



September 30, 2014

BY EMAIL/RESS

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto, ON
M4P 1E4

Dear Ms. Walli,

**RE: Whitby Hydro Electric Corporation
Conservation and Demand Management (CDM) – 2013 Annual Report**

As per Section 2.2.1 of the Conservation and Demand Management Code for Electricity Distributors, please find enclosed Whitby Hydro Electric Corporation's 2013 Annual Report. The report will be made available for public review at our office as well as on our company website.

An electronic version of this report has been submitted through the Board's RESS system and a copy emailed to the Board Secretary.

Respectfully submitted,

Original signed by

Susan Reffle
Vice-President

Whitby Hydro Electric Corporation

Conservation and Demand Management 2013 Annual Report

**Submitted to:
Ontario Energy Board**

Submitted on September 30, 2014

TABLE OF CONTENTS

EXECUTIVE SUMMARY 3

BACKGROUND 7

1 BOARD-APPROVED CDM PROGRAM..... 9

1.1 INTRODUCTION9

1.2 TOU PRICING.....9

1.2.1 BACKGROUND9

1.2.2 TOU PROGRAM DESCRIPTION.....9

1.3 WHITBY HYDRO’S APPLICATION WITH THE OEB.....10

1.4 WHITBY HYDRO’S APPLICATION WITH THE OPA’S CONSERVATION FUND.....10

2 OPA-CONTRACTED PROVINCE-WIDE CDM PROGRAMS 12

2.1 INTRODUCTION.....12

2.2 PROGRAM DESCRIPTIONS14

2.2.1 RESIDENTIAL PROGRAM14

2.2.2 COMMERCIAL AND INSTITUTIONAL PROGRAM.....21

2.2.3 INDUSTRIAL PROGRAM.....26

2.2.4 LOW INCOME INITIATIVE (HOME ASSISTANCE PROGRAM) (Schedule E-1)29

2.2.5 PRE-2011 PROGRAMS.....29

3 2013 LDC CDM RESULTS 30

3.1 PARTICIPATION AND SAVINGS30

3.2 EVALUATION33

3.3 SPENDING.....37

3.4 ADDITIONAL COMMENTS.....40

4 COMBINED CDM REPORTING ELEMENTS..... 41

4.1 PROGRESS TOWARDS CDM TARGETS41

4.2 VARIANCE FROM STRATEGY.....42

4.3 OUTLOOK TO 2014 AND STRATEGY MODIFICATIONS44

5 CONCLUSION	45
APPENDIX A: INITIATIVE DESCRIPTIONS.....	46
RESIDENTIAL PROGRAM	46
<i>APPLIANCE RETIREMENT INITIATIVE (Exhibit D)</i>	<i>46</i>
<i>APPLIANCE EXCHANGE INITIATIVE (Exhibit E).....</i>	<i>46</i>
<i>HVAC INCENTIVES INITIATIVE (Exhibit B)</i>	<i>47</i>
<i>CONSERVATION INSTANT COUPON INITIATIVE (Exhibit A)</i>	<i>47</i>
<i>BI-ANNUAL RETAILER EVENT INITIATIVE (Exhibit C)</i>	<i>48</i>
<i>RETAILER CO-OP.....</i>	<i>48</i>
C&I PROGRAM	50
INDUSTRIAL PROGRAM	52
APPENDIX B: PRE-2011 PROGRAMS	57

Executive Summary

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

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

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

In 2012 Residential marketing initiatives included bill inserts, radio and newspaper advertising as well as various retail and community events. The Peaksaver Plus partner was in place by September and results of the *peaksaver* PLUS® program started to be witnessed during Q4. The Home Assistance Program was also launched into market during Q4 of 2012 and was presented as a combined offering with the LEAP (Low Income Energy Assistance Program

The Retrofit Program was the primary driver of savings results for Commercial and Institutional customers. Key highlights include working with the Town of Whitby on sponsoring a "saveONenergy Arena 5" at the Iroquois Park Sports Complex, partnering relationships with neighbouring LDCs, and the municipality and Durham Partner's in Project Green. The Direct Install Lighting program saw a decline in participation and demand savings although incremental energy savings remained similar to 2011 levels. Successful execution of the previous version of this program (Power Savings Blitz) led to a somewhat diminished potential in Whitby. In total, Whitby Hydro generated 1.5GMW of incremental peak demand savings and 2.2GWh of incremental energy savings in 2012.

2013 Activities and Achievements

In 2013 Whitby Hydro continued its work with neighbouring LCD's and organizations. In collaboration with neighbouring LDC's, Whitby Hydro co-hosted a successful region-wide saveONenergy Symposium in the fall of 2013. Through the partnership with Durham Partners in Project Green (DPPG), Whitby Hydro offered educational workshops such as the NRCAN 'Spot the Energy Savings', and the IESO – 'Understanding Your Bill' and 'Lean and Green' events to business customers to generate Retrofit Program applications.

In 2013 the marketing plan was enhanced with the inclusion of newsletters and a saveONenergy co-branded calendar, social networking, web applications, and community educational workshops. Whitby Hydro built on the

peaksaver PLUS® direct mail and bill insert campaign by hosting summer and fall community events and information sessions and successfully registered many new customers to the program.

In Q4 2013, Whitby Hydro further engaged its technical review partner for the Retrofit program, and service offerings were extended for the program management and administration of the Retrofit, Residential New Construction, Small Business Lighting, Building Commissioning, Audit Funding and Demand Response 3 programs. A new Retrofit Program service was launched that offered facility assessments for business customers. A summer student conservation program blitz was launched which successfully promoted the *peaksaver* PLUS® program at several community information sessions in 2013.

The highlight of the residential program in 2013 is without a doubt the *peaksaver* PLUS® program. Based on impressive preliminary results in Q4 2012, Whitby Hydro anticipated and achieved substantially greater results throughout 2013. The success of *peaksaver* PLUS® in 2013 has resulted in 9% of Whitby Hydro's residential customer base participating in and being served by the program. Through its marketing plan, Whitby Hydro initially set out to capture 8-10% of the residential customer base with *peaksaver* PLUS®, however, has ambitiously achieved its program target in 2013 alone. The remaining residential program initiatives, such as Appliance Exchange, HVAC Incentives and the Instant Coupon booklet showed increased uptake in comparison to 2012 results.

Whitby Hydro began actively offering the Home Assistance Program in Q4 2012 and successful results started to appear in Q1, 2013. Through collaboration with neighbouring LDC's, Whitby Hydro's approach has been to establish relationships with various community agencies and property managers to drive program success. Throughout 2013, Whitby Hydro was able to successfully deliver the Home Assistance Program to 177 homes.

The commercial portfolio of initiatives benefited from considerable momentum. The Retrofit Program continued to track successfully, resulting in sixteen more completed applications in 2013. Instrumental to supporting this program is Whitby Hydro's continued facilitation and building of close relationships with its business customers and local institutions and organizations. In Q4 Whitby Hydro supplemented its ERII delivery by offering business customers high-level facility assessments to encourage project incentive application submission and continued to work on Process & System Upgrades with one of its largest customers.

Rebranding of the Direct Install Lighting program to the saveONenergy program resulted in a substantial increase in customer participation versus the previous two years – with 38 more applications submitted. This increase in activity was largely due to the inclusion of bulk-metered accounts in the program. Whitby Hydro welcomed this change to the program as high saturation rate of the previous version of the program precluded any future substantial savings through the program.

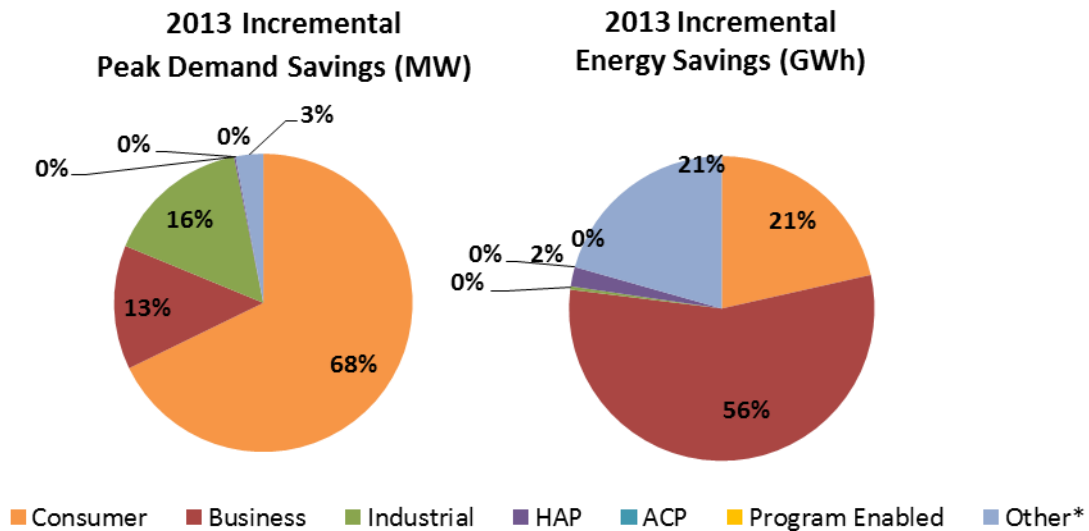
Summary of 2013 Savings Results

Whitby Hydro experienced increased program results over 2011 and 2012, achieving 3.2 MW of net incremental peak demand savings and 3.2 GWh of net incremental energy savings in 2013. A summary of the achievements towards the CDM targets is shown below:

OPA-Contracted Province-Wide CDM Programs Final Verified 2013 Results				
LDC:		Whitby Hydro Electric Corporation		
FINAL 2013 Progress to Targets	2013 Incremental	Program-to-Date Progress to Target (Scenario 1)	Scenario 1: % of Target Achieved	Scenario 2: % of Target Achieved
Net Annual Peak Demand Savings (MW)	3.2	1.8	16.9%	39.8%
Net Energy Savings (GWh)	3.2	25.7	65.8%	65.8%

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

Achievement by Sector



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

Whitby Hydro's 2013 energy and demand savings resulted in a 19.9% increase in demand savings (as per scenario 2) and 18.1% increase in energy savings as compared to 2012 savings. As these results can attest, Whitby Hydro continues to make progress in energy and demand savings.

