



September 30, 2012

**BY EMAIL/RESS**

Ms. Kirsten Walli  
Board Secretary  
Ontario Energy Board  
P.O. Box 2319  
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Toronto, ON  
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Dear Ms. Walli,

**RE: Whitby Hydro Electric Corporation  
Conservation and Demand Management (CDM) – 2012 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 2012 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*

John Sanderson  
President & C.E.O.

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# **Whitby Hydro Electric Corporation**

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## **Conservation and Demand Management 2012 Annual Report**

**Submitted to:  
Ontario Energy Board**

**Submitted on September 30, 2013**

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## 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, 2012 to December 31, 2012. It includes net peak demand and net energy savings achieved from 2011 and 2012, 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 2012; 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 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 program execution over the next three years of the program term, including staffing, procurement, and program delivery.

### Program Delivery

Whitby Hydro continued with its program delivery plan which included a focus on reinforcing the relationships with political, institutional and organizational partners (i.e., regional municipality, municipality, school boards, Chamber of Commerce, etc.) and maintaining a strong presence in the residential community in order to continue progress towards Whitby Hydro's energy and demand savings targets. Whitby Hydro (a founding partner of Durham Partners in Project Green) continued its collaborative work within this regionally based organization to offer services, educational information and events for businesses looking to improve their financial and environmental performance. This partnership enables greater understanding and participation in C&I CDM program offerings.

The marketing plan in 2012 incorporated various efforts, including print media; visual media; radio; social networking and web applications; seminars; community events and workshops, to continue to build on 2011 program development. The marketing was designed to effectively leverage off of OPA provincial marketing efforts and further promote the portfolio of CDM initiatives and target specific customer groups. Specific attention was given to generating interest in the Peaksaver PLUS program which was anticipated to be a key residential focused program in Whitby.

The role of the CDM Program Manager continued as the main point of contact with business customers and many residential customers, effectively supplementing the role of other key service partners. In addition to the CDM Program Manager, Whitby Hydro's conservation team comprised of three students in 2012. The students cross-promoted programs over the spring and summer months and were important in the soft-launch of the PeaksaverPLUS program in the community. The conservation team was able to provide essential feedback on the effectiveness of program delivery and uptake.

## 2012 Program Update

### Residential Programs

The highlight of the residential programs in 2012, was the promising interest and initial uptake in the Peaksaver PLUS program. Whitby Hydro did not offer the previous Peak Saver program in its service territory and appropriately made decisions to wait for a meter-based solution and address In Home Display unit communication issues with installed smart meter technology before marketing this program to customers. With due diligence completed early in 2012 and delivery partners in place by the end of September, Whitby Hydro started to see the early potential of this program during the fourth quarter. Strong continued interest and participation has followed into 2013.

While HVAC Incentives and Bi-Annual Retailer Events reported steady participation numbers, the resulting energy and demand savings have shown noticeable declines from 2011 due to lower net-to-gross savings. The appliance retirement/exchange program results are also reduced from prior year in large part due to the market's saturation of current eligible appliances. Uptake of Conservation Coupon Booklets and the resulting savings dropped by over 90% from prior year due in large part to a delay in the availability of, and shift to on-line coupons which affected all LDCs.

### Business and Industrial Programs

The Retrofit Program continues to be the primary driver of savings results largely due to strong relationship building and partnering with local businesses. Whitby Hydro worked with the Town of Whitby on sponsoring a "SaveONenergy Arena 5" at the Iroquois Park Sports Complex. The ensuing lighting retrofit bolstered the value of the retrofit program in Whitby Hydro's service territory and acted as a showcase for the suite of residential and commercial programs. Partnering relationships with neighbouring LDCs, the municipality and Durham Partner's in Project Green have been key to the program's success to-date.

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) has led to diminished potential for 2011-2014 in Whitby. While efforts have been made, Whitby Hydro has not been able to find collaborative flexible options with sufficient mutual benefits to support programs that are more structured towards single customers who are larger in size than those residing in Whitby. Several programs have lengthy development, application and completion stages which require considerable effort and uncertainty of success. Whitby Hydro continues to work with one of its largest customers on a Process & System Upgrades and Monitoring & Targeting application and anticipates that this will be successfully completed by the end of 2014.

### Home Assistance

The Home Assistance program found its footing after coming into market in late 2012. Whitby Hydro is working collaboratively and will jointly promote this program along with other Low Income Energy Assistance Program (LEAP) offerings.

Summary of Saving Results

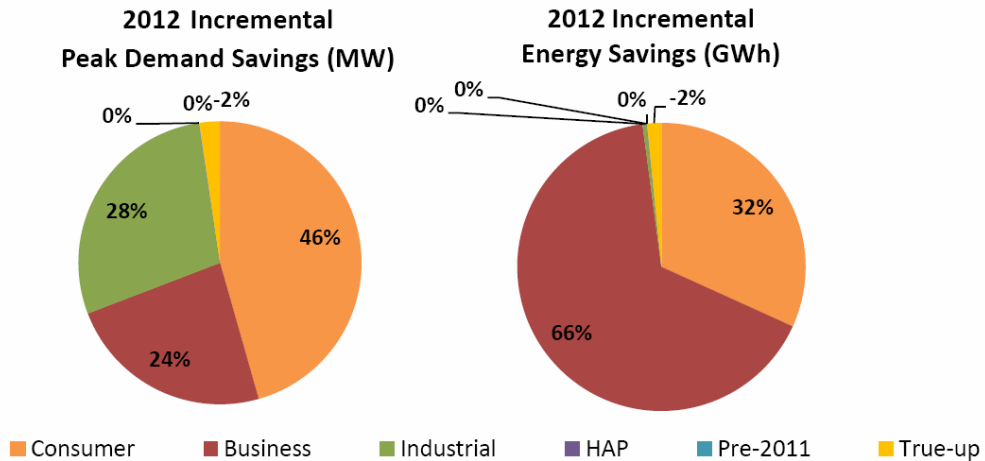
Whitby Hydro has achieved 1.5 MW of net incremental peak demand savings and 2.2 GWh of net incremental energy savings in 2012. A summary of the achievements towards the CDM targets is shown below:

**OPA-Contracted Province-Wide CDM Programs FINAL 2012 Results**

FINAL 2012 Progress to Targets	2012 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)	1.5	1.2	10.7%	19.9%
Net Energy Savings (GWh)	2.2	18.7	47.7%	47.8%

Scenario 1 = Assumes that demand resource resources have a persistence of 1 year  
 Scenario 2 = Assumes that demand response resources remain in your territory until 2014

**Achievement by Sector**

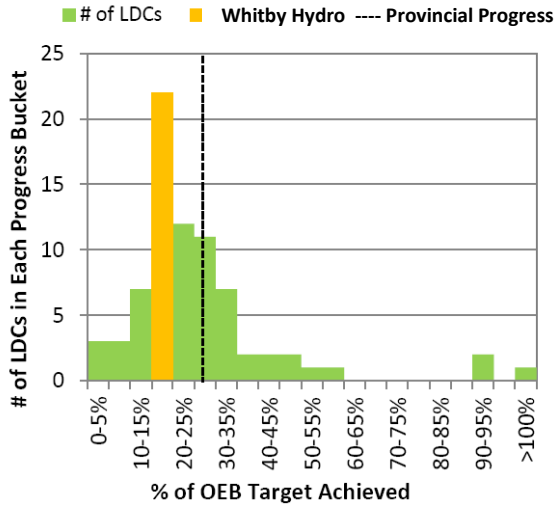


Whitby Hydro has made significant progress towards energy savings and remains optimistic that it will achieve its 2014 target. Although there is currently a demand savings shortfall, Whitby Hydro continues to work actively on participant engagement and expects to see improvements as the Peak Saver PLUS program gathers momentum in 2013 and 2014. In addition, Time-Of-Use (TOU) impacts are as yet unknown. In addition Whitby Hydro has partnered with other LDCs, and has been working with the Ontario Power Authority (“OPA”) and the Electrical Distribution Association (“EDA”) to improve program effectiveness. While further progress towards the 2014 demand target is expected, it appears that with the progress to-date, current program offerings and limited remaining timeline, Whitby Hydro will fall short of its 2014 demand target. As highlighted in the charts below, it is apparent that other LDCs are encountering similar challenges in making significant progress towards their demand targets.

