



**Waterloo North Hydro Inc.**

Electricity Distributor License ED-2002-0575

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**Conservation and Demand Management  
2012 Annual Report**

**Submitted to:**

**Ontario Energy Board**

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## Executive Summary

Waterloo North Hydro Inc. (WNH) submits this annual report in accordance with the filing requirements set out in the Conservation and Demand Management Code (Board File No. EB-2010-0215), specifically Appendix C Annual Report Template, as a progress report and modification to WNH's Strategy. Accordingly, this report outlines WNH's Conservation and Demand Management (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 forecasted savings to the end of 2014.

WNH 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) provides measurement and verification on the TOU rate initiative. At the time of this report, the OPA has not released any verified results of TOU savings to WNH.

In 2011, WNH contracted with the Ontario Power Authority (OPA) to deliver a portfolio of OPA-Contracted Province-Wide CDM Programs to all customer segments including residential, commercial, institutional, industrial, and low income. These programs were rolled-out by the OPA in June 2011.

In 2012, WNH achieved 2.50 MW of net incremental peak demand savings and 5.50 GWh of net incremental energy savings. To date WNH achieved 2.70 MW of cumulative demand savings and 41.30 GWh of cumulative energy savings up towards the 2014 demand and energy targets. A summary of the net incremental 2012 achievements and cumulative results to 2014 is shown in Table 1.

**Table 1: 2012 Net Incremental and 2014 Cumulative CDM Results<sup>1</sup>**

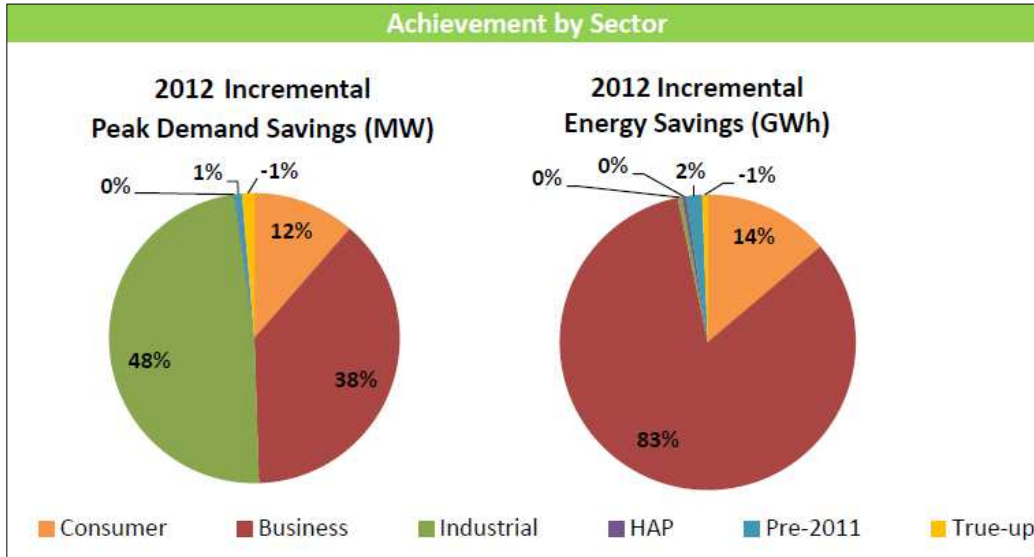
CDM Measure	Target	Incremental 2012 Net Savings*	Cumulative to 2014			
			No DR Persistence	DR Persistence	% of Target 1 Year DR Persistence	% of Target 2014 DR Persistence
Net Peak Demand Savings (MW)	15.8	2.5	2.7	4.0	17.1%	25.2%
Net Energy Savings (GWh)	66.5	5.5	41.3	41.4	62.1%	62.3%

WNH's incremental achievements for 2012 have shifted from being evenly distributed evenly across all customer segments in 2011 to being heavily weighted by the business

<sup>1</sup> 2012 results have been adjusted for discrepancies in the 2011 results previously reported by the OPA and as a result, WNH's energy and peak demand incremental savings for 2012 have been negatively impacted. Furthermore, the results provided by the OPA did not include a number of projects completed in 2012. The OPA reports that these projects will be picked up in the 2012 true up in the 2013 final verified results. WNH actual net incremental 2012 results achieved in 2012 including projects that the OPA omitted are 2.6 MW of peak demand savings and 6.1 GWh's of energy savings.

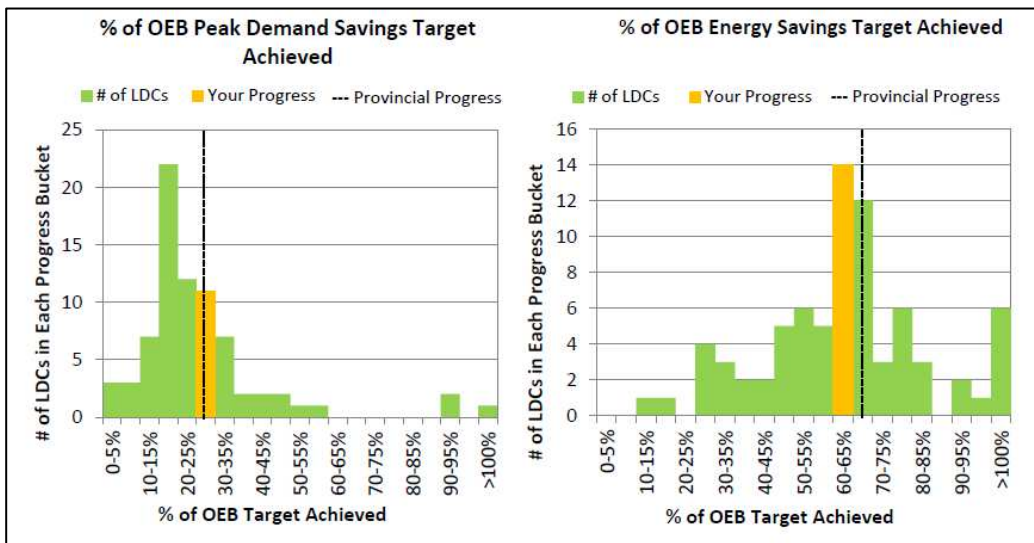
and industrial segments as shown in Graph 1 below. This shift is a direct result of the program offerings, the energy and peak demand savings available in each customer segment, and does not correlate to the marketing and resource focus and investment.

**Graph 1: 2012 Incremental Results by Sector**



Furthermore, when compared to the progress of the greater LDC community in Ontario, WNH's peak demand reduction is on par with provincial results where energy savings is slightly behind the provincial results as shown in Graph 2. The apparent gap in WNH's energy savings can be attributed to a number of factors, including reporting errors by the OPA and net to gross factor variation from year to year.

**Graph 2: Peak Demand and Energy Savings towards Target**



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

## **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 WNH to require WNH as a condition of its license, to achieve 66.59 GWh of energy savings and 15.79 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, WNH submitted its CDM Strategy on November 1, 2010, which provided a high level of description of how WNH 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 WNH, and has been prepared in accordance with the Code requirement, and covers the period from January 1, 2012 to December 31, 2012.

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

On December 21, 2012, the Minister of Energy directed the Ontario Power Authority (OPA) to fund CDM programs, 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 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 which should enhance program uptake and the development of larger more sustainable projects; 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 2015 extension could negatively affect a LDCs ability to achieve the 2014 targets if customers delay projects. In addition, the establishment of defined administrative funding for 2015 is required to avoid a "stop and start" process.

## **1.2 Future Framework**

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



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 the 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 licence, 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 WNH’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. WNH 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 LDCs – Hydro One, Toronto Hydro Electric System, Hydro Ottawa, Thunder Bay Hydro, and Newmarket-Tay Power Distribution.