Progress towards the 2014 CDM Targets

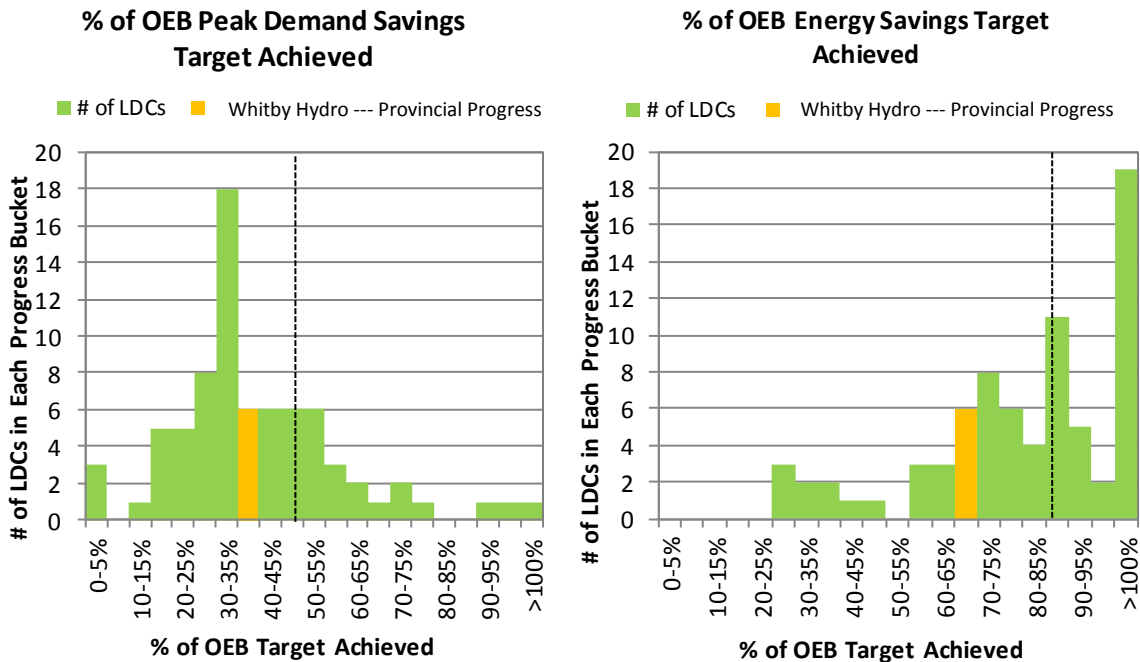
Although Whitby Hydro finished 2013 with its greatest achievement of energy and demand savings to date, when looking at the preliminary 2014 Q1 results, Whitby Hydro is not expected to achieve its energy or demand targets by the end of 2014.

Whitby Hydro's success with the *peaksaver PLUS*® program has contributed substantially to its demand target (to date, approximately 2.5 MW of demand savings), however this positive activity will not be enough to overcome the demand shortfall. Since energy targets are based on the cumulative effect of annual savings, it is difficult to make up for 2011 being a transitional program year and 2012 being a program development year in meeting the target.

The graph below illustrates that the majority of LDCs will be greatly challenged to meet their demand targets.

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

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



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 Whitby Hydro to require Whitby Hydro, as a condition of its license, to achieve 39.07 GWh of energy savings and 10.9 MW of summer peak demand savings, over the period beginning January 1, 2011 through December 31, 2014.

In accordance with the same Minister's directive, the OEB issued the Conservation and Demand Management Code for Electricity Distributors (the Code) on September 16, 2010. The code sets out the obligations and requirements with which electricity distributors must comply in relation to the CDM targets set out in their licenses. To comply with the Code requirements, Whitby Hydro submitted its CDM Strategy on November 1, 2010 which provided a high level description of how Whitby Hydro intended to achieve its CDM targets.

The Code also requires a distributor to file annual reports with the Board. This is the third Annual Report by Whitby Hydro and has been prepared in accordance with the Code requirement and covers the period from January 1, 2013 to December 31, 2013.

Whitby Hydro submitted its 2011 Annual Report on September 27, 2012 which summarized the CDM activities, successes and challenges experienced by Whitby Hydro for the January 1, 2011 to December 31, 2011 period. The OEB's 2011 CDM Results report identified that the delay in the full suite of CDM Programs being made available by the OPA, and the absence of some programs negatively impacted the final 2011 results for the LDCs. This issue was also highlighted in Volumes I & II of the Environmental Commissioner's Report on Ontario's Annual Energy Conservation Progress.

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

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

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

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

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

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

1 Board-Approved CDM Program

1.1 Introduction

In its Decision and Order dated November 12, 2010 (**EB-2010-0215 & EB-2010-0216**), the OEB ordered that, (to meet its mandatory CDM targets), “Each licensed electricity distributor must, as a condition of its license, deliver Board-Approved CDM Programs, OPA-Contracted Province-Wide CDM Programs, or a combination of the two”.

At this time, the implementation of Time-of-Use (“TOU”) Pricing has been deemed as a Board-Approved Conservation and Demand Management (“CDM”) program that is being offered in Whitby Hydro’s service area.

1.2 TOU Pricing

1.2.1 Background

In its April 26, 2012 CDM Guidelines, the OEB recognizes that a portion of the aggregate electricity demand target was intended to be attributable to savings achieved through the implementation of TOU Pricing. The OEB establishes TOU prices and has made the implementation of this pricing mechanism mandatory for distributors. On this basis, the OEB has determined that distributors will not have to file a Board-Approved CDM program application regarding TOU pricing. The OEB has deemed the implementation of TOU pricing to be a Board-Approved CDM program for the purposes of achieving the CDM targets. The costs associated with the implementation of TOU pricing are recoverable through distribution rates, and not through the Global Adjustment Mechanism (“GAM”).

In accordance with a Directive dated March 31, 2010 by the Minister of Energy and Infrastructure, the OEB is of the view that any evaluations of savings from TOU pricing should be conducted by the OPA for the province, and then allocated to distributors. Whitby Hydro will report these results upon receipt from the OPA.

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

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

As of September 30, 2014, the OPA has not released any verified results of TOU savings to Whitby Hydro. Therefore Whitby Hydro is not able to provide any verified savings related to its TOU program at this time.

1.2.2 TOU PROGRAM DESCRIPTION

Target Customer Type(s): Residential and small business customers (up to 250,000 kWh per year)

Initiative Frequency: Year-Round

Objectives: TOU pricing is designed to incent the shifting of energy usage. Therefore peak demand reductions are expected, and energy conservation benefits may also be realized.

Description: In August of 2010, the OEB issued a final determination to mandate TOU pricing for Regulated Price Plan (“RPP”) customers by June 2011, in order to support the Government’s expectation for 3.6 million RPP consumers to be on TOU pricing by June 2011, and to ensure that smart meters funded at ratepayer expense are being used for their intended purpose.

The RPP TOU price is adjusted twice annually by the OEB. A summary of the RPP TOU pricing is provided below:

RPP TOU Effective Date	Rates (cents/kWh)		
	On Peak	Mid Peak	Off Peak
November 1, 2010	9.9	8.1	5.1
May 1, 2011	10.7	8.9	5.9
November 1, 2011	10.8	9.2	6.2
May 1, 2012	11.7	10.0	6.5
November 1, 2012	11.8	9.9	6.3
May 1, 2013	12.4	10.4	6.7
November 1, 2013	12.9	10.9	7.2
May 1, 2014	13.5	11.2	7.5

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

Initiative Activities/Progress:

Whitby Hydro began transitioning its RPP customers to TOU billing on December 23, 2011. By the end of 2012,, virtually all eligible RPP customers (residential and general service less than 50kW) were on TOU billing. Throughout 2013, customers interested in CDM programs have continued to provide some positive feedback regarding reduced monthly billing costs due to the behavioral changes resulting from TOU rates. Whitby Hydro's successful results with *peaksaver* PLUS® and the in-home-display alignment with TOU rates has created a complimentary setting whereby customers are offered an effective tool to monitor, understand and modify their consumption patterns between the TOU time-periods.

1.3 Whitby Hydro’s Application with the OEB

There were no applications submitted by Whitby Hydro to the OEB in 2013. With a limited timeline remaining there is no plan to submit an application in 2014. Whitby Hydro continues to express interest and willingness to work collaboratively with neighbouring LDCs, vendor partners and the Electricity Distributors Association (EDA) on developing and implementing Board-approved programs in the future CDM framework.

1.4 Whitby Hydro’s Application with the OPA’s Conservation Fund

In 2013, the OPA introduced the Conservation Fund to help meet LDCs' 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.

Whitby Hydro did not submit a CDM program application to the OPA's Conservation Fund in 2013, however, is actively pursuing the establishment of a pilot program and has submitted a proposal for consideration in September 2014.

2 OPA-Contracted Province-Wide CDM Programs

2.1 Introduction

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

Initiative	Schedule	Date Schedule Posted	Whitby Hydro in Market Date
Residential Programs			
Appliance Retirement	Schedule B-1, Exhibit D	Jan 26, 2011	March 3, 2011
Appliance Exchange	Schedule B-1, Exhibit E	Jan 26, 2011	May 2, 2011
HVAC Incentives	Schedule B-1, Exhibit B	Jan 26, 2011	March 3, 2011
Conservation Instant Coupon Booklet	Schedule B-1, Exhibit A	Jan 26, 2011	February 21, 2011
Bi-Annual Retailer Event	Schedule B-1, Exhibit C	Jan 26, 2011	April 1, 2011
Retailer Co-op	n/a	n/a	n/a
Residential Demand Response	Schedule B-3	Aug 22, 2011	October 1, 2012
New Construction Program	Schedule B-2	Jan 26, 2011	March 15, 2011
Home Assistance Program	Schedule E-1	May 9, 2011	September 30, 2012
Commercial & Institutional Programs			
Efficiency: Equipment Replacement	Schedule C-2	Jan 26, 2011	March 3, 2011
Direct Install Lighting <ul style="list-style-type: none"> General Service <50 kW 	Schedule C-3	Jan 26, 2011	March 3, 2011
Existing Building Commissioning Incentive	Schedule C-6	Feb 2011	March 3, 2011
New Construction and Major Renovation Initiative	Schedule C-4	Feb 2011	December 15, 2011
Energy Audit	Schedule C-1	Jan 26, 2011	March 3, 2011
Commercial Demand Response <ul style="list-style-type: none"> General Service <50 kW 	Schedule B-3	Jan 26, 2011	Not in market in 2013
Industrial Programs - General Service 50 kW & above			
Process & System Upgrades	Schedule D-1	May 31, 2011	May 31, 2011
Monitoring & Targeting	Schedule D-2	May 31, 2011	May 31, 2011
Energy Manager	Schedule D-3	May 31, 2011	May 31, 2011
Key Account Manager ("KAM")	Schedule D-4	May 31, 2011	May 31, 2011
Efficiency Equipment Replacement Incentive <ul style="list-style-type: none"> (part of the C&I program schedule) 	Schedule C-2	May 31, 2011	May 31, 2011
Demand Response 3	Schedule D-6	May 31, 2011	May 31, 2011

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

- Electricity Retrofit Incentive Program

- High Performance New Construction
- Multifamily Energy Efficiency Rebates

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

Not in Market	Objective	Status
Residential Program		
Midstream Electronics	Encourages retailers to promote and sell high efficiency televisions, and for distributors to distribute high efficiency set top boxes.	Did not launch and removed from Schedule in Q2, 2013.
Midstream Pool Equipment	Encourage pool installers to sell and install efficient pool pump equipment in residential in-ground pools.	Did not launch and removed from Schedule in Q2, 2013.
Home Energy Audit Tool	This is a provincial online audit tool to engage customers in conservation and help drive customer participation to CDM programs.	Did not launch and removed from Schedule in Q2, 2013.
Commercial & Institutional Program		
Direct Service Space Cooling	Offers free servicing of air conditioning systems and refrigeration units for the purpose of achieving energy savings and demand reduction.	Did not launch in 2011/2012/2013. As per the OPA there were no plans to launch this Initiative in 2014.
Demand Response 1 ("DR1")	This initiative allows distribution customers to voluntarily reduce electricity demand during certain periods of the year pursuant to the DR 1 contract. The initiative provides DR payment for service for the actual electricity reduction provided during a demand response event.	No customer uptake for this initiative. As a result this Initiative was removed from the Schedule in Q4, 2012.
Industrial Program		
DR1	As above	No customer uptake for this initiative. Removed in Q4, 2012.