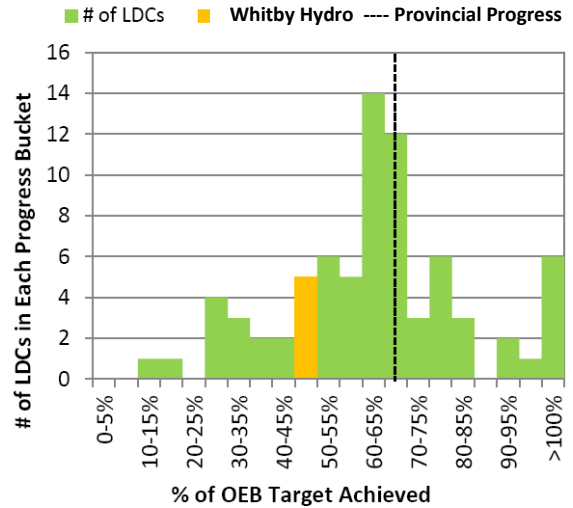
**Comparison: Whitby Hydro Achievement vs. LDC Community Achievement (Progress to Target)**

The following graphs assume that demand response resources remain in Whitby Hydro's territory until 2014 (aligns with Scenario 2)

**% of OEB Peak Demand Savings Target Achieved**



**% of OEB Energy Savings Target Achieved**





## 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 of 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 second Annual Report by Whitby Hydro and has been prepared in accordance with the Code requirement and covers the period from January 1, 2012 to December 31, 2012.

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.

# 1 Conservation Framework

## 1.1 Current Framework

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

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

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

The Ministerial Directive provides continuity of the conservation programs and associated compensation for the participants; however the subsequent savings would not be attributed to any LDC target and in effect would be 'lost' due to misalignment of the current CDM framework and LDC Targets. In addition, the establishment of defined administrative funding for 2015 is required to avoid a "stop and start" process.

## 1.2 Future Framework

Whitby Hydro is supportive of the government's renewed commitment for conservation and demand management in Ontario and is committed to working with the government and other stakeholders to develop the next framework for CDM in the Province.

Long-term commitment for CDM funding and a confirmation of the role of the LDC are needed. This will allow LDCs to maintain current program infrastructure including LDC staff and third party contracts through 2015.

Providing clarity and continuity into the next framework is critical for all customers. To ensure a seamless and smooth transition that maintains and builds upon CDM momentum beyond 2014, a new CDM framework should be in place well before the expiry of the current one. Work

involving key parties including LDCs, government, customer groups and OEB should start in 2013 to allow for a new framework to be in place by early 2014. The remainder of 2014 would be utilized for program development and design, economic analysis, procurement and launching of new CDM program initiatives.

## **2 Board-Approved CDM Programs**

### **2.1 Introduction**

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

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

### **2.2 TOU Pricing**

#### **2.2.1 Background**

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

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

At the time of preparation of this report the OPA had retained the Brattle Group as the evaluation contractor and will be working with an expert panel convened to provide advice on methodology, data collection, models, etc. The initial evaluations were conducted with 5 LDC's – Hydro One, THESL, Ottawa Hydro, Thunder Bay and Newmarket. Preliminary results from these 5 LDC's have not been provided by the OPA at the time of this filing. The preliminary provincial results are to be extrapolated to assist other LDC forecasts going forward, however, the absence of these results makes such forecasting difficult.

As of September 30, 2013, 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.

## 2.2.2. TOU Program Description

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

**Initiative Frequency:** Year-Round

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

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

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

RPP TOU 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

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

### Initiative Activities/Progress:

Whitby Hydro began transitioning its RPP customers to TOU billing on December 23, 2011. As of December 31, 2012, virtually all eligible RPP customers (residential and general service less than 50 kW) were on TOU billing. Customers with an interest in CDM programs have provided some positive feedback regarding reduced monthly billing costs due to the behavioural changes resulting from TOU rates. As Whitby Hydro rolls out the PeaksaverPLUS program, it is aware that

the in-home-display (IHD) can complement the TOU program by offering customers an additional tool to monitor, understand and modify their consumption between the TOU time-periods.

### **2.3 Whitby Hydro's Application with the OEB**

There were no applications submitted by Whitby Hydro to the OEB in 2012. Whitby Hydro continues to be interested and willing to work collaboratively with neighbouring LDC's and the Electricity Distributors Association (EDA) on developing and implementing Tier 2 and Tier 3 Board-approved programs in its service territory. However, given the current timeline, it is unlikely that programs can be developed, approved, and provide savings towards the 2014 targets..

### 3 OPA-Contracted Province-Wide CDM Programs

#### 3.1 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:

<b>Initiative</b>	<b>Schedule</b>	<b>Date schedule posted</b>	<b>Customer Class</b>	<b>LDC In-Market Date</b>
<b>Residential Program</b>				
Appliance Retirement	Schedule B-1, Exhibit D	Jan 26, 2011	All residential rate classes	March 3, 2011
Appliance Exchange	Schedule B-1, Exhibit E	Jan 26, 2011	All residential rate classes	May 2, 2011
HVAC Incentives	Schedule B-1, Exhibit B	Jan 26, 2011	All residential rate classes	March 3, 2011
Conservation Instant Coupon Booklet	Schedule B-1, Exhibit A	Jan 26, 2011	All residential rate classes	February 21, 2011
Bi-Annual Retailer Event	Schedule B-1, Exhibit C	Jan 26, 2011	All residential rate classes	April 1, 2011
Retailer Co-op	n/a	n/a	All residential rate classes	n/a
Residential Demand Response	Schedule B-3	Aug 22, 2011	All general service classes	October 1, 2012
New Construction Program	Schedule B-2	Jan 26, 2011	All residential rate classes	March 15, 2011
<b>Commercial &amp; Institutional Program</b>				
Efficiency: Equipment Replacement	Schedule C-2	Jan 26, 2011	All general service classes	March 3, 2011
Direct Install Lighting	Schedule C-3	Jan 26, 2011	General Service < 50 kW	March 3, 2011
Existing Building Commissioning Incentive	Schedule C-6	Feb 2011	All general service classes	March 3, 2011
New Construction and Major Renovation Initiative	Schedule C-4	Feb 2011	All general service classes	December 15, 2011
Energy Audit	Schedule C-1	Jan 26, 2011	All general service classes	March 3, 2011
Commercial Demand Response (part of the Residential program schedule)	Schedule B-3	Jan 26, 2011	All general service classes	Not in market in 2012
Demand Response 3 (part of the Industrial program schedule)	Schedule D-6	May 31, 2011	General Service 50 kW & above	May 31, 2011

<b>Initiative</b>	<b>Schedule</b>	<b>Date schedule posted</b>	<b>Customer Class</b>	<b>LDC In-Market Date</b>
<b>Industrial Program</b>				
Process & System Upgrades	Schedule D-1	May 31, 2011	General Service 50 kW & above	May, 31, 2011
Monitoring & Targeting	Schedule D-2	May 31, 2011	General Service 50 kW & above	May 31, 2011
Energy Manager	Schedule D-3	May 31, 2011	General Service 50 kW & above	May 31, 2011
Key Account Manager ("KAM")	Schedule D-4	May 31, 2011	General Service 50 kW & above	May 31, 2011
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	Schedule C-2	May 31, 2011	General Service 50 kW & above	May 31, 2011
Demand Response 3	Schedule D-6	May 31, 2011	General Service 50 kW & above	May 31, 2011
<b>Home Assistance Program</b>				
Home Assistance Program	Schedule E-1	May 9, 2011	All residential rate classes	September 30, 2012

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

<b>Initiative</b>	<b>Schedule</b>	<b>Date schedule posted</b>	<b>Customer Class</b>	<b>LDC In-Market Date</b>
<b>Pre-2011 Programs</b>				
Electricity Retrofit Incentive Program	n/a	n/a	All general service classes	Jan. 2007
High Performance New Construction	n/a	n/a	All general service classes	March 2008
Multifamily Energy Efficiency Rebates	n/a	n/a	All general service classes	October 15, 2010



As per the table below, several program initiatives are no longer available to customers or have not been launched in 2012.

<b>Initiative Not in Market in 2012</b>	<b>Objective</b>	<b>Status</b>
<b>Residential Program</b>		
Midstream Electronics	The objective of this initiative is to encourage retailers to promote and sell high efficiency televisions, and for distributors to distribute high efficiency set top boxes.	Never launched and removed from Schedule in Q2, 2013.
Midstream Pool Equipment	The objective of this initiative is to encourage pool installers to sell and install efficient pool pump equipment in residential in-ground pools.	Never launched and removed from Schedule in Q2, 2013.
Aboriginal Conservation Program	First Nations programs are delivered by the OPA and results are attributed to LDCs for reporting.	Launched in 2013 by OPA.
Home Energy Audit Tool	This is a provincial online audit tool to engage customers in conservation and help drive customer participation to CDM programs.	Never launched and removed from Schedule in Q2, 2013.
<b>Commercial &amp; Institutional Program</b>		
Direct Service Space Cooling	The objective of this initiative is to offer free servicing of air conditioning systems and refrigeration units for the purpose of achieving energy savings and demand reduction.	Not launched to market in 2011/2012. As per the OPA there no plans to launch this Initiative in 2013.
Demand Response 1 ("DR1")	This initiative allows distribution customers to voluntarily reduce electricity demand during certain periods of the year pursuant to the DR 1 contract. The initiative provides DR payment for service for the actual electricity reduction provided during a demand response event.	No customer uptake for this initiative. As a result this Initiative was removed from the Schedule in Q4, 2012.
<b>Industrial Program</b>		
DR1	As above	No customer uptake for this initiative. Removed in Q4, 2012.