As of September 30, 2013, the OPA has not released any verified results of TOU savings to WNH. Therefore, WNH is not able to provide any verified savings related to LDC’s TOU program at this time.

#### **2.2.2. TOU PROGRAM DESCRIPTION**

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

**Initiative Frequency:** Year-Round

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

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

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

RPP TOU	Rates (cents/kWh)		
Effective Date	On Peak	Mid Peak	Off Peak
November 1, 2010	9.9	8.1	5.1
May 1, 2011	10.7	8.9	5.9
November 1, 2011	10.8	9.2	6.2
May 1, 2012	11.7	10	6.5
November 1, 2012	11.8	9.9	6.3
May 1, 2013	12.4	10.4	6.7

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

**Initiative Activities/Progress:**

WNLH began transitioning its RPP customers to TOU billing May of 2011 and as of December 31, 2012, 52,037 RPP customers were on TOU billing representing 99 % of WNLH’s mandated customer base. Of those, 47,087 are residential customers and 4,950 are non-residential customers.

### 2.3 Waterloo North Hydro’s Application with the OEB

In 2012, WNLH did not file an application for any Board-Approved CDM programs. It is not anticipated that any applications will be made in subsequent years.

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

#### 3.1 Introduction

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

**Table 2: OPA-Contracted Province-Wide CDM Programs in Market in 2012**

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

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

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

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

As per the Table 4 below, several program initiatives are no longer available to customer or have not been launched in 2012.

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

Initiative Not in Market in 2011	Objective	Status
<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 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	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>		
Demand Response 1	As above	No customer uptake for this initiative. Removed in Q4, 2012.

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

## 3.2 Program Descriptions

Full OPA-Contracted Province-Wide CDM Program descriptions are available from the OPA and additional initiative information can be found on the saveONenergy website at [saveonenergy.ca](http://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 Residential Program Portfolio is predominately a carryover of Initiatives from pre-2011 and is primarily driven by retailers and contractors. Delays in communication with regards to Initiative offerings and results reporting and market saturation continues to be significant barriers to WNHs abilities to engage customers and promote participation and achieve the necessary savings. Work to revitalize and increase the effectiveness and scope of the Initiatives through the Residential Program continues to be a high priority as a refresh of the offerings is necessary.

**Program Activity:** In 2012, the three LDCs in the Waterloo Region hired a marketing and communications company to develop a new creative marketing theme for the Appliance Retirement Initiative (market name Fridge & Freezer Pickup) and HVAC Incentive Initiative (Market name Heating & Cooling Incentive). As a result, with the approval of the OPA's marketing team, a comprehensive marketing strategy was built on the messaging of 'break up with ...'. Thirty second commercial spots<sup>2</sup> formed the backbone that led into radio and print ads. The feedback has been positive and the creative is still in use today not only by the three LDC's in the Waterloo Region but also by other LDCs.

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

WNH recognized the effort required to increase program participation through increased outreach to the residential segment and the value in building relationships that could be

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<sup>2</sup> The videos can be viewed on a joint [youtube.com](http://youtube.com) webpage.

leveraged into increased savings and therefore added a dedicated marketing and communications resource to enhance our efforts.

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

- Newspaper ads ran in the Waterloo Chronicle, Elmira Independent, and Woolwich Observer weekly from September 2012 to December 2012. The ads promoted The Appliance Retirement Initiative, The HVAC Incentive Initiative, and The Conservation Instant Coupon Initiative.
- A full-page advertisement ran in the Elmira Sugar Kings Junior B Hockey Club 2012 program focused on promoting The HVAC Incentive Initiative
- Various special advertisements in the Waterloo Region Record sections and inserts including Earth Hour, Green Living Magazine were leveraged to promote energy savings tips and the saveONenergy FOR HOME programs including the mysaveONenergy PLEDGE initiative, The HVAC Incentive Initiative, and The Conservation Instant Coupon Initiative.
- Bill inserts distributed monthly to all WNH customers promoting saveONenergy FOR HOME initiatives including The Appliance Retirement Initiative, The HVAC Incentive Initiative, and The Conservation Instant Coupon Initiative.
- A business card sized ad ran in the Greater KW Chamber of Commerce 2012 directory promoting the saveONenergy programs and initiatives.
- Program banners to promote the programs displayed in WNH's lobby, shareholder offices and at special events.
- Seasonal sponsorship with the Kitchener Rangers Ontario Hockey League Club with advertisements running on the scoreboard including two 30-second center ice commercials supporting the saveONenergy FOR HOME initiatives, concourse signage, 150,000 online impressions on the team's website, print advertisement in the team's programs and a promotional game night.
- Program brochures to promote the programs in displayed in WNH's lobby, in local community centers and at various events.
- Residential 30-second commercial videos promoted the programs in local Cineplex movie theatres running June-July 2012 and October-November 2012.
- Residential 30-second commercial videos promoted on YouTube from October-November 2012 that have received more than 33,000 views.

- Radio advertisements with Waterloo Region Rogers Radio Group promoted the FOR HOME programs running June-July 2012 and November 2012.
- WNH specific coupons and initiative brochures distributed to community outreach partners and retailers for distribution at community events and partner offices.
- saveONenergy FOR HOME initiatives promoted via WNH website and WNH co-branded micro-site
- Geographically targeted online and smart phone advertisements displayed on the Weather Network, Waterloo Region Record, Waterloo Chronicle, and Flyerland websites in June, August, and November.
- Digital Screen advertisements appeared in local community centers and Conestoga Mall.
- Lunch and learn sessions promoting the saveONenergy FOR HOME initiatives delivered to a number of customer groups.
- Multiple promotional events promoted the FOR HOME residential programs including cooperative retailer events for the COUPON initiative as well as numerous community events including ecofest and sustainability in the park.

### **3.2.1.1 Appliance Retirement Initiative**

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

**Initiative Progress:** WNH’s incremental activity is summarized in Table 5 below.

**Table 5 – WNH 2012 Incremental Appliance Retirement Progress**

Unit	Incremental Activity	Incremental kW	Incremental kWh
Appliances	246	14	99,262

**Additional Comments:**

- With the increase in appliance age to 20 years in 2013, many LDCs increased marketing and outreach throughout 2012 in an effort to increase uptake and achieve savings.
- Due to the duration of the program in market and the revised eligibility requirements to a minimum of 20 years old, this Initiative appears to have reached market saturation and is under consideration for removal from the Portfolio.



- The OPA and LDCs should continue working to establish partnerships with retailers and municipalities where existing white goods collection programs are in place.
- Locally, the Region of Waterloo offers a strong curb-side pick-up program that does not require a pickup to be scheduled, the homeowner to be home, the appliance to be plugged in or in working order and there is no cost to customer. As a result program uptake is reduced.

### **3.2.1.2 Appliance Exchange Initiative**

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

**Initiative Progress:** WNH’s incremental activity is summarized in Table 6 below.

**Table 6 – WNH 2012 Incremental Appliance Exchange Progress**

Unit	Incremental Activity	Incremental kW	Incremental kWh
Appliances	75	11	18,832

**Additional Comments:**

- 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.
- Notification regarding retailer participation and eligible measures continues to be delayed. Improved communications will aid in appropriate resource allocation and marketing of the Initiative.
- This Initiative may benefit from the disengagement of the retailer and allowing LDCs to conduct these events, possibly as part of a larger community engagement effort, with the backing of ARCA for appliance removal.

