



Waterloo North Hydro Inc.

Electricity Distributor License ED-2002-0575

**Conservation and Demand Management
2013 Annual Report**

Submitted to:

Ontario Energy Board

File Number EB-2010-0215

Submitted on September 30, 2014

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Executive Summary

This annual report is submitted by Waterloo North Hydro Inc. (Waterloo North) in accordance with the filing requirements set out in the Conservation and Demand Management Code (Board File No. EB-2010-0215), specifically Appendix C Annual Report Template, as a progress report and modification to Waterloo North's Strategy. Accordingly, this report outlines Waterloo North's Conservation and Demand Management (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.

Waterloo North 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 Waterloo North.

In 2011, Waterloo North 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 program term, including staffing, procurement, and program delivery.

In 2013, Waterloo North achieved 2.80 MW of net incremental peak demand savings and 6.40 GWh's of net incremental energy savings. To date Waterloo North achieved 3.90 MW of cumulative demand savings and 54.40 GWh's of cumulative energy savings up towards the 2014 demand and energy targets. A summary of the net incremental 2013 achievements and cumulative results to 2014 is shown in Table 1.

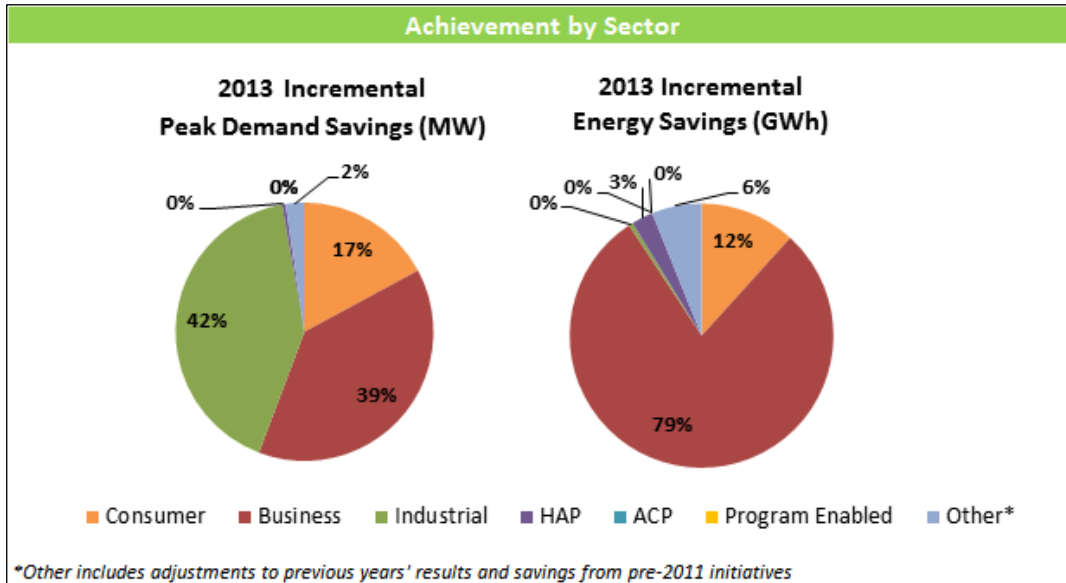
Table 1: 2013 Net Incremental and 2014 Cumulative CDM Results¹

CDM Measure	Target	Incremental 2013 Net Savings*	Cumulative to 2014			
			No DR Persistence	DR Persistence	% of Target 1 Year DR Persistence	% of Target 2014 DR Persistence
Net Peak Demand Savings (MW)	15.79	2.80	3.90	5.38	24.70%	34.10%
Net Energy Savings (GWh)	66.49	6.40	54.40	54.40	81.82%	81.82%

¹ 2013 results reported by the OPA do not include a number of projects completed in 2012 and 2013. The OPA reports that these projects will be picked up in the 2013 true up in the 2014 final verified results. Waterloo North's OPA reported net incremental 2013 results achieved in 2013 including projects that the OPA omitted are 3.0 MW of peak demand savings and 6.7 GWh's of energy savings and achievement towards the demand and energy targets 25.9% and 84.8% respectively. Waterloo North will continue to work with the OPA to resolve the errors.

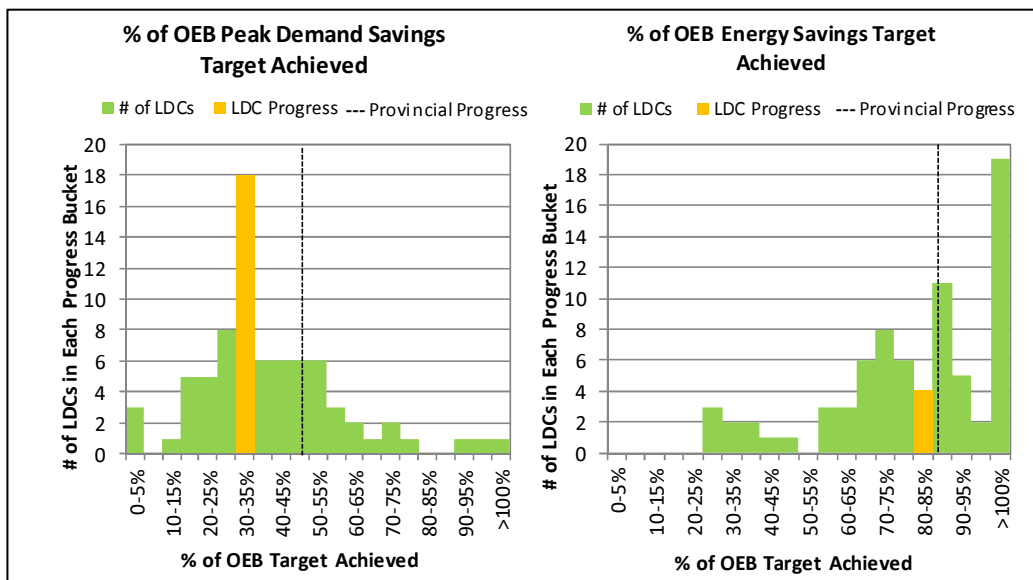
Waterloo North's incremental achievements for 2013 continued to be heavily weighted in the business and segment as shown in Graph 1 below. This shift is a direct result of the program offerings, the energy and peak demand savings available in each customer segment, and does not correlate to the marketing and resource focus and investment.

Graph 1: 2013 Incremental Results by Sector



Furthermore, when compared to the progress of the greater LDC community in Ontario, Waterloo North's energy demand reduction is only slightly below the provincial progress where demand savings are behind the provincial progress as shown in Graph 2. The apparent gap in Waterloo North's energy savings can be attributed to a number of factors, including reporting errors by the OPA and net to gross factor variation from year to year, while the gap on the demand side is a result of the customer base and the nature of projects that are been implemented deliver more energy than demand savings.

Graph 2: Peak Demand and Energy Savings towards Target



The updated forecast prepared for this report shows that as with many other LDC's Waterloo North will not meet its demand savings target. Additionally, several factors beyond the control of Waterloo North may negatively affect the achievability of the utility's energy savings target. Given the anticipated shortfalls, Waterloo North will continue to build on the activities that have delivered successful results in previous years and focus resources on projects and initiatives that deliver significant energy savings.

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 Waterloo North to require Waterloo North, as a condition of its license, to achieve 66.59 GWh's of energy savings and 15.79 MW's 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, Waterloo North submitted its CDM Strategy on November 1, 2010, which provided a high-level description of how Waterloo North 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 Waterloo North, and has been prepared in accordance with the Code requirement and covers the period from January 1, 2013 to December 31, 2013.

Waterloo North submitted its 2011 Annual Report on September 30, 2012 which summarized the CDM activities, successes and challenges experienced by Waterloo North 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 affected the final 2011 results for the LDCs. This issue was also highlighted in Volumes I & II of the Environmental Commissioner's Report on Ontario's Annual Energy Conservation Progress.

On December 21, 2012, the Minister of Energy directed the Ontario Power Authority (OPA) to fund CDM programs that 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 focus of the LDCs remains the achievement of CDM targets by December 31, 2014.

Waterloo North submitted its 2012 Annual Report on September 30, 2013 which summarized the CDM activities undertaken by Waterloo North 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 Conservation Framework

1.1 Current Framework

Ontario's current CDM framework is a key step towards creating a culture of conservation in the Province. The Government's Directive to the OEB to establish CDM targets that would be met by electricity distributors recognizes the importance of CDM for both electricity customers and the electricity system. CDM helps customers manage rising energy costs, support the provincial integrated supply plan, as well as address local distribution and transmission supply constraints. The current framework was intended to enable customers to benefit from a suite of both Board-Approved and OPA Province-Wide programs and be a portfolio that would meet both broad and specific customer needs.

The state of Board-Approved programs and the current suite of Province-Wide OPA programs have limited CDM offerings to customers. This has produced limited savings and has restricted the associated opportunity for LDCs to meet their targets. The process to introduce changes to current program Initiatives or to pilot new Initiatives has been challenging, taking considerable cost and effort, which has resulted in limited benefits to customers and CDM savings.

Moving forward, the future CDM framework should address the challenges of the current framework and build on its strengths. Currently overbuilt governance and excessive legal requirements results in a slow, bureaucratic process, with a burdensome administrative process. There is a misalignment of control and risk where LDCs have the accountability to achieve their respective CDM targets as a condition of distribution license, but the authority for design and funding are controlled substantially by the OPA.

The Ministerial Directive provides continuity of the conservation programs and associated compensation for the participants. However, the transition period in 2015 will need to come with clear guidelines on attribution and funding to avoid the stop/start the market experienced in 2011.

1.2 Future Framework

LDCs are supportive of the government's renewed commitment for conservation and demand management in Ontario. LDCs are committed to working with the government and other stakeholders to develop the next framework for CDM in the Province. LDC's are well positioned to take a greater role and risk in CDM and are prepared to do should the new framework remove barriers for program design, approval, and reporting while providing certainty and control of funding, delivery, and evaluation.

2 Board-Approved CDM Program

2.1 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 by Waterloo North.

2.2 TOU Pricing

2.2.1 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. Waterloo North 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 additional LDCs were added to the study in 2014 – Cambridge-North Dumfries, 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 Waterloo North. Therefore, Waterloo North is not able to provide any verified savings related to LDC's TOU program at this time.

2.2.2 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)		
	On Peak	Mid Peak	Off Peak
Effective Date			
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	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 sets the rates; LDCs install and maintain the smart meters; LDCs convert customers to TOU billing.

Initiative Activities/Progress:

Waterloo North began transitioning its RPP customers to TOU billing May of 2011 and as of December 31, 2013, all RPP customers were on TOU billing representing 100 % of Waterloo North's mandated customer base.

