2.9	1.8	1.8	1.7
2012 - Verified†	0.0	4.7	1.9	1.8
2013 - Verified†	0.0	0.2	6.3	1.9
2014				
Verified Net Annual Peak Demand Savings Persisting in 2014:				5.5
Burlington Hydro Inc. 2014 Annual CDM Capacity Target:				22.0
Verified Portion of Peak Demand Savings Target Achieved in 2014 (%):				25.1%

Net Energy Savings at the End User Level (GWh)

Implementation Period	Annual				Cumulative
	2011	2012	2013	2014	2011-2014
2011 - Verified	7.4	7.3	7.3	7.2	29.2
2012 - Verified†	0.2	8.4	8.2	8.1	24.9
2013 - Verified†	0.2	0.9	8.2	8.1	17.4
2014					
Verified Net Cumulative Energy Savings 2011-2014:					71.5
Burlington Hydro Inc. 2011-2014 Annual CDM Energy Target:					82.4
Verified Portion of Cumulative Energy Target Achieved in 2014 (%):					86.8%

The updated forecast prepared for this report shows that there will be a shortfall of approximately 3.3 MW versus Burlington Hydro Inc.'s 2014 peak demand reduction target (including demand response). Although, the peak demand savings are below target, Burlington Hydro Inc. expects to achieve the 2014 electricity energy savings target. Given the expected shortfall, Burlington Hydro Inc. continues to work actively on participant engagement. In addition Burlington Hydro Inc. 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 Burlington Hydro Inc.'s position that it 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 Burlington Hydro Inc. to require Burlington Hydro Inc., as a condition of its license, to achieve 82.37 GWh of energy savings and 21.95 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, Burlington Hydro Inc. submitted its CDM Strategy on November 1, 2010 which provided a high level of description of how Burlington Hydro Inc. 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 Burlington Hydro Inc. and has been prepared in accordance with the Code requirement and covers the period from January 1, 2013 to December 31, 2013.

Burlington Hydro Inc. submitted its 2011 Annual Report on September 30, 2012 which summarized the CDM activities, successes and challenges experienced by Burlington Hydro Inc. 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 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.

Burlington Hydro Inc. submitted its 2012 Annual Report on September 30 2013 which summarized the CDM activities undertaken by Burlington Hydro Inc. 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 Burlington Hydro Inc.'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. Burlington Hydro Inc. 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 behaviours from the residential customer class.

Three 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 Burlington Hydro Inc. Therefore Burlington Hydro Inc. 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		Rates (cents/kWh)	
Effective Date	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
May 1, 2014	13.5	11.2	7.5

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

Initiative Activities/Progress:

Burlington Hydro Inc. began transitioning its RPP customers to TOU billing on January 1, 2012. At December 31st, 2013, 58,070 RPP customers were on TOU billing.

1.3 Burlington Hydro Inc.'s Application with the OEB

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

1.4 Burlington Hydro Inc.'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.

Burlington Hydro Inc. 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 March 2, 2011, Burlington Hydro Inc. entered into an agreement with the OPA to deliver CDM programs 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	Burlington Hydro Inc. in Market Date
Residential Programs			
Appliance Retirement	Schedule B-1, Exhibit D	*Jan 26,2011*	*Jan 2011*
Appliance Exchange	Schedule B-1, Exhibit E	*Jan 26, 2011*	*Mar 2011*
HVAC Incentives	Schedule B-1, Exhibit B	*Jan 26, 2011*	*Feb 2011*
Conservation Instant Coupon Booklet	Schedule B-1, Exhibit A	*Jan 26, 2011*	*Feb 2011*
Bi-Annual Retailer Event	Schedule B-1, Exhibit C	*Jan 26, 2011*	*Mar 2011*
Retailer Co-op	n/a	*n/a*	*Jan 2011*
Residential Demand Response	Schedule B-3	*Aug 22, 2011*	*Mar 2012*
New Construction Program	Schedule B-2	*Jan 26, 2011*	*Jan 2011*
Home Assistance Program	Schedule E-1	*May 9, 2011*	*Aug 2012*
Commercial & Institutional Programs			
Efficiency: Equipment Replacement	Schedule C-2	*Jan 26, 2011*	*Mar 2011*
Direct Install Lighting • *General Service <50 kW*	Schedule C-3	*Jan 26, 2011*	*Mar 2011*
Existing Building Commissioning Incentive	Schedule C-6	*Feb 2011*	*Feb 2011*
New Construction and Major Renovation Initiative	Schedule C-4	*Feb 2011*	*Jun 2011*
Energy Audit	Schedule C-1	*Jan 26, 2011*	*Jun 2011*
Commercial Demand Response • *General Service <50 kW*	Schedule B-3	*Jan 26, 2011*	*July 2013*
Industrial Programs - General Service 50 kW & above			
Process & System Upgrades	Schedule D-1	*May 31, 2011*	*Nov 2011*
Monitoring & Targeting	Schedule D-2	*May 31, 2011*	*Nov 2011*
Energy Manager	Schedule D-3	*May 31, 2011*	*Aug 2011*
Key Account Manager ("KAM")	Schedule D-4	*May 31,2011*	*Aug 2011*
Efficiency Equipment Replacement Incentive • (part of the C&I program schedule)	Schedule C-2	*May 31, 2011*	*Mar 2011*
Demand Response 3	Schedule D-6	*May 31, 2011*	*Jan 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 either no longer available to customers or were not launched in 2013.

Not in Market	Objective	Status
Residential Program		
Midstream Electronics	Encourages retailers to promote and sell high efficency 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.
Commercial & Institutional Program		
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.
Industrial Program		
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/ldc-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 to 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 homes and new home construction.

Discussion:

Burlington Hydro Inc. has dedicated significant effort to marketing CDM programs which it has a high degree of control over to residential customers within its service territory. Programs such as Residential Demand Response, Appliance Retirement and the HVAC Incentives are marketed directly by Burlington Hydro Inc. to residential customers. Programs such as Appliance Exchange, Conservation Instant Coupon Booklet, and Retailer Events are centrally marketed by the OPA resulting in Burlington Hydro Inc. having less control over outcomes.

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 may not have fully delivered what was anticipated. Three new initiatives (Midstream Electronics, Midstream Pool Equipment and Home Energy Audit Tool) were not launched and were subsequently removed from the schedule in 2013 with no new additions. Delays in communication with regards to Initiative offerings and results reporting have hampered LDCs abilities to engage customers and promote participation.

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 continues 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: 283 Appliances Retired in 2013

Marketing and promotional activity included:

- Promotion at public events:
  - Spring Home Show
  - Earth Day Clean-up
  - Kite Festival
  - Canada Day Festival
  - Retailer Events – Outside of the Coupon Events
  - Children's Festival
  - Fall Home Show
  - Senior's Brown Paper Bag Lunch
  - Royal Botanical Garden Home Show
  - Burlington Green's Imprints Event
  - Festival of Lights

- Advertising:
  - Newspaper: Burlington Post, Hamilton Spectator, SNAP,
  - Radio: KX 94.7
  - Television: Rogers TV Listing Channel
  - Online: The Weather Network
  - Miscellaneous: brochures and sell sheets

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.

- Rather than remove this Initiative from the schedules, the OPA and LDCs could review what opportunities there are to include other measures such as stoves, dishwashers, washers and dryers. The framework of this Initiative may be a suitable foundation for a broader residential appliance retirement program. As such, the Residential portfolio could be strengthened through program evolution rather than weakened through diminished program offerings.

- As participation is very responsive to province wide advertising, OPA province-wide advertising should continue to play a key role if the initiative continues.

- Better relationships with retailers may play a role in increasing participation in this Initiative. Retailers can provide opportunities to capture replacement appliances and have them decommissioned after a sale has been completed.

- In an effort to capture additional savings in the perceived last year of the Initiative, the eligibility requirement for refrigerators was revised from 20 years old to 15 years old in Q2 2014.

2.2.1.2 Appliance Exchange Initiative (Exhibit E)

Initiative Activities/Progress: 64 Appliances Exchanged in 2013

Burlington Hydro Inc. has placed personnel in retail locations on selected occasions to promote the event and other programs as noted in Additional Comments below.