### **3.2.1.3 HVAC Incentives Initiative**

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

**Initiative Progress:** WNH’s incremental activity is summarized in Table 7 below.

**Table 7 – WNH 2012 Incremental HVAC Incentives Progress**

Unit	Incremental Activity	Incremental kW	Incremental kWh
Equipment	1,126	255	439,314

**Additional Comments:**

- Incentive levels appear to be insufficient to prompt 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.
- 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.
- Channel partners require timeliness of the Rebate process to maintain a positive relationship between consumers, contractors, the OPA, and the participating LDC. Due to a contracting delay, no applications were processed from approximately the end of October 2012 to February 2013.
- LDC Heating & Cooling Incentive reports have been delayed and are not as complete and accurate as are required by LDCs to adjust 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 4,500-5,000 HVAC contractors in the Province, however only 1,500 are participating in program.
- There are cases where non-participating contractors are offering their own incentives (by discounting their installations to match value of the OPA incentive) to make the sale.

**3.2.1.4 Conservation Instant Coupon Initiative**

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

**Initiative Progress:** WNH's incremental activity is summarized in Table 8 below.

**Table 8 – WNH 2012 Incremental Conservation Instant Coupon Progress**

Unit	Incremental Activity	Incremental kW	Incremental kWh
Items	309	2	14,008

**Additional Comments:**

- This Initiative was not available to consumers until September 2012. As such, savings budgeted by LDCs did not materialize.
- The timeframe for retailer submission of redeemed coupons vary 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.
- 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**

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

**Initiative Progress:** WNH’s incremental activity is summarized in Table 9 below.

**Table 9 – WNH 2012 Incremental Bi-Annual Retailer Event Progress**

Unit	Incremental Activity	Incremental kW	Incremental kWh
Items	10,629	15	268,321

**Additional Comments:**

- This Initiative is strongly influenced by the retail participants and has no direct involvement from the LDCs. More emphasis should be put on holding a participating retailer accountable to working with the LDC community.

- The Product list has changed very little over the past four years. Program evolution, including new products and review of incentive pricing for the coupon Initiatives, must be a regular activity to ensure continued consumer interest.
- The Product list should 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.
- LDCs should have the opportunity 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 suppliers / manufacturers who can provide retailers supplier / manufacture rebates as well.
- The inclusion of LED technology into the Biannual Retailers events in 2012 has had a positive effect on consumer engagement.

### **3.2.1.6 Retailer Co-op**

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

**Initiative Progress:** WNH’s incremental activity is summarized in Table 10 below.

**Table 10 – WNH 2012 Incremental Retailer Co-op Progress**

Unit	Incremental Activity	Incremental kW	Incremental kWh
Items	0	0	0

**Additional Comments:**

- This is a retailer Initiative with no direct benefit to the LDCs
- Limited engagement of local retailers can restrict the savings potential for this Initiative.
- The availability of retailer and/or LDC staff with product knowledge and the ability to conduct demonstration in store during the events would be an asset. This

could be a valuable role for LDCs, however many LDCs are limited by available resources and unable to participate.

### **3.2.1.7 New Construction Program**

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

**Initiative Progress:** WNH’s incremental activity is summarized in Table 11 below.

**Table 11 – WNH 2012 Incremental New Construction Program Progress**

Unit	Incremental Activity	Incremental kW	Incremental kWh
Homes	0	0	0

**Additional Comments:**

- This Initiative provides incentives to homebuilders for incorporating energy efficiency into their buildings. To support this, LDCs need to provide education to the consumers regarding the importance of choosing the energy efficient builder upgrade options without an immediate benefit to the consumer.
- 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 continued non-participation from builders.

### **3.2.1.8 Residential Demand Response Program**

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

**Initiative Progress:** WNH is reviewing technologies and solutions for the Residential Demand Response Program (RDR) initiative to maximize existing infrastructure, limit stranded assets and provide a quality product to customers. WNH supported an application by Energate for a pilot on Consumer Engagement for the Smart Grid, which

will be credited towards this Initiative in 2013. WNH's incremental activity is summarized in Table 12 below.

**Table 12 – WNH 2012 Incremental Residential Demand Response Program Progress**

Unit	Incremental Activity	Incremental kW	Incremental kWh
Devices	0	0	0

**Additional Comments:**

- The schedule for the RDR 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 RDR program until 2012, or later which has resulted in delayed savings.
- 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 drives peak demand saving.
- 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

**Discussion:** The initiatives that make up the Commercial and Institutional (C&I) program drove the majority of the results achieved by WNH in 2012 as was clearly illustrated by the Graph 1: 2012 Incremental Results by Sector presented in the executive summary. The results directly correlate to the value the programs provide customers, channel partners, and demonstrate that continuity from year to year increases program uptake exponentially.

Throughout 2011 and 2012 the 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.

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.

**Program Activity:** As noted in the discussion section the initiatives offered as part of the C&I program drive a significant portion of WNH's energy and demand savings which is a direct result of engaging and working with customers and channel partners. WNH hired a full time Commercial and Industrial Conservation Analyst to meet customer demand and further drive program uptake by assisting with customer outreach and site visits, the development of projects and applications and the engagement and education of channel partners.

Cobranding and co-promotion of the C&I Program Initiatives continued to build on the momentum and success achieved in 2011. And a result of the geographic proximity of Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro joint events, channel partner outreach and marketing have driven efficiencies, ensured consistency and resulted in cost efficiencies, improved awareness of the saveONenergy brand and increased program participation.

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

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

- A series of key account breakfasts were offered to all commercial customers within the Waterloo Region were held in collaboration with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro. The objective of the sessions was to communicate the availability of incentives, how to participate, and where energy efficiency opportunities exist. In total 4 breakfast sessions were held with topics focused Variable Speed Drives, Lighting, Energy Management, and Recommissioning.
- In partnership with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro, WNH held a full day Dollars to Sense Course for regional customers.
- In partnership with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro, WNH held the 3rd annual Technology Symposium, where over 60 energy conservation exhibitors showcased various technologies and solutions including lighting, compressed air, energy audits, demand response, as well as other technologies. In addition to the exhibition, six sessions were held to help educate, inform, encourage, and empower customers with energy conservation initiatives. Sessions topics included the following:
  - LED Lighting – Greg Lockhart of Sonepar Canada
  - Efficiency with Drives - Simon Oosterhof of VFD Solutions
  - Compressed Air Systems - Chris Styles of Applied Pneumatics
  - Green Initiatives Keynote– Sybil Taylor of Steam Whistle Brewery
  - Energy Audits - Scott Martin of Efficiency Engineering
  - Savings with Fans - Vern Martin of Flowcare Engineering

The event drew in over 400 business customers from across the Region of Waterloo and representatives from 7 LDC's outside of the region.

- Half-page and full-page advertisements in the Exchange Magazine promoting the saveONenergy FOR BUSINESS initiatives.
- Initiative banners, sell sheets and folders co-branded with Cambridge and North Dumfries and Kitchener-Wilmot Hydro were widely used to educate and promote the initiatives at breakfast events, direct mails and face-to-face customer engagement.
- In partnership with Kitchener-Wilmot Hydro, WNH sponsored the Greater KW Chamber of Commerce and promoted the saveONenergy FOR BUSINESS initiatives in their online newsletter as well as their bimonthly magazine, their



Business-to-Business radio show, sat on their Business After Five committee, and participated in their annual Energy and Environment forum.

- Exhibited at the joint Kitchener-Waterloo-Cambridge-Guelph Chamber of Commerce Business Expo.
- Produced video case studies<sup>3</sup> on projects completed in the ERII program to highlight technology and participants and motivate others to do the same.
- Regularly met with customers to educate them on the various initiatives, the process for completing applications and perform site walkthroughs to identify potential energy conservation projects. In addition, assistance with various steps of the project were provided including identifying opportunities, connecting the customers to the appropriate channel partners, building the business case and application support.
- Acted as a presenting sponsor of Sustainable Waterloo (now Sustainable Waterloo Region (SWR)). SWR is a community centric organization, which engages and connects business within the region that pledge to reduce their greenhouse gas emissions and made energy efficiency one of their top priorities.
- In partnership with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro, WNH ran two breakfast seminars for Channel Partners in the Region to engage and educate them on the saveONenergy FOR BUSINESS initiatives, the application process, provide them with tips and communicate initiative and application requirements. In addition, Regional LDC's shared our challenges and successes, acknowledged and celebrated channel partner successes and leverage these events to promote networking between channel partner segments.
- Held a Direct Install contractor breakfast, which provided valuable feedback on the program delivery and opportunities for enhancement and improved contractor satisfaction.
- Continued one-on-one channel partner engagement, education and training on the application process, program rules, how to leverage the programs in to increased business and further understand how and where to spot additional energy savings.
- Created an email newsletter for channel partners keeps a network of more than 300 service providers motivated and informed about the saveONenergy programs.