The Master CDM Program Agreement includes program change management provision in Article 3. Collaboration between the OPA and the LDC's 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.

## 3.2 Program Descriptions

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

### 3.2.1 RESIDENTIAL PROGRAMS

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

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

**Discussion:**

The inclusion of LED technology into the Biannual Retailers events in 2012 and the annual coupons in 2013, as well as some LDC custom coded coupons, has had a positive effect on consumer engagement in Whitby Hydro's service territory. Feedback from conservation events (retailer and community events) has been very positive with some customers making the switch to LED lighting throughout their entire home. However, customers have also made comments regarding the high price points of LED products.

Whitby Hydro continues to track steady progress for the Residential initiatives, with the exception of a few initiatives that have for the most part reached saturation. The revamped PeaksaverPLUS program is the key Residential Initiative being marketed in Whitby Hydro's service territory. Since residential demand response programs, such as the original Peaksaver were initially not offered in Whitby Hydro's territory, the new PeaksaverPLUS is expected to drive demand savings and has initially been well received by consumers eager to utilize an in-home-display to help manage their energy consumption.

The Residential Program Portfolio is predominately a carryover of Initiatives from previous programs. Three new initiatives were never launched and subsequently removed from 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. Provincial wide advertising has provided limited value due to inconsistency and non-specific messaging.

Work to revitalize and increase the effectiveness and breadth of the Initiatives through the Residential Programs needs to be a high priority. There are opportunities within the Residential marketplace that need to be identified, developed and offered to customers. A revised home audit and other Initiatives which could engage an average residential customer could be considered. Increased control by the LDCs such as 100% attributable coupons for LDCs and/or LDC hosted exchange events may present an opportunity for improved saving.

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

**Initiative Activities/Progress:** Whitby Hydro provided local marketing as well as customer support for this initiative. Marketing efforts continued with promotion through various community events (20), 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. An additional marketing effort was realized 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 ice pad advertising logos, initiative specific signage and rink boards. Whitby Hydro's uptake/participation for decommissioned appliances was 232 units, 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 strengthened through program evolution rather than weakened through diminished program offerings.
- As results are very responsive to province wide advertising OPA provincial marketing should continue to play a key role.

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

**Initiative Activities/Progress:** Whitby Hydro provided local marketing and customer support for this initiative. Whitby Hydro's SaveONenergy Conservation Team worked closely with Canadian Tire to promote this event and offer energy efficiency education to customers and cross promote other initiatives. Whitby Hydro's uptake/participation for decommissioned appliances was 19 units.

#### **Additional Comments:**

- This Initiative, eligible measures and incentive amounts are largely influenced by the retail partner. 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. The Fall events have not had retailer participation, therefore savings budgeted by the LDCs have not materialized.
- Evaluation, Measurement, and Verification (EMV) results indicated that the value of savings for retired room AC has dropped resulting in the retail participant not accepting window a/c's during the Spring 2013 event.

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

**Initiative Activities/Progress:** Whitby Hydro provided local marketing and customer support for this initiative. Primary marketing for the initiative continued with bill inserts and web site promotion/education. The Residential Programs brochure continued to be distributed at various community events (20). Customer Service representatives and CDM staff provided awareness as to the different incentive amounts pertaining to different product efficiencies. In 2012, Whitby Hydro's uptake/participation for customer incentives was 1,041 successful applications, a 9% decline from 2011.

#### **Additional Comments:**

- Incentive levels appear to be insufficient to prompt interested Participants to upgrade HVAC equipment prior to end of useful life. It is hoped that the introduction of an Air Miles incentive in 2013 may help with this.
- Whitby Hydro found that there continued to be customer confusion around the initial incentive amount of \$650, which is a cumulative amount.
- 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.
- LDC HVAC reports have been delayed and are not as complete and accurate as are required by LDCs to make adjustments to their marketing strategies.
- In an effort to build capacity, mandatory training has been instituted for all participating HVAC contractors. This could present too much of a barrier for participation for some contractors as the application process already presents a restriction to contractor sales. It has been noted that there are approximately 4500-5000 HVAC contractors in the Province, however only 1500 are participating in program. The barrier has created an environment where contractors are offering their own incentives outside of this Initiative, which has the effect of reduced participation/savings for LDCs.

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

**Initiative Activities/Progress:** Whitby Hydro provided 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. Whitby Hydro CDM staff promoted both the online-only annual coupons as well as the Fall 2012 bi-annual coupon event specific coupons. Local retailers were on board with this initiative early in 2012, however, coupons were only made available in an on-line capacity in Sept. 2012.

#### **Additional Comments:**

- This Initiative was ineffective for most of 2012 as the Instant coupons (annual) were not available to consumers until September 2012. As such, Whitby Hydro had a very substantial decrease in activity from that in 2011 and anticipated savings did not materialize.
- The timeframe for retailer submission of redeemed coupons varies from retailer to 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. This also resulted in the delayed launch of the Initiative in 2012.
- Coupon booklets were not printed and mailed out in 2012. As such, Coupons were not widely available to consumers without the ability to download and print them.
- This initiative would be more effective if provincial marketing was used to compliment Whitby Hydro's local promotional efforts. LDCs should be able to custom code all coupons to provide 100% allocation and push specific coupons based on localized needs.
- 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.

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

**Initiative Activities/Progress:** Whitby Hydro provided 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 seven event sessions were attended by Whitby Hydro CDM staff at participating retailers. Three events were held during spring (Canadian Tire, Lowe's and Wal-Mart) and four events during the fall (two Home Depot locations, Lowe's and Home Hardware). Initiative activity increased in 2012 (9,178 coupons) from 2011 (7,529 coupons). Fall LED coupons added greatly to the success.

**Additional Comments:**

- Whitby Hydro greatly pursued and took advantage of these types of retailer events as they provided great feedback for program offerings as well as sign-up opportunities for the new-to-market PeaksaverPLUS program.
- The Product list has changed very little over the past four years.
- Willingness of retailers to participate has direct influence on the success of this program.
- 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 in Q4 2011 identified three areas of need for Initiative evolution: 1) introduction of product focused marketing; 2) enhanced product selection and 3) improved training for retailers as retail staff tend not to be knowledgeable regarding the products or promotion. To support the Initiative, Whitby Hydro's CDM staff were available to offer technical expertise on various products. The ability to have LDC CDM staff attend is beneficial but there are significant limitations due to resource constraints and scheduling conflicts.
- LDCs should be able to custom code all coupons to provide 100% allocation and push specific coupons based on localized needs.
- Communications regarding retailer participation continues to be delayed. Improved communications will aid in appropriate resource allocation and marketing of the Initiative.
- 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.

**3.2.1.6 Retailer Co-op**

**Initiative Activities/Progress:** Whitby Hydro promoted this initiative to local retailers, however, retailers elected to support/participate in the bi-annual coupon retailer events only and therefore, 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.

### **3.2.1.7 New Construction Program (Schedule B-2)**

**Initiative Activities/Progress:** Whitby Hydro continued to provide local marketing customer support for this initiative. Marketing efforts focused on connecting with builders and the local Chamber of Commerce. Due to welcome OPA modifications which helped to streamline the application process, Whitby Hydro has one customer that has an application in process (this is an on-going effort since 2011). Although the process has been simplified, Whitby Hydro must actively support and encourage frustrated but interested customers to continue working towards a finalized application.

#### **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.
- Following limited participation in 2011, the application process was revisited in 2012 to streamline administration in response to builder feedback. Participation levels are expected to grow but there will be a lag to when results materialize as homes pre-approved could take a year or more to be completed.
- Administrative requirements, in particular individual home modeling, must align with perceived stakeholder payback. As per the Electricity Distributors Association (“EDA”) Working Groups, changes are being processed through change management for 2012. However, the lengthy change management process has resulted in discouraged customers/builders.

### **3.2.1.8 Residential Demand Response Program (Schedule B-3)**

**Initiative Activities/Progress:** Whitby Hydro did not offer the Peaksaver program in previous years, and therefore could not offer the Peaksaver Extension program in 2011. As Whitby Hydro decided to wait for a meter-based solution to gain entry on the market, activities during 2011 were limited to planning efforts and attending various workshops to gain an in-depth understanding of the technology available (in-home-displays, thermostats, switches, meter interface, relay).

Whitby Hydro initially carried out its due diligence (Q1 and Q2, 2012) regarding the various approaches and their respective technologies pertaining to the PeaksaverPLUS program. Ultimately, a decision was made to offer a pairing of a load-control thermostat and a collar-based in-home-display unit. Whitby Hydro's procurement process resulted in contracting with a program delivery partner in Sept. 2012. Previous to Sept. 2012, approx. 200 customers expressed interest in the program and were immediately contacted to schedule installation appointments once the chosen vendor partners' call centre was operational.