Additional Comments:

- The design of the Initiatives, including eligible measures and incentive 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 by allowing LDCs to conduct these events, possibly as part of a larger community engagement effort, with the backing of ARCA for appliance removal.

2.2.1.3 HVAC Incentives Initiative (Exhibit B)

Initiative Activities/Progress: 2,110 Customers Participated

- Promotion at public events:
    - Spring Home Show
    - Earth Day Clean-up
    - Kite Festival
    - Canada Day Festival
    - Retailer Events – Outside of the Coupon Events

- Children's Festival
- Fall Home Show
- Senior's Brown Paper Bag Lunch
- Royal Botanical Garden Home Show
- Burlington Green's Imprints Event
- Festival of Lights

- Advertising:
  - Newspaper: Burlington Post, Hamilton Spectator, SNAP,
  - Radio: KX 94.7
  - Television: Rogers TV Listing Channel
  - Online: The Weather Network
  - Miscellaneous: brochures and sell sheets

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 4,500-5,000 HVAC contractors in the Province, however in 2013, 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: 4,772 Coupons Redeemed in 2013

- Promotion at public events:
  - Spring Home Show
  - Earth Day Clean-up
  - Kite Festival
  - Canada Day Festival
  - Retailer Events – Outside of the Coupon Events
  - Children's Festival
  - Fall Home Show
  - Senior's Brown Paper Bag Lunch
  - Royal Botanical Garden Home Show
  - Burlington Green's Imprints Event
  - Festival of Lights

- Advertising:
  - Newspaper: Burlington Post, Hamilton Spectator, SNAP,
  - Radio: KX 94.7
  - Miscellaneous: brochures and sell sheets

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 to changes in consumer behaviour.

- Coupon booklets were not printed and mailed out in 2013 so were not widely available to consumers who lacked 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 varies amongst retailers offering Coupon discounts which can limit redemptions. For example, a particular high volume 'participating retailer' does not accept coupons and have their own procedure. In addition, some retailers have static lists of eligible products and will not discount eligible products unless the product appears on the list.

- The saveONenergy programs would benefit from specific end cap displays, aisle product stands and product-specific areas. Having products throughout a retail environment weakens the impact.

2.2.1.5 Bi-Annual Retailer Event Initiative (Exhibit C)

Initiative Activities/Progress: 12,997 Coupons Redeemed in 2013

Marketing and promotional activity included:

- Placement of event teams at retailers:
  - Canadian Tire – 2 Days
  - Home Depot – 2 Days
  - Home Hardware – 2 Days
- Newspaper ads and radio commercials, event details on Burlington Hydro's website
- Provision of in-store personnel outside of retailer events to promote energy conservation

Additional Comments:

- This initiative is organized by retailers and supported by LDCs. LDCs do not directly control event design as this is a retailer decision.
- 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.
- Limited engagement of local retailers can restrict the savings potential for this Initiative.
- 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.
- Independently the Retailer Co-op and Bi-Annual Retailer Event Initiative may not present a value for the investment of LDC resources to support these events and should be backed by a strong Residential portfolio.

2.2.1.6 Retailer Co-op

Initiative Activities/Progress: No events took place in 2013

Additional Comments:

- This is a retailer Initiative with no direct involvement of 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: No projects took place in 2013

Marketing and promotional activity included:

- Brochures / Sell Sheets

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 that do not provide an immediate benefit to the consumer.
- In 2012 the application process was streamlined, however it continues to be too cumbersome for builders. This, combined with limited return, has resulted in this Initiative continuing to under-achieve.
- Administrative requirements, in particular individual home modeling, must align with perceived stakeholder payback
- Performance-Based Measure Energy-Efficiency Incentive applications are expected to increase in 2014 due to some industry players' interest in the Initiative. These incentives are available for new homes that exceed Natural Resources Canada's EnerGuide 83, 84 and 85 standards. However, it is anticipated that the Prescriptive Measure Incentives will be the preferred in applications due to their relative simplicity, but this program limits incentives and associated energy savings 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: 3,829 Thermostats were installed in 2013

- Promotion at public events:
  - Spring Home Show
  - Earth Day Clean-up
  - Kite Festival
  - Canada Day Festival
  - Retailer Events- Outside of the Coupon Events
  - Children's Festival
  - Fall Home Show
  - Senior's Brown Paper Bag Lunch
  - Royal Botanical Garden Home Show
  - Burlington Green's Imprints Event
  - Festival of Lights

- Advertising:
  - Newspaper: Burlington Post, Hamilton Spectator, SNAP,
  - Radio: KX 94.7
  - Miscellaneous: Direct Mail, On Bill messaging, brochures and sell sheets
  - Business to Business Sales for Small Commercial Demand Response

Additional Comments:

- In Home Energy Display units that communicate with installed smart meter technology continue to be in the development phase and are not ready for market deployment. There continues to be a lack of Energy Display selection in the marketplace.

- Smart Meters installed by most LDCs do not have the capability to communicate directly to an In Home Display and any mass replacement of newly installed meters with communication functionality would not be fiscally responsible. When proposing technical Initiatives that rely on existing LDC hardware or technology there should be an extensive consultative process.

- Introduction of new technology requires incentives for the development of such technology. Appropriate lead times for LDC analysis and assessment, product procurement, and testing and integration into the Smart Meter environment are also required. Making seemingly minor changes to provincial technical specifications can create significant issues when all LDCs attempt to implement the solution in their individual environments.

- The variable funding associated with installing a load controllable thermostat is not sufficient unless it is combined with an In Home Display (IHD).

- Given the different LDC environments and needs, each LDC is positioning the Initiative slightly differently. While a Thermostat has high marketability, it also carries a higher maintenance liability due to no-heat and no-A/C calls. A switch with an independent IHD is seen as a lower liability option but also has much lower marketability.

- This is the main Initiative within the Residential portfolio that drives savings for LDCs, however the 2012 evaluation indicated savings realized from the IHD were not statistically significant. LDCs were advised that the evaluation of the IHDs would continue with 2013 data.

- 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 value originally estimated and used in the 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 to reduce its environmental footprint. Programs that help to fund energy audits, to replace energy-wasting equipment or to pursue new construction that exceeds our existing codes and standards are offered. 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 to 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 yet are almost completely removed from the 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.

Despite these challenges the C&I Working Group, working in cooperation with the OPA, have managed to iron out many of the issues. In particular, an accomplishment of 2012 was the advent of the expedited change management as a means to accelerate certain program changes. 2013 saw the benefits of the expedited change management process.

Looking ahead there is minimal opportunity to make valuable changes to the current program suite and to have these changes impact 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: 143 projects completed, resulting in demand avoidance of 911 kW and energy savings of 3,750,880 kWh in 2013.

Burlington Hydro Inc. has made material investments in program delivery as the ERII program is seen as the most significant contributor towards attainment of the CDM targets. A traditional sales and marketing based approach has been employed to attract the greatest number of customers possible and to include the greatest range of energy efficiency measures available.

A sales prospecting telemarketer has been retained to contact all business customers within Burlington with the goal of establishing sales appointments with individuals who are able to make purchasing decisions with respect to the operating efficiency of the plant and property.

A technically qualified sales person then calls on the prospect, reviews the programs and offers to conduct a site assessment to identify potential energy conservation measures. Should potential measures be identified, pre-qualified preferred vendors, with the customer's consent, are invited to submit proposals for the following common energy conservation measures:

- Lighting
- Air Compressors
- Demand Response
- Power Factor and Power Quality issues

For measures beyond the scope above, a technical specialist is utilized to evaluate the customer's systems and make recommendations for additional measures. These may include:

- Variable Frequency Drives
- HVAC Improvements
- Refrigeration Systems or Chillers
- Process Improvements

Vendors and suppliers who can assist with implementation are then invited, with the customer's consent, to submit proposals for consideration.

A program application specialist is assigned to the customer and contractor(s), if applicable, to assist with all aspects of submitting an application to for incentives.

The sales database is reviewed regularly and sales strategies for customers with large potential conservation opportunities are developed. Barrier analysis is conducted regularly in an effort to help customers overcome obstacles to the implementation of energy efficiency programs/initiatives. Other stakeholders, such as Union Gas (who offer a range of incentive programs designed to reduce natural gas consumption) and the Burlington Economic Development Corporation, are regularly consulted for sales related information.