The Master CDM Program Agreement includes program change management provision in Article 3. Collaboration between the OPA and the Local Distribution Companies (LDCs) commenced in 2011, and continued in 2012, as the change management process was implemented to enhance the saveONenergy program suite. The change management process allows for modifications to the Master Service Agreement and initiative Schedules. The program enhancements give LDCs additional tools and greater flexibility to deliver programs in a way that meets the needs of customers and further drives participation in the Initiatives.

2.2 Program Descriptions

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

2.2.1 RESIDENTIAL PROGRAM

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

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

Discussion:

Throughout 2013, Whitby Hydro continued to maintain steady progress for the majority of Residential initiatives. However, it was *peaksaver PLUS*[®] the key Residential initiative that delivered the greatest level of savings. As 2013 was the first full year for *peaksaver PLUS*[®] to be offered, all of Whitby Hydro's community events, outreach and information sessions included a strong focus on the initiative's uptake which helped to build momentum around the program. The success of *peaksaver PLUS*[®] in Whitby Hydro's service territory in 2013 provided a substantial 1.8 MW of demand savings alone. Unfortunately, there were no savings associated with the Energy Display attributed to LDCs in the OPA's 2013 verified results. Whitby Hydro anxiously welcomes what savings results will be attributed to the verified results in 2014. Whitby Hydro forecasts that 2014 Residential Program savings will largely be derived from *peaksaver PLUS*[®], as certain initiatives reach market saturation and savings decline.

The addition of LED measures to the Bi-Annual Retailer Event and the Annual Coupon Initiative in July 2013 has greatly increased customer participation in the former event as compared to 2012 results. This is a welcome addition, as customers are able to implement a new technology bringing about a slow market transformation.

The Residential Program Portfolio is predominately a carryover of Initiatives from previous programs. It is mostly driven by retailers and contractors who many not have fully delivered what was anticipated. Three new initiatives (Midstream Electronics, Midstream Pool Equipment and Home Energy Audit Tool) were not launched and subsequently removed from the schedule in 2013 with no new additions. Delays in communication with regards to Initiative offerings and results reporting have hampered LDCs abilities to engage customers and promote participation.

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

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

2.2.1.1 Appliance Retirement Initiative (Exhibit D)

Initiative Activities/Progress: Throughout 2013, Whitby Hydro continued to provide local marketing as well as customer support for this initiative. Marketing efforts largely continued the previous years' plan. This included promotion through various community events (26), website, closed-circuit TV ads (2) and motion display boards (2) at the local Civic Sports Complex. Print media continued to be utilized and included bill inserts (40,000 pieces), bill messaging and posters, and bus advertising. An additional marketing effort was continued through Whitby Hydro's sponsorship of an arena at the Iroquois Park Sports Complex. Whitby Hydro's saveONenergy Arena 5 has extended the residential initiative marketing campaign to include hosting community events (free public skate) ice pad advertising logos, initiative specific signage and rink boards. Whitby Hydro's uptake/participation for decommissioned appliances was 144 units in 2013 and follows a trend in declining uptake - a substantial drop from 547 units in 2011.

Additional Comments:

- Due to the duration of the program, and the revised eligibility requirements to a minimum of 20 years old, this Initiative appears to have reached market saturation and has been under consideration for removal from the Portfolio.
- Rather than strictly remove this Initiative from the schedules, the OPA and LDCs could review what opportunities there are to include other measures such as stoves, dishwashers, washers and dryers. The framework of this Initiative may be a suitable foundation for a more holistic residential appliance retirement program. As such, the Residential portfolio could be straightened through program evolution rather than weakened through diminished program offerings.
- 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.

2.2.1.2 Appliance Exchange Initiative (Exhibit E)

Initiative Activities/Progress: Whitby Hydro continued to provide local marketing and customer support for this initiative. Whitby Hydro's saveONenergy Conservation Team continued to work closely with Canadian Tire, the only retailer currently involved with this initiative, to promote this event and offer energy efficiency education to customers and cross promote other important initiatives such as *peaksaver* PLUS®. This initiative only occurred once in 2013. In 2013, Whitby Hydro's uptake/participation for decommissioned appliances was 29 units – the highest showing to-date.

Additional Comments:

- The design of the Initiatives, including eligible measures and incentives amounts are developed through the Residential Working Group. Retail Partner(s) are contracted by the OPA to deliver the initiatives province-wide. Individual LDCs have the opportunity to stage in-store events to drive the distribution of LDC coded Coupons and promotion of other programs in the portfolio

- The restrictive, limited and sometimes non-participation of local stores can diminish the savings potential for this Initiative.
- To date there has only been one retailer participant in the Appliance Exchange Initiative.
- In 2012 there was a decrease in the number of window air conditioners being received through the program. A review of eligible measures in the Appliance Exchange program was conducted, and as these units are not cost effective on their own it was determined that they be removed from the program in order to improve the overall cost effectiveness of the Initiative
- Notification to LDCs regarding retailer participation and eligible measures continues to be delayed. Improved communications will aid in appropriate resource allocation and marketing of the Initiative.
- This Initiative may benefit from the disengagement of the retailer and allowing LDCs to conduct these events, possibly as part of a larger community engagement effort, with the backing of ARCA for appliance removal.
- The initiative appears to require more promotion from retailers and LDCs.

2.2.1.3 HVAC Incentives Initiative (Exhibit B)

Initiative Activities/Progress: Whitby Hydro continued to provide local marketing and customer support for this initiative. Primary marketing for the initiative continued with bill inserts and web site promotion/education, as well bus print/poster campaigns and bus shelters. The Residential Programs brochure continued to be distributed at various community events (26). Customer Service representatives, the CDM Program Manager, and Summer Student Conservation Associates continued to clarify customer requests for an explanation of the different incentive amounts pertaining to different product efficiencies. In 2013, Whitby Hydro's uptake/participation for customer incentives was 1,093 successful applications resulting in the highest showing to date.

Additional Comments:

- Incentive levels appear to be insufficient to prompt customers to upgrade HVAC equipment prior to end of useful life. An Air Miles incentive was introduced in 2013 to try and encourage early replacement.
- This Initiative is contractor driven with LDCs responsible for marketing efforts to customers. More engagement with the HVAC contractor channel should be undertaken to drive a higher proportion of furnace and CAC sales to eligible units.
- In an effort to build capability, mandatory training has been instituted for all participating HVAC contractors. This could present too much of a barrier for participation for some contractors as the application process already presents a restriction to contractor sales. It has been noted that there are approximately 4,500 - 5,000 HVAC contractors in the Province, however in 2013, only a total of 1,587 contractors completed the mandatory HVAC training and can participate in the program.
- There are cases where non-participating contractors are offering their own incentives (by discounting their installations to match value of the OPA incentive). As this occurs outside of the Initiative, savings are not credited to LDCs. OPA should consider this in future program impact evaluation studies.

- Changes to the Schedule in 2014 to allow for incentives for new installations, rather than strictly replacement units, may provide greater Initiative results.

2.2.1.4 Conservation Instant Coupon Initiative (Exhibit A)

Initiative Activities/Progress: Whitby Hydro continued to provide local marketing and customer support for this initiative via website offering of the coupons and mainly through a cross-promotion of the bi-annual coupon event. Printed coupons were always available for visiting customers to Whitby Hydro's offices. Whitby Hydro CDM staff promoted both the online-only annual coupons as well as the Spring/Fall 2013 bi-annual coupon event specific coupons. Numbers greatly increased in 2013 - from 267 in 2012 to 3,001 participants redeeming coupons in 2013.

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 3 custom coded coupons. All coupons have been provided with LDC custom coding in 2014 which allows LDCs to promote coupons based on local preferences.
- Consumer experience varies amongst retailers offering Coupon discounts which can limit redemptions. For example, a particular high volume 'participating retailer' does not accept coupons and have their own procedure. In addition, some retailers have static lists of eligible products and will not discount eligible products unless the product on the list.
- The saveONenergy programs would benefit from specific end cap displays, aisle product stands and product-specific areas. Having products throughout a retail environment weakens the impact.

2.2.1.5 Bi-Annual Retailer Event Initiative (Exhibit C)

Initiative Activities/Progress: Whitby Hydro continued to provide local marketing and customer support (marketing materials as well as coupons were made available for customers at Whitby Hydro's office) for this initiative. During the spring and fall offering of the initiative eight event sessions were attended by Whitby Hydro CDM staff at participating retailers. Four events were held during spring (Canadian Tire, Lowe's, Home Depot and Home Hardware) and four events during the fall (Canadian Tire, Lowe's, Home Depot and Home Hardware). These events continued to be an effective forum by which to gauge customer feedback. Many customers took advantage of the new LED coupon offerings. Although there was an increase in events in 2013, initiative participation

decreased from 9,178 in 2012 to 8,173 in 2013 and the resulting net energy savings represented a 36% decline from 2012.