Whitby Hydro anticipated considerable interest in offering a program such as PeaksaverPLUS for the first time in its service territory and began an aggressive marketing campaign in October 2012. Marketing efforts included print media (bill inserts, door-hangers, flyers) as well as gauging program interest and sign-ups through community events. Whitby Hydro understands that PeaksaverPLUS is the flagship residential program and that its success beginning in October 2012, and continuing into 2013 and 2014, will contribute substantially to its demand target. Whitby Hydro had preliminary success in the final quarter of 2012 with 869 customers signed up for the program. Even greater traction has been achieved in Q1 of 2013 with an additional 1,421 new customers.

**Additional Comments:**

- The schedule for PeaksaverPlus was posted in August 2011, but this did not provide adequate time for product procurement for 2011, and part of 2012. The product procurement process uncovered that the In Home Display units that communicate with installed smart meter technology were still in development and not ready for market deployment. Consequently, LDCs could not be in market with the PeaksaverPlus program until 2012, or later which has resulted in delayed savings.
- Throughout 2013 Whitby Hydro has experienced significant issues with the PeaksaverPLUS administration and cost recovery process which has caused a considerable burden to its business operations. It is very disconcerting as PeaksaverPLUS is a key initiative.
- Smart Meters installed by most LDCs do not have the capability to communicate directly to an In Home Display. When proposing technical Initiatives that rely on existing LDC hardware or technology there should be an extensive consultative process.
- Introduction of new technology requires incentives for the development of such technology. Appropriate lead times for LDC analysis and assessment, product procurement, and testing and integration into the Smart Meter environment are also required. Making seemingly minor changes to provincial technical specifications can create significant issues when all LDCs attempt to implement the solution in their individual environments.
- The variable funding associated with installing a load controllable thermostat is not sufficient unless it is combined with an In Home Display (IHD) which might not be possible all the time and when IHD is optional.
- This is the main Initiative within the Residential portfolio that will drive savings for Whitby Hydro.
- Given the different LDCs smart meter environments, and needs, each LDC is positioning the Initiative slightly different. As such, greater program flexibility is required to address unique LDC needs.
- Provincial wide marketing needs to be sensitive to the variations of the Initiative and provide solid, consistent messaging.
- There currently is not an avenue for participants without the ability to provide demand response capabilities to obtain an IHD and gain energy saving benefits.



### 3.2.2 COMMERCIAL AND INSTITUTIONAL PROGRAM

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

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

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

**Discussion:**

Throughout 2011 and 2012 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, normally taking months to complete sometimes relatively minor changes due to the current CDM framework. 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.

Whitby Hydro understands that certain initiatives within the Commercial and Institutional Program, especially the ERII initiative, will be responsible for realizing substantial energy savings. Unfortunately, certain initiatives within Whitby have been largely unsuccessful, specifically, the Building Commissioning and Audit initiatives. New customer uptake in the Demand Response 3 program has also been unsuccessful, with the exception of those current customers from the pre-2011 offering of Demand Response 3.

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.

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

**Initiative Activities/Progress:** Whitby Hydro provided local marketing and customer support for this initiative. A vendor partner was contracted in Q3 2011 who continues to provide application review services and other assistance. A robust marketing approach has been aligned with this initiative and ranges from print media (trade publications, newspapers), signage (billboards, buses and shelters), local radio spots, and numerous workshops/sessions. Whitby Hydro's involvement, alongside other neighbouring LDC's, 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. 25 retrofit projects were completed in 2012 - almost three-times the number in 2011. Lighting retrofits still proved to be a large part of 2012 applications, however, there has been an increase in HVAC applications.

#### **Additional Comments:**

- It appears that the marketplace largely understands the programs now and a large proportion of LDC savings are attributed to ERII. However, it should be noted 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 diminishes the customer base to target for the new ERII in 2011-2014.
- The centralized process review used for 2012 project payment has been streamlined by the OPA and payments for projects were greatly improved – faster and more consistent compared to 2011.
- Capability building programs from Industrial programs have had very positive contributions to ERII program.
- This Initiative is limited by the state of the economy and the ability of commercial/institutional facility to complete capital upgrades.
- A number of customer facing issues in CRM (the OPA centralized application system) have been resolved; however key LDC administrative back office processing issues continue to be a challenge.
- 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.

- Lighting is still the most popular measure however, Whitby Hydro has been successful with HVAC channel partners resulting in an increase in these types of applications. 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.
- Expanding the capacity of the engineered applications can offer customers an opportunity to maximize savings and incentives. Recognizing this, Toronto Hydro and London Hydro worked together to develop and provide the OPA with compressed air engineered worksheets for inclusion in the Initiative in Q3, 2012. To date, these have not been accepted and provided to LDCs for use.
- An identified deficiency in the various renditions of the equipment replacement is the “hard stop” of the program as of a specific date. Without a streamlined transition into a new program, many customers become frustrated and refused to participate. LDCs struggle to repair customer and channel partner relationships and gain momentum in the market place once again.
- While the Ministerial Directive provides continuity of the conservation programs for the participant, unclear direction on LDC administrative funding could result in many LDCs ‘ramping down’ programs in 2015. The establishment of defined administrative funding for 2015 is required to avoid a “stop and start” process.

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

**Initiative Activities/Progress:** Whitby Hydro provided local marketing and customer support for this initiative. A vendor partner was contracted in Q3 2011 and continues to conduct assessments. The number of applications in 2012 (10) has been reduced by almost half of 2011 applications (17). The pace of the program has reached a standstill, resultant from the previous successful market saturation.

#### **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. Some traction may be regained through offering the program to bulk-metered accounts.
- The inclusion of a standard incentive for additional measures increased project size and drove higher energy and demand savings results in some situations.
- Electrical contractor's margins have been reduced due to no labour rate increase, increase cost of materials, greater distances between retrofits, more door knocking required before a successful sale and no funding for lifts. This has led to a reduction in vendor channel participation in some regions.

- The eligibility requirements have now been revamped and expanded however there has been limited communication and documentation of this to the marketplace.
- Currently 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 measures has potential to provide additional energy and demand savings. This approach could provide additional opportunities to Whitby Hydro given the high saturation rate for the program in its service territory.

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

**Initiative Activities/Progress:** Whitby Hydro provided local marketing and customer support for this initiative. There has been some interest in certain aspects of this initiative (chilled water applications) however, there have been no applications.

#### **Additional Comments:**

- Initiative name does not properly describe the Initiative.
- There was no 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 recommissioning 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.

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

**Initiative Activities/Progress:** Whitby Hydro provided local marketing and customer support for this initiative and contracted with a vendor partner in December 2011 for delivery. 2012 saw two large-scale applications in development, however, due to the lengthy building cycle for such projects, no applications were finalized in 2012. These two applications are working through the process of acquiring modeling-data to estimate the savings necessary to finalize the applications.

**Additional Comments:**

- There is typically a long sales cycle for these projects, and then a long project development cycle. As the program did not launch until mid-2011 and had limited participation, results did not appear in 2011. If any applications are successfully completed, the majority of the results are expected in 2013-2014, with a reduced benefit to cumulative energy savings targets.
- With the Ministerial Directive facilities with a completion date near the end of 2014 currently have some security that they will be compensated for choosing efficient measures.
- Participants estimated completion dates tend to be inaccurate and are usually 6 months longer. This could result in diminished savings towards target if facilities are not substantially completed by December 31, 2014.
- The custom application process requires considerable customer support and skilled LDC staff. As there has been no defined administrative funding beyond 2014, many LDCs are unsure how these project applications will be finalized.
- The effort required to participate through the custom stream exceeds the value of the incentive for many customers.
- This Initiative has a very low Net-to-Gross ratio, which results in half the proposed target savings being 'lost'.

**3.2.2.5 Energy Audit Initiative**

**Initiative Activities/Progress:** Whitby Hydro provided local marketing and customer support for this initiative, however, there have been no applications. Marketing this initiative to the commercial and institutional sector has not yielded any results. Customers engaged have chosen to take advantage of less costly audit options that are available (ie. Durham Partners In Project Green).

**Additional Comments:**

- Assessments/audits conducted by Whitby Hydro's CDM Program Manager and those through the Durham Partners In Project Green initiative (a free high-level assessment) have been more successful in realizing ensuing retrofit projects.
- The energy audit Initiative is considered an 'enabling' Initiative and 'feeds into' other saveONenergy Initiatives. There are no savings attributed to LDC targets from an audit.
- 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.
- Participants are limited to one energy audit which restricts enabling and direction to the other Initiatives. This Initiative should be evaluated for additional customer participation when presented with a new scope of work.