Seminars and workshops are regularly conducted to increase market awareness and to attract additional customers to the program.

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 reflects 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 the 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 re-enter most of that information into the online application form. This can be cumbersome.
- Processing Head Office applications became much easier for the Lead LDC after Schedule changes came into effect in August 2013. The changes implemented allowed the Lead LDC to review and approve all facilities in a Head Office application on behalf of all satellite LDCs under certain circumstances.
- The application process for Head Office projects remains a significant barrier. Applicants need to manually enter one application per facility associated with the project 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: 22 projects completed, resulting in demand avoidance of 31 kW and energy savings of 104,959 kWh in 2013.

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 estimate 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 to utilize.
- 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 the potential to provide additional energy and demand savings
- Many customers are not taking advantage of any additional measures, which may present an opportunity to realize future savings with a new program offering.
- Electrical contractors' margins have been reduced due to fixed incentive levels which do not allow for increased labor rates, increased material costs, , greater distances between retrofit projects 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. However, adjustments like these require longer lead times. As such, many customers were not able to benefit from this change in late 2013. Consideration should be given to providing advanced notification to LDCs and contractors of the upcoming changes to allow for appropriate planning.

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

Initiative Activities/Progress: No projects were undertaken in 2013.

Additional Comments:

- Initiative name does not properly describe the Initiative.
- There was minimal interest 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, however the particulars of the Initiative have presented a significant challenge for many channel partners.

- The customer's expectation is that the program should include a broader range of measures for a more comprehensive approach. to building commissioning other than the chilled water systems current allowed by the program

- 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: No projects were completed in 2013.

Additional Comments

- Burlington Hydro subcontracts the delivery of the Initiative to Enbridge who subsequently subcontracted to Union Gas. This was undertaken because of Union Gas' proven track record in program delivery and to achieve program efficiencies (Union Gas is currently delivering the program for the benefit of its Natural Gas customers).

- There is typically a long sales cycle for these projects, and then a long project development cycle. As the program was not launched until mid-2011 and had limited participation, results did not appear in 2011. Minimum results are expected to appear in 2014.

- With the Ministerial Directive issued December 21, 2012, facilities with a completion date near the end of 2014 currently 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 uncertainty.

- Participants estimated completion dates tend to be inaccurate (e.g. by six months or longer). This could result in diminished savings towards target if 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 half the proposed target savings being 'lost'.

- 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 is a potential barrier to participation.

2.2.2.5 Energy Audit Initiative

Initiative Activities/Progress: 32 projects completed, resulting in demand avoidance of 282 kW and energy savings of 1,550,425 kWh in 2013.

- 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 has restricted program participation as customers were not eligible for incentives relating to increased scope of work. This has been revised in 2014 and LDCs are now able to consider additional customer participation when presented with a new scope of work.
- Consideration should be given to allowing a building owner to undertake an audit limited to their lighting system. This way they may receive valuable information from neutral third party regarding the appropriate lighting solution for their facility.
- 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 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. They include financial incentives and technical expertise to help organizations modernize systems for enhanced productivity and product quality, as wells 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.

Burlington Hydro Inc. has adopted a strategy of providing support directly to end use customers through its sales and technical team. As long lead cycles are required to undertake Engineering Studies and Energy Managers may be difficult to recruit, Burlington Hydro Inc. believes that it can bring projects to implementation faster through its sales and marketing approach.

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 process 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 Process & Systems Upgrades Initiative (PSUI). Likewise, decisions to proceed with 2012 natural gas load displacement generation projects applications will also increase uptake although there may not be sufficient time to bring new projects into service before program expiry.

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

Initiative Activities/Progress: 1 project completed, resulting in demand avoidance of 27 kW and energy savings of 261,790 kWh in 2013.

Additional Comments:

- 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 are expected to be generated in 2013. The majority of the results are expected in 2014 with a much reduced benefit to cumulative achieved energy savings.

- Delays with processing funding payments have delayed payments to Participants beyond contract requirements. In some cases, LDCs have developed a separate side agreement between the LDC and the Participant that acknowledges 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 the 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 accepted waste heat/waste fuel projects only. Natural gas fired 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 fired 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 presents another barrier to participation.

2.2.3.2 Monitoring & Targeting Initiative (Schedule D-2)

Initiative Activities/Progress: No projects were undertaken in 2013.

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: No projects were undertaken in 2013.

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 Roving and Embedded Energy Managers (REM/EEM) 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 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 securing project approvals in 2012 but few projects were implemented until 2013.

2.2.3.4 Key Account Manager (Schedule D-4)

Initiative Activities/Progress: No projects were undertaken in 2013.

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.
- Demand Response 3 (D-6)

Initiative Activities/Progress: 8 projects completed, resulting in demand avoidance of 2,796 kW and energy savings of 81,214 kWh in 2013.

Additional Comments:

- Until early 2013 customer data was not provided on an individual customer basis due to contractual requirements with 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) versus 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: 414 projects completed, resulting in demand avoidance of 29 kW and energy savings of 397,788 kWh in 2013.

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. This Initiative may benefit from an OPA contracted centralized delivery agent.

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.

3 2013 LDC CDM Results

3.1 Participation and Savings

Initiative	Unit	Incremental Activity (new program activity occurring within the specified reporting period)				Net Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period)				Net Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period)				Program-to-Date Verified Progress to Target (excludes DR)	
														2014 Net Annual Peak Demand Savings (kW)	2011-2014 Net Cumulative Energy Savings (kWh)
		2011*	2012*	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2014	2014
Consumer Program															
Appliance Retirement	Appliances	985	563	283		54	32	18		390,644	228,275	122,741		103	2,492,274
Appliance Exchange	Appliances	32	67	64		3	10	13		3,367	17,000	23,644		24	109,700
HVAC Incentives	Equipment	2,265	2,311	2,110		715	478	429		1,270,156	787,618	710,487		1,621	8,864,452
Conservation Instant Coupon Booklet	Items	7,150	425	4,772		17	3	7		269,806	19,235	106,031		27	1,348,988
Bi-Annual Retailer Event	Items	13,098	14,594	12,997		23	20	16		404,274	368,427	236,338		60	3,195,056
Retailer Co-op	Items	0	0	0		0	0	0		0	0	0		0	0
Residential Demand Response	Devices	620	2,768	3,829		347	1,275	1,425		899	9,589	5,349		0	15,837
Residential Demand Response (IHD)	Devices	0	2,301	3,326		0	0	0		0	0	0		0	0
Residential New Construction	Homes	0	0	0		0	0	0		0	0	0		0	0
Consumer Program Total						**1,159**	**1,818**	**1,908**		**2,339,146**	**1,430,144**	**1,204,589**		**1,835**	**16,026,307**
Business Program															
Retrofit	Projects	38	112	143		295	1,307	911		1,495,230	6,454,935	3,750,880		2,425	32,437,966
Direct Install Lighting	Projects	114	88	22		112	61	31		289,029	233,972	104,959		184	2,007,983
Building Commissioning	Buildings	0	0	0		0	0	0		0	0	0		0	0
New Construction	Buildings	0	0	0		0	0	0		0	0	0		0	0
Energy Audit	Audits	5	9	32		0	16	282		0	75,529	1,550,425		298	3,327,435
Small Commercial Demand Response	Devices	0	0	296		0	0	199		0	0	0		0	0
Small Commercial Demand Response (IHD)	Devices	0	0	130		0	0	0		0	0	0		0	0
Demand Response 3	Facilities	0	0	1		0	0	22		0	0	381		0	381
Business Program Total						**407**	**1,384**	**1,435**		**1,784,258**	**6,764,436**	**5,406,644**		**2,906**	**37,773,765**
Industrial Program															
Process & System Upgrades	Projects	0	0	1		0	0	27		0	0	261,790		27	523,580
Monitoring & Targeting	Projects	0	0	0		0	0	0		0	0	0		0	0
Energy Manager	Projects	0	0	0		0	0	0		0	0	0		0	0
Retrofit	Projects	13	0	0		76	0	0		388,884	0	0		76	1,555,536
Demand Response 3	Facilities	1	4	7		817	1,538	2,774		47,936	37,071	80,833		0	165,840
Industrial Program Total						**893**	**1,538**	**2,801**		**436,820**	**37,071**	**342,623**		**103**	**2,244,955**
Home Assistance Program															
Home Assistance Program	Homes	0	0	414		0	0	29		0	0	397,788		28	783,756
Home Assistance Program Total						**0**	**0**	**29**		**0**	**0**	**397,788**		**28**	**783,756**
Aboriginal Program															
Home Assistance Program	Homes	0	0	0		0	0	0		0	0	0		0	0
Direct Install Lighting	Projects	0	0	0		0	0	0		0	0	0		0	0
Aboriginal Program Total						**0**	**0**	**0**		**0**	**0**	**0**		**0**	**0**
Pre-2011 Programs completed in 2011															
Electricity Retrofit Incentive Program	Projects	71	0	0		459	0	0		2,715,719	0	0		459	10,862,875
High Performance New Construction	Projects	1	1	0		14	20	0		74,195	1,506	0		35	301,300
Toronto Comprehensive	Projects	0	0	0		0	0	0		0	0	0		0	0
Multifamily Energy Efficiency Rebates	Projects	0	0	0		0	0	0		0	0	0		0	0
LDC Custom Programs	Projects	0	0	0		0	0	0		0	0	0		0	0
Pre-2011 Programs completed in 2011 Total						**474**	**20**	**0**		**2,789,914**	**1,506**	**0**		**494**	**11,164,175**
Other															
Program Enabled Savings	Projects	2	1	0		0	0	0		0	0	0		0	0
Time-of-Use Savings	Homes	0	0	0		0	0	0		0	0	0		0	0
Other Total						**0**	**0**	**0**		**0**	**0**	**0**		**0**	**0**
Adjustments to 2011 Verified Results							**-21**	**39**			**181,650**	**190,792**		**4**	**1,449,756**
Adjustments to 2012 Verified Results								**137**				**679,012**		**137**	**2,037,037**
Energy Efficiency Total						**1,769**	**1,947**	**1,762**		**7,301,303**	**8,186,497**	**7,265,081**		**5,366**	**67,810,900**
Demand Response Total (Scenario 1)						**1,164**	**2,813**	**4,410**		**48,835**	**46,660**	**86,563**		**0**	**182,058**
Adjustments to Previous Years' Verified Results Total						**0**	**-21**	**176**		**0**	**181,650**	**869,804**		**142**	**3,486,793**
OPA-Contracted LDC Portfolio Total (inc. Adjustments)						**2,932**	**4,739**	**6,349**		**7,350,138**	**8,414,807**	**8,221,448**		**5,507**	**71,479,751**
													Full OEB Target:	**21,950**	**82,370,000**
													% of Full OEB Target Achieved to Date (Scenario 1):	**25.1%**	**86.8%**