2.3 Waterloo North Hydro's Application with the OEB

Waterloo North did not submit a CDM program application to the OEB in 2013. It is not anticipated that any applications will be made in subsequent years.

2.4 Waterloo North Hydro's Application with the OPA's Conservation Fund

In 2013, the OPA introduced the Conservation Fund to help meet LDC's interest in the development and launch of new local, regional, and province-wide initiatives. The Conservation Fund's LDC Program Innovation Stream fast tracks LDC-led program design and the launch of successfully piloted initiatives prior to full scale deployment. By driving program innovation through the Conservation Fund, LDCs have the opportunity to both realize additional savings through the piloting and implementation of initiatives not currently addressed by the OPA portfolio and the means to test concepts for future local or province wide programs post 2014. As per the OPA, as of March 2014, three pilots have been contracted and are underway with Toronto Hydro and Niagara Peninsula Energy and ten others are in various stages of the contracting and development process.

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

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

3 OPA-Contracted Province-Wide CDM Programs

3.1 Introduction

Effective February 25, 2011, Waterloo North entered into an agreement with the OPA to deliver CDM programs extending from January 1, 2011 to December 31, 2014, which are listed below in Table 2. Program details are included in Appendix A. In addition, results include projects started pre 2011 which were completed in 2011.

Table 2: OPA-Contracted Province-Wide CDM Programs in Market in 2013

Initiative	Schedule	Date Schedule Posted	Customer Class	LDC In Market Date
Residential Program				
Appliance Retirement	Schedule B-1, Exhibit D	Jan 26 2011	All residential rate classes	Jan 26 2011
Appliance Exchange	Schedule B-1, Exhibit E	Jan 26 2011	All residential rate classes	Jan 26 2011
HVAC Incentives	Schedule B-1, Exhibit B	Jan 26 2011	All residential rate classes	Jan 26 2011
Conservation Instant Coupon Booklet	Schedule B-1, Exhibit A	Jan 26 2011	All residential rate classes	Jan 26 2011
Bi-Annual Retailer Event	Schedule B-1, Exhibit C	Jan 26 2011	All residential rate classes	Jan 26 2011
Retailer Co-op		Jan 26 2011	All residential rate classes	Jan 26 2011
Residential Demand Response	Schedule B-3	Aug 22 2011	All general service classes	Sep 01 2013
New Construction Program	Schedule B-2	Jan 26 2011	All residential rate classes	Jan 26 2011
Commercial & Institutional Program				
Efficiency: Equipment Replacement	Schedule C-2	Jan 26 2011	All general service classes	Mar 01 2011
Direct Install Lighting	Schedule C-3	Jan 26 2011	General Service < 50 kW	May 01 2011
Existing Building Commissioning Incentive	Schedule C-6	Feb 01 2011	All general service classes	Mar 01 2011
New Construction and Major Renovation	Schedule C-4	Feb 01 2011	All general service classes	Nov 01 2011
Energy Audit	Schedule C-1	Jan 26 2011	All general service classes	Mar 01 2011
Commercial Demand Response	Schedule B-3	Jan 26 2011	All general service classes	Sep 01 2013
Demand Response 3	Schedule D-6	May 31 2011	General Service 50 kW & above	May 31 2011
Industrial Program				
Process & System Upgrades	Schedule D-1	May 31 2011	General Service 50 kW & above	May 31 2011
Monitoring & Targeting	Schedule D-2	May 31 2011	General Service 50 kW & above	May 31 2011
Energy Manager	Schedule D-3	May 31 2011	General Service 50 kW & above	May 31 2011
Equipment Replacement Incentive Initiative	Schedule C-2	May 31 2011	General Service 50 kW & above	May 31 2011
Demand Response 3	Schedule D-6	May 31 2011	General Service 50 kW & above	May 31 2011
Home Assistance Program				
Home Assistance Program	Schedule E-1	May 09 2011	All residential rate classes	Jan 03 2012

In addition, results were realized towards LDC's 2011-2014 target through the following pre-2011 programs as shown in Table 3.

Table 3: Pre-2011 Programs Contributing towards 2011-2014 targets

Initiative	Schedule	Date Schedule Posted	Customer Class	LDC In Market Date
Pre-2011 Programs completed in 2011				
Electricity Retrofit Incentive Program	n/a	n/a	All general service classes	NA
High Performance New Construction	n/a	n/a	All general service classes	NA

As per Table 4 below, several program initiatives are no longer available to customers or have not been launched in 2013.

Table 4: OPA-Contracted Province-Wide CDM Initiatives Not in Market in 2012

Initiative Not in Market in 2011	Objective	Status
Residential Program		
Midstream Electronics	The objective of this initiative is to encourage retailers to promote and sell high efficiency televisions, and for distributors to distribute high efficiency set top boxes.	Never launched and removed from Schedule in Q2, 2013.
Midstream Pool Equipment	The objective of this initiative is to encourage pool installers to sell and install efficient pool pump equipment in residential in-ground pools.	Never launched and removed from Schedule in Q2, 2013.
Aboriginal Conservation Program	First Nations programs are delivered by OPA and results are attributed to LDCs for reporting.	Launched in 2013 by OPA.
Home Energy Audit Tool	This is a provincial online audit tool to engage customers in conservation and help drive customer participation to CDM programs.	Never launched and removed from Schedule in Q2, 2013.
Commercial & Institutional Program		
Direct Service Space Cooling	The objective of this initiative is to offer free servicing of air conditioning systems and refrigeration units for the purpose of achieving energy savings and demand reduction.	Not launched to market in 2011/2012. As per the OPA there no plans to launch this Initiative in 2013.
Demand Response 1	This initiative allows distribution customers to voluntarily reduce electricity demand during certain periods of the year pursuant to the DR 1 contract. The initiative provides DR payment for service for the actual electricity reduction provided during a demand response event.	No customer uptake for this initiative. As a result this Initiative was removed from the Schedule in Q4, 2012.
Industrial Program		
Demand Response 1	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 and 2013, 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.

3.2 Program Descriptions

Full OPA-Contracted Province-Wide CDM Program descriptions are available from the OPA and additional initiative information can be found on the saveONenergy website at saveonenergy.ca. The targeted customer types, objectives, and individual descriptions for each Program Initiative are detailed in Appendix A.

3.2.1 RESIDENTIAL PROGRAM

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

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

Discussion: The Residential Program Portfolio is predominately a carryover of Initiatives from pre-2011 and is primarily driven by retailers and contractors. Delays in communication with Initiative offerings and results reporting coupled with market saturation with some Initiatives continue to be significant barriers to Waterloo North's abilities to engage customers, promote participation, and achieve the necessary savings.

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. Province-wide advertising was re-introduced in Q3 2013. This provided limited value due to the late market entry.

The Residential Demand Response program continues to be the largest contributor to demand savings in the Residential Program and has been well received by consumers with the in-home display proving to be of interest and value to the residential customer segment.

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

Program Activity: In 2013, Waterloo North Hydro continued to develop and evolve the marketing strategy to ensure it was comprehensive, integrated, and multi-channel. In March of 2013, Waterloo North launched an aggressive, CDM focused social media strategy utilizing Facebook and Twitter social media platforms. Social media has provided Waterloo North with a new marketing channel, the opportunity to develop long lasting two-way relationships with customers, and leverage the collective social nature of social media to not only promote the programs but also build a robust network of

followers that in themselves become marketing agents and ambassadors of energy conservation. The engagement strategy and pre-launch preparation provided the foundation for a more than successful launch that was incredibly well received with Waterloo North becoming one of the most liked and followed utility in Canada on a per customer basis. Because of the success, Waterloo North ran an “Ugliest Air Conditioner” contest on social media to make use of gamification in the promotion of the Heating and Cooling Incentive Initiative.

In addition to cobranding marketing between Initiatives, every effort was made to collaborate and co-promote, share material, ad space and creative costs with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro Inc. in our effort to jointly deliver the program, drive efficiencies, and build the awareness of the saveONenergy brand and programs.

A holistic approach was used to promote the saveONenergy FOR HOME initiatives to increase program awareness, leverage cross program opportunities and to achieve cost-efficiencies. Below is a comprehensive list of initiatives and activities undertaken by Waterloo North to promote the Residential Program Initiatives.

- Newspaper ads ran in the Waterloo Chronicle, Elmira Independent, and Woolwich Observer weekly and monthly in Snapd KW from January to December 2013. The ads promoted the Heating & Cooling Incentive program, the Coupon program, the Fridge & Freezer Pickup program, and peaksaver® PLUS program. A full-page advertisement ran in the Elmira Sugar Kings Junior B Hockey Club 2013 program focused on promoting the Heating & Cooling Incentive program.
- Various special advertisements in the Waterloo Region Record sections and inserts including Green Living Magazine, Welcome to the Neighbourhood, Air Conditioning insert, and Heating insert were leveraged to promote energy savings tips and the saveONenergy FOR HOME programs with a primary focus on the Heating & Cooling Incentive program.
- Bill inserts were distributed bi-monthly to all Waterloo North customers promoting saveONenergy FOR HOME initiatives including the Heating & Cooling Incentive, Coupons, Fridge & Freezer Pickup and peaksaver® PLUS programs.
- A business card sized ad ran in the Greater KW Chamber of Commerce 2013 directory promoting the saveONenergy programs and initiatives.
- Program banners to promote the programs displayed in Waterloo North’s lobby, shareholder offices and at special events.
- Seasonal sponsorship with the Kitchener Rangers Ontario Hockey League Club with advertisements running on the scoreboard including two 30-second center ice commercials supporting the saveONenergy FOR HOME initiatives, concourse signage, 150,000 online impressions on the team’s website, print advertisement in the team’s programs and a promotional game night.

- Program brochures to promote the programs displayed in Waterloo North’s lobby, in local community centers and at various events.
- Residential 30-second commercial videos promoted the programs in local Cineplex movie theatres running January to December 2013.
- Residential 30-second commercial videos promoted on YouTube for 24 weeks between January and December 2013.
- Radio advertisements with Waterloo Region Rogers Radio Group promoted the FOR HOME programs running 10 weeks between January and December 2013.
- Waterloo North specific coupons and initiative brochures distributed to community outreach partners and retailers for distribution at community events and partner offices.
- saveONenergy FOR HOME initiatives promoted via Waterloo North website and Waterloo North co-branded micro-site.
- Geographically targeted online and mobile advertisements were displayed on the Weather Network, Waterloo Region Record, Waterloo Chronicle, and Flyerland websites in 2013
- Digital Screen advertisements appeared in local community centers.
- Multiple promotional events promoted the FOR HOME residential programs including co-operative retailer events for the COUPON and peaksaver® PLUS initiatives as well as numerous community events including, Sustainability in the Park, EcoFest, and HVAC Channel Partner Engagement.
- Waterloo North Facebook and Twitter, profile pages were launched in March 2013 with the primary focus on Waterloo North’s saveONenergy conservation programs. The objective was to leverage social medias cost effective platforms to further increase customer education and engagement, build increased awareness of the saveONenergy FOR HOME programs amongst Waterloo North customers, and leverage new and cost efficient marketing channels. A wide variety of tweets and Facebook posts promoting the saveONenergy FOR HOME initiatives, seasonal energy conservation facts and tips and retailer and community events were released daily. In addition, promoted Facebook posts were piloted to gauge engagement and program uptake.
- Ugliest air conditioner contest was launched on Facebook to make use of the ever-growing gamification strategy to further educate and engage customers. Customers entered photos and stories on their old air conditioner with the winner being selected by the number of votes their entry received from social media followers.