Additional Comments:

- Whitby Hydro effectively utilized these types of retailer events as they provided great feedback for program offerings as well as continued sign-up opportunities for the *peaksaver* PLUS® program.
- LDCs have the opportunity to stage in-store events to drive the distribution of LDC coded Coupons and promotion of other programs in the portfolio however this requires cooperation from the local retailer and LDC staff bandwidth.
- Limited engagement of local retailers can restrict the savings potential for this Initiative.
- The Product list has changed very little over the past five years.
- Program evolution, including new products and review of incentive pricing for the coupon Initiatives, must be a regular activity to ensure continued consumer interest.
- The Product list could be distinctive from the Conservation Instant Coupon Initiative in order to gain more consumer interest and uptake.
- A review conducted by the Residential Working Group identified three areas of need for Initiative evolution: 1) introduction of product focused marketing; 2) enhanced product selection and 3) improved training for retailers as retail staff tend not to be knowledgeable regarding the products or promotion.
- This Initiative may benefit from a more exclusive relationship with a retailer appropriate to the program. There should be a value proposition for both the retailer and LDC.
- Independently the Retailer Co-op and Bi-Annual Retailer Event Initiative may not present a value for the investment of LDC resources to support these events and should be backed by a strong Residential portfolio.

2.2.1.6 Retailer Co-op

Initiative Activities/Progress: Whitby Hydro did not promote this initiative to local retailers since they had in previous years chosen, to only support/participate in the bi-annual coupon retailer events. No local retailer applied to the OPA for specified funding under this Initiative.

Additional Comments:

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

2.2.1.7 New Construction Program (Schedule B-2)

Initiative Activities/Progress: Whitby Hydro continued to provide local marketing and customer support for this initiative. Marketing efforts focused on establishing relationships with builders, the Municipal Planning Department and the local Business Improvement Association. Although the OPA greatly streamlined the application process, the program continues to be perceived as too time consuming. To date, Whitby Hydro has one customer that has two approved applications. Although the process has been simplified, Whitby Hydro continues to actively support and encourage frustrated but interested customers to continue working towards a finalized application. No applications were submitted in 2013.

Additional Comments:

- This Initiative provides incentives to home builders for incorporating energy efficiency into their buildings. To support this, LDCs need to provide education to the consumers regarding the importance of choosing the energy efficient builder upgrade options without an immediate benefit to the consumer.
- In 2012 the application process was streamlined, however continues to be too cumbersome for 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 players' interest in the Initiative. However, it is anticipated that the performance track will be the primary track used in applications, which provides low savings for the incentive provided. Savings and associated incentives may need to be revised to an appropriate level.
- The addition of LED light fixtures, application process improvement and moving the incentive from the builder to the home-owner may increase participation.
- This Initiative may benefit from collaboration with the Natural Gas utilities.

2.2.1.8 Residential Demand Response Program (Schedule B-3)

Initiative Activities/Progress: Throughout 2013, Whitby Hydro effectively and efficiently, built upon the initial success realized in Q4 2012 of this key residential initiative. Far greater traction has been achieved in 2013 with 3,324 customers registered for the program. Whitby Hydro's 2013 success with *peaksaver PLUS*[®] is reflective of its continued commitment to its largely residential customer base and effective marketing (two direct mail and two bill insert campaigns were carried out in 2013) and educational campaigns. Whitby Hydro's Conservation Associate Summer Students were an integral part of the summer 2013 'Learn & Sign-Up' community events campaign. *peaksaver PLUS*[®] acted as the focal point for customer engagement at various community events throughout the year (22).

Additional Comments:

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

- Smart Meters installed by most LDCs do not have the capability to communicate directly to an In Home Display and any mass replacement of newly installed meters with 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.
- Throughout 2013 Whitby Hydro experienced significant issues with the *peaksaver* PLUS® administration and cost recovery process which has caused a considerable burden to its business operations. Many of these process issues have been remedied; however, communication issues and revolving OPA support personnel have caused unnecessary complications. It is very disconcerting as *peaksaver* PLUS® is the key residential program initiative.
- Introduction of new technology requires incentives for the development of such technology. Appropriate lead times for LDC analysis and assessment, product procurement, and testing and integration into the Smart Meter environment are also required. Making seemingly minor changes to provincial technical specifications can create significant issues when all LDCs attempt to implement the solution in their individual environments.
- The variable funding associated with installing a load controllable thermostat is not sufficient unless it is combined with an In Home Display (IHD) which might not be possible all the time and when IHD is optional.
- Given the different LDC environments, and needs, each LDC is positioning the Initiative slightly differently. While a Thermostat has high marketability, it also carries a higher maintenance liability due to no-heat and no-AC calls. A switch with an independent IHD is seen as a lower liability option but also has a much lower marketability.
- 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.
- Verified demand savings in 2012 from the load control devices were less than originally anticipated. This prompted an increase to the load cycling strategy in 2013 in order to increase savings closer to the original business case.

2.2.2 COMMERCIAL AND INSTITUTIONAL PROGRAM

Description: Provides commercial, institutional, agricultural and industrial organizations with energy-efficiency programs to help reduce their electrical costs while helping Ontario defer the need to build new generation and reduce its environmental footprint. 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:

Whitby Hydro continued to focus on the Commercial and Institutional Program initiatives, specifically the Retrofit program, to capture the bulk of energy savings in 2013. The pairing of informative workshops and facility assessments with ERII has steadily driven the number of projects submitted for application on an upward trajectory. A gradual increase in projects for the Direct Install Lighting initiative was a welcome addition, in light of previously reported high market saturation levels. This was largely attributable to a change in marketing strategy that focused on bulk-metered accounts.

Throughout 2011 to 2013 the Commercial and Institutional (C&I) Working Group has strived to enhance the existing C&I programs and rectify identified program and system deficiencies. This has proven to be a challenging undertaking. Overbuilt governance, numerous initiative requirements, complex program structure and lengthy change management have restricted growth without providing the anticipated improved Measurement and Verification results. In addition, Evaluation, Measurement and Verification (EM&V) has not yet achieved transparency. LDCs are held accountable for these results yet are mostly completely removed from the process.

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

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

Looking ahead there is minimal opportunity to make valuable changes to the current program suite and have these changes reflected in LDC 2014 results. LDCs and the OPA should look beyond the current Initiatives and work to launch new programs, built on the strengths of the 2011-2014 programs, which will meet the needs of the industry and consumers. Planning for the future, and to capture sector specific energy savings, Whitby Hydro has submitted a proposal to the OPA Conservation Fund for pilot program development in September 2014.

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

Initiative Activities/Progress: Whitby Hydro continued to provide local marketing and customer support for this key Commercial and Institutional initiative. A previously contracted vendor partner continues to provide

application review services and other initiative assistance. Whitby Hydro's marketing plan for the Retrofit program includes both mass media campaigns (print media; signage; radio, etc.) as well as a customized approach for its business customers. This customized approach involves workshops, high-level facility assessments and an eco-efficiency assessment through Durham Partners in Project Green. Whitby Hydro's continued involvement, alongside other neighbouring LDCs, in the Durham Partners In Project Green initiative has allowed for various efficiencies to be gained through shared events and workshops and free facility assessments/audits offered to customers. 48 retrofit projects were completed in 2013 – up from 32 in 2012. Lighting retrofits still proved to be a large part of 2013 applications, with a greater showing of LED installations. There has also been a substantial increase in HVAC applications due to the emergency RTU application process.

Additional Comments:

- A large proportion of LDC savings are attributed to the Retrofit program. However, it is important to reiterate that early successes were realized in Whitby Hydro's service territory by uptake in the previous ERIP Retrofit program which resulted in 36 completed retrofits. Uptake in the previous ERIP program somewhat diminishes the customer base to target for the new ERIP initiative in 2011-2014.
- Capability building programs from Industrial programs have had very positive contributions to the Retrofit 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.
- A focus on demand incentives has limited some kWh project opportunities. In particular, night lighting projects have significant savings potential for customers but tend to have incentives of 10% of project cost or less.
- 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.

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

Initiative Activities/Progress: Whitby Hydro continued to provide local marketing and customer support for this initiative. A vendor partner was contracted in Q3 2011 and although 2013 saw the best results to date, with 48 applications participation reached a standstill late in the year. As a result, in Q4 of 2013 Whitby Hydro made a decision to partner with a different vendor for delivery of this program to target any remaining qualified customers. Whitby Hydro worked closely with the newly-contracted vendor partner for a re-launch of the program in January 2014. The pace of the program is slowly picking up, although the previous successful market saturation is an issue that Whitby Hydro has been grappling with. Whitby Hydro is determined to mine all remaining opportunities for DIL.

Additional Comments:

- Successful execution of the previous rendition of this Initiative (reaching a high market saturation rate of 80%) has resulted in diminished potential for the 2011-2014 Initiative in Whitby Hydro's area. 2013 saw greater traction regained through offering the program to bulk-metered accounts.
- LED lighting was introduced in 2013 as a new measure and has been well received by customers who may not have previously qualified for DIL eligible upgrades. This is an efficient product with a long estimate useful life.
- Cold start high output lighting was removed from the program. This particularly affected the farming customers who now have limited options within the program to utilize.
- The inclusion of a standard incentive for additional measures increased project size and drove higher energy and demand savings results in some situations. However, LDCs are unable to offer these standard incentives to prior participants. The ability to return to prior participants and offer a standard incentive on the remaining upgrades has potential to provide additional energy and demand savings
- Many customers are not taking advantage of any additional measures, which may present an opportunity to for future savings with a new program offering.
- Electrical contractor's margins have been reduced due to no labour rate increase, increased cost of materials, greater distances between retrofit and more door knocking required before a successful sale. This has led to a reduction in vendor channel participation in some regions.
- Measure incentives and additional funding for forklifts were introduced in September 2013 and were well received by installers. However, adjustments like these require longer lead times. As such, many customers were not able to benefit from this change in late 2013. Consideration should be given to providing advanced notification to LDCs and contractors of the upcoming changes to allow for planning.

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

Initiative Activities/Progress: Whitby Hydro continued to provide local marketing and customer support for this initiative. As with 2011-2012, there has been minimal interest in certain aspects of this initiative (chilled water applications) however, no applications were submitted in 2013.

Additional Comments:

- Initiative name does not properly describe the Initiative.
- There was minimal participation for this Initiative. It is suspected that the lack of participation in the program is a result of the Initiative being limited to space cooling and a limited window of opportunity (cooling season) for participation.
- Participation is mainly channel partner driven, however the particulars of the Initiative have presented too significant a barrier for many channel partners to participate.
- The customer expectation is that the program be expanded to include a broader range of measures for a more holistic approach to building re-commissioning and chilled water systems used for other purposes should be made eligible and considered through Change Management.
- This initiative should be reviewed for incentive alignment with ERII, as currently a participant will not receive an incentive if the overall payback is less than 2 years.