Activity and savings for Demand Response resources for each year represent the savings from all active facilities or devices contracted since January 1, 2011 (reported cumulatively).

The IHD line item on the 2013 annual report has been left blank pending a results update from evaluations; results will be updated once sufficient information is made available.

*Includes adjustments after Final Reports were issued

Energy Manager, Aboriginal Program and Program Enabled Savings were not independently evaluated

Table 1: Summarized Program Results - 2013

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	2,384	2,109,988	1,908	1,204,589	1,835	16,026,307
Business Program Total	1,950	7,624,181	1,435	5,406,644	2,906	37,773,765
Industrial Program Total	2,802	362,328	2,801	342,623	103	2,244,955
Home Assistance Program Total	29	397,788	29	397,788	28	783,756
Pre-2011 Programs completed in 2011 Total	198	950,057	176	869,804	494	11,164,175
Other Adjustments	-				142	3,486,793
Total OPA Contracted Province-Wide CDM Program	**7,362**	**11,444,342**	**6,349**	**8,221,448**	**5,507**	**71,479,751**

3.2 Evaluation

The evaluation methodology employed by the OPA to calculate net demand and energy savings which contribute to Targets is as follows:

METHODOLOGY	
All results are at the end-user level (not including transmission and distribution losses)	
EQUATIONS	
Prescriptive Measures and Projects	**Gross Savings = Activity * Per Unit Assumption** **Net Savings = Gross Savings * Net-to-Gross Ratio** **All savings are annualized (i.e. the savings are the same regardless of time of year a project was completed or measure installed)**
Engineered and Custom Projects	**Gross Savings = Reported Savings * Realization Rate** **Net Savings = Gross Savings * Net-to-Gross Ratio** **All savings are annualized (i.e. the savings are the same regardless of time of year a project was completed or measure installed)**
Demand Response	**Peak Demand: Gross Savings = Net Savings = contracted MW at contributor level * Provincial contracted to ex ante ratio** **Energy: Gross Savings = Net Savings = provincial ex post energy savings * LDC proportion of total provincial contracted MW** **All savings are annualized (i.e. the savings are the same regardless of the time of year a participant began offering DR)**
Adjustments to Previous Years' Verified Results	All variances from the Final Annual Results Reports from prior years will be adjusted within this report. Any variances with regards to projects counts, data lag, and calculations etc., will be made within this report. Considers the cumulative effect of energy savings.

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Consumer Program			
Appliance Retirement	Includes both retail and home pickup stream; Retail stream allocated based on average of 2008 & 2009 residential throughput; Home pickup stream directly attributed by postal code or customer selection.	Savings are considered to begin in the year the appliance is picked up.	Peak demand and energy savings are determined using the verified measure level per unit assumption multiplied by the uptake in the market (gross) taking into account net-to-gross factors such as free-ridership and spillover (net) at the measure level.
Appliance Exchange	When postal code information is provided by customer, results are directly attributed to the LDC. When postal code is not available, results allocated based on average of 2008 & 2009 residential throughput.	Savings are considered to begin in the year that the exchange event occurred.	
HVAC Incentives	Results directly attributed to LDC based on customer postal code.	Savings are considered to begin in the year that the installation occurred.	

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Conservation Instant Coupon Booklet	LDC-coded coupons directly attributed to LDC; Otherwise results are allocated based on average of 2008 & 2009 residential throughput.	Savings are considered to begin in the year in which the coupon was redeemed.	Peak demand and energy savings are determined using the verified measure level per unit assumption multiplied by the uptake in the market (gross) taking into account net-to-gross factors such as free-ridership and spillover (net) at the measure level.
Bi-Annual Retailer Event	Results are allocated based on average of 2008 & 2009 residential throughput.	Savings are considered to begin in the year in which the event occurs.	
Retailer Co-op	When postal code information is provided by the customer, results are directly attributed. If postal code information is not available, results are allocated based on average of 2008 & 2009 residential throughput.	Savings are considered to begin in the year of the home visit and installation date.	Peak demand and energy savings are determined using the verified measure level per unit assumption multiplied by the uptake in the market (gross) taking into account net-to-gross factors such as free-ridership and spillover (net) at the measure level.
Residential Demand Response	Results are directly attributed to LDC based on data provided to OPA through project completion reports and continuing participant lists.	Savings are considered to begin in the year the device was installed and/or when a customer signed a peaksaver PLUS™ participant agreement.	Peak demand savings are based on an ex ante estimate assuming a 1 in 10 weather year and represents the "insurance value" of the initiative. Energy savings are based on an ex post estimate which reflects the savings that occurred as a result of activations in the year and accounts for any "snapback" in energy consumption experienced after the event. Savings are assumed to persist for only 1 year, reflecting that savings will only occur if the resource is activated.