3.2.1.1 Appliance Retirement Initiative (Exhibit D)

Initiative Activities: All activities are detailed above in Section 3.2.1 under the Program Activity section.

Initiative Progress: Waterloo North’s incremental activity is summarized in Table 5 below.

Table 5 – Waterloo North’s 2013 Incremental Appliance Retirement Progress

Unit	Incremental Activity	Incremental kW	Incremental kWh
Appliances	148	10	63,885

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.
- 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 committed.
- 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.
- Locally, the Region of Waterloo offers a strong curbside pick-up program that does not require a pickup to be scheduled, the homeowner to be home, the appliance to be plugged in or in working order and there is no cost to customer. As a result, program uptake is reduced.

3.2.1.2 Appliance Exchange Initiative (Exhibit E)

Initiative Activities: All activities are detailed above in Section 3.2.1 under the Program Activity section.

Initiative Progress: Waterloo North’s incremental activity is summarized in Table 6 below.

Table 6 – Waterloo North 2013 Incremental Appliance Exchange Progress

Unit	Incremental Activity	Incremental kW	Incremental kWh
Appliances	63	13	23,275

Additional Comments:

- The design of the Initiatives, including eligible measures and incentives amounts are developed through the Residential Working Group. Retail Partner(s) are contracted by the OPA to deliver the initiatives province-wide. Individual LDCs have the opportunity to stage in-store events to drive the distribution of LDC coded Coupons and promotion of other programs in the portfolio
- 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.
- Evaluation, Measurement, and Verification (EM&V) results indicated that the value of savings for retired room AC has dropped resulting in the retail participant not accepting window a/c's during the Spring 2013 event.

3.2.1.3 HVAC Incentives Initiative (Exhibit B)

Initiative Activities: All activities are detailed above in Section 3.2.1 under the Program Activity section.

Initiative Progress: Waterloo North's incremental activity is summarized in Table 7 below.

Table 7 – Waterloo North 2013 Incremental HVAC Incentives Progress

Unit	Incremental Activity	Incremental kW	Incremental kWh
Equipment	1,147	240	409,133

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 to encourage early replacement.
- This Initiative is contractor driven with LDCs responsible for marketing efforts to customers. More engagement with the HVAC contractor channel should be undertaken to drive a higher proportion of furnace and CAC sales to eligible units.
- In an effort to build capability, mandatory training has been instituted for all participating HVAC contractors. This could present too much of a barrier for

participation for some contractors as the application process already presents a restriction to contractor sales. It has been noted that there are approximately 4500-5000 HVAC contractors in the Province, however in 2013, only 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.

3.2.1.4 Conservation Instant Coupon Initiative (Exhibit A)

Initiative Activities: All activities are detailed above in Section 3.2.1 under the Program Activity section.

Initiative Progress: Waterloo North’s incremental activity is summarized in Table 8 below.

Table 8 – Waterloo North 2013 Incremental Conservation Instant Coupon Progress

Unit	Incremental Activity	Incremental kW	Incremental kWh
Items	3,475	5	77,221

Additional Comments:

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

- In 2013, LDCs were provided with three custom coded coupons. All coupons have been provided with LDC custom coding in 2014 which allows LDCs to promote coupons based on local preferences.
- 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.

3.2.1.5 *Bi-Annual Retailer Event Initiative (Exhibit C)*

Initiative Activities: All activities are detailed above in Section 3.2.1 under the Program Activity section.

Initiative Progress: Waterloo North’s incremental activity is summarized in Table 9 below.

Table 9 – Waterloo North 2013 Incremental Bi-Annual Retailer Event Progress

Unit	Incremental Activity	Incremental kW	Incremental kWh
Items	9,465	12	172,122

Additional Comments:

- This Initiative is strongly influenced by the retail participants and has no direct involvement from the LDCs. More emphasis should be put on holding a participating retailer accountable to working with the LDC community.
- 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.
- Communications regarding retailer participation continues to be delayed. Improved communications will aid in appropriate resource allocation and marketing of the Initiative.
- The timeframe for retailer submission of redeemed coupons vary from retailer to retailer. The delays and incomplete results reporting limits the ability to react and respond to Initiative performance or changes in consumer behaviour.

3.2.1.6 *Retailer Co-op*

Initiative Activities: All activities are detailed above in Section 3.2.1 under the Program Activity section.

Initiative Progress: Waterloo North’s incremental activity is summarized in Table 10 below.

Table 10 – Waterloo North 2013 Incremental Retailer Co-op Progress

Unit	Incremental Activity	Incremental kW	Incremental kWh
Items	0	0	0

Additional Comments:

- This is a retailer Initiative with no direct benefit to the LDCs
- Limited engagement of local retailers can restrict the savings potential for this Initiative
- The availability of retailer and/or LDC staff with product knowledge and the ability to conduct demonstration in store during the events would be an asset. This could be a valuable role for LDCs, however many LDCs are limited by available resources and unable to participate.

3.2.1.7 New Construction Program (Schedule B-2)

Initiative Activities: All activities are detailed above in Section 3.2.1 under the Program Activity section.

Initiative Progress: Waterloo North’s incremental activity is summarized in Table 11 below.

Table 11 – Waterloo North 2013 Incremental New Construction Program Progress

Unit	Incremental Activity	Incremental kW	Incremental kWh
Homes	0	0	0

Additional Comments:

- This Initiative provides incentives to homebuilders for incorporating energy efficiency into their buildings. To support this, LDCs need to provide education to the consumers regarding the importance of choosing the energy efficient builder upgrade options without an immediate benefit to the consumer.
- In 2012 the application process was streamlined, however continues to be too cumbersome for builders. This combined with limited return has resulted in this Initiative to continue to under-achieve.

- Administrative requirements, in particular individual home modeling, must align with perceived stakeholder payback
- Performance applications are expected to increase in 2014 due to some industry player's interest in the Initiative. However, it is anticipated that the performance track will be the primary track used in applications, which provides low savings for the incentive provided. Savings and associated incentives may need to be revised to an appropriate level.
- The addition of LED light fixtures, application process improvement, and moving the incentive from the builder to the homeowner may increase participation.
- This Initiative may benefit from collaboration with the Natural Gas utilities.

3.2.1.8 Residential Demand Response Program (Schedule B-3)

Initiative Activities: All activities are detailed above in Section 3.2.1 under the Program Activity section.

Initiative Progress: Waterloo North launched the program in September of 2013 with a focus on reengaging past participants by offering an in home display but quickly moved into engaging new participants to increase the residential program offering and increase engagement. Waterloo North's incremental activity is summarized in Table 12 below. Please note the activity in Table 12 includes small commercial, which accounts for 10 new participants and 2 past participants.

Table 12 – Waterloo North 2013 Incremental Residential Demand Response Program Progress

Unit	Incremental Activity	Incremental kW	Incremental kWh
Devices - New Participants	521	202	662
Devices - Past Participants	383	0	0

Additional Comments:

- 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 communicating abilities would not be fiscally responsible. When proposing technical Initiatives that rely on existing LDC hardware or technology there should be an extensive consultative process.
- The variable funding associated with installing a load controllable thermostat is not sufficient unless it is combined with an In Home Display (IHD) which might not be possible all the time and when IHD is optional.

- This is the main Initiative within the Residential portfolio that was to drive savings for LDC; however, the 2012 evaluation indicated savings realized from the IHD were not statistically significant. LDCs were advised that the evaluation of the IHDs would continue with 2013 data.
- As identified in the OPA's Evaluation Report in 2012 Wi-Fi enabled thermostats provide the greatest risk to the program. Rules need to evolve and be flexible to keep up with the changes in technology and customer and market focus.

3.2.2 COMMERCIAL AND INSTITUTIONAL PROGRAM

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

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

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

Discussion: The commercial and institutional programs continue to provide Waterloo North with the majority of energy and demand savings with the Efficiency Equipment Replacement Initiative as the flagship initiative. Momentum from 2011 and 2012 continued in 2013 driving larger and more complex projects with deeper more sustainable savings. 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.

In March of 2013, Waterloo North launched an aggressive; CDM focused social media strategy utilizing Facebook and Twitter social media platforms. Social media has provided Waterloo North with a new marketing channel, the opportunity to develop long lasting two-way relationships with customers, and leverage the collective social nature of social media to not only promote the programs but also build a robust network of followers that in themselves become marketing agents and ambassadors of energy conservation. The engagement strategy and pre-launch preparation provided the foundation for a more than successful launch that was incredibly well received with Waterloo North becoming one of the most liked and followed utility in Canada on a per customer basis.

Cobranding and co-promotion of the C&I Program Initiatives continued to build on the momentum and success achieved in 2011. And a result of the geographic proximity of

Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro joint events, channel partner outreach and marketing have driven efficiencies, ensured consistency and resulted in cost efficiencies, improved awareness of the saveONenergy brand and increased program participation.

This collaboration was extended by focusing on Regional channel partners, thereby strengthening relationships, and educating them on the benefits of higher efficiency technologies and saveONenergy FOR BUSINESS initiatives. This resulted in developing an extensive extended sales force that has increased program outreach, participation, and a year over year increase in projects.

Below is a comprehensive list of marketing, promotion, outreach, delivery, and educational activities undertaken by Waterloo North to promote the C&I Program Initiatives.