### 3.2.3 INDUSTRIAL PROGRAM

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

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

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

**Discussion:**

Whitby Hydro understands the strategic benefits and continuous improvement resulting from its industrial customers partaking in the Industrial Program initiatives. A specialized approach, creates both specialized energy and demand savings. In Q1 2012, Whitby Hydro began working with its largest industrial customer on a combined Preliminary Engineering Study and Monitoring & Targeting application. Although the process is lengthier, it is one that enables an industrial customer to fully seek out efficiencies and examine the various systems and processes within a facility.

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 any LDC target.

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, a change to the threshold for small capital projects and a new small capital project agreement are expected to improve the number of projects and savings achieved within PSUI. Likewise, a decision to proceed with natural gas load displacement generation projects will also increase uptake although results may not be counted towards LDC targets due to in-service dates beyond 2014. Looking ahead there is minimal opportunity to make additional valuable changes to the current program suite and have these changes reflected in LDC 2014 results.

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

**Initiative Activities/Progress:** Whitby Hydro provided local marketing and customer support for this initiative. Most of 2012 saw Whitby Hydro working with its largest customer through the initial application process and the ensuing contract process for the preliminary engineering study.

**Additional Comments:**

- This Initiative is limited by the state of the economy and the ability of a facility to complete large capital upgrades.
- There is typically a long sales cycle for these projects, and then a long project development cycle. It is likely any results would be realized in 2013-2014, 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 for 'small' projects which is simplified with less onerous conditions for the customer.
- To partially address this, changes were made to the ERII Initiative which allowed smaller projects to be directed to the Commercial stream. Most industrial projects to-date have been submitted as ERII projects due to less onerous contract and M&V requirements.
- A business case was submitted by the Industrial Working Group in July 2012 which would change the upper limit for a small project from 700 MWh to 1 million dollars in incentives. This would allow more projects to be eligible for the new small capital project agreement and increase participant uptake, while still protecting the ratepayer. To date this change has not been implemented.

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

**Initiative Activities/Progress:** Whitby Hydro provided local marketing and customer support for this initiative. Whitby Hydro worked throughout 2012 with its largest customer on a Monitoring & Targeting application.

**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.
- The savings target required for this Initiative can present a significant challenge for smaller customers.
- Through the change management process in 2013, changes are being made to ERII to allow smaller facilities to employ M&T systems.

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

**Initiative Activities/Progress:** Whitby Hydro provided local marketing and customer support for this initiative and aimed it exclusively at the regional municipality. There was no application for an Energy Manager in 2012. Whitby Hydro does not possess the large accounts (>5 MW) necessary for an individual application and therefore has attempted to collaborate with neighbouring LDCs. Whitby Hydro is currently working with a neighbouring LDC on a proposal to secure an Energy Manager to be utilized in shared campuses of an educational institution.

#### **Additional Comments:**

- The Energy Managers have proven to be a popular and useful resource for larger customers. There are approximately 70 Embedded Energy Managers (EEMs) and 25 Roving Energy Managers (REMs) being utilized by customers across the province.
- 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. There are still considerable difficulties surrounding the process of securing a REM and coordinating, hiring and training the successful candidate.
- At the beginning, it took longer than expected to set up the energy manager application process and unclear communication resulted in marketing and implementation challenges for many LDCs.
- 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 but few projects were implemented in 2012.
- There have been a number of studies identified by Energy Managers and they have been able to build capacity and deliver energy saving projects within their respective large commercial/industrial facilities.
- Requirement that 30% of target must come from Non-incented projects is identified as an issue for most REMs, although final targets not due until 2013. Working group has proposed to remove this requirement for REM's only as they are not resident full time at a customer facility to find the non-incented savings.
- A decision on extending funding for EM's is required in 2013 for this important Initiative, which should continue beyond 2014, failing which these expert resources will be lost in favour of full-time employment elsewhere.



### **3.2.3.4 Key Account Manager (Schedule D-4)**

**Initiative Activities/Progress:** Whitby Hydro provided local marketing and customer support for this initiative aimed primarily at the Regional Municipality. There were no applications in 2012. Whitby Hydro is constantly seeking out efficiencies to be gained through working with neighbouring LDC's, however, this initiative's objectives are better served through the employment of a REM or EEM. As a result of limited application opportunities in Whitby Hydro's service territory, Whitby Hydro has looked to its CDM Program Manager and vendor partners to provide the necessary support to key accounts.

#### **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 views its CDM Manager as fulfilling the role of a Key Account Manager with customers since the same customers are not large enough to qualify for this initiative.
- Finding this type of skill set is difficult. In addition, the short-term contract and associated energy targets discourage some skilled applicants resulting in longer lead times to acquire the right resource.
- This resource has been found by some LDCs to be of limited value due to the part-time nature of the position and limited funding. In addition, the position role has been too narrow in scope to provide assistance to the wider variety of projects LDCs may be struggling with.

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

**Initiative Activities/Progress:** Whitby Hydro has actively marketed and provided customer support for this initiative. Two DR3 Workshops were held in 2012 as a result of joint efforts with neighbouring LDCs. In 2012, one commercial customer and two industrial customers continued their participation in the DR3 initiative (from the previous initiative offering). Marketing for this initiative ranges from print media (billboards), signage (bus interiors, shelters) to workshops where aggregators engage prospective customers.

#### **Additional Comments:**

- Until early 2013 customer data was not provided on an individual customer basis due to contractual requirements with the aggregators. This limited LDCs' ability to effectively market to prospective participants and verify savings.
- Whitby Hydro has received substantial 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.

- No program improvements were made in 2012 however, it was accepted that prior participants who renew their DR3 contract within the 2011-2014 term will contribute to LDC targets.
- As of 2013, Aggregators are able to enter into contracts beyond 2014. This has allowed them to offer a more competitive contract price (5 year) than if limited to 1 or 2 year contracts.
- Metering and settlement requirements are expensive and complicated and can reduce customer compensation amounts, and present a barrier to smaller customers.

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

**Initiative Activities/Progress:** Whitby Hydro contracted with a delivery partner through a joint procurement process with two neighbouring LDCs in Q4 2012. No applications were submitted in 2012. Initial administration and marketing activities included flyers and bill inserts as well as reaching out to social agencies in Whitby Hydro's service territory and cold-calling leads generated by social agencies.

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

- Awareness of the program amongst social agencies took time to develop. Many social agencies feel that the \$10.00 referral bonus does not justify the time spent on working with potential customers.
- Whitby Hydro has low LEAP program uptake and therefore limited potential unless low income customers can be identified, engaged, and qualified.
- Whitby Hydro is interested in jointly coordinating marketing efforts between the LEAP program and the Low Income CDM program.
- The process for enrolling in social housing was complicated and time consuming. This was addressed in late 2012 and is showing benefits in 2013.
- The financial scope, complexity, and customer privacy requirements of this Initiative are challenging for LDCs and most have contracted this program out. This Initiative may benefit from an OPA contracted centralized delivery agent.

#### **3.2.5 PRE-2011 PROGRAMS**

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

## 4 2012 LDC CDM Results

### 4.1 Participation and Savings

Table 1: **Whitby Hydro Electric Corporation** Initiative and Program Level 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
<b>Consumer Program</b>															
Appliance Retirement	Appliances	547	232			31	13			226,453	92,074			44	1,181,731
Appliance Exchange	Appliances	22	19			2	3			3,509	5,077			4	28,369
HVAC Incentives	Equipment	1,141	1,041			319	225			580,361	379,038			544	3,458,557
Conservation Instant Coupon Booklet	Items	5,267	267			12	2			191,285	12,096			14	801,425
Bi-Annual Retailer Event	Items	7,529	9,178			15	13			254,227	231,685			27	1,711,963
Retailer Co-op	Items	0	0			0	0			0	0			0	0
Residential Demand Response (switch/pstat)	Devices	0	869			0	450			0	3,263			0	3,263
Residential Demand Response (IHD)	Devices	0	867			0				0					
Residential New Construction	Homes	0	0			0	0			0	0			0	0
<b>Consumer Program Total</b>						<b>378</b>	<b>706</b>			<b>1,255,835</b>	<b>723,233</b>			<b>633</b>	<b>7,185,309</b>
<b>Business Program</b>															
Retrofit	Projects	9	25			142	245			824,817	1,456,233			386	7,667,967
Direct Install Lighting	Projects	17	10			22	12			43,922	46,962			30	302,982
Building Commissioning	Buildings	0	0			0	0			0	0			0	0
New Construction	Buildings	0	0			0	0			0	0			0	0
Energy Audit	Audits	0	0			0	0			0	0			0	0
Small Commercial Demand Response	Devices	0	0			0	0			0	0			0	0
Small Commercial Demand Response (IHD)	Devices	0	0			0				0				0	0
Demand Response 3	Facilities	1	1			108	109			4,235	1,581			0	5,816
<b>Business Program Total</b>						<b>272</b>	<b>365</b>			<b>872,973</b>	<b>1,504,776</b>			<b>416</b>	<b>7,976,764</b>