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<sup>3</sup> *The videos can be viewed on a joint youtube.com webpage.*

### **3.2.2.1 Efficiency: Equipment Replacement Incentive (ERII)**

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

**Initiative Progress:** WNH's incremental activity is summarized in Table 13 below.

**Table 13 – WNH 2012 Incremental Efficient Equipment Replacement Initiative Progress**

Unit	Incremental Activity	Incremental kW	Incremental kWh
Projects	53	762	5,211,264

#### **Additional Comments:**

- 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.
- Participation in this Initiative is limited by the state of the economy and the ability of commercial / institutional facility to complete capital improvement projects.
- Lighting is still the most popular measure. Other market sectors are not as engaged yet, specifically the mechanical segment. There continues to be significant barriers to program participation from HVAC (Unitary AC) and compressed air channel partners.
- 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.
- While the Ministerial Directive provides certainty of the conservation programs for the participant, the establishment of defined administrative funding for 2015 is required to avoid a “stop and start” process and ensure LDCs and service providers can maintain the capabilities they have.

### **3.2.2.2 Direct Install Initiative (DIL)**

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

**Initiative Progress:** WNH’s incremental activity is summarized in Table 14 below.

**Table 14 – WNH 2012 Incremental Direct Install Initiative Progress**

Unit	Incremental Activity	Incremental kW	Incremental kWh
Projects	106	82	307,810

**Additional Comments:**

- Successful execution of the previous rendition of this Initiative has resulted in diminished potential for the 2011-2014 Initiative in some LDC’s territories.
- The inclusion of a standard incentive for additional measures increased project size and drove higher energy and demand savings results in some situations.
- 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.

**3.2.2.3 Existing Building Commissioning Incentive Initiative**

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

**Initiative Progress:** WNH’s incremental activity is summarized in Table 15 below.

**Table 15 – WNH 2012 Incremental Existing Building Commissioning Incentive Initiative Progress**

Unit	Incremental Activity	Incremental kW	Incremental kWh
Buildings	0	0	0

**Additional Comments:**

- There was minimal participation for this Initiative. It is suspected that the lack of participation in the program is a result of the Initiative being limited to space cooling and a limited window of opportunity (cooling season) for participation.
- Participation is mainly channel partner driven, however the particulars of the Initiative have presented too significant of 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)**

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

**Initiative Progress:** WNH’s incremental activity is summarized in Table 16 below.

**Table 16 – WNH 2012 Incremental New Construction and Major Renovation Initiative Progress**

Unit	Incremental Activity	Incremental kW	Incremental kWh
Buildings	1	4	3,763

#### **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. Minimum results are expected to appear in 2012. 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 when 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:** All activities are detailed above in Section 3.2.2 under the Program Activity section.

**Initiative Progress:** WNH’s incremental activity is summarized in Table 17 below.

**Table 17 – WNH 2012 Incremental Energy Audit Initiative Progress**

Unit	Incremental Activity	Incremental kW	Incremental kWh
Audits	7	36	176,234

**Additional Comments:**

- Customer uptake was limited in 2011, however improved throughout 2012 especially with the new audit component for systems (i.e. compressed air).
- 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.
- 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.

**3.2.2.6 Demand Response 3**

**Initiative Activities:** WNH consistently pursues Demand Response 3 (DR3) opportunities when engaging customers and has worked with all aggregators in attempt to combine efforts and leverage outreach activities. Aggressive sales strategies by aggregators have dampened interest in the program.

**Initiative Progress:** WNH’s incremental activity is summarized in Table 18 below.

**Table 18– WNH 2012 Incremental Demand Response Progress**

Unit	Incremental Activity	Incremental kW	Incremental kWh
Facilities	3	111	1,614

**Additional Comments:**

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

- No program improvements were made in 2012 however, it was accepted that prior participants who renew their DR3 contract within the 2011-2014 term would contribute to LDC targets.
- As of 2013, Aggregators 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.
- Compensation amounts for new contracts and renewals have been reduced from the initial launch of this program (premium zones and 200-hour option have been discontinued) and subsequently there has been a corresponding decrease in renewal revenue.

### 3.2.3 INDUSTRIAL PROGRAM

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

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

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

**Discussion:** The Industrial Program Portfolio has been able to provide valuable resources to large facilities such as Energy Managers and enabling Engineering Studies. The Engineering Studies in particular provide a unique opportunity for a customer to complete a comprehensive analysis of an energy intensive process that they would not otherwise be able to undertake. Energy Managers provide customers with a skilled individual whose only role is to assist them with conservation initiatives. To date these Energy Managers have played a key role in customer participation.

Due to the size, scope, and long lead-time of these Initiatives and associated projects, the Ministerial Directive provides some security for the continuation of the conservation programs and associated compensation for the participant; however, the subsequent savings would not be attributed to any LDC target.

### 3.2.3.1 Process & Systems Upgrades Initiative (PSUI)

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

**Initiative Progress:** WNH's incremental activity is summarized in Table 19 below.

**Table 19 – WNH 2012 Incremental Energy Audit Initiative Progress**

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

#### **Additional Comments:**

- Approximately 100 engineering study applications have been submitted. This is a strong indication that there is the potential for large projects with corresponding energy savings. Most of these studies have been initiated through the Energy Manager and KAM resources.
- Participation in this Initiative is limited by the state of the economy and the ability of a facility to complete large capital upgrades.
- The sales cycle for PSUI projects is significant and is often accompanied by a lengthy project development cycle. As such, limited results are expected to be generated in 2012. The majority of the results are expected in 2013-2014, with a much-reduced benefit to cumulative energy savings targets.
- The project application review and approval times are lengthy and customers often forgo the increased incentive and pursue other programs such as ERII and Energy Audit in order to complete their projects.
- The contract required for PSUI is a lengthy and complicated document. Again, many customers forgo the increased incentive and pursue other programs such as ERII and Energy Audit in order to complete their projects.
- While there is considerable customer interest in on-site Load Displacement (Co-Generation) projects, in 2012 the OPA was accepting waste heat/waste fuel projects only. Natural gas generation projects were on hold awaiting a decision on whether PSUI will fund these types of projects. In June 2013, a decision was made to allow natural gas load displacement generation projects to proceed under PSUI. It is expected that a number of projects will proceed although

results may not be counted towards LDC targets due to in-service dates beyond 2014.

### **3.2.3.2 Monitoring & Targeting Initiative**

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

**Initiative Progress:** WNH’s incremental activity is summarized in Table 20 below.

**Table 20 – WNH 2012 Incremental Monitoring & Targeting Initiative Progress**

Unit	Incremental Activity	Incremental kW	Incremental kWh
Projects	0	0	0

**Additional Comments:**

- The M&T initiative is targeted at larger customers with the capacity to review the M&T data. This review requires the customer facility to employ an Energy Manager, or a person with equivalent qualifications, which has been a barrier for some customers. As such, a limited number of applications have been received to date.
- 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**

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

**Initiative Progress:** WNH’s incremental activity is summarized in Table 21 below.

**Table 21 – WNH 2012 Incremental Energy Manager Initiative Progress**



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

The Roving Energy Manager is shared with Cambridge and North Dumfries Hydro.

