



Waterloo North Hydro Inc.

Electricity Distributor License ED-2002-0575

**Conservation and Demand Management
2011 Annual Report**

Submitted to:

Ontario Energy Board

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Executive Summary

Waterloo North Hydro Inc. (WNH) in accordance with the filing requirements in the CDM Code is required to file an annual report showing its progress with respect to its CDM targets. Accordingly, this report outlines WNH's CDM activities for the period of January 1, 2011 to December 31, 2011 and net peak demand and net energy savings achieved in 2011.

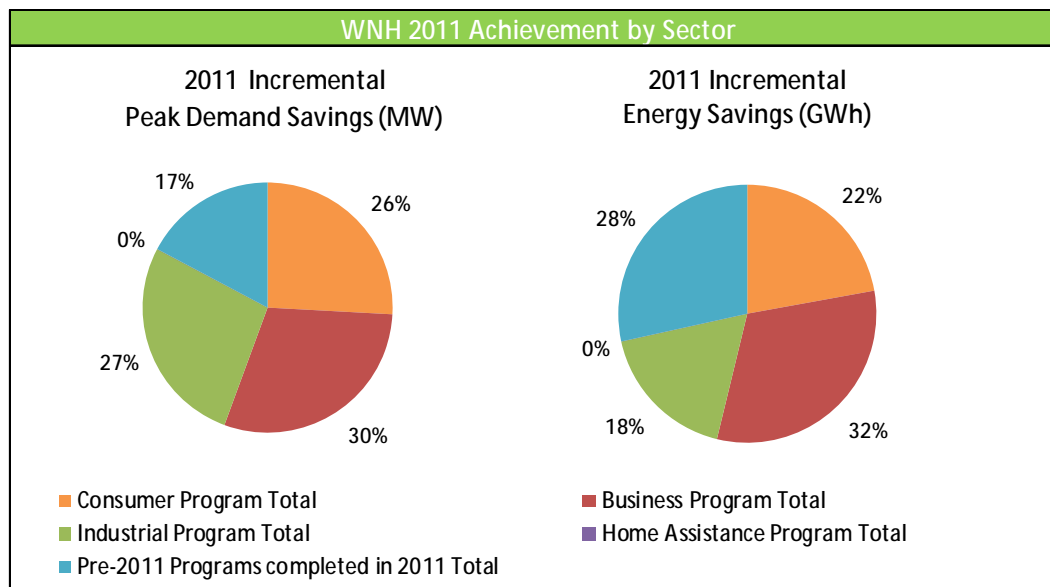
In 2011, WNH contracted with the Ontario Power Authority (OPA) to deliver a portfolio of OPA-Contracted Province-Wide CDM Programs to all customer segments including residential, commercial, institutional, industrial and low income. WNH did not apply for any Board-Approved CDM Programs in 2011 and therefore the results presented are as a result of the delivery of the OPA-Contracted Province-Wide CDM Programs.

WNH achieved 2.10 MW of net incremental peak demand savings and 6.49 GWh's of net incremental energy savings in 2011. A summary of the achievements towards the CDM targets is shown in Table 1.

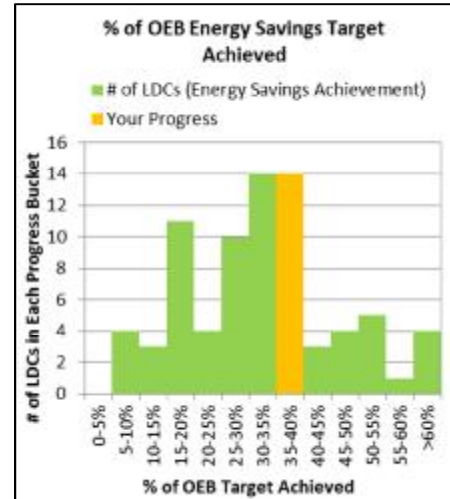
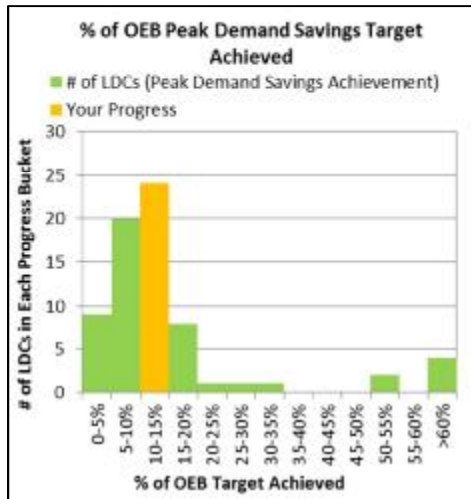
Table 1: 2011 Contribution to CDM targets

CDM Measure	Target	Incremental 2011 Net Savings	Cumulative to 2014			
			No DR Persistence	DR Persistence	% of Target 1 Year DR Persistence	% of Target 2014 DR Persistence
Net Peak Demand Savings (MW)	15.79	2.10	1.45	2.10	9.18%	13.32%
Net Energy Savings (GWh)	66.49	6.49	25.69	25.73	38.64%	38.70%

WNH achievements towards the CDM targets are well balanced across the sectors services as illustrated by the graph below.



Furthermore, WNH's 2011 achievements when compared to the greater LDC community illustrate that WNH is in good company with regards to peak demand achievements and positioned ahead of many LDC's in achievement of energy savings towards the CDM targets.



Much of the success achieved by WNH in 2011 is a direct result of focusing on partnerships, education and engagement. In 2011, WNH partnered with neighbouring local distribution companies Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro (collectively known as the CKW Group) in an effort to leverage our geographic proximity, resources and budgets to gain efficiencies in program delivery. This partnership enabled the CKW Group to educate and engage several hundred regional channel partners resulting in expanding the sales and marketing network from a mere few to several hundred. Furthermore, the partnership enabled the CKW Group to collectively educate and engage customers and stakeholders efficiently thereby increasing program uptake and achievements.

As 2011 was a year of laying the foundation and building the framework for the delivery of the OPA-Contracted Province-Wide CDM Programs, the results achieved by WNH provide significant contributions towards WNH's CDM targets. As a result WNH has the confidence that they will achieve the cumulative CDM targets by continuing to deliver the existing OPA-Contracted Province-Wide CDM Programs as well as implementing a number of options that may include, but are not limited to:

- Enhanced or new OPA-Contracted Province-Wide CDM initiatives
- New Board-Approved programs,
- Leveraging other initiatives (such as TOU rates, province wide marketing and promotion initiatives such as the PLEDGE)

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 licence of WNH to require WNH, as a condition of its licence, to achieve 66.49 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 licences. 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 an annual report with the Board by September 30 of each year. This Annual Report is therefore prepared in accordance with the filing requirements as set out in the CDM Code, Board File No. EB-2010-0215 and covers the period from January 1, 2011 to December 31, 2011.

1 Board-Approved CDM Programs

1.1 Introduction

In its Decision and Order dated November 12, 2010 (**EB-2010-0215 & EB-2010-0216**), the OEB ordered that, (to meet its mandatory CDM targets), “Each licensed electricity distributor must, as a condition of its 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 is the only Board-Approved Conservation and Demand Management (“CDM”) program that is being offered in WNH’s service area.

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. As of September 30, 2012, the OPA has not released its preliminary results of TOU savings to distributors. Therefore WNH is not able to provide any verified savings related to WNH’s TOU program at this time.

1.2 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 has been provided in Table 2.

Table 2: RPP TOU Pricing

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

Delivery: OEB set rates; LDC installation and maintenance of the meter; LDC converts customers to TOU billing.

Initiative Activities/Progress:

WNH began transitioning its RPP customers to TOU billing May of 2011 and as of December 31st, 2011, 49,086 RPP customers were on TOU billing representing 94.22 % of WNH's mandated customer base.

1.3 Participation

As of December 31, 2011, there were 49,086 WNH RPP customers enrolled in TOU billing representing 94.22 % of WNH's mandated customer base. Of those, 46,618 are residential customers and 2,468 are non-residential customers.

1.4 Spending

WNH does not have any spend to report for the period of January 1, 2011 to December 31, 2011 in relation to TOU billing as a Board-Approved CDM Program. Costs associated with the implementation of TOU pricing are recoverable through distribution rates, and not through the Global Adjustment Mechanism (GAM).

1.5 Evaluation

In accordance with CDM Guidelines dated April 26, 2012 (Board File No. EB-2012-0003), the OEB requires that any evaluations of savings from TOU pricing should be conducted by the OPA for the province then allocated to distributors. WNH will report these results upon receipt from the OPA. As of September 30, 2012, the OPA has not released its preliminary results of TOU savings to distributors; therefore, WNH is not able to provide any verified savings related to TOU program at this time.

1.6 CDM Variance Account

WNH did not offer any Board-Approved CDM Programs from January 1, 2011 to December 31, 2011 and therefore did not create a CDM Variance Account to address TOU costs.

1.7 Additional Comments

WNH anticipates savings resulting from TOU to count towards its CDM targets. Estimated TOU savings will be determined when the OPA releases its TOU evaluation plan and allocation methodology to LDCs.

2 OPA-Contracted Province-Wide CDM Programs

2.1 Introduction

Effective February 25, 2011, WNH entered into an agreement with the OPA to deliver OPA-Contracted Province-Wide CDM programs extending from January 1, 2011 to December 31, 2014, which are summarized in Table 3. It also includes references to this document where their descriptions, objectives, and activities are detailed. In addition to the OPA-Contracted Province-Wide CDM Programs, pre-2011 Programs, 2010 Programs extended into 2011, were added to the list.