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Residential New Construction	Results are directly attributed to LDC based on LDC identified in application in the saveONenergy CRM system; Initiative was not evaluated in 2011, reported results are presented with forecast assumptions as per the business case.	Savings are considered to begin in the year of the project completion date.	Peak demand and energy savings are determined using the verified measure level per unit assumption multiplied by the uptake in the market (gross) taking into account net-to-gross factors such as free-ridership and spillover (net) at the measure level.
Business Program			
Efficiency: Equipment Replacement	Results are directly attributed to LDC based on LDC identified at the facility level in the saveONenergy CRM; Projects in the Application Status: "Post-Stage Submission" are included (excluding "Payment denied by LDC"); Please see page for Building type to Sector mapping.	Savings are considered to begin in the year of the actual project completion date on the iCON CRM system.	Peak demand and energy savings are determined by the total savings for a given project as reported in the iCON CRM system (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net). Both realization rate and net-to-gross ratios can differ for energy and demand savings and depend on the mix of projects within an LDC territory (i.e. lighting or non-lighting project, engineered/custom/prescriptive track).
	Additional Note: project counts were derived by filtering out invalid statuses (e.g. Post-Project Submission - Payment denied by LDC) and only including projects with an "Actual Project Completion Date" in 2013)		

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Direct Installed Lighting	Results are directly attributed to LDC based on the LDC specified on the work order.	Savings are considered to begin in the year of the actual project completion date.	Peak demand and energy savings are determined using the verified measure level per unit assumptions multiplied by the uptake of each measure accounting for the realization rate for both peak demand and energy to reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings take into account net-to-gross factors such as free-ridership and spillover for both peak demand and energy savings at the program level (net).
Existing Building Commissioning Incentive	Results are directly attributed to LDC based on LDC identified in the application; Initiative was not evaluated, no completed projects in 2011 or 2012.	Savings are considered to begin in the year of the actual project completion date.	Peak demand and energy savings are determined by the total savings for a given project as reported (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net).
New Construction and Major Renovation Incentive	Results are directly attributed to LDC based on LDC identified in the application.	Savings are considered to begin in the year of the actual project completion date.	
Energy Audit	Projects are directly attributed to LDC based on LDC identified in the application.	Savings are considered to begin in the year of the audit date.	Peak demand and energy savings are determined by the total savings resulting from an audit as reported (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net).

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Commercial Demand Response (part of the Residential program schedule)	Results are directly attributed to LDC based on data provided to OPA through project completion reports and continuing participant lists	Savings are considered to begin in the year the device was installed and/or when a customer signed a peaksaver PLUS™ participant agreement.	Peak demand savings are based on an ex ante estimate assuming a 1 in 10 weather year and represents the "insurance value" of the initiative. Energy savings are based on an ex post estimate which reflects the savings that occurred as a result of activations in the year. Savings are assumed to persist for only 1 year, reflecting that savings will only occur if the resource is activated.
Demand Response 3 (part of the Industrial program schedule)	Results are attributed to LDCs based on the total contracted megawatts at the contributor level as of December 31st, applying the provincial ex ante to contracted ratio (ex ante estimate/contracted megawatts); Ex post energy savings are attributed to the LDC based on their proportion of the total contracted megawatts at the contributor level.	Savings are considered to begin in the year in which the contributor signed up to participate in demand response.	Peak demand savings are ex ante estimates based on the load reduction capability that can be expected for the purposes of planning. The ex ante estimates factor in both scheduled non-performances (i.e. maintenance) and historical performance. Energy savings are based on an ex post estimate which reflects the savings that actually occurred as a results of activations in the year. Savings are assumed to persist for 1 year, reflecting that savings will not occur if the resource is not activated and additional costs are incurred to activate the resource.
Industrial Program			
Process & System Upgrades	Results are directly attributed to LDC based on LDC identified in application.	Savings are considered to begin in the year in which the incentive project was completed.	Peak demand and energy savings are determined by the total savings from a given project as reported (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net).

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	Results are directly attributed to LDC based on LDC identified at the facility level in the saveONenergy CRM; Projects in the Application Status: "Post-Stage Submission" are included (excluding "Payment denied by LDC"); Please see "Reference Tables" tab for Building type to Sector mapping.	Savings are considered to begin in the year of the actual project completion date on the iCON CRM system.	Peak demand and energy savings are determined by the total savings for a given project as reported in the iCON CRM system (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net). Both realization rate and net-to-gross ratios can differ for energy and demand savings and depend on the mix of projects within an LDC territory (i.e. lighting or non-lighting project, engineered/custom/prescriptive track).
Demand Response 3	Results are attributed to LDCs based on the total contracted megawatts at the contributor level as of December 31st, applying the provincial ex ante to contracted ratio (ex ante estimate/contracted megawatts); Ex post energy savings are attributed to the LDC based on their proportion of the total contracted megawatts at the contributor level.	Savings are considered to begin in the year in which the contributor signed up to participate in demand response.	Peak demand savings are ex ante estimates based on the load reduction capability that can be expected for the purposes of planning. The ex ante estimates factor in both scheduled non-performances (i.e. maintenance) and historical performance. Energy savings are based on an ex post estimate which reflects the savings that actually occurred as a results of activations in the year. Savings are assumed to persist for 1 year, reflecting that savings will not occur if the resource is not activated and additional costs are incurred to activate the resource.

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Home Assistance Program			
Home Assistance Program	Results are directly attributed to LDC based on LDC identified in the application.	Savings are considered to begin in the year in which the measures were installed.	Peak demand and energy savings are determined using the measure level per unit assumption multiplied by the uptake of each measure (gross), taking into account net-to-gross factors such as free-ridership and spillover (net) at the measure level.
Aboriginal Program			
Aboriginal Program	Results are directly attributed to LDC based on LDC identified in the application.	Savings are considered to begin in the year in which the measures were installed.	Peak demand and energy savings are determined using the measure level per unit assumption multiplied by the uptake of each measure (gross), taking into account net-to-gross factors such as free-ridership and spillover (net) at the measure level.

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Pre-2011 Programs completed in 2011			
Electricity Retrofit Incentive Program	Results are directly attributed to LDC based on LDC identified in the application; Initiative was not evaluated in 2011, 2012 or 2013 assumptions as per 2010 evaluation.	Savings are considered to begin in the year in which a project was completed.	Peak demand and energy savings are determined by the total savings from a given project as reported. A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net). If energy savings are not available, an estimate is made based on the kWh to kW ratio in the provincial results from the 2010 evaluated results (http://www.powerauthority.on.ca/evaluation-measurement-and-verification/evaluation-reports).
High Performance New Construction	Results are directly attributed to LDC based on customer data provided to the OPA from Enbridge; Initiative was not evaluated in 2011, 2012 or 2013, assumptions as per 2010 evaluation.	Savings are considered to begin in the year in which a project was completed.	
Toronto Comprehensive	Program run exclusively in Toronto Hydro-Electric System Limited service territory; Initiative was not evaluated in 2011, 2012 or 2013, assumptions as per 2010 evaluation.		

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Multifamily Energy Efficiency Rebates	Results are directly attributed to LDC based on LDC identified in the application; Initiative was not evaluated in 2011, 2012 or 2013, assumptions as per 2010 evaluation.	Savings are considered to begin in the year in which a project was completed.	Peak demand and energy savings are determined by the total savings from a given project as reported (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net). If energy savings are not available, an estimate is made based on the kWh to kW ratio in the provincial results from the 2010 evaluated results (http://www.powerauthority.on.ca/evaluation-measurement-and-verification/evaluation-reports).
Data Centre Incentive Program	Program run exclusively in PowerStream Inc. service territory; Initiative was not evaluated in 2011, assumptions as per 2009 evaluation.		
EnWin Green Suites	Program run exclusively in ENWIN Utilities Ltd. service territory; Initiative was not evaluated in 2011 or 2012, assumptions as per 2010 evaluation.		