- A series of key account breakfasts were offered to all commercial customers within the Waterloo Region and were held in collaboration with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro. The objective of the sessions was to communicate the availability of incentives, how to participate, and where energy efficiency opportunities exist. In total, 8 breakfast sessions were held with topics focused on Demand Response, Building Automation Systems, Cooling Systems, Compressed Air, Monitoring and Targeting (sub-metering), FOR BUSINESS program offerings, Summer Maintenance Upgrades, and Lighting.
- In partnership with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro, Waterloo North held a full day Dollars to Sense Course for regional customers.
- In partnership with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro, Waterloo North held the 4th annual Technology Symposium, where over 60 energy conservation exhibitors showcased various technologies and solutions including lighting, compressed air, energy audits, demand response, and many more. In addition to the exhibition, six sessions were held to help educate, inform, encourage, and empower customers with energy conservation initiatives. Sessions topics included the following:
 - LED Lighting - Greg Rushby, Rushby Energy Services
 - Compressed Air Systems - Jeff Scott of Enwin Utilities
 - Heating, Cooling and Ventilation - Ron MacDonald of AMEC
 - Demand Response – John McArton of EnerNOC, Marko Dudka of Rodan
 - Economics of Energy Conservation – Justin Young, Local Canadian Tire Dealer

The event drew in over 250 business customers from across the Region of Waterloo and representatives from the OPA and several neighbouring LDC's.

- Half-page and full-page advertisements in the Exchange Magazine promoting the saveONenergy FOR BUSINESS initiatives.

- Initiative banners, sell sheets and folders co-branded with Cambridge and North Dumfries and Kitchener-Wilmot Hydro were widely used to educate and promote the initiatives at breakfast events, direct mails, and face-to-face customer engagement.
- In partnership with Kitchener-Wilmot Hydro, Waterloo North sponsored the Greater KW Chamber of Commerce and promoted the saveONenergy FOR BUSINESS initiatives in their online newsletter as well as their bimonthly magazine, their Business-to-Business radio show, sat on their Business After Five committee, and participated in their annual Energy and Environment forum.
- Regularly met with customers to educate them on the various initiatives, the process for completing applications and perform site walkthroughs to identify potential energy conservation projects. In addition, assistance with various steps of the project were provided including identifying opportunities, connecting the customers to the appropriate channel partners, building the business case and application support.
- Acted as a presenting sponsor of Sustainable Waterloo Region (SWR). SWR is a community centric organization, which engages and connects business within the region that pledges to reduce their greenhouse gas emissions and made energy efficiency one of their top priorities.
- In partnership with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro, Waterloo North ran two breakfast seminars for Channel Partners in the Region to engage and educate them on the saveONenergy FOR BUSINESS initiatives, the application process, provide them with tips and communicate initiative and application requirements. In addition, Regional LDC's shared our challenges and successes, acknowledged and celebrated channel partner successes and leverage these events to promote networking between channel partner segments.
- Continued one-on-one channel partner engagement, education and training on the application process, program rules, how to leverage the programs into increased business and further understand how and where to spot additional energy savings.
- Continued the distribution of a channel partner e-newsletter to encourage a network of more than 300 service providers to remain motivated and informed about the saveONenergy programs.
- Waterloo North Facebook and Twitter, profile pages were launched in March 2013 with the primary focus on Waterloo North's saveONenergy conservation programs. The objective was to leverage social medias cost effective platforms to further increase customer education and engagement, build increased awareness of the saveONenergy FOR HOME programs amongst Waterloo North customers, and leverage new and cost efficient marketing channels. A wide variety of tweets and Facebook posts promoting the saveONenergy FOR HOME initiatives, seasonal energy conservation facts and tips and retailer and community events were released daily. In addition, promoted Facebook posts were piloted to gauge engagement and program uptake.

3.2.2.1 Efficiency: Equipment Replacement Incentive (ERII) (Schedule C-2)

Initiative Activities: All activities are detailed above in Section 3.2.2 under the Program Activity section.

Initiative Progress: Waterloo North's incremental activity is summarized in Table 13 below.

Table 13 – Waterloo North 2013 Incremental Efficient Equipment Replacement Initiative Progress

Unit	Incremental Activity	Incremental kW	Incremental kWh
Projects	149	636	3,354,071

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 on the complexity and time-consuming nature of the application process. As such, Applicant Representatives continue to influence the majority of applications submitted. Continued development of Channel Partners is essential to program success.
- Prescriptive and Engineered worksheets provide a much needed simplified application process for customers. However, the eligible measures need to be updated and expanded in both technology and incentive amounts to address changing product costs and evolution of the marketplace.
- There is redundancy in the application process, as customers may need to complete a worksheet and then enter most of that information over to the online application form. This can be cumbersome.
- Processing Head Office application became much easier for the Lead LDC after Schedule changes came into effect in August 2013. The 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.

3.2.2.2 *Direct Install Initiative (DIL) (Schedule C-3)*

Initiative Activities: All activities are detailed above in Section 3.2.2 under the Program Activity section.

Initiative Progress: Waterloo North’s incremental activity is summarized in Table 14 below.

Table 14 – Waterloo North 2013 Incremental Direct Install Initiative Progress

Unit	Incremental Activity	Incremental kW	Incremental kWh
Projects	114	114	408,878

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.
- The inclusion of a standard incentive for additional measures increased project size and drove higher energy and demand savings results in some situations. However, LDCs are unable to offer these standard incentives to prior participants. The ability to return to prior participants and offer a standard incentive on the remaining upgrades has potential to provide additional energy and demand savings
- Successful execution of the previous rendition of this Initiative has resulted in diminished potential for the 2011-2014 Initiative in some LDC’s territories.

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

Initiative Activities: All activities are detailed above in Section 3.2.2 under the Program Activity section.

Initiative Progress: Waterloo North’s incremental activity is summarized in Table 15 below.

Table 15 – Waterloo North 2013 Incremental Existing Building Commissioning Incentive Initiative Progress

Unit	Incremental Activity	Incremental kW	Incremental kWh
Buildings	0	0	0

Additional Comments:

- There was minimal participation for this Initiative. It is suspected that the lack of participation in the program is a result of the Initiative being limited to space cooling and a limited window of opportunity (cooling season) for participation.

3.2.2.4 New Construction and Major Renovation Initiative (HPNC) (Schedule C-4)

Initiative Activities: All activities are detailed above in Section 3.2.2 under the Program Activity section.

Initiative Progress: Waterloo North’s incremental activity is summarized in Table 16 below.

Table 16 – Waterloo North 2013 Incremental New Construction and Major Renovation Initiative Progress

Unit	Incremental Activity	Incremental kW	Incremental kWh
Buildings	1	1	1,047

Additional Comments

- Participants estimated completion dates tend to be inaccurate and are usually six months longer. This could result in diminished savings towards target when facilities are not substantially completed by December 31, 2014.
- The custom application process requires considerable customer support and skilled LDC staff. The effort required to participate through the custom stream exceeds the value of the incentive for many customers.
- The barriers to participation due to long project implementation, cumbersome upfront requirements on what are evolving, living projects and the ratio of the incentive to the overall project cost continue to limit participation.

3.2.2.5 Energy Audit Initiative

Initiative Activities: All activities are detailed above in Section 3.2.2 under the Program Activity section.

Initiative Progress: Waterloo North’s incremental activity is summarized in Table 17 below.

Table 17 – Waterloo North 2013 Incremental Energy Audit Initiative Progress

Unit	Incremental Activity	Incremental kW	Incremental kWh
Audits	33	291	1,598,875

Additional Comments

- The introduction of the new audit component for one system (i.e. compressed air), has increased customer participation.
- The energy audit Initiative is considered an ‘enabling’ Initiative and ‘feeds into’ other saveONenergy Initiatives.
- Evaluators in 2012 and 2013 recognized savings towards LDCs targets as a result of customers implementing low/no cost recommendations from their energy audits.

3.2.3 INDUSTRIAL PROGRAM

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

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

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

Discussion: The Industrial Program Portfolio has been able to provide significant incentives and valuable resources to large facilities to help them with energy efficiency upgrades and process system improvements. The Engineering Studies in particular as well as the Monitoring and Targeting initiative provide a unique opportunity for a customer to complete a comprehensive analysis of an energy intensive process that they otherwise may not undertake. The Energy Manager Initiative provides customers with a skilled individual whose only role is to assist them with conservation initiatives. To date these Energy Managers have played a key role in customer participation.

Due to the size, scope, and long lead-time of these Initiatives and associated projects, the Ministerial Directive provides some security for the continuation of the conservation programs and associated compensation for the participant.

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

Participation in the Industrial Programs by Waterloo North customers has been limited due to the make of the customer base.

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

Initiative Activities: This initiative is focused on very large customer with capital-intensive energy savings opportunities and requires intensive direct customer engagement and interaction. Waterloo North has a limited market segment from which it has and continues to engage in the program opportunities and has experienced limited program activity in 2013 and expects additional activity in 2014.

Initiative Progress: Waterloo North’s incremental activity is summarized in Table 18 below.

Table 18 – Waterloo North 2013 Incremental Energy Audit Initiative Progress

Unit	Submitted	Approved	Completed
Preliminary Engineering Study	1	1	0
Detailed Engineering Study	0	0	0
Capital Projects	0	0	0

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 energy savings targets.

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

3.2.3.2 *Monitoring & Targeting Initiative (Schedule D-2)*

Initiative Activities: The monitoring and targeting Initiative (M&T), because of the program requirements has limited market opportunity and appeal. Modifications to the program have peaked interest in the initiative and initiated discussions, although Waterloo North has yet to receive a project application.

Initiative Progress: Waterloo North’s incremental activity is summarized in Table 19 below.

Table 19 – Waterloo North 2013 Incremental Monitoring & Targeting Initiative Progress

Unit	Incremental Activity	Incremental kW	Incremental kWh
Projects	0	0	0

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.
- Through the change management, process changes were made to ERII in 2013 to allow smaller facilities to employ M&T systems.

3.2.3.3 *Energy Manager Initiative (Schedule D-3)*

Initiative Activities: Waterloo North engaged with a number of customers on the initiative and received favourable support for the Roving Energy Manager although discussions with several customers about an Embedded Energy Manager are ongoing.

Initiative Progress: Waterloo North’s incremental activity is summarized in Table 20 below. Results for the Roving Energy Manager role are misleading because the projects developed by the Energy Manager are larger and have lengthy planning and implementation timelines. The existing pipeline of projects developed by the Roving Energy Manager more than triples the two-year target of 600 kW annually.

- Embedded Energy Manager:
 - One application underway for a third EEM (shared with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro)
- Roving Energy Manager:
 - One active REM was hired (shared with Cambridge and North Dumfries Hydro)

Table 20 – Waterloo North 2013 Incremental Energy Manager Initiative Progress

Unit	Incremental Activity	Incremental kW	Incremental kWh
Roving Energy Manager	1	0	0
Embedded Energy Manager	1	0	0

Additional Comments:

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

3.2.3.4 Key Account Manager (Schedule D-4)

Initiative Activities: Waterloo North along with its neighbouring LDCs, Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro had approval for a KAM but did not utilize the funding to the full extent in 2013. Shared resources proved to be difficult to manage from a priority perspective and the availability of qualified candidates is extremely low.