Table 3: OPA-Contracted Province-Wide CDM Programs in Market in 2011

Initiative	Schedule	Date Schedule Posted	Customer Class
Residential Program			
Appliance Retirement	Schedule B-1, Exhibit D	Jan 26 2011	All residential rate classes
Appliance Exchange	Schedule B-1, Exhibit E	Jan 26 2011	All residential rate classes
HVAC Incentives	Schedule B-1, Exhibit B	Jan 26 2011	All residential rate classes
Conservation Instant Coupon Booklet	Schedule B-1, Exhibit A	Jan 26 2011	All residential rate classes
Bi-Annual Retailer Event	Schedule B-1, Exhibit C	Jan 26 2011	All residential rate classes
Retailer Co-op		Jan 26 2011	All residential rate classes
Residential Demand Response	Schedule B-3	Aug 22 2011	All general service classes
New Construction Program	Schedule B-2	Jan 26 2011	All residential rate classes
Commercial & Institutional Program			
Efficiency: Equipment Replacement	Schedule C-2	Jan 26 2011	All general service classes
Direct Install Lighting	Schedule C-3	Jan 26 2011	General Service < 50 kW
Existing Building Commissioning Incentive	Schedule C-6	Feb-11	All general service classes
New Construction and Major Renovation	Schedule C-4	Feb-11	All general service classes
Energy Audit	Schedule C-1	26-Jan-11	All general service classes
Commercial Demand Response	Schedule B-3	26-Jan-11	All general service classes
Demand Response 3	Schedule D-6	31-May-11	General Service 50 kW & above
Industrial Program			
Process & System Upgrades	Schedule D-1	31-May-11	General Service 50 kW & above
Monitoring & Targeting	Schedule D-2	31-May-11	General Service 50 kW & above
Energy Manager	Schedule D-3	31-May-11	General Service 50 kW & above
Equipment Replacement Incentive Initiative	Schedule C-2	31-May-11	General Service 50 kW & above
Demand Response 3	Schedule D-6	31-May-11	General Service 50 kW & above
Home Assistance Program			
Home Assistance Program	Schedule E-1	9-May-11	All residential rate classes
Pre-2011 Programs completed in 2011			
Electricity Retrofit Incentive Program	n/a	n/a	All general service classes
High Performance New Construction	n/a	n/a	All general service classes

Several initiatives that were included in the schedules were not in market in 2011, as shown in Table 4. The OPA has communicated that the initiatives listed in the table below were not in market in 2011 and that they represent a very small percentage of the forecasted energy and demand savings. During the 2011 program year, the OPA placed emphasis on supporting the implementation of initiatives that would offer the greatest ratepayer value and greatest amount of persisting savings.

Table 4: OPA-Contracted Province-Wide CDM Initiatives Not in Market in 2011

Initiative Not in Market in 2011	Objective	Status
Residential Program		
Midstream Electronics	The objective of this initiative is to encourage retailers to promote and sell high efficiency televisions, and for distributors to distribute high efficiency set top boxes.	Not launched to market
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.	Not launched to market
First Nations Program	First Nations programs are delivered by OPA and results are attributed to LDCs for reporting.	Not launched to market
Home Energy Audit Tool	This is a provincial online audit tool to engage customers in conservation and help drive customer participation to CDM programs.	Not launched to market
Commercial & Institutional Program		
Direct Service Space Cooling	The objective of this initiative is to offer free servicing of air conditioning systems and refrigeration units for the purpose of achieving energy savings and demand reduction.	Not launched to market in 2011. The OPA has no plans to launch this initiative 2012
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
Industrial Program		
Demand Response 1	As above	No customer uptake for this initiative

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

2.2 Introduction

2.2.1 RESIDENTIAL PROGRAM

2.2.1.1 APPLIANCE RETIREMENT INITIATIVE (Exhibit D)

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

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

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 province-wide marketing, call centre, appliance pick-up and decommissioning process. LDC provides local marketing and coordination with municipal pick-up where available.

Additional detail is available:

- Schedule B-1, Exhibit
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf and
- saveONenergy website <https://saveonenergy.ca/Consumer/Programs/Appliance-Retirement.aspx>

Initiative Activities/Progress: Below is a comprehensive list of initiatives and activities undertaken by WNH to promote the Residential Program offerings. Initiatives and activities were commonly undertaken to promote saveONenergy FOR HOME at a holistic program level rather than Initiative for better market penetration and to achieve cost-efficiencies. In addition to cobranding marketing between Initiatives, every effort was made to collaborate and share material, ad space and creative costs with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro Inc. in our endeavour to jointly deliver the program and drive efficiencies.

- Newspaper ads ran in the Waterloo Chronicle, Elmira Independent and Woolwich Observer weekly from September, 2011 to December 2011 jointly branded with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro to promote energy savings tips, the saveONenergy FOR HOME and mysaveONenergy PLEDGE initiatives.
- Full page advertisement in the Elmira Sugar Kings Junior B Hockey Club 2011 – 2012 program.

- Full page advertisement in the Woolwich Observer “Environment and Conservation” special insert.
- Newspaper advertisement in the Waterloo Region Record jointly branded with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro and to promote energy savings tips and saveONenergy FOR HOME programs during Earth Hour.
- Newspaper advertisement in the Waterloo Region Record “Going Green” special insert jointly branded with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro and to promote the fall mysaveONenergy PLEDGE initiative
- Buck slip sized, double sided bill insert distributed to all WNH customers in spring / summer period promoting saveONenergy FOR HOME initiatives.
- Business card size ad in the Greater KW Chamber of Commerce 2011 directory promoting the saveONenergy programs and initiatives.
- Program banners jointly branded with Cambridge and North Dumfries and Kitchener-Wilmot Hydro to promote the program in our lobby, shareholder offices and at special events.
- Sponsorship with the Kitchener Rangers Ontario Hockey League Club on the scoreboard with a commercial supporting the saveONenergy FOR HOME initiatives through the mysaveONenergy Pledge.
- Program brochure jointly branded with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro to promote the programs in our lobby and at special event.
- Distribution of WNH specific coupons, initiative brochures to community outreach partners for distribution at community events and partner offices.
- saveONenergy FOR HOME initiatives promoted via WNH website and LDC co-branded micro-site.
- Delivered lunch and learn sessions promoting the saveONenergy FOR HOME initiatives to a number of customer groups.

In Market Date: February 25, 2011

Lessons Learned:

- The Appliance Retirement Initiative (previously The Great Refrigerator Round-Up) has been offered by LDCs since 2007. This initiative is approaching market saturation.
- While the OPA and the LDCs have reviewed this initiative to assess whether to include other products, appliances have a natural life cycle and the initiative cannot be expected to continually deliver the high level of results in perpetuity. These lower expectations have been taken into account when developing conservation portfolios.
- This initiative now faces some competition from independent retailers and municipalities. Locally, the Region of Waterloo offers a strong curb-side pick-up program that does not require a pickup to be scheduled and at no cost to customers
- Results are very responsive to province wide advertising.

2.2.1.2 APPLIANCE EXCHANGE INITIATIVE (Exhibit E)

Target Customer Type(s): Residential Customers

Initiative Frequency: Spring and Fall

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

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

Targeted End Uses: Window air conditioners and portable dehumidifiers

Delivery: The OPA contracts with participating retailers for collection of eligible units.

Additional detail is available:

- Schedule B-1, Exhibit
[Chttp://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf) and
- saveONenergy website <https://saveonenergy.ca/Consumer.aspx>

Initiative Activities/Progress: WNH provided local marketing support by way of their website and co-branded micro site, but due to limited resources WNH did not attend any of the events.

In Market Date: February 25, 2011

Lessons Learned:

- The spring event had the participation of 3 retailers with 300 – 400 locations across the province. However, the Fall 2011 event had no retailer participation, therefore savings budgeted by the LDCs did not materialize.
- Evaluation, Measurement, and Verification (EMV) results indicated that the value of savings for retired room AC has dropped.
- The initiative may be achieving market saturation.
- The type of unit turned in is very dependent upon what is promoted by the retailers.
- Limited engagement of local franchised retailers can restrict the savings potential for this Initiative.

2.2.1.3 HVAC INCENTIVES INITIATIVE (Exhibit B)

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

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

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

Targeted End Uses: Central air conditioners and furnaces

Delivery: OPA contracts centrally for delivery of the program and LDCs are encouraged to convince local contractors to participate in the Initiative.

Additional detail is available:

- Schedule B-1, Exhibit B
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholder_s/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf and
- saveONenergy website <https://saveonenergy.ca/Consumer.aspx>

Initiative Activities/Progress: Below is a comprehensive list of initiatives and activities undertaken by WNH to promote the Residential Program offerings. Initiatives and activities were commonly undertaken to promote saveONenergy FOR HOME at a

holistic program level rather than Initiative for better market penetration and to achieve cost-efficiencies. In addition to cobranding marketing between Initiatives, every effort was made to collaborate and share material, ad space and creative costs with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro Inc. in our endeavour to jointly deliver the program and drive efficiencies.

- Newspaper ads ran in the Waterloo Chronicle, Elmira Independent and Woolwich Observer weekly from September, 2011 to December 2011 jointly branded with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro to promote energy savings tips, the saveONenergy FOR HOME and mysaveONenergy PLEDGE initiatives.
- Full page advertisement in the Elmira Sugar Kings Junior B Hockey Club 2011 – 2012 program.
- Full page advertisement in the Woolwich Observer “Environment and Conservation” special insert.
- Newspaper advertisement in the Waterloo Region Record jointly branded with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro and to promote energy savings tips and saveONenergy FOR HOME programs during Earth Hour.
- Newspaper advertisement in the Waterloo Region Record “Going Green” special insert jointly branded with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro and to promote the fall mysaveONenergy PLEDGE initiative
- Buck slip sized, double sided bill insert distributed to all WNH customers in spring / summer period promoting saveONenergy FOR HOME initiatives.
- Business card size ad in the Greater KW Chamber of Commerce 2011 directory promoting the saveONenergy programs and initiatives.
- Program banners jointly branded with Cambridge and North Dumfries and Kitchener-Wilmot Hydro to promote the program in our lobby, shareholder offices and at special events.
- Sponsorship with the Kitchener Rangers Ontario Hockey League Club on the scoreboard with a commercial supporting the saveONenergy FOR HOME initiatives through the mysaveONenergy Pledge.
- Program brochure jointly branded with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro to promote the programs in our lobby and at special event.