**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.
- Initially 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.
- Some LDCs and customers are reporting difficulties in hiring capable Roving and Embedded Energy Managers (REM/EEM), in some instances taking significant periods of time to recruit and place a resource.
- New energy managers require training, time to familiarize with facilities, staff and to establish “credibility”. Energy Managers started filling their pipeline with projects but few projects were implemented in 2012.
- Energy Managers have identified and began implementation of a number of energy conservation opportunities 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. The Industrial 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.

**3.2.3.4 Key Account Manager**

**Initiative Activities:** A shared Key Account Manager was successfully applied for by Cambridge and North Dumfries Hydro, Kitchener-Wilmot Hydro and WNH and staffed by March 2012. The contract was terminated in July and the position was refilled in November. A number of customers were engaged by the KAM, but the limited knowledge and experience resulted in decreased customer interest in utilizing the resource.

**Initiative Progress:** WNH’s incremental activity is summarized in Table 22 below.

**Table 22 – WNH 2012 Incremental Key Account Manager Progress**

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

**Additional Comments**

- Customers appreciate dealing with a single contact to interface with an LDC, a resource that has both the technical and business background who can communicate easily with the customer and the LDC.
- Finding this type of skill set has been difficult. In addition, the short-term contract 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**

**Initiative Activities:** WNH consistently pursues Demand Response 3 (DR3) opportunities when engaging customers and has worked with all aggregators in attempt to combine efforts and leverage outreach activities. As DR3 is one of few initiatives that focus on peak demand reduction, it remains a focus and priority for WNH in 2013 and 2014.

**Initiative Progress:** WNH’s incremental activity is summarized in Table 23 below.

**Table 23 – WNH 2012 Incremental Demand Response Progress**

Unit	Incremental Activity	Incremental kW	Incremental kWh
Facilities	7	1,260	30,360

**Additional Comments:**

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

- No program improvements were made in 2012 however, it was accepted that prior participants who renew their DR3 contract within the 2011-2014 term would contribute to LDC targets.
- As of 2013, Aggregators 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.
- Aggressive and unprofessional sales strategies by aggregators have significantly decreased customer interest in the program. A collaborative approach between LDCs and aggregators would present greater opportunity.
- Metering and settlement requirements are expensive and complicated and can reduce customer compensation amounts, and present a barrier to smaller customers.
- Compensation amounts for new contracts and renewals have been reduced from the initial launch of this program (premium zones and 200-hour option have been discontinued) and subsequently there has been a corresponding decrease in renewal revenue.

### 3.2.4 LOW INCOME INITIATIVE (HOME ASSISTANCE PROGRAM)

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

WNH took part in a number of activities to connect with potential Low Income Initiative participants and organizations working closely with potential participants.

- 44 Home Assistance Program audits were complete.
- The Home Assistance Program was presented to community groups and social agencies at 10 meetings in the community. The program was also presented to Woolwich and Wellesley Township Council, as well as, City Waterloo Council to encourage support from municipal leaders
- Outreach events were held at two Cooperative Housing Units and 2 Region of Waterloo Housing Units to reach large pools of social housing participants.

- Brochures were distributed to local social agencies and directly to potential participants through a local food hamper program.

**Initiative Progress:** WNH’s incremental activity is summarized in Table 24 below.

**Table 24 – WNH 2012 Incremental Demand Response Progress**

Unit	Incremental Activity	Incremental kW	Incremental kWh
Homes	37	2	26,655

**Additional Comments:**

- Awareness of the program amongst social agencies took time to develop. Benefits started to become evident in late 2012.
- Centralized payment processes were not developed in 2011. The payment process was established in 2012.
- 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**

2012 evaluation results for the OPA-Contracted Province-Wide CDM programs offered by WNH has been segmented by initiative and summarized in Table 25, while summarized results are presented in Table 26. These results were taken directly from WNH's 2012 Verified Annual Report Data provided by the OPA<sup>4</sup>.

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<sup>4</sup> 2012 results have been adjusted for discrepancies in the 2011 results previously reported by the OPA and as a result, WNH's energy and peak demand incremental savings for 2012 have been negatively impacted. Furthermore, the results provided by the OPA did not include a number of projects completed in 2012. WNH actual net incremental 2012 results achieved in 2012 are 2.6 MW of peak demand savings and 6.1 GWh's of energy savings.

**Table 25 – Evaluation Results**

Initiative	Unit	Incremental Activity (new program activity occurring within the specified reporting period)				Net Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period)				Net Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period)				Program-to-Date Verified Progress to Target (excludes DR)	
		2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2014 Net Annual Peak Demand Savings (kW)	2011-2014 Net Cumulative Energy Savings (kWh)
														2014	2014
<b>Consumer Program</b>															
Appliance Retirement	Appliances	433	246			24	14			180,566	99,292			39	1,020,038
Appliance Exchange	Appliances	22	75			2	11			3,051	18,832			12	67,543
HVAC Incentives	Equipment	1,438	1,126			417	255			773,162	439,314			672	4,410,589
Conservation Instant Coupon Booklet	Items	4,987	309			11	2			186,550	14,008			14	788,226
BI-Annual Retailer Event	Items	8,720	10,629			17	15			294,427	268,321			32	1,982,671
Retailer Co-op	Items	0	0			0	0			0	0			0	0
Residential Demand Response (switch/pstat)	Devices	129	0			72	0			0	0			0	0
Residential Demand Response (IHD)	Devices	0	0			0				0					
Residential New Construction	Homes	0	0			0	0			0	0			0	0
<b>Consumer Program Total</b>						<b>544</b>	<b>298</b>			<b>1,437,756</b>	<b>839,767</b>			<b>768</b>	<b>8,269,067</b>
<b>Business Program</b>															
Retrofit	Projects	40	53			263	762			1,433,122	4,566,653			1,007	19,342,009
Direct Install Lighting	Projects	214	106			248	82			617,168	307,810			258	3,181,057
Building Commissioning	Buildings	0	0			0	0			0	0			0	0
New Construction	Buildings	0	1			0	4			0	3,763			4	11,288
Energy Audit	Audits	0	7			0	36			0	176,234			36	528,701
Small Commercial Demand Response	Devices	8	0			5	0			0	0			0	0
Small Commercial Demand Response (IHD)	Devices	0	0			0				0				0	0
Demand Response 3	Facilities	3	3			111	111			4,323	1,614			0	5,938
<b>Business Program Total</b>						<b>626</b>	<b>996</b>			<b>2,054,613</b>	<b>5,056,074</b>			<b>1,305</b>	<b>23,068,992</b>
<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	11				180				1,128,878				180	4,515,511
Demand Response 3	Facilities	4	7			392	1,260			23,003	30,360			0	53,363
<b>Industrial Program Total</b>						<b>572</b>	<b>1,260</b>			<b>1,151,881</b>	<b>30,360</b>			<b>180</b>	<b>4,568,873</b>
<b>Home Assistance Program</b>															
Home Assistance Program	Homes	0	37			0	2			0	26,655			2	79,966
<b>Home Assistance Program Total</b>						<b>0</b>	<b>2</b>			<b>0</b>	<b>26,655</b>			<b>2</b>	<b>79,966</b>
<b>Pre-2011 Programs completed in 2011</b>															
Electricity Retrofit Incentive Program	Projects	28	0			181	0			913,663	0			181	3,654,650
High Performance New Construction	Projects	5	1			182	21			932,887	105,383			203	4,047,698
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>362</b>	<b>21</b>			<b>1,846,550</b>	<b>105,383</b>			<b>384</b>	<b>7,702,349</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>0</b>
<b>Adjustments to Previous Year's Verified Results</b>															
Energy Efficiency Total															
Demand Response Total (Scenario 1)						1,524	1,206			6,463,473	6,026,264			2,640	43,629,946
OPA-Contracted LDC Portfolio Total (inc. Adjustments)						580	1,371			27,327	31,974			0	59,300
						2,104	2,541			6,490,800	5,468,441			2,602	41,324,188
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:		15,790	66,490,000
												% of Full OEB Target Achieved to Date (Scenario 1):		16.5%	62.2%