Initiative Progress: Waterloo North’s incremental activity is summarized in Table 21 below.

Table 21 – Waterloo North 2013 Incremental Key Account Manager Progress

Unit	Incremental Activity	Incremental kW	Incremental kWh
Key Account Manager	-1	0	0

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.

3.2.3.5 Demand Response 3 (D-6)

Initiative Activities: Waterloo continued to pursue Demand Response 3 (DR3) opportunities when engaging customers and has worked with all aggregators in attempt to combine efforts and leverage outreach activities. As DR3 is one of few initiatives that focus on peak demand reduction, it remains a focus and priority for Waterloo North in 2013.

Initiative Progress: Waterloo North’s incremental activity is summarized in Table 22 below. Please note that the activity includes commercial and institutional Demand Response 3 incremental results.

Table 22 – Waterloo North 2013 Incremental Demand Response Progress

Unit	Incremental Activity	Incremental kW	Incremental kWh
Facilities	-1	-111	447

Additional Comments:

- The program was a highlighted focus at one of eight customers breakfast sessions in 2013. Very little activity or interest peaked following that session.
- Until early 2013, customer data was not provided on an individual customer basis due to contractual requirements with the aggregators. This limited LDCs’ ability to effectively market to prospective participants and verify savings.
- Market conditions and just-in-time delivery continue to dissuade customers from participating in the program due to the nature of long-term contractual requirements.
- Aggressive sales techniques coupled with poor customer services by the Aggregators has deterred many of Waterloo North’s customers from considering participating. Greater emphasis should be placed on LDC engaged delivery and formal partnerships with Aggregators.

- No program improvements were made in 2013 however, it was accepted that prior participants who renew their DR3 contract within the 2011-2014 term would contribute to LDC targets.
- As of 2013, Aggregators were able to enter into contracts beyond 2014. This has allowed them to offer a more competitive contract price (5 year) than if limited to 1 or 2 year contracts.
- Metering and settlement requirements are expensive and complicated and can reduce customer compensation amounts, and present a barrier to smaller customers.
- Compensation amounts for new contracts and renewals have been reduced from the initial launch of this program (premium zones and 200-hour option has been discontinued) and subsequently there has been a corresponding decrease in renewal revenue.

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

Initiative Activities: Waterloo North engaged GreenSaver in late 2012 for the program management of the Home Assistance Program (HAP) in partnership with REEP Green Solutions. The program was kicked off in February of 2012 with a regional outreach and engagement event for social agencies. It was identified early on in the delivery of the initiative that the Region of Waterloo was a significant stakeholder in the program and intelligence and resourcing from the Region could be utilized to improve and increase initiative outreach.

Waterloo North carried the momentum into 2013 by developing key relationships with the Region of Waterloo who have also engaged with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro as well as a number of social agencies. In addition, Waterloo North took part in a number of activities to connect with potential Low Income Initiative participants and organizations working closely with potential participants.

Initiative Progress: Waterloo North's incremental activity is summarized in Table 23 below.

Table 23 – Waterloo North 2013 Low Income Initiative Incremental Progress

Unit	Incremental Activity	Incremental kW	Incremental kWh
Homes	399	12	170,106

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.
- The primary, cost-effective delivery model for this Initiative remains working through social agencies. Reaching out to engage individual households, without access to the Low Income Energy Assistance Program data in our customer database, is too costly and time consuming.

3.2.5 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.

4 2013 LDC CDM Results

4.1 Participation and Savings

2013 evaluation results for the OPA-Contracted Province-Wide CDM programs offered by Waterloo North has been segmented by initiative and summarized in Table 24, while summarized results are presented in Table 25. These results were taken directly from Waterloo North's 2013 Verified Annual Report Data provided by the OPA².

² 2013 results reported by the OPA do not include a number of projects completed in 2012 and 2013. The OPA reports that these projects will be picked up in the 2013 true up in the 2014 final verified results. Waterloo North's OPA reported net incremental 2013 results achieved in 2013 including projects that the OPA omitted are 3.0 MW of peak demand savings and 6.7 GWh's of energy savings and achievement towards the demand and energy targets 25.9% and 84.8% respectively. Waterloo North will continue to work with the OPA to resolve the errors.

Table 24 – Evaluation Results

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)	
		2011*	2012*	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2014 Net Annual Peak Demand Savings (kW)	2011-2014 Net Cumulative Energy Savings (kWh)
														2014	2014
Consumer Program															
Appliance Retirement	Appliances	433	246	148		24	14	10		180,566	99,292	63,885		48	1,147,808
Appliance Exchange	Appliances	22	75	63		2	11	13		3,051	18,832	23,275		25	114,092
HVAC Incentives	Equipment	1,199	1,154	1,147		417	255	240		773,162	439,314	409,133		912	5,228,854
Conservation Instant Coupon Booklet	Items	5,070	309	3,475		12	2	5		186,550	14,008	77,221		19	942,667
Bi-Annual Retailer Event	Items	9,539	10,629	9,465		17	15	12		294,427	268,321	172,122		44	2,326,915
Retailer Co-op	Items	0	0	0		0	0	0		0	0	0		0	0
Residential Demand Response	Devices	129	0	511		72	0	196		0	0	652		0	652
Residential Demand Response (IHD)	Devices	0	0	381		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						544	298	476		1,437,756	839,767	746,287		1,048	9,760,988
Business Program															
Retrofit	Projects	40	57	133		263	762	357		1,433,122	4,566,653	3,060,859		1,563	25,460,386
Direct Install Lighting	Projects	225	106	114		248	82	114		617,168	307,810	408,878		372	3,998,812
Building Commissioning	Buildings	0	0	0		0	0	0		0	0	0		0	0
New Construction	Buildings	0	1	1		0	4	1		0	3,763	1,047		4	13,383
Energy Audit	Audits	3	8	32		0	36	282		0	176,234	1,550,425		318	3,629,550
Small Commercial Demand Response	Devices	8	0	10		5	0	6		0	0	10		0	10
Small Commercial Demand Response (IHD)	Devices	0	0	2		0	0	0		0	0	0		0	0
Demand Response 3	Facilities	3	3	3		111	111	113		4,323	1,614	1,504		0	7,442
Business Program Total						626	996	1,073		2,054,613	5,056,074	5,022,723		2,258	33,109,583
Industrial Program															
Process & System Upgrades	Projects	0	0	0		0	0	0		0	0	0		0	0
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	11	0	0		180	0	0		1,128,878	0	0		180	4,515,511
Demand Response 3	Facilities	4	7	6		392	1,260	1,151		23,003	30,360	30,917		0	84,279
Industrial Program Total						572	1,260	1,151		1,151,881	30,360	30,917		180	4,599,790
Home Assistance Program															
Home Assistance Program	Homes	0	37	399		0	2	12		0	26,655	170,106		14	418,988
Home Assistance Program Total						0	2	12		0	26,655	170,106		14	418,988
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	28	0	0		181	0	0		913,663	0	0		181	3,654,650
High Performance New Construction	Projects	6	1	0		182	21	0		932,887	105,383	0		203	4,047,698
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						362	21	0		1,846,550	105,383	0		384	7,702,349
Other															
Program Enabled Savings	Projects	0	0	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							-36	0			-589,797	0		-37	-2,365,059
Adjustments to 2012 Verified Results								66				387,881		66	1,163,643
Energy Efficiency Total						1,524	1,206	1,246		6,463,473	6,026,264	5,936,950		3,884	55,499,315
Demand Response Total (Scenario 1)						580	1,371	1,466		27,327	31,974	33,083		0	92,384
Adjustments to Previous Years' Verified Results Total						0	-36	66		0	-589,797	387,881		28	-1,201,416
OPA-Contracted LDC Portfolio Total (inc. Adjustments)						2,104	2,541	2,777		6,490,800	5,468,441	6,357,914		3,912	54,390,283
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.			
												Full OEB Target:			
												% of Full OEB Target Achieved to Date (Scenario 1):			
												15,790			
												24.8%			
												66,490,000			
												81.8%			

Table 25: Summarized Program Results

Program	Net Savings		Contribution to Targets	
	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	0.48	0.75	1.05	9.76
Business Program Total	1.07	5.02	2.26	33.11
Industrial Program Total	1.15	0.04	0.18	4.60
Home Assistance Program Total	0.01	0.17	0.01	0.42
Pre-2011 Programs completed in 2011 Total	0.00	0.00	0.28	7.70
Total OPA Contracted Province-Wide CDM Programs	2.77	6.36	3.91	54.39

Program-to-Date savings will not total the line items in the column due to adjustments made to previous years' results, which have been factored in to the overall Contribution to Target³

³ 2013 results reported by the OPA do not include a number of projects completed in 2012 and 2013. The OPA reports that these projects will be picked up in the 2013 true up in the 2014 final verified results. Waterloo North's OPA reported net incremental 2013 results achieved in 2013 including projects that the OPA omitted are 3.0 MW of peak demand savings and 6.7 GWh's of energy savings and achievement towards the demand and energy targets 25.9% and 84.8% respectively. Waterloo North will continue to work with the OPA to resolve the errors.

4.2 Evaluation

Evaluation findings for the OPA-Contracted Province-Wide CDM program offered by Waterloo North were provided by the OPA from the document "2013 EM&V Key Evaluation Findings 091614 FINAL" posted on the IESO web portal on August 30, 2013.

CONSUMER PROGRAM

Appliance Retirement Initiative

- Per unit savings increased for both energy (+15.4%) and demand (+4.0%) between 2012 and 2013 due to a greater proportion of refrigerators/freezers with large volumes and a manufacturer date before National Appliance Energy Conservation Act (NAECA) was implemented. Dehumidifiers also show a higher per unit savings related to the change in ENERGY STAR definitions.
- Overall participation continues to decline with 20,952 appliances recycled in 2013, compared with 34,146 in 2012 and 56,110 in 2011. The program has experienced close to a 40% reduction (39.1% 2011 to 2012, 41.1% 2012 to 2013) in recycled appliances in each subsequent year of operation.
- Net to gross ratio stayed constant at around 43% between 2012 and 2013

Appliance Exchange Initiative

- Increased per unit energy and demand savings due to an adjustment to the assumed consumption of "conventional" and Energy Star dehumidifiers. The calculated weighted average annual energy savings of a exchanged dehumidifier increased 36.6%
- Of the participants surveyed who reported they had replaced the dehumidifiers they exchanged, 100% reported purchasing ENERGY STAR® models.
- 21% increase in the number of eligible dehumidifiers collected in the program. In 2013, 5,337 dehumidifier units were collected compared to 3,617 dehumidifier units and 219 window air conditioners.
- Net to Gross ratio (NTG) was 52.6% which is a slight increase of the 2012 NTG of 51.5%

Heating and Cooling Initiative

- Total participation (equipment) increased 7.5% from 2012 to 91,581.
- Per unit furnace savings decreased from 1139 kWh/yr in 2012 to 1090 kWh/yr due to a slight shift in the number of participants who use their furnace fan non-continuously both before and after the retrofit as opposed to changing from continuous to non-continuous operation
- Per unit energy and demand savings assumptions for central air conditioners did not change from 2012.