- Distribution of WNH specific coupons, initiative brochures to community outreach partners for distribution at community events and partner offices.
- saveONenergy FOR HOME initiatives promoted via WNH website and LDC co-branded micro-site.
- Delivered lunch and learn sessions promoting the saveONenergy FOR HOME initiatives to a number of customer groups.

In Market Date: February 25, 2011

Lessons Learned:

- Channel engagement is a highly effective method of connecting with customers; however channel partners require timeliness of the Rebate process to maintain a positive relationship between consumers, contractors, the OPA, and the participating LDC.
- There appears to be spillover from non-HRAI contractors who are ineligible for this initiative. There are cases where smaller independent contractors are offering their own incentives (by discounting their installations to match value of the OPA incentive) to make the sale. As this occurs outside of the initiative, these installations not being attributed to any LDC.

2.2.1.4 CONSERVATION INSTANT COUPON BOOKLET INITIATIVE (Exhibit A)

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

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

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

Targeted End Uses: ENERGY STAR® qualified standard compact fluorescent Lights (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, clotheslines, and baseboard programmable thermostats

Delivery: The OPA contracts centrally for the distribution of the coupon booklets across Ontario. The LDCs distribute coupons at local events and various print channels i.e. newspapers and bill inserts. The OPA enters into agreements with retailers to honour the coupons.

Additional detail is available:

- Schedule B-1, Exhibit A
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf and
- saveONenergy website <https://saveonenergy.ca/Consumer.aspx>

Initiative Activities/Progress: Below is a comprehensive list of initiatives and activities undertaken by WNH to promote the Residential Program offerings. Initiatives and activities were commonly undertaken to promote saveONenergy FOR HOME at a holistic program level rather than Initiative for better market penetration and to achieve cost-efficiencies. In addition to cobranding marketing between Initiatives, every effort was made to collaborate and share material, ad space and creative costs with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro Inc. in our endeavour to jointly deliver the program and drive efficiencies.

- Newspaper ads ran in the Waterloo Chronicle, Elmira Independent and Woolwich Observer weekly from September, 2011 to December 2011 jointly branded with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro to promote energy savings tips, the saveONenergy FOR HOME and mysaveONenergy PLEDGE initiatives.
- Full page advertisement in the Elmira Sugar Kings Junior B Hockey Club 2011 – 2012 program.
- Full page advertisement in the Woolwich Observer “Environment and Conservation” special insert.
- Newspaper advertisement in the Waterloo Region Record jointly branded with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro and to promote energy savings tips and saveONenergy FOR HOME programs during Earth Hour.
- Newspaper advertisement in the Waterloo Region Record “Going Green” special insert jointly branded with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro and to promote the fall mysaveONenergy PLEDGE initiative.
- Buck slip sized, double sided bill insert distributed to all WNH customers in spring / summer period promoting saveONenergy FOR HOME initiatives.
- Business card size ad in the Greater KW Chamber of Commerce 2011 directory promoting the saveONenergy programs and initiatives.

- Program banners jointly branded with Cambridge and North Dumfries and Kitchener-Wilmot Hydro to promote the program in our lobby, shareholder offices and at special events.
- Sponsorship with the Kitchener Rangers Ontario Hockey League Club on the scoreboard with a commercial supporting the saveONenergy FOR HOME initiatives through the mysaveONenergy Pledge.
- Program brochure jointly branded with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro to promote the programs in our lobby and at special event.
- Distribution of WNH specific coupons, initiative brochures to community outreach partners for distribution at community events and partner offices.
- saveONenergy FOR HOME initiatives promoted via WNH website and LDC co-branded micro-site.
- Delivered lunch and learn sessions promoting the saveONenergy FOR HOME initiatives to a number of customer groups.

In Market Date: February 25, 2011

Lessons Learned:

- The downloadable coupons proved to be more successful than the mailed out booklets.
- This Initiative may benefit from an enabler such as a Conservation Card / Loyalty Card to increase customer participation.
- The timeframe for retailer submission of redeemed coupons vary from retailer to retailer. This delays the results reporting, which in turn limits the OPA and LDC abilities to react and respond to initiative performance or changes in consumer behaviour.
- The Product list should be distinctive from the Bi-Annual Retailer Event Initiative in order to gain more consumer interest and uptake.
- Program evolution, including new products (for example, LED lighting) and review of incentive pricing for the coupon Initiatives, should be a regular activity to ensure continued consumer interest. To date this has not occurred.

2.2.1.5 BI-ANNUAL RETAILER EVENT INITIATIVE (Exhibit C)

Target Customer Type(s): Residential Customers

Initiative Frequency: Bi-annual events

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

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

Targeted End Uses: As per the Conservation Instant Coupon Booklet 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 as well as market the initiative in their distribution service territory.

Additional detail is available:

- Schedule B-1, Exhibit
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf and
- saveONenergy website <https://saveonenergy.ca/Consumer.aspx>

Initiative Activities/Progress: No marketing activities were undertaken at the local level for this Initiative. Results relied on spillover from the year-round coupon campaign and the marketing undertaken at a provincial and retailer level

In Market Date: March, 2011

Lessons Learned:

- The Product list has changed very little over the past four years.
- Program evolution, including new products (for example, LED lighting) and review of incentive pricing for the coupon initiatives, must be a regular activity to ensure continued consumer interest.
- 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.
- The Product list should be distinctive from the Conservation Instant Coupon Booklet Initiative in order to gain more consumer interest and uptake.

2.2.1.6 RETAILER CO-OP

Target Customer Type(s): Residential Customers

Initiative Frequency: Year Round

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

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

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

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

Initiative Activities/Progress: WNH did not participate in the Retailer Co-Op program in 2011 due to limited resources and local market options.

In Market Date: Not Applicable

Lessons Learned:

- 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.
- Limited engagement of local franchised retailers can restrict the savings potential for this Initiative.

2.2.1.7 NEW CONSTRUCTION PROGRAM (Schedule B-2)

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

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

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

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

Targeted End Uses: all off switch, ECM motors, ENERGY STAR qualified central a/c, lighting control products, lighting fixtures, EnerGuide 83 whole home, 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
[Chttp://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-2%20New%20Construction%20Program.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-2%20New%20Construction%20Program.pdf) and
- saveONenergy website <https://saveonenergy.ca/Consumer.aspx>

Initiative Activities/Progress: WNH provided local marketing and customer support of the initiative and promoted the initiative to both residential customers and local builders by way of printed brochures. Resistance from local home builders due to a cumbersome application process and relatively small incentives (as compared to the cost of the home and amount of time to complete and submit an application) has stalled uptake in WNH's service territory. Proposed changes to the application process should improve participation rates in 2012 and beyond.

In Market Date: February 25, 2012

Lessons Learned:

- There were limited (5) participants in the program. Because the online application system is a one to one relationship, this program was only practical for custom builders who were building one home at a time. Tract builders who might build 250 homes in a single phase would have to submit 250 applications to qualify for incentives. This administrative challenge has deterred all tract builders from participating in the program to date.
- Administrative requirements must align with perceived stakeholder payback. Changes are being processed through change management for 2012. However, the lengthy change management process has resulted in continued non-participation from builders.

2.2.1.8 RESIDENTIAL DEMAND RESPONSE PROGRAM (Schedule B-3)

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

Initiative Frequency: Year round

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

Description: In *peaksaver*PLUS™ participants are eligible to receive a free programmable thermostat or switch, including installation. Participants also receive access to price and real-time consumption information on an In Home Display (IHD). LDCs were given the choice to continue to offer the standard load control program (programmable thermostat or switch with a \$25 bill credit) for the first 8 months of 2011 (referred to as *peaksaver*® Extension). After August 2011, the Extension ended and the program (including marketing) ceased until new IHD products were available.

Targeted End Uses: Central air conditioning, electric water heaters and pool pumps.

Delivery: LDC's recruit customers, procure technology and have the technology installed on participating customer's equipment.

Additional detail is available:

- Schedule B-1, Exhibit
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/SCHED_2011_ResDR_B_3_110727%28MJB%29v15_redacted.pdf and
- saveONenergy website <https://saveonenergy.ca/Consumer.aspx>

Initiative Activities/Progress: Under the *peaksaver*® extension the 2010 *peaksaver*® program was offered to residential and small business customers. WNH is reviewing technologies and solutions for the *peaksaver*PLUS™ initiative to maximize existing infrastructure, limit stranded assets and provide a quality product to customers.

In Market Date: Due to delays in technology availability and interoperability, this program is not yet in market. However WNH offered customers the *peaksaver*® under and extension of the 2010 program from April 2011 to August 2011.

Lessons Learned:

- The schedule for Peaksaver Plus 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 Peaksaver Plus program until 2012.

- 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.
- Where a provincial solution is not available to all participants, attention to addressing specific LDC concerns is needed.

2.2.2 COMMERCIAL AND INSTITUTIONAL PROGRAM

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

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

Initiative Frequency: Year round

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

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

Targeted End Uses: Lighting, space cooling, ventilation, and other measures.

Delivery: LDC delivered.