**Table 26: 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	0.58	1.44	0.29	0.84	0.76	8.26
Business Program Total	1.31	7.02	0.99	5.05	1.30	23.06
Industrial Program Total	1.25	0.03	1.20	0.03	0.18	4.56
Home Assistance Program Total	0.00	0.02	0.00	0.02	0.00	0.07
Pre-2011 Programs completed in 2011 Total	0.02	0.10	0.02	0.10	0.38	7.70
<b>Total OPA Contracted Province-Wide CDM Programs</b>	<b>3.17</b>	<b>8.60</b>	<b>2.50</b>	<b>6.04</b>	<b>2.62</b>	<b>43.62</b>

## **4.2 Evaluation**

Evaluation findings for the OPA-Contracted Province-Wide CDM program offered by WNH were provided by the OPA from the document “Final 2012 EM&V Findings” posted on the IESO web portal on August 30, 2013.

### **4.2.1 Consumer Program**

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

15% lower net savings due to a 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.

### **peaksaver PLUS<sup>®</sup>**

- 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 would not 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.

### **4.2.2 Business Program**

#### **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 affects the persistence of savings over the lifetime of lighting measures.

### **Existing Building Commissioning**

- 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.

## **4.2.3 Industrial Program**

### **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 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.

#### **4.2.4 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

2012 spending for the OPA-Contracted Province-Wide CDM program offered by WNH has been segmented by initiative and summarized in Table 27 while cumulative spending is segmented by initiative and summarized in Table 28.

**Table 27: 2012 Incremental Spending**

#	Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
<b>Consumer Program</b>						
1	Appliance Retirement	\$ 31,209.93	\$ -	\$ -	\$ -	\$ 31,209.93
2	Appliance Exchange	\$ 1,000.83	\$ -	\$ -	\$ -	\$ 1,000.83
3	HVAC Incentives	\$ 39,790.47	\$ -	\$ -	\$ -	\$ 39,790.47
4	Conservation Instant Coupon Booklet	\$ 38,063.41	\$ -	\$ -	\$ -	\$ 38,063.41
5	Bi-Annual Retailer Event	\$ -	\$ -	\$ -	\$ -	\$ -
6	Retailer Co-op	\$ -	\$ -	\$ -	\$ -	\$ -
7	Residential Demand Response	\$ 10,897.42	\$ -	\$ -	\$ -	\$ 10,897.42
10	New Construction Program	\$ 2,448.89	\$ -	\$ -	\$ -	\$ 2,448.89
<b>Business Program</b>						
11	Efficiency: Equipment Replacement	\$ 109,822.41	\$ -	\$ 402,532.10	\$ -	\$ 512,354.51
12	Direct Installed Lighting	\$ 14,593.34	\$ 28,060.00	\$ 116,536.75	\$ -	\$ 159,190.09
14	Existing Building Commissioning Incentive	\$ 854.63	\$ -	\$ -	\$ -	\$ 854.63
15	New Construction and Major Renovation	\$ 26,542.05	\$ -	\$ 6,155.00	\$ -	\$ 32,697.05
16	Energy Audit	\$ 19,222.24	\$ -	\$ 18,474.20	\$ -	\$ 37,696.44
17	Commercial Demand Response		\$ -	\$ -	\$ -	\$ -
19	Demand Response 3	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Industrial Program</b>						
20	Process & System Upgrades					
	a) preliminary study	\$ 1,870.92	\$ -	\$ -	\$ -	\$ 1,870.92
	b) engineering study	\$ 1,870.93	\$ -	\$ -	\$ -	\$ 1,870.93
	c) program incentive	\$ 2,416.78	\$ -	\$ -	\$ -	\$ 2,416.78
21	Monitoring & Targeting	\$ 2,123.32	\$ -	\$ -	\$ -	\$ 2,123.32
22	Energy Manager	\$ 2,715.27	\$ -	\$ -	\$ -	\$ 2,715.27
23	Key Account Manager	\$ 3,731.46	\$ -	\$ -	\$ -	\$ 3,731.46
24	Equipment Replacement Incentive Initiative	Included as part of Efficiency: Equipment Replacement Business Initiative				
25	Demand Response 3	\$ 17,724.78	\$ -	\$ -	\$ -	\$ 17,724.78
<b>Home Assistance Program</b>						
26	Home Assistance Program	\$ 20,998.71	\$ 6,800.00	\$ 2,058.00	\$ -	\$ 29,856.71
<b>Pre 2011 Programs Completed in 2011</b>						
27	Electricity Retrofit Incentive Program	\$ -	\$ -	\$ -	\$ -	\$ -
28	High Performance New Construction	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Initiatives Not In Market</b>						
29	Midstream Electronics	\$ -				\$ -
30	Midstream Pool Equipment	\$ -				\$ -
31	Demand Service Space Cooling	\$ -				\$ -
32	Demand Response 1 (Commercial)	\$ -				\$ -
33	Demand Response 1 (Industrial)	\$ -				\$ -
34	Home Energy Audit Tool	\$ -				\$ -
<b>TOTAL Province-wide CDM PROGRAMS</b>						<b>\$ 928,513.83</b>

**Table 28: 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>						
1	Appliance Retirement	\$ 41,360.51	\$ -	\$ -	\$ -	\$ 41,360.51
2	Appliance Exchange	\$ 1,179.40	\$ -	\$ -	\$ -	\$ 1,179.40
3	HVAC Incentives	\$ 52,544.78	\$ -	\$ -	\$ -	\$ 52,544.78
4	Conservation Instant Coupon Booklet	\$ 50,488.91	\$ -	\$ -	\$ -	\$ 50,488.91
5	Bi-Annual Retailer Event	\$ -	\$ -	\$ -	\$ -	\$ -
6	Retailer Co-op	\$ -	\$ -	\$ -	\$ -	\$ -
7	Residential Demand Response	\$ 11,926.49	\$ -	\$ -	\$ -	\$ 11,926.49
10	New Construction Program	\$ 3,084.88	\$ -	\$ -	\$ -	\$ 3,084.88
<b>Business Program</b>						
11	Efficiency: Equipment Replacement	\$ 202,841.37	\$ -	\$ 477,056.10	\$ -	\$ 679,897.47
12	Direct Installed Lighting	\$ 24,706.73	\$ 81,281.00	\$ 314,122.00	\$ -	\$ 420,109.73
14	Existing Building Commissioning Incentive	\$ 2,515.80	\$ -	\$ -	\$ -	\$ 2,515.80
15	New Construction and Major Renovation	\$ 30,455.50	\$ -	\$ 6,155.00	\$ -	\$ 36,610.50
16	Energy Audit	\$ 32,281.68	\$ -	\$ 18,474.20	\$ -	\$ 50,755.88
17	Commercial Demand Response	\$ -	\$ -	\$ -	\$ -	\$ -
19	Demand Response 3	\$ 2,206.42	\$ -	\$ -	\$ -	\$ 2,206.42
<b>Industrial Program</b>						
20	Process & System Upgrades					
	a) preliminary study	\$ 4,800.02	\$ -	\$ -	\$ -	\$ 4,800.02
	b) engineering study	\$ 4,800.03	\$ -	\$ -	\$ -	\$ 4,800.03
	c) program incentive	\$ 5,345.88	\$ -	\$ -	\$ -	\$ 5,345.88
21	Monitoring & Targeting	\$ 4,992.89	\$ -	\$ -	\$ -	\$ 4,992.89
22	Energy Manager	\$ 5,563.38	\$ -	\$ -	\$ -	\$ 5,563.38
23	Key Account Manager	\$ 3,731.46	\$ -	\$ -	\$ -	\$ 3,731.46
23	Equipment Replacement Incentive Initiative	Included as part of Efficiency: Equipment Replacement Business Initiative				
25	Demand Response 3	\$ 20,732.72	\$ -	\$ -	\$ -	\$ 20,732.72
<b>Home Assistance Program</b>						
26	Home Assistance Program	\$ 25,588.59	\$ 6,800.00	\$ 2,058.00	\$ -	\$ 34,446.59
<b>Pre 2011 Programs Completed in 2011</b>						
27	Electricity Retrofit Incentive Program	\$ 18,458.30	\$ 27,272.07	\$ 5,950.99	\$ -	\$ 51,681.36
28	High Performance New Construction	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Initiatives Not In Market</b>						
29	Midstream Electronics	\$ 178.57				\$ 178.57
30	Midstream Pool Equipment	\$ 178.57				\$ 178.57
31	Demand Service Space Cooling	\$ 597.02				\$ 597.02
32	Demand Response 1 (Commercial)	\$ 2,206.42				\$ 2,206.42
33	Demand Response 1 (Industrial)	\$ 3,007.96				\$ 3,007.96
34	Home Energy Audit Tool	\$ 178.57				\$ 178.57
<b>TOTAL Province-wide CDM PROGRAMS</b>						<b>\$ 1,495,122.20</b>