3.3 Spending

Tables 3 and 4 summarize the total spending by initiative that Burlington Hydro Inc. 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	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
Consumer Program					
Appliance Retirement	$ 48,143.48	$ -	$ -	$ -	$ 48,143.48
Appliance Exchange	$ 16,528.84	$ -	$ -	$ -	$ 16,528.84
HVAC Incentives	$ 61,036.32	$ -	$ -	$ -	$ 61,036.32
Conservation Instant Coupon Booklet	$ 20,972.36	$ -	$ -	$ -	$ 20,972.36
Bi-Annual Retailer Event	$ 16,428.85	$ -	$ -	$ -	$ 16,428.85
Retailer Co-op	$ -	$ -	$ -	$ -	$ -
Residential Demand Response	$ 341,643.26	$ 549,896.40			$ 891,539.66
New Construction Program	$ 16,527.87	$ -	$ -	$ -	$ 16,527.87
Business Program					
Efficiency: Equipment Replacement	$ 211,243.39	$ -	$ 787,963.00		$ 999,206.39
Direct Installed Lighting	$ 9,198.70	$ 8,215.00	$ 53,014.75		$ 70,428.45
Existing Building Commissioning Incentive	$ 7,759.90	$ -	4656.00		$ 12,415.90
New Construction and Major Renovation Initiative	$ 55,578.69	$ -	$ 10,000.00		$ 65,578.69
Energy Audit	$ 10,784.37	$ -	43,806.50		$ 54,590.87

Small Commercial Demand Response (part of the Residential program schedule)	$ -	$ -	$ -	$ -	$ -
Demand Response 3 (part of the Industrial program schedule)		$ -	$ -	$ -	$ -
Industrial Program					
Process & System Upgrades	$ -	$ -	$ -	$ -	$ -
a) preliminary engineering study	$ 2,274.88		$ 8,600.00		$ 10,874.88
b) detailed engineering study	$ 1,898.45				$ 1,898.45
c) program incentive	$ 1,886.45				$ 1,886.45
Monitoring & Targeting	$ 1,306.54				$ 1,306.54
Energy Manager	$ 1,195.34				$ 1,195.34
Key Account Manager ("KAM")	$ 1,195.35				$ 1,195.35
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)					$ -
Demand Response 3	$ 15,084.90				$ 15,084.90
Home Assistance Program					
Home Assistance Program	$ 48,964.96		$ 283,888.00		$ 332,852.96
Pre 2011 Programs					
Electricity Retrofit Incentive Program	$ -				$ -
High Performance New Construction	$ -				$ -
Toronto Comprehensive	$ -				$ -
Multifamily Energy Efficiency Rebates	$ -				$ -

Data Centre Incentive Program	$ -				$ -
EnWin Green Suites	$ -				$ -
Initiatives Not In Market					
Midstream Electronics	$ -				$ -
Midstream Pool Equipment	$ -				$ -
Demand Service Space Cooling	$ -				$ -
Demand Response 1 (Commercial)	$ -				$ -
Demand Response 1 (Industrial)	$ -				$ -
Home Energy Audit Tool	$ -				$ -
TOTAL Province-wide CDM PROGRAMS	$ 889,652.90	$ 558,111.40	$ 1,191,928.25	$ -	$2,639,692.55

Table 4: Cumulative Spending (2011-2014)

Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
Consumer Program					
Appliance Retirement	$ 170,400.71				$ 170,400.71
Appliance Exchange	$ 138,786.07				$ 138,786.07
HVAC Incentives	$ 183,293.55				$ 183,293.55
Conservation Instant Coupon Booklet	$ 143,229.59				$ 143,229.59
Bi-Annual Retailer Event	$ 138,686.08				$ 138,686.08

Retailer Co-op	$ 122,257.23	$ -			$ 122,257.23
Residential Demand Response	$ 463,900.49	$1,097,016.44			$1,560,916.93
New Construction Program	$ 138,785.10	$ -	$ -	$ -	$ 138,785.10
Business Program					
Efficiency: Equipment Replacement	$ 598,236.77		$1,595,208.73		$2,193,445.50
Direct Installed Lighting	$ 396,192.08	$ 64,130.00	$ 273,690.50		$ 734,012.58
Existing Building Commissioning Incentive	$ 394,753.28		$ 7,156.00		$ 401,909.28
New Construction and Major Renovation Initiative	$ 442,572.07		$ 11,200.00		$ 453,772.07
Energy Audit	$ 397,777.75		$ 61,613.75		$ 459,391.50
Small Commercial Demand Response (part of the Residential program schedule)	$ 386,993.38				$ 386,993.38
Demand Response 3 (part of the Industrial program schedule)	$ -				$ -
Industrial Program					
Process & System Upgrades	$ -				$ -
a) preliminary engineering study	$ 7,432.98				$ 7,432.98
b) detailed engineering study	$ 7,056.55				$ 7,056.55
c) program incentive	$ 7,044.55	$ 4,839.94			$ 11,884.49
Monitoring & Targeting	$ 6,464.64				$ 6,464.64
Energy Manager	$ 6,353.44				$ 6,353.44
Key Account Manager (“KAM”)	$ 6,353.45				$ 6,353.45

Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	$ -				$ -
Demand Response 3	$ 20,243.00				$ 20,243.00
Home Assistance Program					
Home Assistance Program	$ 81,521.69		$ 283,888.00		$ 365,409.69
Pre 2011 Programs					
Electricity Retrofit Incentive Program	$ 53,477.78		$1,488,446.34	$ -	$1,541,924.12
High Performance New Construction	$ -				$ -
Toronto Comprehensive	$ -				$ -
Multifamily Energy Efficiency Rebates	$ -				$ -
Data Centre Incentive Program	$ -				$ -
EnWin Green Suites	$ -				$ -
Initiatives Not In Market					
Midstream Electronics					$ -
Midstream Pool Equipment					$ -
Demand Service Space Cooling					$ -
Demand Response 1 (Commercial)					$ -
Demand Response 1 (Industrial)	$ 14,849.65				$ 14,849.65
Home Energy Audit Tool					$ -
TOTAL Province-wide CDM PROGRAMS	$ 4,326,661.88	$ -	$3,721,203.32	$ -	$9,213,851.58

3.4 Additional Comments

Burlington Hydro Inc. has no additional comments.

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	2.9	1.8	1.8	1.7
2012 – Verified by OPA		4.7	1.9	1.8
2013 – Verified by OPA			6.3	1.9
2014				
Verified Net Annual Peak Demand Savings in 2014:				**5.5**
BURLINGTON HYDRO INC. 2014 Annual CDM Capacity Target:				**22.0**
Verified Portion of Peak Demand Savings Target Achieved (%):				**25.1%**

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	7.4	7.3	7.3	7.2	29.2
2012 – Verified by OPA		8.4	8.2	8.1	24.9
2013 – Verified by OPA			8.2	8.1	17.4
2014					
Verified Net Cumulative Energy Savings 2011-2014:					**71.5**
BURLINGTON HYDRO INC. 2011-2014 Cumulative CDM Energy Target:					**82.4**
Verified Portion of Cumulative Energy Target Achieved (%):					**86.8%**

4.2 Outlook to 2014 and Strategy Modifications

When examined on a Contribution to Targets basis, the demand achievement is 21.5% and the cumulative energy savings are 86.8%. Inclusion of demand responses increases the demand achievement to 45.2%. On this basis, Burlington Hydro Inc. is well on its way to achieving the energy target but achievement of the demand target is at risk. Burlington Hydro Inc.'s results are well above the Provincial median. The value and impact of the EM&V Protocols made it clear that Burlington Hydro Inc. is at risk for not meeting CDM demand targets due to the erosion arising from the Protocols which are established by the OPA.

The magnitude of the EM&V Protocol impact was not evident at the time of Master Agreement execution and will have an impact on Burlington Hydro Inc.'s ability to meet its OEB Targets.

The OEB Targets were initially viewed by Burlington Hydro Inc. as being aggressive, but achievable. The 2007 to 2010 OPA CDM Programs were delivered at a rate of about 2 to 3 MW per year. The step required to achieve the OEB Targets was essentially a doubling of achievements, a significant but achievable challenge. This higher target requirement imposed by the EM&V Protocol may not be technically achievable. ***It represents approximately 16.4% of Burlington Hydro Inc.'s average demand and 7.7% of energy consumption.***

Burlington Hydro Inc. originally filed a CDM Strategy Plan with the OEB on November 1, 2010 which predicted achievement of its CDM Targets (after pro-rata redistribution of the Board Approved Program targets to the consumer and business sectors) as follows:

	Demand	**Energy**
Business Programs	13.9 MW	50.7 GWh
Consumer Programs	8.1 MW	31.7 GWh
Total	**22.0 MW**	**82.7 GWh**

The following table represents the conservation achievements that Burlington Hydro Inc. will be required to attain in order to meet its OEB CDM targets:

Outlook to 2014

	Program	Net Incremental Savings		Contribution to Targets	
		Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Program-to-Date: Net Annual Peak Demand Savings (kW) in 2014 (excludes DR)	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (kWh)
Pre-2011 Programs		494	2,790,970	494	11,164,175
2011 (Verified)	Consumer Program Total (excl DR)	812	2,338,247	2011 Contributions are Rolled Forward into 2013	
	Residential Demand Response	347	899		
	Business Program Total (excl DR)	407	1,784,258		
	Demand Response 3				
	Industrial Program Total (excl DR)	76	388,884		
	Demand Response 3	817	47,936		
	Home Assistance Program	-	-		
2012 (Verified)	Consumer Program Total (excl DR)	543	1,420,555	2012 Contributions are Rolled Forward into 2013	
	Residential Demand Response	1,275	9,589		
	Business Program Total (excl DR)	1,384	6,764,436		
	Demand Response 3	-			
	Industrial Program Total (excl DR)	-			
	Demand Response 3	1,538	37,071		
	Home Assistance Program	-	-		
2013 (Verified)	Consumer Program Total (excl DR)	483	1,199,240	1,835	16,026,307
	Residential Demand Response	1,425	5,349		
	Business Program Total (excl DR)	1,224	5,406,263	2,906	37,773,765
	Small Commercial Demand Response	189			
	Demand Response 3	22	381		
	Industrial Program Total (excl DR)	27	261,790	103	2,244,955
	Demand Response 3	2,774			
	Home Assistance Program	29	397,788	28	783,756
2014 (Projected)	Consumer Program Total (excl DR)	400	1,250,000	400	1,250,000
	Residential Demand Response	1,200	25,000		25,000
	Business Program Total (excl DR)	1,500	8,500,000	1,500	8,500,000
	Small Commercial Demand Response	150	5,000		5,000
	Demand Response 3	750	5,000		5,000
	Industrial Program Total (excl DR)	75	500,000	75	500,000
	Demand Response 3	500	25,000		25,000
	Home Assistance Program	100	750,000	100	750,000
OPA Adjustments (non DR)				141	3,486,793
	Energy Efficiency Total	**7,554**	**33,752,431**	**7,582**	**82,539,751**
	Demand Response Total	**11,087**	**161,225**		
	OPA - Contracted Portfolio Total	**18,641**	**33,913,656**		
			OEB Target	**21,950**	**82,370,000**
		% OEB Target Achieved (excl DR)		**34.5%**	**100.2%**
		% OEB Target Achieved (incl DR)		**85.1%**	**100.2%**

Burlington Hydro Inc. is expected to meet its energy target but not its demand target after taking the EM&V Protocols into account. Without these adjustments Burlington Hydro Inc. would otherwise surpass each of its targets by a significant margin.

In order to meet the demand target, considerably greater effort is required to secure and retain additional demand savings. The greatest component of erosion occurs due to the EM&V Protocol not recognizing the persistence of the demand response program (DR-3) past the initial contract year. The Protocol does provide for recognition in 2014 if the DR-3 resource is available for curtailment. Acquiring additional DR-3 and Peaksaver load and maintaining its persistence is a key element to the plan to achieve demand targets. If this load is acquired and retained, then Burlington Hydro Inc. will meet its demand target.

The consumer programs are generally thought to be maturing, meaning that uptake rates can't be driven further. The remainder must originate through the business programs available to the commercial and industrial sectors. However, the opportunity may be nearing saturation as well.

The following table estimates the available conservation within the commercial and industrial sectors in Burlington:

Residual Energy Conservation Potential Through CDM Assessment - Burlington - Commercial/Industrial (IC)

End Use											
	Level 1	Level 2	Level 3	% of Total Energy Use	Pre-Retrofit Energy Consumption (kWhr/yr)	Pre-Retrofit Peak Demand (kW)	Conservation Potential (%)	Uptake Potential (%)	Potential Energy Consumption Savings (kWhr/yr)	Potential Peak Demand Savings (kW)	Notes
Industrial	Process	Direct Heat	Boilers	0.6%	2,502,312	567	75%	0%	-	-	Fuel Substition is ineligible
			Furnaces	6.5%	27,108,377	6,138	100%	0%	-	-	Fuel Substition is ineligible
		Cooling	Chillers	7.8%	32,530,052	7,366	33%	10%	1,073,492	243	Capital Intensive Measure - Only Feasible When Equipment Replacement is Required
			Forced Air Coolers	0.1%	417,052	94	20%	10%	8,341	2	Capital Intensive Measure - Only Feasible When Equipment Replacement is Required
			Cooling Towers	1.4%	5,838,727	1,322	10%	20%	116,775	26	Conservation attributable to VFDs or motor replacement
		Motors		37.4%	155,977,428	35,317	25%	25%	9,748,589	2,207	Conservation attributable to VFDs or motor replacement
		Pumps		9.4%	39,202,883	8,877	25%	25%	2,450,180	555	Conservation attributable to VFDs or motor replacement
		Compressors		9.8%	40,871,091	9,254	40%	50%	8,174,218	1,851	Second most popular measure
		Fans/Blowers		5.8%	24,189,013	5,477	25%	25%	1,511,813	342	Conservation attributable to VFDs or motor replacement
		Conveyors		1.5%	6,255,779	1,416	10%	10%	62,558	14	Conservation attributable to VFDs or motor replacement
		Electromechanical		0.7%	2,919,364	661	25%	25%	182,460	41	Specialized Measures
		Other Processes		7.4%	30,861,844	6,988	10%	25%	771,546	175	Specialized Measures
	Comfort	Lighting		6.8%	28,359,532	6,421	50%	75%	10,634,825	2,408	Most popular measure
		Heating		0.3%	1,251,156	283	75%	0%	-	-	Fuel Substition is ineligible
		Cooling		2.4%	10,009,247	2,266	33%	10%	330,305	75	Capital Intensive Measure - Only Feasible When Equipment Replacement is Required
		Ventilation		2.1%	8,758,091	1,983	10%	10%	87,581	20	
				100%	**417,051,947**	**94,432**			**35,152,683**	**7,959**	
									8.4%	**8.4%**	
Commercial	Process	Office Equipment & Computers		6%	26,667,070	6,038.13	25%	20%	1,333,353	302	No OPA Program
		Refrigeration		11%	48,889,628	11,069.90	25%	10%	1,222,241	277	Capital Intensive Measure - Only Feasible When Equipment Replacement is Required
		Other		15%	66,667,675	15,095.32	25%	25%	4,166,730	943	Specialized Measures
	Comfort	Lighting		38%	168,891,443	38,241.47	50%	75%	63,334,291	14,341	Most popular measure
		HVAC		30%	133,335,350	30,190.64	15%	25%	5,000,076	1,132	Specialized Measures
				100%	**444,451,165**	**100,635**			**75,056,690**	**16,995**	
									16.9%	**16.9%**	
							TOTAL IC Conservation Potential:		**110,209,374**	**24,954**	
									12.8%	**12.8%**	% of BHI Total
							CDM Delivered via 2006 to 2013 CDM Programs:		**-36,162,000**	**-21,830**	
									-4.2%	**-11.2%**	% of BHI Total
Input Data	**Burlington GS > 50 Peak Demand**			**195,067**	**kW**		**NET IC Conservation Potential:**		**74,047,374**	**3,124**	
	Burlington GS > 50 Annual kWhr			**861,503,113**	**kWhr/yr**				**8.6%**	**1.6%**	% of BHI Total
	Commercial/Industial Ratio			**0.516**							

*Industrial End Use Data extracted from "**Market Profile and Conservation Opportunity Assesment for Small and Medium-Sized Industry in Ontario**" prepared by Marbek Resource Consultants and Altech Environmental Consulting, Sept 2006*

Small and Medium-Sized Industry as defined in study means peak loads < 1.0 MW (Believed to represent 60 to 70% of Ontario industry) Burlington = 75%

In summary, there are limited opportunities available to meet Burlington Hydro's Demand targets and there are sufficient opportunities to meet the energy target. Experience with past industrial/commercial programs has demonstrated that these consumers will only implement projects where paybacks are less than 3 years or when existing equipment has reached the end of its useful life and is replaceable with more efficient equipment. This is reflected in the "Uptake Potential" column in the above table.

The breakdown of which energy conservation measures will deliver the saving is as follows:

Measure	% of Total Conservation Opportunity
Lighting	76%
Air Compressors	9%
HVAC, Refrigeration, etc.	8%
All Other Measures Combined	7%

The lighting opportunity is heavily skewed towards the commercial sector.