Additional detail is available:

- Schedule C-2
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20C-2%20ERII%20Initiative.pdf
and
- saveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Retrofit-for-Commercial.aspx>

Initiative Activities/Progress: Below is a comprehensive list of delivery, marketing, promotion, outreach and educational, activities undertaken by WNH to promote the commercial and institutional initiatives. Marketing, promotional and outreach activities were commonly undertaken to promote saveONenergy FOR BUSINESS at a holistic program level rather than Initiative for better market penetration and to achieve cost-efficiencies, but much initiative level activities were implemented as a result of customer and initiative segmentation and program uptake. In addition to cobranding marketing between initiatives, every effort was made to collaborate and share material, ad space and creative costs with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro Inc. in our endeavour to jointly deliver the program and drive efficiencies.

Progress

- WNH saw significant program uptake and success as a result of the educational, promotional and outreach activities undertaken and as a result nearly 25% WNH's 2011 results were achieved as a result of the initiative.
- In collaboration with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro worked closely with Regional channel partners, thereby strengthening relationships and educating them on the benefits of higher efficiency technologies and saveONenergy FOR BUSINESS initiatives. As a result a greater audience was reached and additional projects were implemented as compared to solely working with and targeting the end user.

Delivery

- In collaboration with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro issued a Request for Proposal for the evaluation of retrofit applications; reviewed, scored and selected a delivery partner for application review.

Education, Marketing, Outreach and Promotion

- A series of key account breakfasts 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 may exist. In total three breakfast sessions were held in 2011 with topics focused introducing the new structure, initiatives and key program rules; building the energy management team and the energy efficiency business case; the AUDIT FUNDING initiative; and compressed air systems.
- In partnership with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro held the 2nd 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, 10 sessions were held to help

educate, inform, encourage and empower customers with energy conservation initiatives. Sessions topics included the following:

- saveONenergy FOR BUSINESS initiatives – ERII, Energy Audit, Existing Building and Commissioning, Demand Response and Energy Managers,
- Energy Audits and the Ten Most Common Problems with them,
- Compressed Air System Opportunities,
- Understanding the Future of Light,
- Sub-Metering and Energy Management Systems,
- High Velocity, Low Speed Fans,
- ISO 50001 Certification,
- High Performance New Construction initiative,
- Chiller Efficiency and Optimization, and
- Sustainable Waterloo's Region la Carbon Initiative

The event drew in over 300 business customers from across the Region of Waterloo and representatives from 7 LDC's outside of the region.

- Half-page advertisements in the Exchange Magazine promoting the saveONenergy FOR BUSINESS initiatives in collaboration with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro.
- In partnership with Kitchener-Wilmot Hydro sponsored the Greater KW Chamber of Commerce and promoted the saveONenergy FOR BUSINESS initiatives in their online newsletter as well as their bimonthly magazine. and participated in their annual Energy and Environment forum
- Regularly met with customers to educate them on the various initiatives, the process for completing applications and to perform site walkthroughs to identify areas of opportunity for energy conservation projects. In addition assistance with various steps of the project were provided including identifying opportunities, connecting the customers to the appropriate vendors and service providers, building the business case and application support.
- Initiative banners and sell sheets and folders jointly branded with Cambridge and North Dumfries and Kitchener-Wilmot Hydro to promote the initiatives were developed for education and engagement events.
- Sponsorship of Sustainable Waterloo (now Sustainable Waterloo Region) breakfast sessions that supporting the saveONenergy FOR BUSINESS initiatives.
- Delivered six hands-on training ERII modules to channel partners to help them become knowledgeable with the application process, program rules and further understand how and where to spot additional energy savings.

- WNH in partnership with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro 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 we would communicate our challenges and successes, acknowledge and celebrate channel partner successes and leverage these events to promote networking between channel partner segments.

In Market Date: April 2011

Lessons Learned:

- ERII (previously Equipment Replacement Incentive Program – ERIP) has been offered by LDCs for many years. It is a high performing, cost-effective program, and there were many pre-2011 projects completing in 2011 (via ERIP).
- An identified deficiency in the various renditions of the equipment replacement programs is the “hard stop” of the program as of a specific date. The ERIP program ended as of December 31, 2010 and the new ERII program was not made available until March 2011. Without a streamlined transition into a new program at the end of the old many customers become frustrated and refuse to participate. LDCs struggle to repair customer and channel partner relationships and gain momentum in the marketplace once again.
- A major challenge for the ERII program in 2011 was payment delays. The centralized electronic processes were not ready as required by the Master Agreement. The lack of having these automated processes, exasperated by a greater than expected volume of pre-2011 projects completing in 2011, caused considerable payment delays. As a result, LDCs either utilized their working capital to pay customer incentives in order to preserve customer relations, or delayed payment to their customers. Based on the lessons learned in the 2011 process, the centralized process review used for 2012 project payment has been streamlined by the OPA.
- In March 2011, the revised iCON system was launched by the OPA. This is the major online application system implemented to aid the 2011-2014 ERII application process. With system applications of this size and functionality, it was expected that there would be various issues identified at the time of the release, and on-going, to prove that the system was “ready for market.” Unfortunately, the resolution of these issues, with the corresponding time lags and workarounds, was seen to be a barrier to some customer participation in the 2011 program year. In addition, there were also on-going issues and limitations with the back-end CRM system that affected LDCs ability to effectively review and approve applications. Some LDCs (and their third party service providers) have developed parallel systems to monitor their applications.

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

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

Initiative Frequency: Year round

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

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

Target End Uses: Lighting and electric water heating measures.

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

Additional detail is available:

- Schedule C-3
<http://www.powerauthority.on.ca/sites/default/files/page/Schedule%20C-3%20Direct%20Install%20Initiative%20-%20redacted.pdf> and
- saveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Small-Business-Lighting-and-AC.aspx>

Initiative Activities/Progress:

Progress

- Waterloo North Hydro in partnership with their delivery partner has been very successful with the previous Power Savings Blitz program completing nearly 1,400 retrofits since program inception back in 2008. As a result of this success the number of eligible customers has significantly diminished therefore program participation continued to decrease, while the amount of effort to gain program participants is increasing as the remaining customers are more difficult to reach.

Delivery

- Waterloo North Hydro issued an extension to the existing program delivery contract with 2010 program delivery service provider to continue program delivery and momentum keep program momentum while developing a Request for Proposals for a program delivery partner. Under the extension all pending projects were reviewed and reassessed under the new program rules and

incentives in order to offer customers the new standard prescriptive incentives should their assessment exceed the \$1,000 limit.

- Waterloo North Hydro in partnership with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro issued a Request for Proposals for a program delivery services, reviewed the proposals and awarded a contract for program delivery service from September 1, 2011 to December 31, 2012.

Education, Outreach, Marketing and Promotion

- Under the new program delivery contract all remaining eligible program participants were contacted by an outbound call center explaining the program and setting up site assessments. In addition in field assessors were cold call eligible program participants and performing assessments to further increase participation.
- Outreach to eligible customers continued throughout the year by our delivery partner who cold called by phone and in person all remaining eligible customers to educate them on the program benefits and encourage uptake.
- WNH provided local marketing and customer support for the initiative by way of distribution of initiative promotional material at events and local Chamber of Commerce's and assisting customers in accessing the program and responding to initiative inquiries.

In Market Date: May 2011

Lessons Learned:

- The Direct Install Lighting Initiative is a continuation of the Power Saving Blitz Initiative offered by LDCs from 2008-2010. Successful execution of the previous rendition of this Initiative has resulted in diminished potential for the 2011-2014 Initiative in some LDC territories.
- The inclusion of a standard incentive for additional measures increased project size and drove higher energy and demand savings results in some situations.
- Ambiguity surrounding the definition of what is considered an eligible participant and eligible facility in the program has rendered previously eligible account ineligible. This has limited the opportunity to reach out to further business which may be owned by one landlord or be at one common service address, despite having separate unit numbers.
- The ability to return to prior participants and offer a standard incentive on the remaining measures has the potential to provide additional energy and demand

savings. Currently LDCs are unable to offer standard incentives to prior participants.

- As with the equipment replacement program, the direct install Initiative lost momentum in some LDC service territories due to the “hard stop” of the program in 2010 and subsequent program delay in 2011.
- The cost of materials has experienced price volatility, reducing the margins of the electrical contractors and has led to a reduction in vendor channel participation in some regions.
- Due to backlogs in the payment system, participant incentive payment from the OPA to the LDC, and therefore to the customer, was commonly delayed.
- To address these issues, the LDCs have been working with the OPA through Change Management to address:
 - extending the target initiative population to include small agricultural customers;
 - increasing the incentive envelope of \$1,000 to \$1,500 to ensure ongoing marketability of the program; and
 - reviewing the eligible measure price list to support contractor participation.

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

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

Initiative Frequency: Year round

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

Description: This Initiative offers Participants incentives for the following:

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

Targeted End Uses: Chilled water systems for space cooling.

Delivery: LDC delivered.

Additional detail is available:

- Schedule C-6
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20C-6%20Commissioning%20Initiative.pdfand
- saveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Existing-Building-Commissioning.aspx>

Initiative Activities/Progress: Below is a comprehensive list of delivery, marketing, promotion, outreach and educational, activities undertaken by WNH to promote the commercial and institutional initiatives. Marketing, promotional and outreach activities were commonly undertaken to promote saveONenergy FOR BUSINESS at a holistic program level rather than Initiative for better market penetration and to achieve cost-efficiencies, but much initiative level activities were implemented as a result of customer and initiative segmentation and program uptake. In addition to cobranding marketing between initiatives, every effort was made to collaborate and share material, ad space and creative costs with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro Inc. in our endeavour to jointly deliver the program and drive efficiencies.

Progress

- To date there has been no uptake with this initiative in WNH's distribution service territory. Discussions took place at an individual customer level to introduce this program. The nature of this program only lends itself to a very small number of WNH customer; therefore individual, on-site engagement was extensively utilized for promotion.