## 4.4 Additional Comments

Although the 2011 – 2014 framework provides a period of four-year certainty surrounding the initiatives and their associated incentives, engaging customers, getting into their business cycles and capital budgets requires significant time. As a result, many of the projects will move forward in subsequent years, thereby many of the savings WNH has projected will also be realized in the succeeding years.

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

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

Because of timing and the length of time required for the evaluation, verification and measurement process, the OPA has introduced a true factor to the 2012 verified final results report. This factor accounts for LDC specific initiative level true-up results from previous year, includes activity, net, and gross peak demand and energy savings. As part of the true up WNH experienced a significant negative impact because of the High Performance New Construction Initiative resulting in a decrease of 2.4 GWh's or 3.6% of achievement of WNH's 2011 – 2014 CDM Targets<sup>5</sup>. Although WNH agrees with the true up process the true up was not apparent until the 2012 final verified results were made available by the OPA on September 1, 2013, leaving WNH 16 months to make up for what was previously reported as achieved. Because of this true up, WNH is forecasting that the 2011 – 2014 energy savings target may not be achievable. Furthermore, WNH has significant concerns that future true ups will negatively impact

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<sup>5</sup> The negative true up for the High Performance New Construction program has been reported to been caused by an error in analyzing the reporting data for the initiative.

WNH's results and due to timing WNH will have little if no time to make up for the true ups.

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

A result of the OPA's evaluation, measurement and verification process is the program and initiative net to gross (NTG) factors. These NTG factors significantly affect the net results that LDC's are awarded, yet LDC's have very little influence over the factors. In addition, the NTG factors are provincially based and do not reflect LDC activity, impact and market conditions at a region level and therefore this one-size fits all approach diminishes efforts and results. Furthermore, large projects as a requirement of the initiatives have measured and verified base case and efficiency case results. These projects are discounted more than projects that require far less documentation and rigor. The theory of discounting projects that provide measured results, and then discounting as result of the measurement and verification process essentially results in double discounting. Lastly, the larger projects are more often than not the projects that moved forward as a direct result of the incentive opportunities the saveONenergy programs provide, whereas the simpler projects, that require less rigor in the application process are more likely to have occurred without the incentives.

## 5 Combined CDM Reporting Elements

### 5.1 Progress towards CDM Targets

WNH achieved an incremental net peak demand savings of 2.5 MW in 2015, of which 1.2 MW is expected to persist through 2014, which represents 7.6% of WNH's net peak demand target. 2012 net results include an adjustment from 2011, which resulted in WNH 2012 results being negatively impacted. Furthermore, the 2012 net incremental results did not include projects that were completed in 2012 and therefore is not fully reflective of the efforts put forward and where WNH actual stands with respect to achieving the 2013 targets. Table 29 summarizes net peak demand savings and their contribution towards the CDM targets.

**Table 29: Net Peak Demand Savings at the End User Level (MW)**

Implementation Period	Annual			
	2011	2012	2013	2014
2011 - Verified	2.1	1.5	1.5	1.5
2012 - Verified		2.5	1.2	1.2
2013				
2014				
<b>Verified Net Annual Peak Demand Savings Persisting in 2014:</b>				<b>2.6</b>
<b>Waterloo North Hydro Inc. 2014 Annual CDM Capacity Target:</b>				<b>15.8</b>
<b>Verified Portion of Peak Demand Savings Target Achieved in 2014(%):</b>				<b>16.5%</b>

WNH achieved an incremental net energy savings of 5.5 GWh's in 2012, resulting in a cumulative total of 15.8 GWh's in 2014, which represents 23.6% of WNH net energy target. 2012 net results include an adjustment from 2011, which resulted in WNH 2012 results being negatively impacted. Furthermore, the 2012 net incremental results do not include projects that were completed in 2012 and therefore is not fully reflective of the efforts put forward and where WNH actually stands with respect to achieving the 2013 targets. Table 30 summarizes net energy savings and their contribution towards the CDM targets.

**Table 30: Net Energy Savings at the End-User Level (GWh)**

Implementation Period	Annual				Cumulative 2011-2014
	2011	2012	2013	2014	
2011 - Verified	6.5	6.5	6.4	6.3	25.7
2012 - Verified		5.5	5.4	5.4	15.7
2013					
2014					
<b>Verified Net Cumulative Energy Savings 2011-2014:</b>					<b>41.3</b>
<b>Waterloo North Hydro Inc. 2011-2014 Cumulative CDM Energy Target:</b>					<b>66.5</b>
<b>Verified Portion of Cumulative Energy Target Achieved (%):</b>					<b>62.2%</b>

\*2011 energy adjustments included in cumulative energy savings.



## 5.2 Variance from Strategy

The CDM strategy filed by WNH on November 1, 2010 forecasted a net cumulative energy savings of 29.23 GWh and 8.3 MW with the delivery of OPA-Contracted Province-Wide CDM Programs by the end of 2012. And as per the net verified results in this report WNH has achieved net cumulative savings of 41.3 GWh's which is 41% higher than the forecasted cumulative 2014 energy savings and 2.6 MW which is 68% less than the forecasted cumulative 2014 peak demand savings.

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

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

- Increased program uptake with several initiatives as compared to what was forecasted.
- Cumulative effect of the realized net energy savings, that is the persistence was more significant than when the CDM strategy was developed and results forecasted.
- Input assumptions, models and estimates used for developing CDM strategy and forecasting of results such as net to gross, free ridership, realization rate and other factors used to evaluate the programs were in many cases different.
- Simpler, more favorable payback and higher return on investment opportunities are decreasing. As a result, the next phase of opportunities has a longer sales cycle, increased capital costs and project timelines leading to larger payback periods, lower returns, and projects completing outside of the 2011-2014 target period in some cases.

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

- Lack of persistence of demand response results as reported. The OPA assumes that demand response do not persist beyond one year. The results presented in this report do not reflect demand response resources currently under contract and should these contracts persist the variance would be decreased.
- Large project results not reflected in early results due to long project timelines. Therefore, larger projects are expected to decrease the variance in 2013 and 2014.
- Significant sales cycles, capital requirements, and project timelines for larger projects often result in project savings beyond the 2011-2014 target period.
- Demand reduction based programs such as Demand Response 3 and Residential Demand Response have significant barriers to entry and weigh heavily on results. As such, the remaining program initiatives do not offer enough peak demand savings.
- No attribution of TOU rates savings. WNH expects net demand savings because of TOU Rates would decrease the variance.
- Input assumptions, models and estimates used for developing CDM strategy and forecasting of results such as net to gross, free ridership, realization rate and other factors used to evaluate the programs were in many cases different.