In conclusion, if **all** of the commercial and industrial conservation opportunities were captured, Burlington Hydro Inc. could theoretically meet its demand target after application of the EM&V Protocols. Securing all of these opportunities under current circumstances is unlikely. As a result, Burlington Hydro Inc. doubled its efforts to secure demand response customers in 2013. Unfortunately, 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 occur sometime in 2015.

The DR3 Initiative is a significant contributor to helping LDCs achieve their demand 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.

Meeting the CDM Delivery Challenge

Burlington Hydro Inc. has taken the delivery of CDM Targets seriously and has created a delivery team made up of industry experts and leaders in their field, following these principles:

Focus on Largest Customers First
Delivery is designed to capture the largest MW and MWh reductions first. This is important because the MWh target is cumulative; the earlier large contributors are captured, the longer their benefit will accrue. Burlington Hydro Inc.'s largest customers will be marketed to in descending order. Given the importance of these customers to the success of the program, Burlington Hydro Inc.'s senior executive meetings were arranged with the senior executives of these customers in order to explain the goals of CDM and to seek their executive commitment to cause their organizations to participate in the programs.

Delivery Channels

Experience with pre-2011 CDM Programs demonstrated that consumer programs are best delivered through internal staff. The infrastructure to generate mass market materials (brochures, handouts, pamphlets, media events, promotion at public events, etc.) exists and has proven to be economic. Excellent results, when measured in terms of participation rates in the pre-2011 programs such as The Great Refrigerator Round-up, Summer Savings, and PeakSaver, have been achieved. For the 2011 to 2014 programs, consumer programs are being driven by experienced internal staff.

Sales Strategy

The sales strategy employed for the pre-2011 general service customers was largely passive. Potential participants were made aware of the program availability and its benefits through seminars and other forms of outreach, but participation was largely left up to the individual customers. If customers needed assistance with identifying energy efficiency measures or completing incentive application forms, it was provided. Currently, the sales strategy is more pro-active. Customers, starting with the largest users, will be targeted through an active sales campaign.

Direct assistance with identifying energy efficiency projects will be provided including site assessments, energy efficiency measure identification, conceptual designs, identification of suitable vendors, suppliers and installers, procurement, incentive applications, inspections and due diligence. GridSmartCity™ partners will be engaged wherever possible to maximize the effectiveness of the sales effort.

Co-Promotion with Union Gas

Union Gas offers many incentive programs to assist customers with reducing natural gas consumption. Often, during the course of site assessments, opportunities to reduce natural gas consumption present themselves and, similarly, opportunities to reduce electricity consumption become evident as well. Burlington Hydro Inc. now works closely with Union Gas to ensure that each other's programs are promoted. This will ensure that leads are generated by both Burlington Hydro Inc. and Union Gas to each other's benefit.

The following matrix illustrates the roles and responsibilities of various Burlington Hydro Inc. staff and the contractors/vendors who are associated with delivery of Burlington Hydro Inc.'s CDM targets:

		OPA Programs																												
		Consumer								Business					Industrial				HAP	2011	Sales & Marketing					Administration				
Staff/Contractor/Vendor	Title/Role	Appliance Retirement	Appliance Exchange	HVAC Incentives	Conservation Instant Coupon Book	Bi-Annual Retailer Event	Retailer Co-op	Residentail Demand Response	Residential New Construction	Equipment Replacement	Direct Install Lighting	Existing Building Commissioning	HPNC	Energy Audit	Process & Systems Upgrades	Monitoring & Targeting	Energy Manager	Demand Response 3	Home Assistance Program	ERIP -2011	Seminars & Workshops	Direct Customer Sales	Energy Assessments	Marketing (Media, etc)	Sales Database Administration	CDM Reporting	Financial Management	CDM Steering Committee
BHI Staff																														
	Director of Asset Management and Regulatory Compliance	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				x		x	x	x		
	Manager, Regulatory Affairs							x		x			x	x				x	x	x				x		x	x	x		
	Conservation and Regulatory Analyst	x	x	x	x	x	x	x		x	x		x	x			x	x	x	x	x			x	x	x	x	x		
	Regulatory Accountant																										x	x		
	Manager, Metering Services									x								x				x						x		
Contractors & Vendors																														
Aladaco Consulting Inc.	President - Strategic Support							x		x	x	x	x	x				x	x	x	x	x	x	x		x	x	x		
Aladaco Consulting Inc.	Associate - Technical and Sales Support									x		x		x	x	x		x		x	x	x	x		x	x				
Aladaco Consulting Inc.	ERII Program Manager - Application Administration									x	x				x			x		x		x	x		x	x				
Aladaco Consulting Inc.	CDM Program Administrator									x	x		x	x	x			x		x	x			x	x	x	x	x		
Lightworks Inc.	Sales Lead									x	x				x			x		x	x	x	x		x					
Lightworks Inc	Sales									x	x									x		x								
Honeywell	Program Delivery & Sales - Residential Demand Response							x																x		x				
Air Solutions	Sales - Air Compressors									x		x		x	x					x		x	x		x					
EnerNOC	Sales - DR-3													x				x			x	x	x		x					
Enbridge	Program Delivery & Sales - HPNC												x								x				x					
Union Gas	Program Delivery & Sales - Home Assistance Program																		x		x	x	x		x					
Summerhill	Retailer Event Delivery	x	x	x	x	x	x	x													x				x					
Julie Wildgoose	Program Delivery	x	x	x	x			x																x	x					
Power Factor Services	Measurement & Verification														x	x														
BEDC	Account Collaboration																				x	x								
Professional Prospecting	Lead Generation																							x						

5 Conclusion

Over the course of 2013, Burlington Hydro Inc. has achieved 5.5 MW in peak demand savings and 71.5 GWh in energy savings, which represents 25.1% and 86.8% of Burlington Hydro Inc. 2014 target, respectively. These results are representative of a considerable effort expended by Burlington Hydro Inc., 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 Burlington Hydro Inc. faces challenges in the remaining year of the current CDM framework. With the current slate of available OPA Programs, and the current forecast of implementation and projected savings, Burlington Hydro Inc. expects to meet its consumption target but will struggle to meet its demand target.

Looking ahead there is limited opportunity to make valuable changes to the current program portfolios and to 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

In Market Date: January 2011

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: 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

In Market Date: March 2011

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

In Market Date: February 2011

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.

Targeted End Uses: ENERGY STAR® qualified Standard Compact Flourescent 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 honour the coupons.

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

In Market Date: February 2011

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 honour 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

In Market Date: March 2011

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.

In Market Date: January 2011

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

In Market Date: January 2011

RESIDENTIAL DEMAND RESPONSE PROGRAM (Schedule B-3)

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

Initiative Frequency: Year round

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

Description: In ***peaksaver***PLUS ™ participants are eligible to receive a free programmable thermostat or switch, including installation. Participants also receive access to price and real-time consumption information on an In Home Display (IHD).

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

In Market Date: March 2012

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

In Market Date: March 2011

Lessons Learned:

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

Initiative Activities/Progress:

In Market Date: March 2011

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 Additional detail is available:

Initiative Activities/Progress:

In Market Date: February 2011

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

Initiative Activities/Progress:

In Market Date: June 2011

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
https://saveonenergy.ca/Business/Program-Overviews/Audit-Funding.aspx

Initiative Activities/Progress: 32 projects completed, resulting in demand avoidance of 282 kW and energy savings of 1,550,425 kWh in 2013.

In Market Date: June 2011

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
https://saveonenergy.ca/Business.aspx

In Market Date: November 2011

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
https://saveonenergy.ca/Business.aspx

In Market Date: November 2011

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 demand 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 (KAM) support, in some cases.

Additional Detail: Schedule D-3 on the OPA extranet and SaveONenergy website
https://saveonenergy.ca/Business.aspx

In Market Date: August 2011

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.

In Market Date: August 2011

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 https://saveonenergy.ca/Business.aspx

In Market Date: January 2011

It is noted that while the Schedule for this Initiative was not posted until May 2011, the Aggregators reported that they were able to enroll customers as of January 2011.

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.

Initiative Activities/Progress:

BPI took the lead on a group RFP for Home Assistance Program provider in 2011. Due to the delay in schedule release, and the time required for the RFP process, BPI was not in market in 2011, however launched in early 2012.

In Market Date: August 2012

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)