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

Initiative Activities/Progress: During 2013, Whitby Hydro continued to work with its vendor partner for delivery of this initiative. 2013 saw three large-scale applications submitted. However, due to the lengthy building cycle for such projects, no applications were finalized in 2013. These three applications are working through the process of acquiring modeling-data to estimate the savings necessary to finalize the applications in 2014

Additional Comments:

- With the Ministerial Directive issued December 21, 2012, facilities with a completion date near the end of 2014 currently have some security that they will be compensated for choosing efficient measures. However, buildings that are in the planning phase with completion dates post-2015 may not participate due to funding uncertainty.
- Participants estimated completion dates tend to be inaccurate and are usually six months longer. This could result in diminished savings towards target when facilities are not substantially completed by December 31, 2014.
- The custom application process requires considerable customer support and skilled LDC staff. The effort required to participate through the custom stream exceeds the value of the incentive for many customers.
- There are no custom measure options for items that do not qualify under the prescriptive or engineered track as the custom path does not allow for individual measures, only whole building modeling.
- This Initiative has a very low net-to-gross ratio, which results in half the proposed target savings being 'lost'.

2.2.2.5 Energy Audit Initiative

Initiative Activities/Progress: Whitby Hydro continued to provide local marketing and customer support for this initiative. No applications were submitted in 2013. During the end of Q4 2013, Whitby Hydro worked closely with the municipality on their mandated energy management requirements (O. Reg. 397/11) and focused particularly on the Energy Audit initiative and the submission of (6) audit applications occurred at the end of Q1 2014. Marketing this initiative to the commercial and institutional sector has only started to yield results. Many customers engaged have chosen to take advantage of less costly audit options that are available to Whitby Hydro business customers (i.e. Durham Partners in Project Green).

- Assessments/audits conducted by Whitby Hydro's CDM Program Manager and those through the Durham Partners In Project Green initiative (a no-cost high-level assessment) continue to be more successful in realizing ensuing retrofit projects.
- 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. Whitby Hydro also anticipates some savings due to the recommendations in the energy audit reports for the (6) municipal facility audits. The recommendations from the energy audits will form the basis of projects to be realized towards target under an Embedded Energy Manager, which Whitby Hydro is in the process of securing for the municipality.
- Audit reports from consultants vary considerably and in some cases, while they adhere to the Initiative requirements, do not provide value for the Participant. A standard template with specific energy saving calculation requirements should be considered.
- Customers look to the LDCs to recommend audit companies. A centralized prequalified list provided by the OPA may be beneficial.
- Participation has been limited to one energy audit per customer which has restricted enabling and direction to the other Initiatives. This has been revised in 2014 and LDCs are now able to consider additional customer participation when presented with a new scope of work. This change was greatly welcomed by Whitby Hydro and allowed for the ensuing energy audits to be conducted at various municipal facilities.
- Consideration should be given to allowing a building owner to undertake an audit limited to their lighting system. This way they may receive valuable information from neutral third party regarding the appropriate lighting solution for their facility instead of what a local supplier wants to sell.

2.2.3 INDUSTRIAL PROGRAM

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

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

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

Discussion:

The Industrial Program Portfolio is the only program offering whereby customers can engage in a continuous improvement process around the sphere of energy efficiency through gaining generous incentives and valuable resources. Although program uptake has been limited in Whitby Hydro's service territory, it recognizes the strategic value of conducting Engineering Studies in particular as well as the holistic diagnostic benefit gained through the Monitoring Targeting initiative.

Throughout 2013, Whitby Hydro continued the close relationship supporting the application and project process with its largest industrial customer on a combined Preliminary Engineering Study and Monitoring and Targeting application. In 2013, both the Preliminary Engineering Study and the Monitoring & Targeting applications were approved with the respective funding amounts released to the customer.

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

Extensive legal documents, complex program structure and lengthy change management have restricted the change and growth of this Portfolio. While the expedited change management has benefited the Commercial Portfolio, the Industrial Portfolio has not seen the same results due to the narrow scope of the process. For 2013 the change to the threshold for small capital projects and the new small capital project agreement are expected to improve the number of projects and savings achieved within PSUI. Likewise, a decision to proceed with 2012 natural gas load displacement generation projects applications will also increase uptake although the limited time to bring new projects into service is a barrier. Looking ahead, Whitby Hydro will continue to focus on the small capital projects program change to deliver some results towards the end of 2014.

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

Initiative Activities/Progress: Whitby Hydro continued to provide local marketing and customer support for this initiative. During 2013, Whitby Hydro continued working with its largest customer through the initial application process. A fully endorsed Preliminary Engineering Study Agreement was submitted and the incentive was released to the customer.

Additional Comments:

- Numerous energy studies have been submitted and completed. This is a strong indication that there is the potential for large projects with corresponding energy savings. 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.
- The contract required for PSUI is a lengthy and complicated document. A key to making PSUI successful is a new agreement which is a simplified with less onerous conditions for the customer.
- To partially address this, changes were made to the ERII Initiative which allowed smaller projects to be directed to the Commercial stream. Most industrial projects have to-date been submitted as ERII projects due to less onerous contract and M&V requirements.
- A business case was submitted by the Industrial Working Group in July 2012 which would change the upper limit for a small project from 700 MWh to 1 million dollars in incentives. This would allow more projects to be eligible for the new small capital project agreement and increase participant uptake, while still protecting the ratepayer. This small capital project agreement was finalized in August 2013.

2.2.3.2 Monitoring & Targeting Initiative (Schedule D-2)

Initiative Activities/Progress: Whitby Hydro continued to provide local marketing and customer support for this initiative. During 2013 Whitby Hydro continued working with its largest customer through the initial application process. A fully endorsed M&T Agreement was submitted and the initial disbursement of the incentive was released to the customer.

Additional Comments:

- The M&T initiative is targeted at larger customers with the capacity to review the M&T data. This review requires the customer facility to employ an Energy Manager, or a person with equivalent qualifications, which has been a barrier for some customers. As such, a limited number of applications have been received to date.
- The savings target required for this Initiative can present a significant challenge for smaller customers.
- Changes were made to ERII in 2013 to allow smaller facilities to employ M&T systems.

2.2.3.3 Energy Manager Initiative (Schedule D-3)

Initiative Activities/Progress: Whitby Hydro continued to provide local marketing and customer support for this initiative and aimed it exclusively at the institutional sector (Regional and local Municipality,). There was no application for an Energy Manager submitted in 2012. In Q4 of 2013, Whitby Hydro entered into formal discussions regarding various options and requirements for an Energy Manager with the local municipality and educational institutions.

Additional Comments:

- The Energy Managers have proven to be a popular and useful resource for larger customers.
- LDCs that are too small to qualify for their own REM are teaming up with other utilities to hire an REM to be shared by the group of utilities.
- Some LDCs and Customers are reporting difficulties in hiring capable Roving and Embedded Energy Managers (REM/EEM), in some instances taking up to 7 months to have a resource in place.
- New energy managers require training, time to familiarize with facilities and staff and require time to establish “credibility”. Energy Managers started filling their pipeline with projects in 2012 but few projects were implemented until 2013.

2.2.3.4 Key Account Manager (Schedule D-4)

Initiative Activities/Progress: Whitby Hydro provided local marketing and customer support for this initiative aimed primarily at the institutional sector. No applications were submitted in 2013. Whitby Hydro continues to seek out efficiencies to be gained through working with neighboring LDC’s, however; this initiative’s objectives are better served through the employment of an EEM or a REM. As a result of limited application opportunities in Whitby Hydro’s service territory, Whitby Hydro has continued to look to its CDM Program Manager and vendor partners to provide the necessary support to key accounts via facility assessments and project support.

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.
- Whitby Hydro continues to view its CDM Manager as fulfilling the role of a Key Account Manager whose task is to engage and help customers, since these same customers are not large enough to qualify for this initiative.
- Finding this type of skill set has been difficult. In addition, the short-term contract discourages some skilled applicants resulting in longer lead times to acquire the right resource.

2.2.3.5 Demand Response 3 (D-6)

Initiative Activities/Progress: Whitby Hydro has actively marketed and provided customer support, where applicable, for this initiative. A DR3 Workshop was once again held in 2013 as a result of continued joint efforts with neighboring LDCs. In 2013, one commercial customer and two industrial customers continued their participation in the DR3 initiative (from the previous initiative offering). 2013 marketing efforts focused on a workshop and initiating aggregator-customer relations and meetings as well as some print media (brochures and industrial area situated billboards).

Additional Comments:

- Until early 2013 customer data was not provided on an individual customer basis due to contractual requirements with the aggregators. This limited LDC’s ability to effectively market to prospective participants and verify savings.

- No program improvements were made in 2013 however, it was accepted that prior participants who renew their DR3 contract within the 2011-2014 term will contribute to LDC targets.
- Whitby Hydro continues to receive feedback from customers stating that the capital investment required for a facility's generator to meet the Ministry of Environment specifications is considerably onerous and costly.
- Metering and settlement requirements are expensive and complicated and can reduce customer compensation amounts, and present a barrier to smaller customers.
- Compensation amounts for new contracts and renewals have been reduced from the initial launch of this program (premium zones and 200 hour option have been discontinued) and subsequently there has been a corresponding decrease in renewal revenue.

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

Initiative Activities/Progress: Whitby Hydro continued working with its delivery partner and neighboring LDC's in 2013 and saw a total of 177 homes participate in the program in 2013. Channel engagement and marketing activities continued via reaching out to social agencies and customers in Whitby Hydro's service territory with flyers, posters and bill inserts and cold-calling leads generated by contracted delivery partner and social agencies.

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 streamlined application form has been well received.
- During Q4 2013, Whitby Hydro worked with its LEAP and Home Assistance program delivery partners to develop a plan to successfully coordinate joint marketing efforts between the two programs to significantly increase participation.
- The financial scope, complexity, and customer privacy requirements of this Initiative are challenging for LDC's and most have contracted this program out. This Initiative may benefit from an OPA contracted centralized delivery agent.