Education, Marketing, Outreach and Promotion

- A series of key account breakfasts 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 may exist. In total three breakfast sessions were held in 2011 with topics focused introducing the new structure, initiatives and key program rules; building the energy management team and the energy efficiency business case; the AUDIT FUNDING initiative; and compressed air systems.
- In partnership with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro held the 2nd 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, 10 sessions were held to help educate, inform, encourage and empower customers with energy conservation initiatives. Sessions topics included the following:

- saveONenergy FOR BUSINESS initiatives – ERII, Energy Audit, Existing Building and Commissioning, Demand Response and Energy Managers,
- Energy Audits and the Ten Most Common Problems with them,
- Compressed Air System Opportunities,
- Understanding the Future of Light,
- Sub-Metering and Energy Management Systems,
- High Velocity, Low Speed Fans,
- ISO 50001 Certification,
- High Performance New Construction initiative,
- Chiller Efficiency and Optimization, and
- Sustainable Waterloo's Region Ia Carbon Initiative

The event drew in over 300 business customers from across the Region of Waterloo and representatives from 7 LDC's outside of the region.

- Half-page advertisements in the Exchange Magazine promoting the saveONenergy FOR BUSINESS initiatives in collaboration with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro.
- In partnership with Kitchener-Wilmot Hydro sponsored the Greater KW Chamber of Commerce and promoted the saveONenergy FOR BUSINESS initiatives in their online newsletter as well as their bimonthly magazine. and participated in their annual Energy and Environment forum
- Regularly met with customers to educate them on the various initiatives, the process for completing applications and to perform site walkthroughs to identify areas of opportunity for energy conservation projects. In addition assistance with various steps of the project were provided including identifying opportunities, connecting the customers to the appropriate vendors and service providers, building the business case and application support.
- Sponsorship of Sustainable Waterloo (now Sustainable Waterloo Region) breakfast sessions that supporting the saveONenergy FOR BUSINESS initiatives.

In Market Date: March 2011

Lessons Learned:

- There was no customer uptake for this Initiative. It is suspected that the scope of the Initiative being limited to space cooling contributed to the lack of participation. Accordingly chilled water systems used for other purposes should be made eligible and considered through Change Management.
- The customer expectation is that the program be expanded to include broader building improvements for a more holistic approach to building recommissioning.

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

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

Initiative Frequency: Year round

Objective: The objective of this Initiative is to encourage builders 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
<http://www.powerauthority.on.ca/sites/default/files/page/ScheduleC-4NewConstructionInitiativeV2.pdf> and
- saveONenergy website <https://saveONenergy.ca/Business/Program-Overviews/New-Construction.aspx>

Initiative Activities/Progress: Below is a comprehensive list of delivery, marketing, promotion, outreach and educational, activities undertaken by WNH to promote the commercial and institutional initiatives. Marketing, promotional and outreach activities were commonly undertaken to promote saveONenergy FOR BUSINESS at a holistic program level rather than Initiative for better market penetration and to achieve cost-efficiencies, but much initiative level activities were implemented as a result of customer and initiative segmentation and program uptake. In addition to cobranding marketing between initiatives, every effort was made to collaborate and share material, ad space and creative costs with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro Inc. in our endeavour to jointly deliver the program and drive efficiencies.

Progress

- WNH experienced limited uptake in the initiative due to the delay in initiative schedule and program delivery service provider.

Delivery

- In collaboration with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro issued an RFP for the delivery and evaluation of the program. This process took longer than expected as there were new players in the market and a thorough review was required. Enbridge, a leading contender, encountered difficulty in finalizing their contract with Union Gas as a subcontractor to our area which further delayed the program and once this was finalized the contract was awarded to Enbridge.
- Union Gas was familiar with HPNC generation 1 and therefore was able to leverage existing, well established relationships with design build firms, engineering and architectural firms in the area and continued discussions with customers in the region.

Education, Marketing, Outreach and Promotion

- A series of key account breakfasts 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 may exist. In total three breakfast sessions were held in 2011 with topics focused introducing the new structure, initiatives and key program rules; building the energy management team and the energy efficiency business case; the AUDIT FUNDING initiative; and compressed air systems.
- In partnership with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro held the 2nd 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, 10 sessions were held to help educate, inform, encourage and empower customers with energy conservation initiatives. Sessions topics included the following:
 - saveONenergy FOR BUSINESS initiatives – ERII, Energy Audit, Existing Building and Commissioning, Demand Response and Energy Managers,
 - Energy Audits and the Ten Most Common Problems with them,
 - Compressed Air System Opportunities,
 - Understanding the Future of Light,
 - Sub-Metering and Energy Management Systems,
 - High Velocity, Low Speed Fans,
 - ISO 50001 Certification,
 - High Performance New Construction initiative,
 - Chiller Efficiency and Optimization, and
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The event drew in over 300 business customers from across the Region of Waterloo and representatives from 7 LDC's outside of the region.

- Half-page advertisements in the Exchange Magazine promoting the saveONenergy FOR BUSINESS initiatives in collaboration with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro.
- In partnership with Kitchener-Wilmot Hydro sponsored of the Greater KW Chamber of Commerce and promoted the saveONenergy FOR BUSINESS initiatives in their online newsletter as well as their bimonthly magazine. and participated in their annual Energy and Environment forum
- Regularly met with customers to educate them on the various initiatives, the process for completing applications and to perform site walkthroughs to identify areas of opportunity for energy conservation projects. In addition assistance with various steps of the project were provided including identifying opportunities, connecting the customers to the appropriate vendors and service providers, building the business case and application support.
- Initiative banners and sell sheets and folders jointly branded with Cambridge and North Dumfries and Kitchener-Wilmot Hydro to promote the initiatives were developed for education and engagement events.
- Sponsorship of Sustainable Waterloo (now Sustainable Waterloo Region) breakfast sessions that supporting the saveONenergy FOR BUSINESS initiatives.

In Market Date: November 2011

Lessons Learned:

- This is a continuation of the High Performance New Construction program previously delivered by Enbridge Gas under contract with the OPA (and subcontracted to Union Gas), which ran until December 2010.
- For 2011, new industry participation was limited due to certain aspects of the Initiative, and the delays in redesign, such as:
 - 2011 prescriptive incentives needed to be aligned with ERII incentives.
 - In the cases of delivering large projects (i.e. custom applications), 2011 participation was limited due to 1) building code changes and 2) level of documentation required.
 - The effort required to participate in the program exceeded the value of the incentives.

- 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.
- Currently facilities much be substantially completed by the programs “hard stop” date of December 31, 2014. As these buildings have long lead times, there is a limited window of opportunity for interested participants to access the program.
- With no transition contingencies in place, facilities with a completion date near the end of 2014 currently have no security that they will be compensated for choosing efficient measures. As such, many customers choose not to take the financial risk and construct to standard building code. This Initiative should be assessed for a streamlined program transition or extension beyond 2014.

2.2.2.5 ENERGY AUDIT INITIATIVE (Schedule C-1)

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

Initiative Frequency: Year round

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

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

Targeted End Uses: Various

Delivery: LDC delivered.

Additional detail is available:

- Schedule C-1
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20C-1%20Energy%20Audit%20Initiative.pdf and
- saveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Audit-Funding.aspx>

Initiative Activities/Progress:

Progress

- Progress for the initiative has been less than expected with only 4 audits applications submitted in 2011. It is suspected that as a result of no guarantee of savings as a result of the audit that customers have been apprehensive in making capital expenditures towards audits.

Education, Marketing, Outreach and Promotion

- WNH in partnership with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro held a key account session focused specifically on the initiative in June of 2011. At the session, two local energy audit firms educated customers on the value of energy audits, merits of the program and the projects that audits helped to drive. In addition, the initiative was promoted at the remaining breakfasts.
- WNH in partnership with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro held their 2nd 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 10 sessions were held to help educate, inform, encourage and empower customers with energy conservation initiatives. Sessions topics included the following:
 - saveONenergy FOR BUSINESS initiatives – RETROFIT, AUDIT FUNDING, EXISTING BUILDING COMMISSIONING, DEMAND RESPONSE and ENERGY MANAGERS,
 - Energy Audits and the Ten Most Common Problems with them,
 - Compressed Air System Opportunities,
 - Understanding the Future of Light,
 - Sub-Metering and Energy Management Systems,
 - High Velocity, Low Speed Fans,
 - ISO 50001 Certification,
 - High Performance New Construction initiative,
 - Chiller Efficiency and Optimization, and
 - Sustainable Waterloo's Region la Carbon Initiative

The event drew in over 300 business customers from across the Region of Waterloo and representatives from 7 LDC's outside of the region.

- Half-page advertisements in the Exchange Magazine promoting the saveONenergy FOR BUSINESS initiatives in collaboration with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro.
- In partnership with Kitchener-Wilmot Hydro sponsored of the Greater KW Chamber of Commerce and promoted the saveONenergy FOR BUSINESS

initiatives in their online newsletter as well as their bimonthly magazine. and participated in their annual Energy and Environment forum

- Regularly met with customers to educate them on the various initiatives, the process for completing applications and to perform site walkthroughs to identify areas of opportunity for energy conservation projects. In addition assistance with various steps of the project were provided including identifying opportunities, connecting the customers to the appropriate vendors and service providers, building the business case and application support.
- Initiative banners and sell sheets and folders jointly branded with Cambridge and North Dumfries and Kitchener-Wilmot Hydro to promote the initiatives were developed for education and engagement events.
- Sponsorship of Sustainable Waterloo (now Sustainable Waterloo Region) breakfast sessions that supporting the saveONenergy FOR BUSINESS initiatives.
- WNH in partnership with Cambridge and North Dumfries Hydro and Kitchener-Wilmot Hydro actively engaged local energy audit firms in order to educate them on the initiative and the application process, provide marketing support in the form of program focused print material as well as offered to join audit firms on customer calls to further encourage customer participation.