Annual Coupons

- Customers redeemed more than ten times as many annual coupons in 2013 as in 2012 because of new LED coupons and full year availability of all coupons. Customers redeemed 13% more annual coupons in 2013 than in 2011, the first full year of annual coupons due to the high volume of new LED coupons.
- There was a significant reduction in savings specialty CFL related measures. In 2013, the findings showed around 30% of participants are replacing incandescent bulbs compared to 60% of participants replacing incandescent bulbs in 2012.
- Despite the significant per unit savings reductions, the Net Annual Savings from Annual Coupons in 2013 was more than 5.5 times that in 2012. This is primarily because of higher participation due to the inclusion of LED coupons and full year availability of all coupons.
- 93% of coupons redeemed in 2013 were for general purpose LEDs and specialty CFLs and LEDs, producing 89% of net annual energy savings and 84% of net demand savings.
- Measure NTG ratio was approximately 8% higher in 2013 than in 2012 due to the inclusion of participant like spillover, i.e., purchase of additional coupon initiative measures without using coupons because of program influence.

Bi-Annual Coupon Events

- 19% increase in the number of coupons redeemed during the Spring and Fall Events in 2013 compared to 2012 because of substantial increase in LED purchases with event coupons.
- 36% lower net annual savings in 2013 compared to 2012 primarily because of significant reductions in per unit savings estimates for standard and specialty CFLs. In 2013, findings showed a decrease in replacement rate of incandescent bulbs. Only 30% of 2013 participants are estimated to have replaced incandescent bulbs compared to 60% of participants replacing incandescent bulbs in 2012. This leads to a change in the baseline assumption for the savings calculations.
- 87% of coupons redeemed were for general purpose and specialty CFLs and LEDs, producing 80% of net annual energy savings and 73% of net demand savings
- Measure NTG ratio was approximately 8% higher in 2013 than in 2012 due to the inclusion of participant like spillover, i.e., purchase of additional coupon initiative measures without using coupons because of program influence.

peaksaverPLUS

- The cycling strategy for CAC load control was changed from 50% simple cycling to 60% simple cycling.
- Under 1-in-10 year weather conditions, the 2013 estimated impacts for load control devices are higher than the 2012 estimates in all months and are between 10 and 15% higher during the core summer months of June through August.
- Load impact estimates for the average small and medium business and for electric water heaters among residential customers are also unchanged from the prior year's analysis
- This year's IHD analysis has yielded an estimate of no statistically significant energy savings.

Residential New Construction

- Energy and demand savings for the Initiative increased by 300% compared to the combined 2011 and 2012 results ; number of projects also increased from 45 in 2011 and 2012 to 86 in 2013.
- All projects are opting for the prescriptive or performance path. No custom project applications were received in 2013, similar to 2011-2012.
- Net-to-gross ratio for the initiative was higher by 14% from 49% in 2012 to 63% in 2013.

HOME ASSISTANCE PROGRAM

Home Assistance Program

- Participation increased significantly to 26,756 participants in 2013 from 5,033 in 2012
- Realization rates were slightly lower in 2013 (0.88 for kWh and 0.26 for kW) than in 2012 (0.98 for kWh and 0.32 for kW) primarily due to updated verified per unit assumptions.
- Realization rate for demand savings remained low as FAST Tool calculated kW savings for certain insulation measures remained very high and recommended revisions to kW savings factors were not yet in use in 2013 (changes to the FAST Tool to address these issues were made in early 2014)

BUSINESS PROGRAM

Retrofit

- A total of 8,785 projects completed in 2013. Reported energy savings for individual projects ranged from 1 kWh to over 5,000,000 kWh
- Net to Gross ratio (NTG) for energy was 72.8%, consistent with prior years
- NTG for demand was 72.0%, consistent with prior years
- NTG ratios are comparable to similar programs across North America

Small Business Lighting

- In 2013, the initiative introduced: a) an increase in the incentive to \$1500 from \$1000, b) new LED measures c) Agribusiness eligibility, resulting in the stabilization of participation and an increase in savings.
- 17,782 projects completed in 2013 (3.8% decrease from 2012)
- However, 12.2% increase in Net Verified Energy Savings relative to 2012.
- The average incentive per project and savings per project both increased between 2012 to 2013
- Net to Gross ratio (NTG) for 2013 remained unchanged at 94%

Audit Funding

- 319 audits were completed in 2013
- 2013 sample saw more recommended measures implemented without incentives (33% in 2013 vs. 13% in 2012)
- The average per audit summer peak demands savings is estimated to be 13 kW.

Existing Building Commissioning

- 29 unique participants in the 2013 population
- No Commissioning projects completed the hand-off/completion phase in 2013
- Improvements to the chilled water system controls were the most commonly targeted measure.
- Large variation in estimated savings results between preliminary investigation phase and actual implementation phase

High Performance New Construction

- Number of projects increased by 25% from 69 in 2012 to 86 in 2013.
- Custom projects, representing only about 8% of the total number of projects, account for 67% of verified demand savings and 54% of verified energy savings.
- A realization rate of 72% for energy savings is low due to the low realization rate of the Agribusiness high ventilation, low speed fans which comprised of 15 % of the HPNC prescriptive project energy savings.
- Net-to-gross ratio for the initiative was higher by 5% from 49% in 2012 to 54% in 2013.

INDUSTRIAL PROGRAM

Process and Systems Upgrade Initiative

- In 2013, three PSUI projects were put into service. Projects were very well documented and technical reviews were thorough. Most projects are delivering the level of energy savings expected or more (realization rates of 87% for energy savings and 86% for summer demand savings)
- Good level of quality on M&V conducted in each project. The level of free-ridership was found to be very low, at only 7% for energy savings and 6% for demand savings, and no spillover was identified.
- Energy Managers are seen as important drivers of program enabled savings projects. Almost a 300% increase vs. 2012 in the amount of energy savings from program enabled savings projects.

DR-3

- The largest 20 contributors account for 60% of the contractual demand reduction – in other words, less than 5% of contributors account for the majority of the load reductions.
- In 2013, DR-3 was successfully dispatched locally for the first time in order to provide assistance in restoring power after a prolonged power outage due to substation flooding.

Note:

The Key Evaluation findings are derived from the 2013 evaluations of the saveONenergy programs. These findings were developed by 3rd party evaluation contractors. Complete findings are detailed in the contractors' full evaluation reports, which will be available publicly in Q4 2014.

4.3 Spending

2013 spending for the OPA-Contracted Province-Wide CDM program offered by Waterloo North has been segmented by initiative and summarized in Table 26 while cumulative spending is segmented by initiative and summarized in Table 27.

Table 26: Waterloo North 2013 Incremental Spending

#	Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
Consumer Program						
1	Appliance Retirement	\$ 30,417.55	\$ -	\$ -	\$ -	\$ 30,417.55
2	Appliance Exchange	\$ 2,127.64	\$ -	\$ -	\$ -	\$ 2,127.64
3	HVAC Incentives	\$ 126,301.88	\$ -	\$ -	\$ -	\$ 126,301.88
4	Conservation Instant Coupon Booklet	\$ 78,637.07	\$ -	\$ -	\$ -	\$ 78,637.07
5	Bi-Annual Retailer Event	\$ -	\$ -	\$ -	\$ -	\$ -
6	Retailer Co-op	\$ -	\$ -	\$ -	\$ -	\$ -
7	Residential Demand Response	\$ 95,093.49	\$ 105,898.15	\$ -	\$ -	\$ 200,991.64
10	New Construction Program	\$ 3,352.63	\$ -	\$ -	\$ -	\$ 3,352.63
Business Program						
11	Efficiency: Equipment Replacement	\$ 210,566.49	\$ -	\$ 652,003.69	\$ -	\$ 862,570.18
12	Direct Installed Lighting	\$ 39,129.13	\$ 27,572.00	\$ 150,331.75	\$ -	\$ 217,032.88
14	Existing Building Commissioning Incentive	\$ 1,880.68	\$ -	\$ -	\$ -	\$ 1,880.68
15	New Construction and Major Renovation	\$ 30,269.42	\$ -	\$ 6,155.00	\$ -	\$ 36,424.42
16	Energy Audit	\$ 41,289.61	\$ -	\$ 27,029.30	\$ -	\$ 68,318.91
17	Commercial Demand Response		\$ 1,262.25	\$ -	\$ -	\$ 1,262.25
19	Demand Response 3	\$ -	\$ -	\$ -	\$ -	\$ -
Industrial Program						
20	Process & System Upgrades					
	a) preliminary study	\$ 870.18	\$ -	\$ -	\$ -	\$ 870.18
	b) engineering study	\$ 476.15	\$ -	\$ -	\$ -	\$ 476.15
	c) program incentive	\$ 1,148.64	\$ -	\$ -	\$ -	\$ 1,148.64
21	Monitoring & Targeting	\$ 360.67	\$ -	\$ -	\$ -	\$ 360.67
22	Energy Manager	\$ 4,574.26	\$ -	\$ -	\$ 123,778.00	\$ 128,352.26
23	Key Account Manager	\$ 10,876.28	\$ -	\$ -	\$ -	\$ 10,876.28
24	Equipment Replacement Incentive Initiative	Included as part of Efficiency Equipment Replacement Business Initiative				
25	Demand Response 3	\$ 28,573.58	\$ -	\$ -	\$ -	\$ 28,573.58
Home Assistance Program						
26	Home Assistance Program	\$ 27,904.46	\$ 68,900.00	\$ 12,200.00	\$ -	\$ 109,004.46
Pre 2011 Programs Completed in 2011						
27	Electricity Retrofit Incentive Program	\$ -	\$ -	\$ -	\$ -	\$ -
28	High Performance New Construction	\$ -	\$ -	\$ -	\$ -	\$ -
Initiatives Not In Market						
29	Midstream Electronics	\$ -				\$ -
30	Midstream Pool Equipment	\$ -				\$ -
31	Demand Service Space Cooling	\$ -				\$ -
32	Demand Response 1 (Commercial)	\$ -				\$ -
33	Demand Response 1 (Industrial)	\$ -				\$ -
34	Home Energy Audit Tool	\$ -				\$ -
TOTAL Province-wide CDM PROGRAMS		\$ 733,849.81	\$ 203,632.40	\$ 847,719.74	\$ 123,778.00	\$ 1,908,979.95