2.2.5 PRE-2011 PROGRAMS

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

3 2013 LDC CDM Results

3.1 Participation and Savings

Table 1: **Whitby Hydro Electric Corporation** Initiative and Program Level Net Savings by Year (Scenario 1)

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	547	232	144		31	13	9		226,453	92,074	61,731		53	1,305,192
Appliance Exchange	Appliances	22	19	29		2	3	6		3,509	5,077	10,714		10	49,796
HVAC Incentives	Equipment	993	1,056	1,093		319	225	232		580,361	379,038	398,521		776	4,255,599
Conservation Instant Coupon Booklet	Items	5,338	267	3,001		12	2	4		191,285	12,096	66,677		18	934,779
Bi-Annual Retailer Event	Items	8,237	9,178	8,173		15	13	10		254,227	231,685	148,621		38	2,009,205
Retailer Co-op	Items	0	0	0		0	0	0		0	0	0		0	0
Residential Demand Response	Devices	0	869	3,324		0	450	1,883		0	3,263	1,485		0	4,749
Residential Demand Response (IHD)	Devices	0	867	3,303		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						378	706	2,145		1,255,835	723,233	687,748		894	8,559,321
Business Program															
Retrofit	Projects	10	32	48		142	245	279		824,817	1,456,233	1,648,280		665	10,964,236
Direct Install Lighting	Projects	17	10	48		22	12	37		43,922	46,962	129,289		67	561,559
Building Commissioning	Buildings	0	0	0		0	0	0		0	0	0		0	0
New Construction	Buildings	0	0	0		0	0	0		0	0	0		0	0
Energy Audit	Audits	0	0	0		0	0	0		0	0	0		0	0
Small Commercial Demand Response	Devices	0	0	0		0	0	0		0	0	0		0	0
Small Commercial Demand Response (IHD)	Devices	0	0	0		0	0	0		0	0	0		0	0
Demand Response 3	Facilities	1	1	1		108	109	110		4,235	1,581	1,473		0	7,289
Business Program Total						272	365	426		872,973	1,504,776	1,779,042		732	11,533,084
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	10	0	0		59	0	0		364,108	0	0		59	1,456,432
Demand Response 3	Facilities	2	2	2		237	440	494		13,901	10,604	11,248		0	35,752
Industrial Program Total						295	440	494		378,009	10,604	11,248		59	1,492,184
Home Assistance Program															
Home Assistance Program	Homes	0	0	177		0	0	5		0	0	66,033		5	132,026
Home Assistance Program Total						0	0	5		0	0	66,033		5	132,026
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

Table 1: Whitby Hydro Electric Corporation Initiative and Program Level Net Savings by Year (Scenario 1)															
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
Pre-2011 Programs completed in 2011															
Electricity Retrofit Incentive Program	Projects	14	0	0		90	0	0		499,572	0	0		90	1,998,289
High Performance New Construction	Projects	2	0	0		8	1	0		38,721	947	0		9	157,723
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						98	1	0		538,293	947	0		99	2,156,012
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			-36,367	0		-36	-145,468
Adjustments to 2012 Verified Results								94				660,365		94	1,981,096
Energy Efficiency Total						698	513	582		3,026,974	2,224,112	2,529,865		1,789	23,824,838
Demand Response Total (Scenario 1)						345	999	2,488		18,135	15,448	14,206		0	47,790
Adjustments to Previous Years' Verified Results Total						0	-36	94		0	-36,367	660,365		58	1,835,628
OPA-Contracted LDC Portfolio Total (inc. Adjustments)						1,043	1,476	3,164		3,045,110	2,203,193	3,204,436		1,847	25,708,255
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:		10,900	39,070,000
												% of Full OEB Target Achieved to Date (Scenario 1):		16.9%	65.8%
*Includes adjustments after Final Reports were issued		Energy Manager, Aboriginal Program and Program Enabled Savings were not independently evaluated													

Table 2: Summarized Program Results

Program	Gross Savings		Net Savings		Contribution to Targets	
	Incremental Peak Demand Savings (MW)	Incremental Energy Savings (GWh)	Incremental Peak Demand Savings (MW)	Incremental Energy Savings (GWh)	Program-to-Date: Net Annual Peak Demand Savings (MW) in 2014	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (GWh)
Consumer Program Total	2.406	1.190	2.145	0.689	0.894	8.559
Business Program Total	0.504	2.195	0.426	1.779	0.732	11.533
Industrial Program Total	0.494	0.011	0.494	0.011	0.059	1.492
Home Assistance Program Total	0.005	0.066	0.005	0.066	0.005	0.132
Pre-2011 Programs completed in 2011 Total	0.000	0.000	0.000	0.000	0.099	2.156
Other Adjustments	0.150	1.029	0.094	0.660	0.058	1.836
Total OPA Contracted Province-Wide CDM	3.559	4.491	3.164	3.204	1.847	25.708

3.2 Evaluation

EM&V was completed by the OPA. The formal findings – the OPA EM&V Report – have not been made available from the OPA at the time of this filing. The results/findings below provide a summary of the 2013 EM&V findings for all of the evaluated saveONenergy initiatives.

CONSUMER INITIATIVES

Appliance Retirement

High Level Key Evaluation Findings

- Overall participation continues to fall 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.
- 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 NAECA was implemented. Dehumidifiers also show a higher per unit savings related to the change in ENERGY STAR definitions.
- Net to gross ration stayed constant at around 43% between 2012 and 2013

Appliance Exchange

High Level Key Evaluation Findings

- 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 ration (NTG) was 52.6% which is a slight increase of the 2012 NTG of 51.5%

HVAC

High Level Key Evaluation Findings

- 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
- Total participation (equipment) increased 7.5% from 2012 to 91,581

Annual Coupons

High Level Key Evaluation Findings
<ul style="list-style-type: none">• 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

High Level Key Evaluation Findings
<ul style="list-style-type: none">• 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.• 19% increase in the number of coupons redeemed during the Spring and Fall Events in 2013 compared to 2012 of substantial increase in LED purchases with event coupons• 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

RDR

High Level Key Evaluation Findings
<ul style="list-style-type: none">• 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• This year's IHD analysis has yielded an estimate of no statistically significant energy savings.• 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

Residential New Construction

High Level Key Evaluation Findings
<ul style="list-style-type: none">• 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.
- 100% of participants found application process reasonable and understandable

BUSINESS INITIATIVES

Retrofit

High Level Key Evaluation Findings

- 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

High Level Key Evaluation Findings

- In 2013 OPA introduced: a) an increase in the incentive to \$1500 from \$1000, b) new LED measures c) agribusiness eligibility
- 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 and 2013
- Net to Gross ratio (NTG) for 2013 remained unchanged at 94%

Audit Funding

High Level Key Evaluation Findings

- 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

High Level Key Evaluation Findings

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

HPNC

High Level Key Evaluation Findings

- 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 ration for the initiative was higher by 5% from 49% in 2012 to 54% in 2013

- 100% participants found the application process to be reasonable and understandable

INDUSTRIAL INITIATIVES

Process System Upgrade Initiative

High Level Key Evaluation Findings

- 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

DEMAND RESPONSE

DR-3

High Level Key Evaluation Findings

- 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

HOME ASSISTANCE

Home Assistance Program

High Level Key Evaluation Findings

- 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 researched installation verification and persistence factors
- Realization rate for demand savings remained low as FAST 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)

3.3 Spending

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

Table 3: 2013 Spending

Initiative	PAB	PBF	PI	CBF	TOTAL
Consumer Program					
Appliance Retirement	\$35,700	\$0	\$0	\$0	\$35,700
Appliance Exchange	\$3,656	\$0	\$0	\$0	\$3,656
HVAC Incentives	\$38,108	\$0	\$0	\$0	\$38,108
Annual Coupons	\$10,002	\$0	\$0	\$0	\$10,002
Bi-Annual Retailer Event	\$11,803	\$0	\$0	\$0	\$11,803
Retailer Co-op	N/A	N/A	N/A	N/A	N/A
Residential Demand Response	\$212,284	\$1,028,606	\$0	\$0	\$1,240,890
New Construction Program	\$8,750	\$0	\$0	\$0	\$8,750
Business Program					
Equipment Replacement	\$181,900	\$0	\$396,001	\$0	\$577,901
Direct Installed Lighting	\$17,734	\$68,067	\$0	\$0	\$85,801
Existing Building Commissioning Incentive	\$5,545	\$0	\$0	\$0	\$5,545
New Construction and Major Renovation Initiative	\$6,257	\$0	\$0	\$0	\$6,257
Energy Audit	\$9,454	\$0	\$0	\$0	\$9,454
Small Commercial Demand Response	\$1,600	\$0	\$0	\$0	\$1,600
Demand Response 3	\$5,547	\$0	\$0	\$0	\$5,547
Industrial Program					
Process & System Upgrades					
a) preliminary engineering study	\$8,517	\$0	\$10,000	\$0	\$18,517
b) detailed engineering study	\$0	\$0	\$0	\$0	\$0
c) program incentive	\$0	\$0	\$0	\$0	\$0
Monitoring & Targeting	\$2,000	\$0	\$37,500	\$0	\$39,500
Energy Manager	\$6,650	\$0	\$0	\$0	\$6,650
Key Account Manager ("KAM")	\$1,200	\$0	\$0	\$0	\$1,200
Equipment Replacement	\$6,200	\$0	\$0	\$0	\$6,200
Demand Response 3	\$6,000	\$0	\$0	\$0	\$6,000
Home Assistance Program					
Home Assistance Program	\$16,955	\$54,563	\$0	\$0	\$71,518
TOTAL SPENDING	\$595,862	\$1,151,236	\$443,501	\$0	\$2,190,599

Table 4: Cumulative Spending (2011-2014)

Initiative	PAB	PBI	PI	CBF	TOTAL
Consumer Program					
Appliance Retirement	\$84,954	\$0	\$0	\$0	\$84,954
Appliance Exchange	\$31,627	\$0	\$0	\$0	\$31,627
HVAC Incentives	\$85,964	\$0	\$0	\$0	\$85,964
Annual Coupons	\$56,009	\$0	\$0	\$0	\$56,009
Bi-Annual Retailer Event	\$49,407	\$0	\$0	\$0	\$49,407
Retailer Co-op	N/A	N/A	N/A	N/A	N/A
Residential Demand Response	\$363,789	\$1,028,606	\$0	\$0	\$1,392,395
New Construction Program	\$40,965	\$0	\$0	\$0	\$40,965
Business Program					
Equipment Replacement	\$298,898	\$0	\$628,081	\$0	\$926,979
Direct Installed Lighting	\$59,988	\$70,517	\$0	\$0	\$130,505
Existing Building Commissioning Incentive	\$12,655	\$0	\$0	\$0	\$12,655
New Construction and Major Renovation Initiative	\$21,804	\$0	\$0	\$0	\$21,804
Energy Audit	\$19,471	\$0	\$0	\$0	\$19,471
Small Commercial Demand Response	\$1,600	\$0	\$0	\$0	\$1,600
Demand Response 3	\$14,649	\$0	\$0	\$0	\$14,649
Industrial Program					
Process & System Upgrades					
a) preliminary engineering study	\$13,467	\$0	\$10,000	\$0	\$23,467
b) detailed engineering study	\$546	\$0	\$0	\$0	\$546
c) program incentive	\$0	\$0	\$0	\$0	\$0
Monitoring & Targeting	\$7,408	\$0	\$37,500	\$0	\$44,908
Energy Manager	\$8,251	\$0	\$0	\$0	\$8,251
Key Account Manager ("KAM")	\$1,823	\$0	\$0	\$0	\$1,823
Equipment Replacement Incentive	\$39,787	\$0	\$0	\$0	\$39,787
Demand Response 3	\$9,457	\$0	\$0	\$0	\$9,457
Home Assistance Program					
Home Assistance Program	\$28,398	\$54,563	\$0	\$0	\$82,961
Pre 2011 Programs					
Electricity Retrofit Incentive Program	\$6,111	\$13,598	\$292,417	\$0	\$312,126
High Performance New Construction	\$0	\$0	\$0	\$0	\$0
Toronto Comprehensive	\$0	\$0	\$0	\$0	\$0
Multifamily Energy Efficiency Rebates	\$0	\$0	\$0	\$0	\$0
Data Centre Incentive Program	\$0	\$0	\$0	\$0	\$0
EnWin Green Suites	\$0	\$0	\$0	\$0	\$0