In Market Date: April 2011

Lessons Learned:

- Customer uptake in 2011 was slow, and as a result, little if any savings were realized in 2011, but projects are expected for 2012.
- Customers expect a greater connection with other saveONenergy Initiatives as a result of completing the Energy Audit. The Initiative should be reviewed under Change Management for the means to readily incent Participants with Audits in hand to implement other electricity savings Initiatives.

2.2.3 INDUSTRIAL PROGRAM

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

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

Initiative Frequency: Year round

Objectives: The objectives of this Initiative are to:

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

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

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

Targeted End Uses: Process and systems

Delivery: LDC delivered

Additional detail is available:

- Schedule D-1
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholder_s/current_electricity_contracts/pdfs/Schedule%20D-1%20Process%20and%20Systems%20Upgrades%20Initiative.pdf and
- saveONenergy website <https://saveonenergy.ca/Business.aspx>

Initiative Activities/Progress: Discussions took place at an individual customer level to introduce this program. The nature of this program only lends itself to a very small number of WNH customers; therefore individual, on-site engagement was utilized for promotion.

In Market Date: November 2011

Lessons Learned:

- The PSUI program targets large customers that are undertaking large capital projects. There is typically a long sales cycle to sell these projects, followed by a long project development cycle. As such, results from PSUI did not appear in 2011. Limited results are expected to appear in 2012. The majority of the results

are expected in 2013-2014, with a much reduced benefit to cumulative energy savings targets.

- Steps are being taken in the 2012 change management process to simplify and streamline the micro-project application process and to allow smaller projects to be directed to the ERII stream.
- Given the size of the projects involved, the contract required for PSUI is a lengthy and complicated document. Attempts are being made through change management in 2012 to simplify the document while still protecting the ratepayer.
- With the considerable customer interest in on-site Load Displacement projects, the Initiative should be reviewed to ensure that these projects may be accepted as part of the PSUI Initiative.

2.2.3.2 MONITORING & TARGETING INITIATIVE (Schedule D-2)

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

Initiative Frequency: Year round

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

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

Targeted End Uses: Opportunities to monitor electricity consumption and demand for better real-time management within process and systems.

Delivery: LDC delivered

Additional detail is available:

- Schedule D-2
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20D-2%20Monitoring%20and%20Targeting%20Initiative.pdf and
- saveONenergy website <https://saveonenergy.ca/Business.aspx>

Initiative Activities/Progress:

Discussions took place at an individual customer level to introduce this program. The nature of this program only lends itself to a very small number of CNDHI; therefore

individual, on-site engagement was utilized for promotion.

In Market Date: November 2011

Lessons Learned:

- The M&T initiative was originally 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. Through the change management process in 2012, changes are being made to both the M&T schedule and ERII to allow smaller facilities to employ M&T systems.

2.2.3.3 ENERGY MANAGER INITIATIVE (Schedule D-3)

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

Initiative Frequency: Year round

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

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

Targeted End Uses: Individual or a grouping of customers who require additional technical resources to achieve end-use energy saving reductions.

Delivery: LDC delivered

Additional detail is available:

- Schedule D-3
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20D-3%20Energy%20Manager%20Initiative%202011-2014.pdf and
- saveONenergy website <https://saveonenergy.ca/Business.aspx>

Initiative Activities/Progress: Discussions took place at an individual customer level to introduce this program. The nature of this program only lends itself to a very small number of WNH customers; therefore individual, on-site engagement was utilized for promotion.

Interest has been slow but customers are beginning to see the value and opportunity.

In Market Date: November 2011

Lessons Learned:

- The energy managers have proven to be a popular resource.
- At the beginning, it took longer than expected to set up the energy manager application process and as a result presented challenges to promoting the initiative
- Finding qualified resources to fill these positions has proved to be a challenge in the marketplace.

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

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

Initiative Frequency: Year round

Description: Provide funding to employ a resource to assist in managing relationships with key accounts.

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. The KAM is considered to be a key element in assisting the consumer in overcoming traditional barriers related to energy management and help them achieve savings since the KAM can build relationships and become a significant resource of knowledge to the customer.

Targeted End Uses: LDC(s) who require additionally funded resources to perform sales functions.

Delivery: LDC delivered

Additional detail is available:

- ScheduleD-4
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/projects_programs/pdfs/PSUI%20Initiative%20Schedule%20D-4.Key%20Account%20Manager.20110322.pdf

Initiative Activities/Progress: Cambridge and North Dumfries Hydro Inc., Kitchener Wilmot Hydro Inc. and Waterloo North Hydro Inc. (the CKW Group) applied together for KAM funding from the OPA, achieving 70% based on eligible customers.

In Market Date: The CKW Group was approved in June, 2011 and went through the interview process in December, 2011. Actual contracted services were provided by the KAM starting in March 2012.

Lessons Learned:

- 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 resulting in longer lead times to acquire the right resource.

2.2.3.5 DEMAND RESPONSE 3 (Schedule D-6)

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

Initiative Frequency: Year round

Objective: This Initiative provides for Demand Response (DR) payment for service to DR3 participants to compensate them for making available electricity demand response during a demand response 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 energy payments for the actual energy 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: Qualified customers with the ability to do load shedding/shifting.

Delivery: DR3 is delivered by Demand Response Providers, under contract to the OPA. The OPA administers contracts with all DRPs and Direct Participants that 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
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20D-6%20Demand%20Response%203%202011-2014.pdf and
- saveONenergy website <https://saveonenergy.ca/Business.aspx>

Initiative Activities/Progress: The CKW Group met with the active provincial aggregators to assess the program, customer eligibility and offerings of each company.

Discussions took place at an individual customer level to introduce this program. The nature of this program only lends itself to a very small number of WNH; therefore individual, on-site engagement was utilized for promotion.

In Market Date: February 25, 2011

Lessons Learned:

- Customer data is not provided by the OPA on an individual customer basis due to contractual requirements with the aggregators. This limits LDCs' ability to effectively market to prospective participants and verify savings. LDCs are now approaching the Aggregators individually and working to develop agreements in order to identify potential customers of this initiative.

**2.2.4 LOW INCOME INITIATIVE (HOME ASSISTANCE PROGRAM)
(Schedule E)**

Target Customer Type(s): Income Qualified Residential Customers

Initiative Frequency: Year Round

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

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

Targeted End Uses: End uses based on results of audit

Delivery: LDC delivered.

Additional detail is available:

- Schedule E
<http://www.powerauthority.on.ca/sites/default/files/page/Low%20Income%20Schedule%20-%20redacted%20version.pdf>

Initiative Activities/Progress: The CKW Group participated in a large Request for Proposals lead by Brantford Power Inc. A third party delivery service provider was contracted in December, 2011.

In Market Date: Due to the process required to bring a service provider on-board, this program was not market-ready in 2011.

Lessons Learned:

- Difficulty identifying eligible customers.
- This Initiative Schedule was finalized later (May 2011) than the rest of the OPA Initiatives and in 2011 only 2 LDCs were in market.
- Centralized payment processes were not developed in 2011, but were in place mid-2012. This resulted in some LDCs delaying their launch to market, or for some pulling out of the market until the payment processes were completed.
- The financial scope, complexity, and customer privacy requirements of this Initiative resulted in a lengthy procurement process. Some LDCs must adhere to very transparent procurement processes which meant that delivery of the program did not start in 2011.

2.2.5 PRE-2011 PROGRAMS COMPLETED IN 2011

2.2.5.1 ELECTRICITY RETROFIT INCENTIVE PROGRAM

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

Initiative Frequency: Year Round

Objective: This captures savings attributed to projects applied for prior to 2011 but completed in 2011.

Description: The Equipment Replacement Incentive Program (ERIP) offered financial incentives to customers for the upgrade of existing equipment to energy efficient equipment in a similar manner to ERII in section 2.2.2.1. 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.

Delivery: LDC delivered.

Initiative Activities/Progress: WNH was responsible for reviewing the post-project submissions and approving final payment. No new applications were received in 2011 for this program.

Lessons Learned:

- 11 month installation period following project submission significantly increased program uptake.

2.2.5.2 HIGH PERFORMANCE NEW CONSTRUCTION

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

Initiative Frequency: Year round

Objective: This captures savings attributed to projects applied for prior to 2011 but completed in 2011.

Description: Refer to section 2.2.2.5

Delivery: Delivered through OPA contracts with Enbridge and Union Gas.

Initiative Activities/Progress: WNH was not responsible for the post-project submissions associated with this program as the 2010 initiative delivery was contracted directly between the OPA and Enbridge Gas. All new applications were sent through the 2011 initiative, found in section 2.2.2.5.

Lessons Learned:

- Program completion periods need to allow significant time for projects to be completed given the magnitude of projects.

2.3 Participation

Participation in the OPA-Contracted Province-Wide CDM program offered by WNH has been segmented by initiative and summarized in Table 5.