Note: Table 1 continues on next page

Table 1: **Whitby Hydro Electric Corporation** Initiative and Program Level 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
<b>Industrial Program</b>															
Process & System Upgrades	Projects	0	0			0	0			0	0			0	0
Monitoring & Targeting	Projects	0	0			0	0			0	0			0	0
Energy Manager	Projects	0	0			0	0			0	0			0	0
Retrofit	Projects	10				59				364,108				59	1,456,432
Demand Response 3	Facilities	2	2			237	440			13,901	10,604			0	24,505
<b>Industrial Program Total</b>						<b>295</b>	<b>440</b>			<b>378,009</b>	<b>10,604</b>			<b>59</b>	<b>1,480,936</b>
<b>Home Assistance Program</b>															
Home Assistance Program	Homes	0	0			0	0			0	0			0	0
<b>Home Assistance Program Total</b>						<b>0</b>	<b>0</b>			<b>0</b>	<b>0</b>			<b>0</b>	<b>0</b>
<b>Pre-2011 Programs completed in 2011</b>															
Electricity Retrofit Incentive Program	Projects	14	0			90	0			499,572	0			90	1,998,289
High Performance New Construction	Projects	1	0			8	1			38,721	947			9	157,723
Toronto Comprehensive	Projects	0	0			0	0			0	0			0	0
Multifamily Energy Efficiency Rebates	Projects	0	0			0	0			0	0			0	0
LDC Custom Programs	Projects	0	0			0	0			0	0			0	0
<b>Pre-2011 Programs completed in 2011 Total</b>						<b>98</b>	<b>1</b>			<b>538,293</b>	<b>947</b>			<b>99</b>	<b>2,156,012</b>
<b>Other</b>															
Program Enabled Savings	Projects	0	0			0	0			0	0			0	0
Time-of-Use Savings	Homes														
<b>Other Total</b>							<b>0</b>				<b>0</b>			<b>0</b>	<b>0</b>
<b>Adjustments to Previous Year's Verified Results</b>															
							-36				-36,367			-36	-145,468
<b>Energy Efficiency Total</b>						<b>698</b>	<b>513</b>			<b>3,026,974</b>	<b>2,224,112</b>			<b>1,206</b>	<b>18,765,438</b>
<b>Demand Response Total (Scenario 1)</b>						<b>345</b>	<b>999</b>			<b>18,135</b>	<b>15,448</b>			<b>0</b>	<b>33,584</b>
<b>OPA-Contracted LDC Portfolio Total (inc. Adjustments)</b>						<b>1,043</b>	<b>1,476</b>			<b>3,045,110</b>	<b>2,203,193</b>			<b>1,170</b>	<b>18,653,554</b>
Activity & savings for Demand Response resources for each year and quarter represent the savings from all active facilities or devices contracted since January 1, 2011.												Due to the limited timeframe of data, which didn't include the summer months, 2012 IHD results have been deemed inconclusive. The IHD line item on the 2012 annual report will be left blank. Once a full year of data is available (2013 evaluation), and the savings are quantified, 2012 results will be updated to reflect the quantified savings.			
												Full OEB Target:			
												% of Full OEB Target Achieved to Date (Scenario 1):			
												10,900			
												39,070,000			
												10.7%			
												47.7%			

**Table 1: Summarized Program Results**

Program	Gross Savings		Net Savings		Contribution to Targets	
	Incremental Peak Demand Savings (MW)	Incremental Energy Savings (GWh)	Incremental Peak Demand Savings (MW)	Incremental Energy Savings (GWh)	Program-to-Date: Net Annual Peak Demand Savings (MW) in 2014	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (GWh)
Consumer Program Total	0.91	1.3	0.71	0.72	0.63	7.19
Business Program Total	0.44	1.9	0.37	1.50	0.42	7.98
Industrial Program Total	0.45	0.0106	0.44	0.0106	0.06	1.48
Home Assistance Program Total	0	0	0	0	0	0
Pre-2011 Programs completed in 2011 Total	0.004	0.02	0.001	0.00094	0.10	2.16
<b>Total OPA Contracted Province-Wide CDM Programs</b>	<b>1.79</b>	<b>3.23</b>	<b>1.52</b>	<b>2.23</b>	<b>1.21</b>	<b>18.81</b>

## 4.2 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 2012 EM&V findings for all of the evaluated saveONenergy initiatives. They have been provided by the OPA alongside the Final 2012 Results.

### Consumer Program

#### **Bi-Annual Coupons**

- 15% lower net savings due to a change in the net-to-gross factors (increased free-ridership, less participant behavior spillover, and less non-participant like spillover).
- Majority of participation, energy, & demand savings are from standard CFLs.
- 15% of net savings due to ~73,000 coupons for new LED measures.

#### **Annual Coupons**

- The number of coupons associated with the redemption of 2012 Annual Coupons was 90% lower than 2011 Instant Coupon Booklet. Key factors for the decrease include:
  - Shorter duration of available coupons (September 2012 – December 2012)
  - In 2012, only online coupons were available
    - 2011 had both online coupons AND coupon mailing booklets.

#### **HVAC**

- Small decrease (10%) in per unit savings assumptions for furnace with ECM due to change in 2012 customer mix and furnace fan usage.
- Small increase (10%) in free-ridership related to the furnace with ECM measure.
- Participation remains relatively steady once 2011 true-up values are included.

#### **Appliance Retirement**

- Decrease in 2012 participation by 39% compared to 2011.
- In-site metering provided updated per unit assumptions:
  - Small decrease (3.5%) in savings for refrigerators; and
  - Sizeable increase (17.5%) in savings for freezers

#### **Appliance Exchange**

- Increase of 30% for exchanged dehumidifiers over 2011, leading to an increase of 4% in overall participation.
- Higher per unit savings for dehumidifiers drove the overall increase in 2012 savings.

#### **peaksaverPLUS**

- Province-wide per-unit *ex ante* estimates for a 1-in-10 August peak day were determined to be 0.50 kW for residential CACs and 0.64 kW for small commercial CACs.

- Evaluation to date has indicated savings from in-home displays (IHDs) are not statistically significant (in and around zero).
  - However, since 2012 evaluation did not include full year analysis (specifically the summer months), these results have been deemed inconclusive.
- The IHD offer had a positive influence on enrollment and re-enrollment with between 20 to 35% of new enrollees said they wouldn't have enrolled without the IHD offer.

### ***Residential New Construction***

- All projects are opting for the prescriptive or performance path - there have been no custom project applications to date.

## **Business Programs**

### **Retrofit**

- Reported savings for prescriptive lighting projects continue to be overstated:
  - Verified wattage reductions were 15% higher than assumed; and
  - Verified operating hours were 11% higher than assumed.
- A lower realization rate in the engineered measure track can be partially explained by overstated lighting operation hour assumptions reported on the application.
- Net-to-gross ratios for the initiatives were above 75% in 2012, which is consistent with 2011.

### **Small Business Lighting**

- Reported hours of usage continue to be inaccurate - only 12% of site visits had verified annual hours of use within +/-10% of the assumed value.
- The saturation of eligible customers and preferred business types are resulting in participation from building types that may not fully operate during the summer peak period.
  - This trend contributes to lower realization rates for demand savings in 2012.
- Due to changing regulations in lighting measures, the assumed baseline technology will eventually be phased out. This regulation impacts the persistence of savings over the lifetime of lighting measures.

### **Existing Building Commissioning (EBC)**

- There were no applications in 2012.
- Market feedback suggests that EBC's focus on chilled-water space-cooling systems may be too narrow, and participation could be expanded by incenting a wider range of measures.

### **New Construction**

- Custom projects account for 66% of program savings, with the remainder coming from the prescriptive track.

### **Audit Funding Program**

- Through Audit Funding, 280 projects were completed in 2012 based on recommendations from the auditors, resulting in 1.4 MW and 7 GWh of Program Enabled Savings.
- Office buildings represented the largest portion of applicants for 2012.

### **Industrial Programs**

#### **Process and Systems Upgrade Initiative**

- Energy managers are seen as important drivers of Program Enabled savings projects.
  - 88% of survey respondents indicated that the assistance provided by energy managers was “somewhat” or “very” important to implementing projects.
- Energy Managers indicated that additional support (additional training and guides) may further help influence the adoption of energy efficiency measures by the participants.
- Documentation for Program Enabled Savings projects varied substantially by LDC. More guidance on documentation requirements would be beneficial to all parties

#### **DR-3**

- 2012 saw improvements in the performance of DR-3 participants resulting higher *ex ante* realization rates, particularly for the industrial participants.

### **Home Assistance Program**

- Participation in the initiative ramped up in 2012, with over 5,000 homes participating in the initiative.
- Majority of energy savings (62%) comes from lighting measures, while 21% of energy savings resulting from refrigerator and freezer replacements.