Initiative	PAB	PBI	PI	CBF	TOTAL
Initiatives Not In Market					
Midstream Electronics	N/A	N/A	N/A	N/A	N/A
Midstream Pool Equipment	N/A	N/A	N/A	N/A	N/A
Demand Service Space Cooling	N/A	N/A	N/A	N/A	N/A
Demand Response 1	N/A	N/A	N/A	N/A	N/A
Home Energy Audit Tool	N/A	N/A	N/A	N/A	N/A
TOTAL SPENDING	\$1,257,028	\$1,235,351	\$1,363,999	\$0	\$3,392,310

3.4 Additional Comments

Whitby Hydro is proud of the success realized through the *peaksaver* PLUS® program throughout 2013 and has demonstrated its ability to integrate efficient CDM program delivery with effective community outreach and engagement to create a culture of conservation in its service territory.

A stable support framework required to deliver efficient and effective CDM programming is a necessary component of the entire conservation endeavor. Whitby Hydro understands that although many facets of CDM programming are outside of its direct control, LDC's are well positioned to not only acquire the necessary support, but to request and recommend improvements to various administrative processes. As mentioned in the previous Report submission, Whitby Hydro feels that a key OPA account contact for an LDC or grouping of LDC's would be a welcome addition.

Many LDC's (including Whitby Hydro) have some concerns regarding the ability to successfully achieve CDM Targets. The long-term future and success of CDM and the attainment of targets requires quickly evolving and responsive programs and mechanisms; as well as the acknowledgement that certain programs have become saturated and more efficient and affordable technologies must be considered as viable options. LDC's have previously voiced concerns over long-term funding, program design and whether there will come a time when funding in this area is reduced as the focus shifts more heavily to enabling and educational efforts, and the requirement of efficient standards for new equipment, products, buildings etc. to continue CDM savings.

Whitby Hydro believes that the existing reporting timeline has not facilitated timely understanding of energy savings and progression towards targets. Delays in the timing of reports released limit the ability to understand the effectiveness of delivery strategies and provide for timely analysis of results. Detailed reporting (on a quarterly basis, in Excel format) is an important component, and should have been made available at the same time as the summary reports were released in order to allow LDC's to better understand and ensure accuracy of program activity and results as well as prepare program activity and savings forecasts.

Whitby Hydro has embraced the CDM role in its service area, and has demonstrated its desire to do so using collaborative efforts and efficiencies throughout the tenure of the 2011-2014 CDM framework. Whitby Hydro appreciates any efforts that can be made to streamline processes which are outside of its direct control so that resource efforts and funding can be used to achieve maximum results towards the end of 2014 and into the new framework.

4 Combined CDM Reporting Elements

4.1 Progress Towards CDM Targets

Whitby Hydro's 2013 Net Peak Demand Savings and Net Cumulative Energy Savings are summarized in Tables 5 and 6 below. These Tables indicate that Whitby Hydro has made progress and improvements over the prior year; however it is falling short of the required savings to position itself to reach the 2014 targets. Progress towards Whitby Hydro's demand savings target has sharply increased its trajectory largely due to the successful implementation of the *peaksaver* PLUS[®] program. The final Incremental Net Annual Peak Demand Savings totalled 3.2 MW and Net Cumulative Energy Savings of 3.2 GWh.

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

Implementation Period	Annual (MW)			
	2011	2012	2013	2014
2011 – Verified by OPA	1.0	0.7	0.7	0.7
2012 – Verified by OPA		1.5	0.5	0.5
2013 – Verified by OPA			3.2	0.7
2014				
Verified Net Annual Peak Demand Savings in 2014:				1.8
Whitby Hydro 2014 Annual CDM Capacity Target:				10.9
Verified Portion of Peak Demand Savings Target Achieved (%):				16.9%

As per the OPA reporting methodology, the above result for the portion of demand target achieved against the 2014 demand target do not include any potential contribution from customers participating in either the residential or commercial/industrial Demand Response (DR) programs in 2013. This is due to the assumption that the persistence of customers enrolled in DR programs is only 1 year. In order for DR results to be included as a contribution towards the 2014 target, customers must be confirmed as enrolled in the programs in 2014.

When the incremental DR demand savings are factored into the 2014 demand results, (i.e., assume the DR resources remain in Whitby Hydro's service territory until 2014) the potential achievement against 2014 target is increased to approximately 39.8%. Whitby Hydro believes that the DR3 resources will remain under contract and continue as participants in 2014.

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

Implementation Period	Annual (GWh)				Cumulative (GWh)
	2011	2012	2013	2014	2011-2014
2011 – Verified by OPA	3.0	3.0	3.0	3.0	12.1
2012 – Verified by OPA		2.2	2.2	2.2	6.5
2013 – Verified by OPA		0.7	3.2	3.2	7.0
2014					
Verified Net Cumulative Energy Savings 2011-2014:					25.7
Whitby Hydro 2011-2014 Cumulative CDM Energy Target:					39.1
Verified Portion of Cumulative Energy Target Achieved (%):					65.8%

4.2 Variance from Strategy

Whitby Hydro’s CDM Strategy, as submitted on Nov. 1, 2010, was largely developed using the Resource Planning Tool provided by the OPA. The Tool forecasted based on a set percentage of the provincial forecast for each initiative. Whitby Hydro was provided with the total provincial forecasted estimate for Consumer participants (4,555,020) and was instructed to divide that number by the then current number of residential customers in Whitby (36,762), which created a value (0.0081) that would be inputted into each table and multiplied by the provincial forecast to determine the number of participants for each initiative. The Tool then calculated the estimated savings for each initiative based on the number of participants that had been forecasted for each initiative.

It is important to reiterate that the resource planning results were not a calculation in relation to Whitby Hydro’s targets, but rather provided a snapshot of a forecasted scenario. Whitby Hydro’s CDM Strategy did not foresee the real delays associated with the new programs in 2011, as well as further delays to market in 2012 (i.e., *peaksaver* PLUS®, Home Assistance Program), and the absence of information to understand the TOU billing impacts.

The figures below represent the progression to-date towards the 2014 target as compared to the originally projected milestone achievement to-date as per Whitby Hydro’s CDM Strategy submission.

	2014			2014 Strategy			% Achievement Variance
	Actuals To-Date	Target	%	Milestone To-Date	Final Milestone	%	
Net Peak Demand Savings (MW)	1.8	10.9	16.9%	6.8	9.2	73.9%	-57.0%
Cumulative Net Energy Savings	25.7	39.0	65.8%	26.0	43.6	59.6%	6.2%

Due to a variety of factors explained previously and repeated below, the 2013 success of the *peaksaver* PLUS® program has not adequately offset the variance identified in 2012 reporting as anticipated. In addition, other programs (as currently defined) appear to be reaching saturation points, while others have simply lagged or not generated customer interest and uptake due to a number of factors outlined in the program section of this report.

Although 2013 performance increased as compared to the prior year, this achievement was unable to overcome previous shortfalls and put Whitby Hydro back on course to reach the milestone as per its CDM Strategy, nor to track effectively towards the 2014 demand target.

Whitby Hydro has made some good progress in 2013 and was close to meeting its CDM Strategy Milestone of 26 GWh. The overall results were also bolstered by the inclusion of Incremental Energy Savings resulting from Pre-2011 Programs (ERIP) completed in 2011 and 2012 which represent approximately 8.4% of the verified cumulative energy savings for 2011-2014. While there were some program performance reductions in 2013 due to market saturation (appliance retirement and bi-annual retailer event) these were offset by increased retrofit activity and a favourable adjustment to 2012 verified results. Despite the savings gains realized in 2013, the positive variance calculated above for Net Energy Savings, of 6.2%, has decreased from the variance reported in 2012. While the variance is still favourable, Whitby Hydro expects to continue to lose some ground as a result of program saturation, the impact of 2011-2012 program delays and the lack of front-loaded savings activity which will be difficult to recover from and are expected to put the 2014 target achievement at risk.

4.3 Outlook to 2014 and Strategy Modifications

Despite the anticipated shortfall towards its energy and demand targets, Whitby Hydro continues to track steady incremental energy and demand savings in 2014.

Whitby Hydro continues its efforts in closing the anticipated shortfall through ongoing program promotion, customer engagement and continuing to work with the OPA and other LDC's to improve effectiveness of current OPA CDM programs. Applying customer segmentation to generate more customer participation has resulted in seventy-five Retrofit program applications received as of Q3, 2014 (versus forty-eight received in all of 2013), and we continue to see registration in the *peaksaver* PLUS® program as a result of continued focus and promotion.

Whitby Hydro understands that *peaksaver* PLUS® is the only residential initiative really actively engaging its residential customers. Discussions have focused on building upon the success of this residential DR program and in the future, effectively transitioning from a demand response program to an energy savings based home audit program.

The impact of savings related to TOU still remains unknown at this time and will further improve the results however, it is difficult to know if the extrapolated savings will be significant or if they will be fully representative of the actual savings in the service territory.

5 Conclusion

During the course of 2013, Whitby Hydro has achieved 3.2 MW in incremental peak demand savings and 3.2 GWh in incremental energy savings. The cumulative demand and energy related 2014 savings represent 16.9% and 65.8% of Whitby Hydro's 2014 target, respectively. These results are representative of a considerable effort expended by Whitby Hydro, in cooperation with other LDC's, customers, channel partners and stakeholders to overcome many operational and structural issues that limited program effectiveness across all market sectors. This achievement is a success and the relationships built within the 2011-2014 CDM program term will aid results in a subsequent CDM term.

However, despite continuing improvements to existing programs Whitby Hydro continues to face challenges in the remaining year of the current CDM framework. As Whitby Hydro continues to persevere into Q4 2014, and the new 2015-2020 CDM framework ahead, Whitby Hydro does not expect to meet its 39.07 GWh energy savings target and also anticipates a shortfall to meet its 10.9 MW peak demand savings target.