TABLE 5: PARTICIPATION

#	Initiative	Unit	Uptake/ Participation Units
Consumer Program			
1	Appliance Retirement	Appliances	433
2	Appliance Exchange	Appliances	22
3	HVAC Incentives	Equipment	1,438
4	Conservation Instant Coupon Booklet	Products	4,987
5	Bi-Annual Retailer Event	Products	8,720
6	Retailer Co-op	Products	0
7	Residential Demand Response	Devices	129
8	Residential New Construction	Houses	0
Business Program			
9	Efficiency: Equipment Replacement	Projects	40
10	Direct Install Lighting	Projects	214
11	Existing Building Commissioning Incentive	Buildings	0
12	New Construction and Major Renovation Incentive	Buildings	0
13	Energy Audit	Audits	0
14	Commercial Demand Response (part of the Residential program schedule)	Devices	8
15	Demand Response 3 (part of the Industrial program schedule)	Facilities	3
Industrial Program			
16	Process & System Upgrades	Projects ²	0
17	Monitoring & Targeting	Projects ³	0
18	Energy Manager	Managers ^{2 3}	0
19	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	Projects	11
20	Demand Response 3	Facilities	4
Home Assistance Program			
21	Home Assistance Program	Homes	0
Pre 2011 Programs Completed in 2011			
22	Electricity Retrofit Incentive Program	Projects	28
23	High Performance New Construction	Projects	5

2.4 Spending

Spending for the OPA-Contracted Province-Wide CDM program offered by WNH has been segmented by initiative and summarized in Table 6.

TABLE 6: SPENDING

#	Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
Consumer Program						
1	Appliance Retirement	\$ 10,150.58	\$ -	\$ -	\$ -	\$ 10,150.58
2	Appliance Exchange	\$ 178.57	\$ -	\$ -	\$ -	\$ 178.57
3	HVAC Incentives	\$ 12,754.31	\$ -	\$ -	\$ -	\$ 12,754.31
4	Conservation Instant Coupon Booklet	\$ 12,425.50	\$ -	\$ -	\$ -	\$ 12,425.50
5	Bi-Annual Retailer Event	\$ -	\$ -	\$ -	\$ -	\$ -
6	Retailer Co-op	\$ -	\$ -	\$ -	\$ -	\$ -
7	Residential Demand Response	\$ 1,029.07	\$ -	\$ -	\$ -	\$ 1,029.07
10	New Construction Program	\$ 635.99	\$ -	\$ -	\$ -	\$ 635.99
Business Program						
11	Efficiency: Equipment Replacement	\$ 93,018.96	\$ -	\$ 74,524.00	\$ -	\$ 167,542.96
12	Direct Installed Lighting	\$ 10,113.39	\$ 53,221.00	\$ 197,585.00	\$ -	\$ 260,919.39
14	Existing Building Commissioning Incentive	\$ 1,661.17	\$ -	\$ -	\$ -	\$ 1,661.17
15	New Construction and Major Renovation	\$ 3,913.45	\$ -	\$ -	\$ -	\$ 3,913.45
16	Energy Audit	\$ 13,059.44	\$ -	\$ -	\$ -	\$ 13,059.44
17	Commercial Demand Response		\$ -	\$ -	\$ -	\$ -
19	Demand Response 3	\$ 2,206.42	\$ -	\$ -	\$ -	\$ 2,206.42
Industrial Program						
20	Process & System Upgrades					
	a) preliminary study	\$ 2,929.10	\$ -	\$ -	\$ -	\$ 2,929.10
	b) engineering study	\$ 2,929.10	\$ -	\$ -	\$ -	\$ 2,929.10
	c) program incentive	\$ 2,929.10	\$ -	\$ -	\$ -	\$ 2,929.10
21	Monitoring & Targeting	\$ 2,869.57	\$ -	\$ -	\$ -	\$ 2,869.57
22	Energy Manager	\$ 2,848.11	\$ -	\$ -	\$ -	\$ 2,848.11
23	Equipment Replacement Incentive Initiative	Included as part of Efficiency: Equipment Replacement Business Initiative				
25	Demand Response 3	\$ 3,007.94	\$ -	\$ -	\$ -	\$ 3,007.94
Home Assistance Program						
26	Home Assistance Program	\$ 4,589.88	\$ -	\$ -	\$ -	\$ 4,589.88
Pre 2011 Programs Completed in 2011						
27	Electricity Retrofit Incentive Program	\$ -	\$ -	\$ -	\$ -	\$ -
28	High Performance New Construction	\$ -	\$ -	\$ -	\$ -	\$ -
	TOTAL Province-wide CDM PROGRAMS					\$ 508,579.65

Allocation of funds for OPA-Contracted Province-Wide CDM program that were to be offered by WNH has been segmented by initiative and summarized in Table 7.

TABLE 7: ALLOCATION OF PAB FUNDING FOR PROGRAMS NOT IN MARKET

#		Program Administration Budget (PAB)
Initiatives Not In Market		
8	Midstream Electronics	\$ 178.57
9	Midstream Pool Equipment	\$ 178.57
13	Demand Service Space Cooling	\$ 597.02
18	Demand Response 1 (Commercial)	\$ 2,206.42
19	Demand Response 1 (Industrial)	\$ 3,007.96
33	Home Energy Audit Tool	\$ 178.57
TOTAL Province-wide CDM PROGRAMS Not In Market		\$ 6,347.11

Spending for the Pre-2011 CDM programs offered by WNH has been segmented by initiative and summarized in Table 8. This spending is not part of WNH's PAB funding but funding received under the program extensions respectively.

TABLE 8: PRE-2011 PROGRAM SPENDING

#	Program	Program Administration - LDC	Program Administration - 3rd Party	Participant Incentive	Total
Initiatives Not In Market					
1	Residential Demand Response Extension	\$ 18,458.30	\$ 27,272.07	\$ 5,950.00	\$ 51,680.37
2	Electricity Retrofit Incentive Program	\$ -	\$ -	\$ -	\$ -
TOTAL Pre-2011 Program Spending		\$ 18,458.30	\$ 27,272.07	\$ 5,950.00	\$ 51,680.37

2.5 Evaluation

2.5.1 EVALUATION FINDINGS

Evaluation findings for the OPA-Contracted Province-Wide CDM program offered by WNH has been segmented by initiative and summarized in Table 9.

TABLE 9: EVALUATION FINDINGS

#	Initiative	OPA Province-Wide Key Evaluation Findings
Consumer Program		
1	Appliance Retirement	<ul style="list-style-type: none"> • Overall participation continues to decline year over year <ul style="list-style-type: none"> • Participation declined 17% from 2010 (from over 67,000 units in 2010 to over 56,000 units in 2011) • 97% of net resource savings achieved through the home pick-up stream <ul style="list-style-type: none"> • Measure Breakdown: 66% refrigerators, 30% freezers, 4% Dehumidifiers and window air conditioners • 3% of net resource savings achieved through the Retailer pick-up stream <ul style="list-style-type: none"> • Measure Breakdown: 90% refrigerators, 10% freezers • Net-to-Gross ratio for the initiative was 50% <ul style="list-style-type: none"> • Measure-level free ridership ranges from 82% for the retailer pick-up stream to 49% for the home pick-up stream • Measure-level spillover ranges from 3.7% for the retailer pick-up stream to 1.7% for the home pick-up stream
2	Appliance Exchange	<ul style="list-style-type: none"> • Overall eligible units exchanged declined by 36% from 2010 (from over 5,700 units in 2010 to over 3,600 units in 2011) <ul style="list-style-type: none"> • Measure Breakdown: 75% window air conditioners, 25% dehumidifiers • Dehumidifiers and window air conditioners contributed almost equally to the net energy savings achieved <ul style="list-style-type: none"> • Dehumidifiers provide more than three times the energy savings per unit than window air conditioners • Window air conditioners contributed to 64% of the net peak demand savings achieved • Approximately 96% of consumers reported having replaced their exchanged units (as opposed to retiring the unit) • Net-to-Gross ratio for the initiative is consistent with previous evaluations (51.5%)
3	HVAC Incentives	<ul style="list-style-type: none"> • Total air conditioner and furnace installations increased by 14% (from over 95,800 units in 2010 to over 111,500 units in 2011) <ul style="list-style-type: none"> • Measure Breakdown: 64% furnaces, 10% tier 1 air conditioners (SEER 14.5) and 26% tier 2 air conditioners (SEER 15) • Measure breakdown did not change from 2010 to 2011 • The HVAC Incentives initiative continues to deliver the majority of both the energy (45%) and demand (83%) savings in the consumer program <ul style="list-style-type: none"> • Furnaces accounted for over 91% of energy savings achieved for this initiative • Net-to-Gross ratio for the initiative was 17% higher than 2010 (from 43% in 2010 to 60% in 2011) <ul style="list-style-type: none"> • Increase due in part to the removal of programmable thermostats from the program, and an increase in the net-to-gross ratio for both Furnaces and Tier 2 air conditioners (SEER 15)
4	Conservation Instant Coupon Booklet	<ul style="list-style-type: none"> • Customers redeemed nearly 210,000 coupons, translating to nearly 560,000 products <ul style="list-style-type: none"> • Majority of coupons redeemed were downloadable (~40%) or LDC-branded (~35%) • Majority of coupons redeemed were for multi-packs of standard spiral CFLs (37%), followed by multi-packs of specialty CFLs (17%) • Per unit savings estimates and net-to-gross ratios for 2011 are based on a weighted average of 2009 and 2010 evaluation findings • Careful attention in the 2012 evaluation will be made for standard CFLs since it is believed