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

WNH will be modifying its strategy based on the verified results presented in this report, 2013 progress to date and the forecasted cumulative 2014 results. The updated forecast prepared for this report shows that as with many other LDC's WNH will fall short of achieving the of the peak demand savings target by between 50 and 65%<sup>6</sup> versus WNH's 15.79 MW peak demand 2014 target, and a shortfall of 5 to 10% versus WNH's 66.59 GWh energy savings 2014 target. The decrease in GWh and MW achievements is attributed to number of factors, including but not limited to:

- Diminishing suite of programs,
- Delays in program launches,

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<sup>6</sup> A range has been provided as a number of factors identified in section 4.4 Additional Comments make it extremely difficult to accurately forecast WNH's achievement of the 2011 – 2014 CDM Targets.

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

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

Based on the foundation and framework developed in 2011, increased marketing, collaboration and partnerships, additional resourcing and program enhancements in 2012, WNH has observed a steady increase in market awareness, initiative uptake and the pipeline of projects.

## 6.0 Conclusion

Over the course of 2012, WNH has achieved 2.5 MW in peak demand savings and 5.4 GWh in energy savings, which represents 16.2% and 24.4% of WNH 2011-2014 CDM Targets respectively. Unfortunately, these results did not include several projects identified as completed in 2012 and therefore discount the efforts of WNH<sup>7</sup>. These results are representative of a considerable effort expended by WNH, in cooperation with other LDCs, customers, channel partners, and stakeholders to overcome many operational and structural issues that limited program effectiveness across all market sectors. This achievement is a success and the relationships built within the 2011-2014 CDM program term will aid results in a subsequent CDM term.

However, despite continual improvements to existing programs WNH faces challenges in the remaining years due to the current CDM framework. With the current slate of available OPA Programs, and the current forecast of implementation and projected savings, WNH expects to fall short of meeting both the 15.79 MW demand savings target and 66.5 GWh energy savings target by the end of 2014.

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.

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<sup>7</sup> 2012 results have been adjusted for discrepancies in the 2011 results previously reported by the OPA and as a result, WNH's energy and peak demand incremental savings for 2012 have been negatively impacted. Furthermore, the results provided by the OPA did not include a number of projects completed in 2012. The OPA reports that these projects will be picked up in the 2012 true up in the 2013 final verified results. WNH actual net incremental 2012 results achieved in 2012 including projects that the OPA omitted are 2.6 MW of peak demand savings and 6.1 GWh's of energy savings, which represents 16.5% and 27.5% of WNH's 2011-2014 CDM targets respectively.

## Appendix A: Initiative Descriptions

### RESIDENTIAL PROGRAM

#### APPLIANCE RETIREMENT INITIATIVE

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

**Initiative Frequency:** Year round

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

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

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

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

Additional detail is available:

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

**In Market Date:** January 26, 2011

#### APPLIANCE EXCHANGE INITIATIVE

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

**Initiative Frequency:** Spring and Fall

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

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

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

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

Additional detail is available:

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

**In Market Date:** January 26, 2011

## **HVAC INCENTIVES INITIATIVE**

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

**Initiative Frequency:** Year round

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

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

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

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

Additional detail is available:

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

**In Market Date:** January 26, 2011

## **CONSERVATION INSTANT COUPON INITIATIVE**

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

**Initiative Frequency:** Year round

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

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

**In Market Date:** January 26, 2011

## **BI-ANNUAL RETAIL EVENT INITIATIVE**

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

**Initiative Frequency:** Bi-annual events

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

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

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

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

Additional detail is available:

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

**In Market Date:** January 26, 2011

## **NEW CONSTRUCTION INITIATIVE**

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

**Initiative Frequency:** Year round

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

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

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

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

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

Additional detail is available:

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

**In Market Date:** January 26, 2011

## **RESIDENTIAL DEMAND RESPONSE PROGRAM INITIATIVE**

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

**Initiative Frequency:** Year round



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

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

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

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

Additional detail is available:

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

**In Market Date:** September 30, 2013

## COMMERCIAL AND INSTITUTIONAL PROGRAM

### EFFICIENCY REPLACEMENT INCENTIVE INITIATIVE

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

**Initiative Frequency:** Year round

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

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

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

**Delivery:** LDC delivered.

Additional detail is available:

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

**In Market Date:** March 1, 2011

## **DIRECT INSTALL LIGHTING INITIAITVE**

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

**Initiative Frequency:** Year round

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

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

**Target End Uses:** Lighting and electric water heating measures

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

Additional detail is available:

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

**In Market Date:** May 1, 2011

## **EXISITING BUILDING COMMISSIONING INCENTIVE INITIAITVE**

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

**Initiative Frequency:** Year round

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

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

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

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

**Delivery:** LDC delivered.

Additional detail is available:

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

**In Market Date:** March 1, 2011

## HIGH PERFORMANCE NEW CONSTRUCTION INITIAITIVE

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

**Initiative Frequency:** Year round

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

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

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

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

Additional detail is available:

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

**In Market Date:** November 1, 2011

## ENERGY AUDIT INITIATIVE

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

**Initiative Frequency:** Year round

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

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

**Targeted End Uses:** Various

**Delivery:** LDC delivered.

Additional detail is available:

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

**In Market Date:** March 1, 2011

## INDUSTRIAL PROGRAM

### PROCESS AND SYSTEMS INITIATIVE (PSUI)

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

**Initiative Frequency:** Year round

**Objectives:** The objectives of this Initiative are to:

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

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

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

**Targeted End Uses:** Process and systems

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

Additional detail is available:

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

**In Market Date:** May 31, 2011

## **MONITORING AND TARGETING INITIAITVE**

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

**Initiative Frequency:** Year round

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

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

**Targeted End Uses:** Process and systems

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

Additional detail is available:

- Schedule D-2

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

**In Market Date:** May 31, 2011

## **ENERGY MANAGER INITIATIVE**

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

**Initiative Frequency:** Year round

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

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

**Targeted End Uses:** Process and systems

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

Additional detail is available:

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

**In Market Date:** May 31, 2011

## **KEY ACCOUNT MANAGER (KAM)**

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

**Initiative Frequency:** Year round

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

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

**Targeted End Uses:** Process and systems

**Delivery:** LDC delivered

Additional detail is available:

- ScheduleD-4

**In Market Date:** May 31, 2011

### **DEMAND RESPONSE 3**

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

**Initiative Frequency:** Year round

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

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

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

**Delivery:** DR3 is delivered by Demand Response Providers (“DRPs”), under contract to the OPA. The OPA administers contracts with all DRPs and Direct Participants (who provide in excess of 5 MW of demand response capacity). OPA provides administration

including settlement, measurement and verification, and dispatch. LDCs are responsible for local customer outreach and marketing efforts.

Additional detail is available:

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

**In Market Date:** May 31, 2011

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

## **LOW INCOME INITIATIVE (HOME ASSISTANCE PROGRAM)**

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

**Initiative Frequency:** Year Round

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

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

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

**Delivery:** LDC delivered.

Additional detail is available:

- Schedule E

**In Market Date:** January 3, 2012



## Appendix B: Pre-2011 Programs

### ELECTRICITY RETROFIT INCENTIVE PROGRAM

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

**Initiative Frequency:** Year Round

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

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

**Targeted End Uses:** Electricity savings measures

**Delivery:** LDC Delivered

### HIGH PERFORMANCE NEW CONSTRUCTION

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

**Initiative Frequency:** Year round

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

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

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

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