Table 27: Waterloo North Cumulative Spending (2011-2014)

#	Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
Consumer Program						
1	Appliance Retirement	\$ 71,778.06	\$ -	\$ -	\$ -	\$ 71,778.06
2	Appliance Exchange	\$ 3,307.04	\$ -	\$ -	\$ -	\$ 3,307.04
3	HVAC Incentives	\$ 178,846.66	\$ -	\$ -	\$ -	\$ 178,846.66
4	Conservation Instant Coupon Booklet	\$ 129,125.98	\$ -	\$ -	\$ -	\$ 129,125.98
5	Bi-Annual Retailer Event	\$ -	\$ -	\$ -	\$ -	\$ -
6	Retailer Co-op	\$ -	\$ -	\$ -	\$ -	\$ -
7	Residential Demand Response	\$ 107,019.98	\$ 105,898.15	\$ -	\$ -	\$ 212,918.13
10	New Construction Program	\$ 6,437.51	\$ -	\$ -	\$ -	\$ 6,437.51
Business Program						
11	Efficiency: Equipment Replacement	\$ 413,407.86	\$ -	\$ 1,129,059.79	\$ -	\$ 1,542,467.65
12	Direct Installed Lighting	\$ 63,835.86	\$ 108,365.00	\$ 464,453.75	\$ -	\$ 636,654.61
14	Existing Building Commissioning Incentive	\$ 4,396.48	\$ -	\$ -	\$ -	\$ 4,396.48
15	New Construction and Major Renovation	\$ 60,724.92	\$ -	\$ 6,155.00	\$ -	\$ 66,879.92
16	Energy Audit	\$ 73,571.29	\$ -	\$ 44,384.30	\$ -	\$ 117,955.59
17	Commercial Demand Response	\$ -	\$ 1,262.25	\$ -	\$ -	\$ 1,262.25
19	Demand Response 3	\$ 2,206.42	\$ -	\$ -	\$ -	\$ 2,206.42
Industrial Program						
20	Process & System Upgrades					
	a) preliminary study	\$ 5,670.20	\$ -	\$ -	\$ -	\$ 5,670.20
	b) engineering study	\$ 5,276.18	\$ -	\$ -	\$ -	\$ 5,276.18
	c) program incentive	\$ 6,494.52	\$ -	\$ -	\$ -	\$ 6,494.52
21	Monitoring & Targeting	\$ 5,353.56	\$ -	\$ -	\$ -	\$ 5,353.56
22	Energy Manager	\$ 10,137.64	\$ -	\$ -	\$ 123,778.00	\$ 133,915.64
23	Key Account Manager	\$ 14,607.74	\$ -	\$ -	\$ -	\$ 14,607.74
23	Equipment Replacement Incentive Initiative	Included as part of Efficiency: Equipment Replacement Business Initiative				
25	Demand Response 3	\$ 49,306.30	\$ -	\$ -	\$ -	\$ 49,306.30
Home Assistance Program						
26	Home Assistance Program	\$ 53,493.05	\$ 75,700.00	\$ 14,258.00	\$ -	\$ 143,451.05
Pre 2011 Programs Completed in 2011						
27	Electricity Retrofit Incentive Program	\$ 18,458.30	\$ 27,272.07	\$ 5,950.99	\$ -	\$ 51,681.36
28	High Performance New Construction	\$ -	\$ -	\$ -	\$ -	\$ -
Initiatives Not In Market						
29	Midstream Electronics	\$ 178.57				\$ 178.57
30	Midstream Pool Equipment	\$ 178.57				\$ 178.57
31	Demand Service Space Cooling	\$ 597.02				\$ 597.02
32	Demand Response 1 (Commercial)	\$ 2,206.42				\$ 2,206.42
33	Demand Response 1 (Industrial)	\$ 3,007.96				\$ 3,007.96
34	Home Energy Audit Tool	\$ 178.57				\$ 178.57
TOTAL Province-wide CDM PROGRAMS		\$ 1,289,802.65	\$ 318,497.47	\$ 1,664,261.83	\$ 123,778.00	\$ 3,396,339.94

4.4 Additional Comments

Although the 2011 – 2014 framework provides a period of four-year certainty surrounding the initiatives and their associated incentives, engaging customers, getting into their business cycles and capital budgets requires significant time. Furthermore, project and funding delays, operation distraction and competing priorities have and continue to delay larger projects.

Many of the initiatives being offered specifically to residential (i.e. Appliance Retirement, Various Coupons within the Annual and Bi-Annual Initiatives and the Heating and Cooling Incentive) and small business customers (i.e. Direct Install Lighting) have been in market for several years and are reaching market saturation. Therefore, new and/or significantly refreshed initiatives are required to ensure we are addressing the market needs, engaging the market and continuing momentum.

Waterloo North's CDM strategy was developed based on a full portfolio of programs and initiatives, being ready for deployment January 1, 2011 and available for the full 4 years, but as programs and initiatives were rolled out throughout the 2011 year. In addition, a number of programs were not available in 2011 (and even 2012), or had minimal uptake due to inadequate market research and deficient program design. Furthermore, although some initiatives were released to the market by the OPA, Waterloo North nor the market was ready with established let alone available technologies (i.e. *peaksaver* PLUS[®] initiative) and skilled, experienced resources (i.e. Key account Manager, Embedded Energy Manager and Roving Energy Manager initiatives), which additional slowed progress towards CDM targets. All of these factors when combined further challenged Waterloo North's delivery strategy, and results.

The reporting provided by the OPA about Waterloo North's program and initiative results is not timely and does not provide for timely strategy modification. In addition, the accuracy of the reporting has been subject to question on numerous occasions because of including data that should not be included or missing data altogether. Waterloo North's ability to successfully achieve their 2011-2014 CDM Targets requires accurate, timely results that allow Waterloo North to modify their strategy in response to market conditions and results and this inability greatly impedes Waterloo North's ability to do so.

A result of the OPA's evaluation, measurement and verification process is the program and initiative net to gross (NTG) factors. These NTG factors significantly affect the net results that LDC's are awarded, yet LDC's have very little influence over the factors. In addition, the NTG factors are provincially based and do not reflect LDC activity, impact and market conditions at a region level and therefore this one-size fits all approach diminishes efforts and results. Furthermore, large projects as a requirement of the initiatives have measured and verified base case and efficiency case results. These projects are discounted more than projects that require far less documentation and rigor. The theory of discounting projects that provide measured results, and then discounting as result of the measurement and verification process essentially results in double discounting. Lastly, the larger projects are more often than not the projects that moved forward as a direct result of the incentive opportunities the saveONenergy programs

provide, whereas the simpler projects, that require less rigor in the application process are more likely to have occurred without the incentives.

Waterloo North's non-residential customer base is primarily made up of commercial and institutional customers with a limited mix of small and medium industrial. This customer mix results in limited opportunities for large demand based projects, including demand response. In addition it presents challenges as many of the programs are positioned towards the industrial customer segment, which in itself deters customers from participating as they feel they are ineligible. Furthermore, the industrial focus of the measures within the programs has limited uptake, as many projects have to move through the custom paths, which can be costly and time consuming. Waterloo North is actively exploring how to modify the programs to better serve its customer mix, but believes the current offering further hinders their abilities to deliver on target.

5 Combined CDM Reporting Elements

5.1 Progress Towards CDM Targets

Waterloo North achieved an incremental net peak demand savings of 2.8 MW in 2013, of which 1.3 MW is expected to persist through 2014, which represents 8.2 % of Waterloo North's net peak demand target. 2013 net results included an adjustment from 2012, but excluded several projects from both 2012. Furthermore, the 2013 net incremental results did not include projects that were completed in 2013 and therefore the results presented do not fully reflect the efforts put forward and what Waterloo North has actually delivered with respect to achieving the 2014 targets⁴. Table 28 summarizes net peak demand savings and their contribution towards the CDM targets.

Table 28: Net Peak Demand Savings at the End User Level (MW)

Implementation Period	Annual			
	2011	2012	2013	2014
2011 - Verified	2.1	1.5	1.5	1.5
2012 - Verified*	0.0	2.5	1.2	1.2
2013 - Verified*	0.0	0.1	2.8	1.3
2014				
Verified Net Annual Peak Demand Savings Persisting in 2014:				3.9
Waterloo North Hydro Inc. 2014 Annual CDM Capacity Target:				15.8
Verified Portion of Peak Demand Savings Target Achieved in 2014(%):				24.7%

Waterloo North achieved an incremental net energy savings of 6.40 GWh's in 2013, resulting in a cumulative total of 13.10 GWh's in 2014, which represents 19.7% of Waterloo North's net energy target. Again, the 2013 net results include an adjustment from 2012, but excluded several projects from both 2012. Furthermore, the 2013 net incremental results did not include projects that were completed in 2013 and therefore the results presented do not fully reflect the efforts put forward and what Waterloo North has actually delivered with respect to achieving the 2014 targets⁵. Table 29 summarizes net energy savings and their contribution towards the CDM targets.

⁴ ⁵ 2013 results reported by the OPA do not include a number of projects completed in 2012 and 2013. The OPA reports that these projects will be picked up in the 2013 true up in the 2014 final verified results. Waterloo North's OPA reported net incremental 2013 results achieved in 2013 including projects that the OPA omitted are 3.0 MW of peak demand savings and 6.7 GWh's of energy savings and achievement towards the demand and energy targets 25.9% and 84.8% respectively. Waterloo North will continue to work with the OPA to resolve the errors.

Table 29: Net Energy Savings at the End-User Level (GWh)

Implementation Period	Annual				Cumulative
	2011	2012	2013	2014	2011-2014
2011 - Verified	6.5	6.5	6.4	6.3	25.7
2012 - Verified*	-0.60	5.5	5.4	5.4	15.7
2013 - Verified*	0.00	0.40	6.40	6.30	13.10
2014					
Verified Net Cumulative Energy Savings 2011-2014:					54.4
Waterloo North Hydro Inc. 2011-2014 Cumulative CDM Energy Target:					66.5
Verified Portion of Cumulative Energy Target Achieved (%):					81.9%
<i>*Includes adjustments to previous Years' verified results</i>					

5.2 Variance from Strategy

The CDM strategy filed by Waterloo North on November 1, 2010 forecasted a net cumulative energy savings of 43.35 GWh and 12.3 MW with the delivery of OPA-Contracted Province-Wide CDM Programs by the end of 2013. And as per the net verified results in this report Waterloo North has achieved net cumulative savings of 54.4 GWh's which is 25% higher than the forecasted cumulative 2014 energy savings and 3.9 MW which is 68% less than the forecasted cumulative 2014 peak demand savings.