Looking ahead there is limited opportunity to make valuable changes to the current program portfolios and have these changes reflected in Whitby Hydro's 2014 results. However, Whitby Hydro along with other LDC's and the OPA can build on the strengths and key successes of the 2011-2014 programs to launch new programs for the 2015-2020 framework which will meet the needs of the industry and consumers.

Appendix A: Initiative Descriptions

Residential Program

APPLIANCE RETIREMENT INITIATIVE (Exhibit D)

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

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

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

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

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

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

In Market date: March 3, 2011

APPLIANCE EXCHANGE INITIATIVE (Exhibit E)

Target Customer Type(s): Residential Customers

Initiative Frequency: Spring and Fall

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

Description: This Initiative involves appliance exchange events. Exchange events are held at local retail locations and customers are encouraged to bring in their old room air conditioners (AC) and dehumidifiers in exchange for coupons/discounts towards the purchase of new energy efficient equipment. Window AC's were discontinued from the program in 2013.

Targeted End Uses: Window air conditioners and portable dehumidifiers

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

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

In Market date: May 2, 2011

HVAC INCENTIVES INITIATIVE (Exhibit B)

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

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

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

Targeted End Uses: Central air conditioners and furnaces

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

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

In Market date: March 3, 2011

CONSERVATION INSTANT COUPON INITIATIVE (Exhibit A)

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

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

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

Targeted End Uses: ENERGY STAR® qualified Standard Compact Fluorescent Lights ("CFL's"), 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 LDC's. The OPA enters into agreements with retailers to honor the coupons.

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

In Market date: February 21, 2011

BI-ANNUAL RETAILER EVENT INITIATIVE (Exhibit C)

Target Customer Type(s): Residential Customers

Initiative Frequency: Bi-annual events

Objective: The objective of this Initiative is to provide instant point of purchase discounts to individuals at participating retailers for a variety of energy efficient products.

Description: Twice a year (Spring and Fall), participating retailers host month-long rebate events. During the months of April and October, customers are encouraged to visit participating retailers where they can find coupons redeemable for instant rebates towards a variety of low cost, easy to install energy efficient measures.

Targeted End Uses: As per the Conservation Instant Coupon Initiative

Delivery: The OPA enters into arrangements with participating retailers to promote the discounted products, and to post and honor related coupons. LDC's also refer retailers to the OPA and market this initiative locally.

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

In Market date: April 1, 2011

RETAILER CO-OP

Target Customer Type(s): Residential Customers

Initiative Frequency: Year Round

Objective: Hold promotional events to encourage customers to purchase energy efficiency measures (and go above-and-beyond the traditional Bi-Annual Coupon Events).

Description: The Retailer Co-op Initiative provides LDC's with the opportunity to work with retailers in their service area by holding special events at retail locations. These events are typically special promotions that encourage customers to purchase energy efficiency measures (and go above-and-beyond the traditional Bi-Annual Coupon Events).

Targeted End Uses: As per the Conservation Instant Coupon Initiative

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

In Market date: N/A

NEW CONSTRUCTION PROGRAM (Schedule B-2)

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

Objective: The objective of this Initiative is to provide incentives to participants for the purpose of promoting the construction of energy efficient residential homes in the Province of Ontario.

Description: This is an energy efficiency Initiative that provides incentives to homebuilders for constructing new homes that are efficient, smart, and integrated (applicable to new single family dwellings). Incentives are provided in two key categories as follows:

- Incentives for homebuilders who install electricity efficiency measures as determined by a prescriptive list or via a custom option.
- Incentives for homebuilders who meet or exceed aggressive efficiency standards using the EnerGuide performance rating system.

Targeted End Uses: All off switch, ECM motors, ENERGY STAR® qualified central a/c, lighting control products, lighting fixtures, EnerGuide 83 whole home, EnerGuide 85 whole homes

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

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

In Market date: March 15, 2011

RESIDENTIAL DEMAND RESPONSE PROGRAM (Schedule B-3)

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

Initiative Frequency: Year round

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

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

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

Delivery: LDC's recruit customers and procure technology

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

In Market date: October 1, 2012

C&I Program

EFFICIENCY: EQUIPMENT REPLACEMENT INCENTIVE (ERII) (Schedule C-2)

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

Initiative Frequency: Year round

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

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

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

Delivery: LDC delivered.

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

In Market date: March 3, 2011

DIRECT INSTALL INITIATIVE (DIL) (Schedule C-3)

Target Customer Type(s): Small Commercial, Institutional, Agricultural facilities and multi-family buildings

Initiative Frequency: Year round

Objective: The objective of this Initiative is to offer a free installation of eligible lighting and water heating measures of up to \$1,000 to eligible owners and tenants of small commercial, institutional and agricultural facilities and multi-family buildings, for the purpose of achieving electricity and peak demand savings.

Description: The Direct Installed Lighting Initiative targets customers in the General Service <50kW account category. This Initiative offers turnkey lighting and electric hot water heater measures with a value up to \$1,000 at no cost to qualifying small businesses. In addition, standard prescriptive incentives are available for eligible equipment beyond the initial \$1,000 limit.

Target End Uses: Lighting and electric water heating measures

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

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

In Market date: March 3, 2011

EXISTING BUILDING COMMISSIONING INCENTIVE INITIATIVE (Schedule C-6)

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

Initiative Frequency: Year round

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

Description: This Initiative offers Participants incentives for the following:

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

Targeted End Uses: Chilled water systems for space cooling

Delivery: LDC delivered.

Additional Detail: Schedule C-6 on the OPA extranet and saveONenergy website

In Market date: March 3, 2011

NEW CONSTRUCTION AND MAJOR RENOVATION INITIATIVE (HPNC) (Schedule C-4)

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

Initiative Frequency: Year round

Objective: The objective of this Initiative is to encourage builders/major renovators of commercial, institutional, and industrial buildings (including multi-family buildings and agricultural facilities) to reduce electricity demand and/or consumption by designing and building new buildings with more energy-efficient equipment and systems for lighting, space cooling, ventilation and other Measures.

Description: The New Construction initiative provides incentives for new buildings to exceed existing codes and standards for energy efficiency. The initiative uses both a prescriptive and custom approach.

Targeted End Uses: New building construction, building modeling, lighting, space cooling, ventilation and other Measures

Delivery: LDC delivers to customers and design decision makers.

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

In Market date: December 15, 2011

ENERGY AUDIT INITIATIVE (Schedule C-1)

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

Initiative Frequency: Year round

Objective: The objective of this Initiative is to offer incentives to owners and lessees of commercial, institutional, multi-family buildings and agricultural facilities for the purpose of undertaking assessments to identify all possible opportunities to reduce electricity demand and consumption within their buildings or premises.

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

Targeted End Uses: Various

Delivery: LDC delivered.

Additional Detail: Schedule C-1 on the OPA extranet Schedule C-1 and saveONenergy website
<https://saveonenergy.ca/Business/Program-Overviews/Audit-Funding.aspx>

In Market date: March 3, 2011

Industrial Program

PROCESS & SYSTEMS UPGRADES INITIATIVE (PSUI) (Schedule D-1)

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

Initiative Frequency: Year round

Objectives: The objectives of this Initiative are to:

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

- Increase the capability of distribution customers to implement energy management and system optimization projects.

Description: PSUI is an energy management Initiative that includes three Initiatives: (preliminary engineering study, detailed engineering study, and project incentive Initiative). The incentives are available to large distribution connected customers with projects or portfolio projects that are expected to generate at least 350 MWh of annualized electricity savings or, in the case of Micro-Projects, 100 MWh of annualized electricity savings. The capital incentive for this Initiative is the lowest of:

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

Targeted End Uses: Process and systems

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

Additional Detail: Schedule D-1 on the OPA extranet and saveONenergy website
<https://saveonenergy.ca/Business.aspx>

In Market date: May 31, 2011

MONITORING & TARGETING INITIATIVE (Schedule D-2)

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

Initiative Frequency: Year round

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

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

Targeted End Uses: Process and systems

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

Additional Detail: Schedule D-2 on the OPA extranet and saveONenergy website
<https://saveonenergy.ca/Business.aspx>

In Market date: May 31, 2011

ENERGY MANAGER INITIATIVE (Schedule D-3)

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

Initiative Frequency: Year round

Objective: The objective of this initiative is to provide customers and LDC's 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. LDC's receive funding of up to \$120,000 for a Roving Energy Manager plus \$8,000 for expenses.

Targeted End Uses: Process and systems

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

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

In Market date: May 31, 2011

KEY ACCOUNT MANAGER (KAM) (Schedule D-4)

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

Initiative Frequency: Year round

Objective: This initiative offers LDC's 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 LDC's the opportunity to utilize a KAM to assist their customers. The KAM is considered to be a key element in assisting the consumer in overcoming traditional barriers related to energy management and help them achieve savings since the KAM can build relationships and become a significant resource of knowledge to the customer.

Targeted End Uses: Process and systems

Delivery: LDC delivered

Additional Detail: Scheduled-4 on the OPA extranet.

In Market date: May 31, 2011

DEMAND RESPONSE 3 (Schedule D-6)

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

Initiative Frequency: Year round

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

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

Targeted End Uses: Commercial and Industrial Operations

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

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

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

In Market date: 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) (Schedule E-1)

Target Customer Type(s): Income Qualified Residential Customers

Initiative Frequency: Year Round

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

Description: This is a turnkey Initiative for income qualified customers. It offers residents the opportunity to take advantage of free installation of energy efficient measures that improve the comfort of their home, increase efficiency, and help them save money. All eligible customers receive a Basic and Extended Measures Audit, while

customers with electric heat also receive a Weatherization Audit. The Initiative is designed to coordinate efforts with gas utilities.

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

Delivery: LDC delivered.

Additional Detail: Schedule E available on the OPA extranet.

In Market date: September 30, 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

In Market Date: January 2007

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)

In Market Date: N/A – Initiative delivered and Manager by Enbridge

MULTIFAMILY ENERGY EFFICIENCY REBATES

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

Initiative Frequency: Year round

Objective: Improve energy efficiency of Multi-unit building

Description: OPA's Multifamily Energy Efficiency Rebates (MEER) Initiative applies to multifamily buildings of six units or more, including rental buildings, condominiums, and assisted social housing. The OPA contracted with GreenSaver to deliver the MEER Initiative outside of the Toronto Hydro service territory. Activities delivered in Toronto were contracted with the City.

Similar to ERII and ERIP, MEER provides financial incentives for prescriptive and custom measures, but also funds resident education. Unlike ERII, where incentives are paid by the LDC, all incentives through MEER are paid through the contracted partner (i.e. GreenSaver).

Targeted End Uses: Electricity saving measures

Delivery: OPA contracted with Greensaver

In Market Date: October 15, 2010