### 4.3 Spending

Table 3: 2012 Spending

Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
<b>Consumer Program</b>					
Appliance Retirement	\$26,602	\$0	\$0	\$0	\$26,602
Appliance Exchange	\$22,158	\$0	\$0	\$0	\$22,158
HVAC Incentives	\$27,602	\$0	\$0	\$0	\$27,602
Conservation Instant Coupon Booklet	\$28,777	\$0	\$0	\$0	\$28,777
Bi-Annual Retailer Event	\$26,958	\$0	\$0	\$0	\$26,958
Retailer Co-op	n/a	n/a	n/a	n/a	n/a
Residential Demand Response	\$140,859	\$0	\$0	\$0	\$140,859
New Construction Program	\$23,458	\$0	\$0	\$0	\$23,458
<b>Business Program</b>					
Efficiency: Equipment Replacement	\$86,311	\$0	\$232,080	\$0	\$318,391
Direct Installed Lighting	\$9,042	\$2,450	\$0	\$0	\$11,492

<b>Initiative</b>	<b>Program Administration Budget (PAB)</b>	<b>Participant Based Funding (PBF)</b>	<b>Participant Incentives (PI)</b>	<b>Capability Building Funding (CBF)</b>	<b>TOTAL</b>
Existing Building Commissioning Incentive	\$5,303	\$0	\$0	\$0	\$5,303
New Construction and Major Renovation Initiative	\$4,297	\$0	\$0	\$0	\$4,297
Energy Audit	\$2,653	\$0	\$0	\$0	\$2,653
Small Commercial Demand Response (part of the Residential program schedule)	\$0	\$0	\$0	\$0	\$0
Demand Response 3 (part of the Industrial program schedule)	\$7,755	\$0	\$0	\$0	\$7,755
<b>Industrial Program</b>					
Process & System Upgrades					
a) preliminary engineering study	\$1,015	\$0	\$0	\$0	\$1,015
b) detailed engineering study	\$500	\$0	\$0	\$0	\$500
c) program incentive	\$0	\$0	\$0	\$0	\$0
Monitoring & Targeting	\$1,426	\$0	\$0	\$0	\$1,426
Energy Manager	\$725	\$0	\$0	\$0	\$725
Key Account Manager ("KAM")	\$623	\$0	\$0	\$0	\$623

Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	\$2,900	\$0	\$0	\$0	\$2,900
Demand Response 3	\$2,110	\$0	\$0	\$0	\$2,110
<b>Home Assistance Program</b>					
Home Assistance Program	\$6,049	\$0	\$0	\$0	\$6,049
<b>Pre 2011 Programs</b>					
Electricity Retrofit Incentive Program	\$0	\$0	\$21,853	\$0	\$21,853
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
<b>Initiatives Not In Market</b>					
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

Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
Demand Service Space Cooling	n/a	n/a	n/a	n/a	n/a
Demand Response 1 (Commercial)	n/a	n/a	n/a	n/a	n/a
Demand Response 1 (Industrial)	n/a	n/a	n/a	n/a	n/a
Home Energy Audit Tool	n/a	n/a	n/a	n/a	n/a
<b>TOTAL Province-wide CDM PROGRAMS</b>	<b>\$427,123</b>	<b>\$2,450</b>	<b>\$253,933</b>	<b>\$0</b>	<b>\$683,506</b>

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

Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
<b>Consumer Program</b>					
Appliance Retirement	\$49,254	\$0	\$0	\$0	\$49,254
Appliance Exchange	\$27,971	\$0	\$0	\$0	\$27,971
HVAC Incentives	\$47,856	\$0	\$0	\$0	\$47,856
Conservation Instant Coupon Booklet	\$46,007	\$0	\$0	\$0	\$46,007

Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
Bi-Annual Retailer Event	\$37,604	\$0	\$0	\$0	\$37,604
Retailer Co-op	n/a	n/a	n/a	n/a	n/a
Residential Demand Response	\$151,505	\$0	\$0	\$0	\$151,505
New Construction Program	\$32,215	\$0	\$0	\$0	\$32,215
<b>Business Program</b>					
Efficiency: Equipment Replacement	\$116,998	\$0	\$232,080	\$0	\$349,078
Direct Installed Lighting	\$42,254	\$6,615	\$0	\$0	\$48,869
Existing Building Commissioning Incentive	\$7,110	\$0	\$0	\$0	\$7,110
New Construction and Major Renovation Initiative	\$9,444	\$0	\$0	\$0	\$9,444
Energy Audit	\$10,017	\$0	\$0	\$0	\$10,017
Small Commercial Demand Response (part of the Residential program schedule)	\$0	\$0	\$0	\$0	\$0
Demand Response 3 (part of the Industrial program schedule)	\$9,102	\$0	\$0	\$0	\$9,102

Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
<b>Industrial Program</b>					
Process & System Upgrades					
a) preliminary engineering study	\$4,950	\$0	\$0	\$0	\$4,950
b) detailed engineering study	\$546	\$0	\$0	\$0	\$546
c) program incentive	\$0	\$0	\$0	\$0	\$0
Monitoring & Targeting	\$5,408	\$0	\$0	\$0	\$5,408
Energy Manager	\$1,601	\$0	\$0	\$0	\$1,601
Key Account Manager ("KAM")	\$1,499	\$0	\$0	\$0	\$1,499
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	\$33,587	\$0	\$0	\$0	\$33,587
Demand Response 3	\$3,457	\$0	\$0	\$0	\$3,457
<b>Home Assistance Program</b>					
Home Assistance Program	\$11,443	\$0	\$0	\$0	\$11,443
<b>Pre 2011 Programs</b>					
Electricity Retrofit Incentive Program	\$6,111	\$13,598	\$292,417	\$0	\$312,126

<b>Initiative</b>	<b>Program Administration Budget (PAB)</b>	<b>Participant Based Funding (PBF)</b>	<b>Participant Incentives (PI)</b>	<b>Capability Building Funding (CBF)</b>	<b>TOTAL</b>
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
<b>Initiatives Not In Market</b>					
Midstream Electronics					
Midstream Pool Equipment					
Demand Service Space Cooling					
Demand Response 1 (Commercial)					
Demand Response 1 (Industrial)					
Home Energy Audit Tool					
<b>TOTAL Province-wide CDM PROGRAMS</b>	<b>\$655,939</b>	<b>\$20,213</b>	<b>\$524,497</b>	<b>\$0</b>	<b>\$1,200,649</b>

## 4.4 Additional Comments

The 4th quarter of 2012 saw an essential piece of the CDM puzzle finally fall into place - the technology and delivery partner for PeaksaverPLUS was finalized. Great anticipation for PeaksaverPLUS had been building in Whitby Hydro's service territory since 2011. Although there were delays and issues surrounding the delivery of PeaksaverPLUS, Whitby Hydro believes that the PeaksaverPLUS program will be a significant contributor towards its demand target.

While Whitby Hydro always strives to be efficient, there are some areas outside of its direct control where improvements would result in greater efficiencies and gain some ground in the achievement of CDM targets. Some of the areas where improvements are recommended include the administrative process for settlement. Whitby Hydro recommends that the assignment of a key OPA account contact (specific to an LDC or group of LDCs) and a clear escalation process to facilitate improved communication, responsiveness to administrative issues, and to ensure timely settlement would be a welcome addition.

Whitby Hydro also thinks it is important to address OPA CDM program limitations. In this regard, a broader range of residential programs (important for service areas high in residential customers) would be welcomed. It is also important that there exist greater flexibility for LDCs/OPA to address program participation. The acknowledgement of saturation of specific programs (i.e. Direct Install lighting) can pave the way for future program development.

Many LDCs (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 will require quickly evolving and responsive programs and mechanisms; as well as the acknowledgement that certain programs will eventually become saturated unless more efficient and affordable technologies become viable options. It is not clear whether new programs or increased flexibility of existing programs will be able to generate incremental energy savings at a pace necessary to provide LDCs with the necessary "tools" to support target achievement. In addition, these same factors prompt 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 does not facilitate timely understanding of energy savings and progression towards targets. Delays in the timing of reports released limits 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) should be made available at the same time as the summary reports are released in order to allow LDCs 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. 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.



## Combined CDM Reporting Elements

### 4.5 Progress Towards CDM Targets

In summation, Whitby Hydro continues to make steady progress towards its energy savings target and finished 2012 with positive results. Progress towards Whitby Hydro's demand savings target remains quite slow, although some improvement is expected due to the PeaksaverPLUS program. The final Incremental Net Annual Peak Demand Savings totalled 1.5 MW and Net Cumulative Energy Savings of 2.2 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				
2014				
<b>Verified Net Annual Peak Demand Savings in 2014:</b>				<b>1.2</b>
<b>Whitby Hydro 2014 Annual CDM Capacity Target:</b>				<b>10.9</b>
<b>Verified Portion of Peak Demand Savings Target Achieved (%):</b>				<b>10.7%</b>

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

Implementation Period	Annual (GWh)				Cumulative (GWh)
	2011	2012	2013	2014	2011-2014
2011 – Verified by OPA	3.0	3.0	3.0	3.0	12.1
2012 – Verified by OPA		2.2	2.2	2.2	6.5
2013					
2014					
<b>Verified Net Cumulative Energy Savings 2011-2014:</b>					<b>18.7</b>
<b>Whitby Hydro 2011-2014 Cumulative CDM Energy Target:</b>					<b>39.07</b>
<b>Verified Portion of Cumulative Energy Target Achieved (%):</b>					<b>47.7%</b>

## 4.6 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., PeaksaverPLUS, Home Assistance Program), and the absence of information to understand the TOU billing impacts.