The variance in Waterloo's net energy savings can be attributed to a number of factors (listed below), most of which are outside of the control of Waterloo North. Although Waterloo North energy savings progress is ahead of the forecasted, the OPA-Contracted Province-Wide CDM Programs were projected to achieve 84.3% of Waterloo North's target. As a result, Waterloo North is not confident with the delivery of the OPA-Contracted Province-Wide CDM Programs alone that the 2014 target will be achieved and estimate energy target achievement in the range of 90 to 95% of the target.

Factors Contributing to Waterloo North's net energy savings variance include, but are not limited to:

- Increased program uptake with several initiatives as compared to what was forecasted.
- Cumulative effect of the realized net energy savings, that is the persistence was more significant than when the CDM strategy was developed and results forecasted.
- Input assumptions, models and estimates used for developing CDM strategy and forecasting of results such as net to gross, free ridership, realization rate and other factors used to evaluate the programs were in many cases different.
- Simpler, more favorable payback and higher return on investment opportunities are decreasing. As a result, the next phase of opportunities has a longer sales cycle,

increased capital costs and project timelines leading to larger payback periods, lower returns, and projects completing outside of the 2011-2014 target period in some cases.

While the variance in the demand savings demonstrates a significant shortfall, Waterloo North's situation is similar to a significant number of LDC's in that Waterloo North is projecting that they will not achieve their 2014 net demand savings target and will fall significantly short. Factors affecting Waterloo North's abilities to achieve the net demand savings target include, but are not limited to:

- Lack of persistence of demand response results as reported. The OPA assumes that demand response do not persist beyond one year. The results presented in this report do not reflect demand response resources currently under contract and should these contracts persist the variance would be decreased.
- Large project results not reflected in early results due to long project timelines. Therefore, larger projects are expected to decrease the variance in 2014.
- Significant sales cycles, capital requirements, and project timelines for larger projects often result in project savings beyond the 2011-2014 target period.
- Demand reduction based programs such as Demand Response 3 and Residential Demand Response have significant barriers to entry and weigh heavily on results. As such, the remaining program initiatives do not offer enough peak demand savings.
- No attribution of TOU rates savings. Waterloo North expects net demand savings, because of TOU Rates, would decrease the variance.
- Input assumptions, models and estimates used for developing CDM strategy and forecasting of results such as net to gross, free ridership, realization rate and other factors used to evaluate the programs were in many cases different.
- Commercial and institutional are more prevalent customer segments with minimal large industrial driving large demand based projects.

5.3 Outlook to 2014 and Strategy Modifications

Waterloo North will be modifying its strategy based on the verified results presented in this report, 2013 progress to date and the forecasted cumulative 2014 results. The updated forecast prepared for this report shows that as with many other LDC's Waterloo North will fall short of achieving the of the peak demand savings target by between 50 and 60% versus Waterloo North's 15.79 MW peak demand 2014 target, and a shortfall of 5 to 10% versus Waterloo

North's 66.59 GWh energy savings 2014 target. The decrease in GWh and MW achievements is attributed to number of factors, including but not limited to:

- Diminishing suite of programs,
- Delays in program launches,
- Reduced net savings as a result of provincial rather than region or local program evaluations,
- Reduced financial returns for demand response activity, and
- True ups from previous years' verified results that negatively impact results because of reporting and evaluation errors by the OPA.

Given the anticipated shortfalls, Waterloo North will continue to build on the activities that have delivered successful results including focusing on partnerships, education and participant engagement and is increasing and reallocating resources to programs and opportunities that yield the greatest energy and demand savings. In addition, Waterloo North continues to work closely with neighbouring LDC's Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro to leverage our collective resources and expertise to gain efficiencies in program delivery, increase cost-effectiveness, decrease market confusion, and increase the awareness of the saveONenergy brand. Furthermore, where appropriate, Waterloo North has, and will continue to build partnerships and collaborate with other key stakeholders such as other LDC's, the OPA, municipalities, gas utilities, and third party delivery agents to improve program effectiveness, outreach, and uptake

Based on the foundation and framework developed in previous years, increased marketing, collaboration and partnerships, additional resourcing and program enhancements in 2013, Waterloo North has observed a steady increase in market awareness, initiative uptake and the pipeline of projects.

6 Conclusion

Over the course of 2013, Waterloo North has achieved 2.8 MW in peak demand savings and 6.4 GWh in energy savings, which represents 17.7% and 19.2% of Waterloo North 2011-2014 CDM Targets respectively. Unfortunately, these results did not include several projects identified as completed in 2012 and 2013, and therefore discount the efforts of Waterloo North. These results are representative of a considerable effort expended by Waterloo North, 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 continual improvements to existing programs Waterloo North faces challenges in the remaining years due to the current CDM framework. With the current slate of available OPA Programs, and the current forecast of implementation and projected savings, Waterloo North expects to fall short of meeting both the 15.79 MW demand savings target and 66.5 GWh energy savings target by the end of 2014.

Appendix A: Initiative Descriptions

RESIDENTIAL PROGRAM

APPLIANCE RETIREMENT INITIATIVE

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 is available:

- Schedule B-1, Exhibit D
- saveONenergy website <https://saveonenergy.ca/Consumer/Programs/Appliance-Retirement.aspx>

In Market Date: January 26, 2011

APPLIANCE EXCHANGE INITIATIVE

Target Customer Type(s): Residential Customers

Initiative Frequency: Spring and Fall

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

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

Targeted End Uses: Window air conditioners and portable dehumidifiers

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

Additional detail is available:

- Schedule B-1, Exhibit C
- saveONenergy website <https://saveonenergy.ca/Consumer.aspx>

In Market Date: January 26, 2011

HVAC INCENTIVES INITIATIVE

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

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

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

Targeted End Uses: Central air conditioners and furnaces

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

Additional detail is available:

- Schedule B-1, Exhibit B
- saveONenergy website <https://saveonenergy.ca/Consumer.aspx>

In Market Date: January 26, 2011

CONSERVATION INSTANT COUPON INITIATIVE

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

Objective: The objective of this Initiative is to encourage households to purchase energy efficient products by offering discounts.

Description: This Initiative provides customers with year round coupons. The coupons offer instant rebates towards the purchase of a variety of low cost, easy to install energy efficient measures and can be redeemed at participating retailers. Booklets were directly mailed to customers and were also available at point-of-purchase. Downloadable coupons were also available at www.saveoneenergy.ca.

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

Delivery: 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 is available:

- Schedule B-1, Exhibit A
- saveONenergy website <https://saveonenergy.ca/Consumer.aspx>

In Market Date: January 26, 2011

BI-ANNUAL RETAIL EVENT INITIATIVE

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 is available:

- Schedule B-1, Exhibit C
- saveONenergy website <https://saveonenergy.ca/Consumer.aspx>

In Market Date: January 26, 2011

NEW CONSTRUCTION INITIATIVE

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

Objective: The objective of this Initiative is to provide incentives to participants for 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, and Energuide 85 whole homes

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

Additional detail is available:

- Schedule B-1, Exhibit C
- saveONenergy website <https://saveonenergy.ca/Consumer.aspx>

In Market Date: January 26, 2011

RESIDENTIAL DEMAND RESPONSE PROGRAM INITIATIVE

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 is available:

- Schedule B-1, Exhibit C
- saveONenergy website <https://saveonenergy.ca/Consumer.aspx>

In Market Date: September 30, 2013

COMMERCIAL AND INSTITUTIONAL PROGRAM

EFFICIENCY REPLACEMENT INCENTIVE INITIATIVE

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

Initiative Frequency: Year round

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

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

Targeted End Uses: lighting, space cooling, ventilation and other measures

Delivery: LDC delivered.

Additional detail is available:

- Schedule C-2
- saveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Retrofit-for-Commercial.aspx>

In Market Date: March 1, 2011

DIRECT INSTALL LIGHTING INITIATIVE

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 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 is available:

- Schedule C-3
- saveONenergy website <https://saveonenergy.ca/Business.aspx>

In Market Date: May 1, 2011

EXISTING BUILDING COMMISSIONING INCENTIVE INITIATIVE

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

Initiative Frequency: Year round

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

Description: This Initiative offers Participants incentives for the following:

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

Targeted End Uses: Chilled water systems for space cooling

Delivery: LDC delivered.

Additional detail is available:

- Schedule C-6
- saveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Existing-Building-Commissioning.aspx>

In Market Date: March 1, 2011

HIGH PERFORMANCE NEW CONSTRUCTION INITIATIVE

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 is available:

- Schedule C-4
saveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/New-Construction.aspx>

In Market Date: November 1, 2011

ENERGY AUDIT INITIATIVE

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 undertaking assessments to identify all possible opportunities to reduce electricity demand and consumption within their buildings or premises.

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

Targeted End Uses: Various

Delivery: LDC delivered.

Additional detail is available:

- Schedule C-1
- saveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Audit-Funding.aspx>

In Market Date: March 1, 2011

INDUSTRIAL PROGRAM

PROCESS AND SYSTEMS INITIATIVE (PSUI)

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

Initiative Frequency: Year round

Objectives: The objectives of this Initiative are to:

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

Description: PSUI is an energy management Initiative that includes three Initiatives: (preliminary engineering study, detailed engineering study, and project incentive Initiative). The incentives are available to large distribution connected customers with projects or portfolio

projects that are expected to generate at least 350 MWh of annualized electricity savings or, in the case of Micro-Projects, 100 MWh of annualized electricity savings. The capital incentive for this Initiative is the lowest of:

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

Targeted End Uses: Process and systems

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

Additional detail is available:

- Schedule D-1
- saveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Process-and-System-Upgrades.aspx>

In Market Date: May 31, 2011

MONITORING AND TARGETING INITIATIVE

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

Initiative Frequency: Year round

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

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

Targeted End Uses: Process and systems

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

Additional detail is available:

- Schedule D-2
- saveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Process-and-System-Upgrades/Monitoring-and-Targeting.aspx>

In Market Date: May 31, 2011

ENERGY MANAGER INITIATIVE

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

Initiative Frequency: Year round

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

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

Targeted End Uses: Process and systems

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

Additional detail is available:

- Schedule D-3
- SaveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Process-and-System-Upgrades/Embedded-Energy-Manager.aspx>

In Market Date: May 31, 2011

KEY ACCOUNT MANAGER (KAM)

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 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 is available:

- ScheduleD-4

In Market Date: May 31, 2011

DEMAND RESPONSE 3

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 is available:

- Schedule D-6
- SaveONenergy website <https://saveonenergy.ca/Business.aspx>

In Market Date: May 31, 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)

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 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 is available:

- Schedule E

In Market Date: January 3, 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)