The figures below outline the progression to-date towards the 2014 target as compared to the originally projected milestone achievement to-date.

	2014			2014 Strategy			% Achievement Variance
	Actuals To-Date	Target	%	Milestone To-Date	Final Milestone	%	
Net Peak Demand Savings (MW)	1.2	10.9	10.7%	4.6	9.2	49.8%	-39.0%
Cumulative Net Energy Savings (GWh)	18.7	39.07	47.7%	12.9	43.6	29.6%	18.2%

The negative variance calculated above for Net Peak Demand Savings, of -39% is largely explained by the Residential Demand Response initiative not being in market in Whitby Hydro's service territory until Q4 of 2012. 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 2012 showed some minor improvement over 2011, it is evident that Whitby Hydro is lagging behind the milestones as per the CDM Strategy and the assigned Targets. As increased PeaksaverPLUS program uptake is confirmed for the 1st quarter of 2013, Whitby Hydro anticipates this should provide some assistance in offsetting the current variance.

The positive variance calculated above for Net Energy Savings, of 18.2% is somewhat bolstered by the inclusion of Incremental Energy Savings resulting from Pre-2011 Programs (ERIP) completed in 2011 and 2012 which represent approximately 12% of the verified cumulative energy savings for 2011-2014. The contribution toward energy savings on other active programs have largely shifted from residential to business programs as compared to 2011 results. Reductions in 2012 due to market saturation (appliance retirement) and program delays/limitation (coupon booklets and HVAC incentives) have been somewhat offset by increased retrofit activity.

The cumulative nature of energy savings also allows for a building of results due to early successes. The cumulative effect diminishes for incremental activity in 2013/14 given the target timeline ends in 2014.

## **4.7 Outlook to 2014 and Strategy Modifications**

Achievements towards Whitby Hydro's CDM targets are dependent on the continued trending of customer enrolments in the OPA-Contracted Province-Wide Programs and the persistence of the Demand Response programs to 2014. Continuing success in the Retrofit program as well as increased uptake in the PeaksaverPLUS program in 2013/14 will play important roles in ensuring progression towards energy and demand savings targets. The impact of savings related to TOU are 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.

No modifications to Whitby Hydro's CDM Strategy are currently anticipated. Given the limited information available regarding demand savings for the PeaksaverPLUS program (due to it being in the early stages of implementation during 2012 and having unquantified In-Home-Display device savings results), as well as the lack of TOU results, it is difficult to accurately project forward Whitby Hydro's achievement of savings related to these programs. Whitby Hydro has shown favourable progress towards the 2011-2014 cumulative energy savings target and anticipates that its early success and continued efforts will drive to meet target achievement. Whitby Hydro will continue its efforts to maximize potential peak demand savings from the existing program offerings but realistically projects that it will fall short of reaching its net annual peak demand target in 2014. Whitby Hydro welcomes improvements to the flexibility of existing programs and administrative improvements which may assist in further realizing the opportunities for energy and demand savings.

## 6 Conclusion

Over the course of 2012, Whitby Hydro has achieved 1.5 MW in incremental peak demand savings and 2.2 GWh in incremental energy savings. The cumulative related 2014 savings represent 10.7% and 47.7% of Whitby Hydro's 2014 target, respectively. These results are representative of considerable effort expended by Whitby Hydro, in cooperation with other LDCs, customers, channel partners and stakeholders to overcome many operational and structural issues that limited program effectiveness across all of the market sector. 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 faces challenges in the remaining years of the current CDM framework. With the current slate of available OPA Programs, and based on learnings and efforts to-date, as well as the current forecast of implementation and projected savings, Whitby Hydro expects to meet its 39.07 GWh energy savings target but anticipates a shortfall to 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 LDC 2014 results. However, LDCs and the OPA can build on the strengths and key successes of the 2011-2014 programs to launch new programs which will meet the needs of the industry and consumers.

## Appendix A: Initiative Descriptions

### Residential Program

APPLIANCE RETIREMENT INITIATIVE (Exhibit D)

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

**Initiative Frequency:** Year round

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

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

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

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

Additional detail is available:

- Schedule B-1, Exhibit D

APPLIANCE EXCHANGE INITIATIVE (Exhibit E)

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

**Initiative Frequency:** Spring and Fall

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

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

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

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

Additional detail is available:

- Schedule B-1, Exhibit C

#### HVAC INCENTIVES INITIATIVE (Exhibit B)

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

**Initiative Frequency:** Year round

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

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

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

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

Additional detail is available:

- Schedule B-1, Exhibit B

#### CONSERVATION INSTANT COUPON INITIATIVE (Exhibit A)

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

**Initiative Frequency:** Year round

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

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

**Targeted End Uses:** ENERGY STAR® qualified Standard Compact Fluorescent Lights (“CFLs”), ENERGY STAR® qualified Light Fixtures lighting control products, weather-stripping, hot

water pipe wrap, electric water heater blanket, heavy duty plug-in Timers, Advanced power bars, clothesline, baseboard programmable thermostats.

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

Additional detail is available:

- Schedule B-1, Exhibit A

#### BI-ANNUAL RETAILER EVENT INITIATIVE (Exhibit C)

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

**Initiative Frequency:** Bi-annual events

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

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

**Targeted End Uses:** As per the Conservation Instant Coupon Initiative

**Delivery:** The OPA enters into arrangements with participating retailers to promote the discounted products, and to post and honour related coupons. LDCs also refer retailers to the OPA and market this initiative locally.

Additional detail is available:

- Schedule B-1, Exhibit C

#### RETAILER CO-OP

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

**Initiative Frequency:** Year Round

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

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

**Targeted End Uses:** As per the Conservation Instant Coupon Initiative

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

#### NEW CONSTRUCTION PROGRAM (Schedule B-2)

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

**Initiative Frequency:** Year round

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

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

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

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

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

Additional detail is available:

- Schedule B-1, Exhibit C

#### RESIDENTIAL DEMAND RESPONSE PROGRAM (Schedule B-3)

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

**Initiative Frequency:** Year round

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



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

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

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

Additional detail is available:

- Schedule B-1, Exhibit C

## 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 is available:

- Schedule C-2

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

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

**Initiative Frequency:** Year round

**Objective:** The objective of this Initiative is to offer a free installation of eligible lighting and water heating measures of up to \$1,000 to eligible owners and tenants of 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 is available:

- Schedule C-3

#### EXISTING BUILDING COMMISSIONING INCENTIVE INITIATIVE (Schedule C-6)

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

**Initiative Frequency:** Year round

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

**Description:** This Initiative offers Participants incentives for the following:

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

**Targeted End Uses:** Chilled water systems for space cooling

**Delivery:** LDC delivered.

Additional detail is available:

- Schedule C-6

## 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 is available:

- Schedule C-4

## ENERGY AUDIT INITIATIVE (Schedule C-1)

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

**Initiative Frequency:** Year round

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

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

**Targeted End Uses:** Various

**Delivery:** LDC delivered.

Additional detail is available:

- Schedule C-1

## 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 is available:

- Schedule D-1

### 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 is available:

- Schedule D-2

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

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

**Initiative Frequency:** Year round

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

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

**Targeted End Uses:** Process and systems

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

Additional detail is available:

- Schedule D-3

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

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

**Initiative Frequency:** Year round

**Objective:** This initiative offers LDCs the opportunity to access funding for the employment of a KAM in order to support them in fulfilling their obligations related to the PSUI.

**Description:** This Initiative provides LDCs the opportunity to utilize a KAM to assist their customers. The KAM is considered to be a key element in assisting the consumer in overcoming traditional barriers related to energy management and help them achieve savings since the KAM can build relationships and become a significant resource of knowledge to the customer.

**Targeted End Uses:** Process and systems

**Delivery:** LDC delivered

Additional detail is available:

- ScheduledD-4

## 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 is available:

- Schedule D-6

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)

**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 is available:

- Schedule E

## Appendix B: Pre-2011 Programs

### ELECTRICITY RETROFIT INCENTIVE PROGRAM

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

**Initiative Frequency:** Year Round

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

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

**Targeted End Uses:** Electricity savings measures

**Delivery:** LDC Delivered

### HIGH PERFORMANCE NEW CONSTRUCTION

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

**Initiative Frequency:** Year round

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

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

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

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



## 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