		that the market has largely been transformed
5	Bi-Annual Retailer Event	<ul style="list-style-type: none"> Customers redeemed nearly 370,000 coupons, translating to over 870,000 products <ul style="list-style-type: none"> Majority of coupons redeemed were for multi-packs of standard spiral CFLs (49%), followed by multi-packs of specialty CFLs (16%) Per unit savings estimates and net-to-gross ratios for 2011 are based on a weighted average of 2009 and 2010 evaluation findings <ul style="list-style-type: none"> Standard CFLs and heavy duty outdoor timers were reintroduced to the initiative in 2011 and contributed more than 64% of the initiative's 2011 net annual energy savings While the volume of coupons redeemed for heavy duty outdoor timers was relatively small (less than 1%), the measure accounted for 10% of net annual savings due to high per unit savings Careful attention in the 2012 evaluation will be made for standard CFLs since it is believed that the market has largely been transformed.
6	Retailer Co-op	<ul style="list-style-type: none"> Initiative was not evaluated in 2011 due to low uptake. Verified Bi-Annual Retailer Event per unit assumptions and free-ridership rates were used to calculate net resource savings
7	Residential Demand Response	<ul style="list-style-type: none"> Approximately 20,000 new devices were installed in 2011 <ul style="list-style-type: none"> 99% of the new devices enrolled controlled residential central AC (CAC) 2011 only saw 1 atypical event (in both weather and timing) that had limited participation across the province <ul style="list-style-type: none"> The ex-ante impact developed through the 2009/2010 evaluations was maintained for 2011; residential CAC: 0.56 kW/device, commercial CAC: 0.64 kW/device, and Electric Water Heaters: 0.30 kW/device
8	Residential New Construction	<ul style="list-style-type: none"> Initiative was not evaluated in 2011 due to limited uptake Business case assumptions were used to calculate savings
Business Program		
9	Equipment Replacement Incentive Initiative	<ul style="list-style-type: none"> Gross verified energy savings were boosted by lighting projects in the prescriptive and custom measure tracks Lighting projects overall were determined to have a realization rate of 112%; 116% when including interactive energy changes <ul style="list-style-type: none"> On average, the evaluation found high realization rates as a result of both longer operating hours and larger wattage reductions than initial assumptions Low realization rates for engineered lighting projects due to overstated operating hour assumptions Custom non-lighting projects suffered from process issues such as: the absence of required M&V plans, the use of inappropriate assumptions, and the lack of adherence to the M&V plan The final realization rate for summer peak demand was 94% <ul style="list-style-type: none"> 84% was a result of different methodologies used to calculate peak demand savings 10% due to the benefits from reduced air conditioning load in lighting retrofits Overall net-to-gross ratios in the low 70's represent an improvement over the 2009 and 2010 ERIP program where net-to-gross ratios were in the low 60's and low 50's, respectively. Strict eligibility requirements and improvements in the pre-approval process contributed to the improvement in net-to-gross ratios
10	Direct Install Lighting	<ul style="list-style-type: none"> Though overall performance is above expectations, participation continues to decline year over year as the initiative reaches maturity 70% of province-wide resource savings persist to 2014 <ul style="list-style-type: none"> Over 35% of the projects for 2011 included at least one CFL measure

		<ul style="list-style-type: none"> Resource savings from CFLs in the commercial sector only persist for the industry standard of 3 years Since 2009 the overall realization rate for this program has improved <ul style="list-style-type: none"> 2011 evaluation recorded the highest energy realization rate to date at 89.5% The hours of use values were held constant from the 2010 evaluation and continue to be the main driver of energy realization rate Lights installed in "as needed" areas (e.g., bathrooms, storage areas) were determined to have very low realization rates due to the difference in actual energy saved vs. reported savings
11	Existing Building Commissioning Incentive	<ul style="list-style-type: none"> Initiative was not evaluated in 2011, no completed projects in 2011
12	New Construction and Major Renovation	<ul style="list-style-type: none"> Initiative was not evaluated in 2011 due to low uptake Assumptions used are consistent with preliminary reporting based on the 2010 Evaluation findings and consultation with the C&I Work Group (100% realization rate and 50% net-to-gross ratio)
13	Energy Audit	<ul style="list-style-type: none"> The evaluation is ongoing. The sample size for 2011 was too small to draw reliable conclusions.
14	Commercial Demand Response	<ul style="list-style-type: none"> See residential demand response (#7)
15	Demand Response 3	<ul style="list-style-type: none"> See Demand Response 3 (#20)
Industrial Program		
16	Process & System Upgrades	<ul style="list-style-type: none"> Initiative was not evaluated in 2011, no completed projects in 2011
17	Monitoring & Targeting	<ul style="list-style-type: none"> Initiative was not evaluated in 2011, no completed projects in 2011
18	Energy Manager	<ul style="list-style-type: none"> Initiative was not evaluated in 2011, no completed projects in 2011
19	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	<ul style="list-style-type: none"> See Efficiency: Equipment Replacement (#9)
20	Demand Response 3	<ul style="list-style-type: none"> Program performance for Tier 1 customers increased with DR-3 participants providing 75% of contracted MW for both sectors <ul style="list-style-type: none"> Industrial customers outperform commercial customers by provide 84% and 76% of contracted MW, respectively Program continues to diversify but still remains heavily concentrated with less than 5% of the contributors accounting for the majority (~60%) of the load reductions. By increasing the number of contributors in each settlement account and implementation of the new baseline methodology the performance of the program is expected to increase
Home Assistance Program		
21	Home Assistance Program	<ul style="list-style-type: none"> Initiative was not evaluated in 2011 due to low uptake Business Case assumptions were used to calculate savings
Pre-2011 Programs completed in 2011		

22	Electricity Retrofit Incentive Program	<ul style="list-style-type: none"> • Initiative was not evaluated • Net-to-Gross ratios used are consistent with the 2010 evaluation findings (multifamily buildings 99% realization rate and 62% net-to-gross ratio and C&I buildings 77% realization rate and 52% net-to-gross ratio)
23	High Performance New Construction	<ul style="list-style-type: none"> • Initiative was not evaluated • Net-to-Gross ratios used are consistent with the 2010 evaluation findings (realization rate of 100% and net-to-gross ratio of 50%)

2.5.2 EVALUATION RESULTS

Evaluation results for the OPA-Contracted Province-Wide CDM programs offered by WNH has been segmented by initiative and summarized in Table 10, while summarized results are presented in Table 11. Note these results were taken directly from WNH's 2011 Annual Report Data provided by the OPA.

TABLE 10: EVALUATION RESULTS

#	Initiative	Realization Rate		Gross Savings		Net-to-Gross Ratio		Net Savings		Contribution to Targets	
		Peak Demand Savings	Energy Savings	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Peak Demand Savings	Energy Savings	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Program-to-Date: Net Annual Peak Demand Savings (kW) in 2014	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (kWh)
Consumer Program											
1	Appliance Retirement	100%	100%	49	359,259	51%	52%	24	180,566	24	722,161
2	Appliance Exchange	100%	100%	5	5,919	52%	52%	2	3,051	1	11,046
3	HVAC Incentives	100%	100%	691	1,292,287	60%	60%	417	773,162	417	3,092,649
4	Conservation Instant Coupon Booklet	100%	100%	10	169,297	114%	111%	11	186,550	11	746,201
5	Bi-Annual Retailer Event	100%	100%	15	269,499	113%	110%	17	294,427	17	1,177,710
6	Retailer Co-op	-	-	0	0	-	-	0	0	0	0
7	Residential Demand Response	0%	0%	72	0	-	-	72	0	0	0
8	Residential New Construction	-	-	0	0	-	-	0	0	0	0
Business Program											
9	Equipment Replacement Incentive Initiative	97%	116%	372	1,949,090	71%	74%	263	1,433,122	263	5,732,486
10	Direct Install Lighting	108%	90%	231	664,665	93%	93%	248	617,168	176	2,257,745
11	Existing Building Commissioning Incentive	-	-	0	0	-	-	0	0	0	0
12	New Construction and Major Renovation	-	-	0	0	-	-	0	0	0	0
13	Energy Audit	-	-	0	0	-	-	0	0	0	0
14	Commercial Demand Response	0%	0%	5	0	-	-	5	0	0	0
15	Demand Response 3	76%	100%	146	4,323	n/a	n/a	110	4,323	0	4,323
Industrial Program											
16	Process & System Upgrades	-	-	0	0	-	-	0	0	0	0
17	Monitoring & Targeting	-	-	0	0	-	-	0	0	0	0
18	Energy Manager	-	-	0	0	-	-	0	0	0	0
19	Equipment Replacement Incentive Initiative	90%	101%	249	1,453,318	72%	78%	180	1,128,878	180	4,515,511
20	Demand Response 3	84%	100%	465	23,003	n/a	n/a	392	23,003	0	23,003
Home Assistance Program											
21	Home Assistance Program	-	-	0	0	-	-	0	0	0	0
Pre-2011 Programs completed in 2011											
22	Electricity Retrofit Incentive Program	78%	78%	346	1,742,736	52%	53%	181	913,663	181	3,654,650
23	High Performance New Construction	100%	100%	363	1,865,774	50%	50%	182	932,887	182	3,731,548
24	Toronto Comprehensive	-	-	0	0	-	-	0	0	0	0
25	Multifamily Energy Efficiency Rebates	-	-	0	0	-	-	0	0	0	0
26	Data Centre Incentive Program	-	-	0	0	-	-	0	0	0	0
27	EnWin Green Suites	-	-	0	0	-	-	0	0	0	0

Assumes demand response resources have a persistence of 1 year

TABLE 11: SUMMARIZED PROGRAM RESULTS

Program	Gross Savings		Net Savings		Contribution to Targets	
	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Program-to-Date: Net Annual Peak Demand Savings (kW) in 2014	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (kWh)
Consumer Program Total	842	2,096,261	544	1,437,756	470	5,749,767
Business Program Total	754	2,618,079	626	2,054,613	438	7,994,555
Industrial Program Total	714	1,476,321	572	1,151,881	180	4,538,514
Home Assistance Program Total	0	0	0	0	0	0
Pre-2011 Programs completed in 2011 Total	709	3,608,510	362	1,846,550	362	7,386,199
Total OPA Contracted Province-Wide CDM Programs	3,019	9,799,171	2,104	6,490,800	1,451	25,669,035

2.6 Additional Comments

As a result of program schedules being negotiated, finalized and rolled out in the first and second quarters, 2011 should be considered to be a year of building the foundation for the initiatives and framework for delivery. Due to the number of initiatives, complexity of the schedules and intricacies within the initiatives, many of the initiatives were in a “start-up” mode. As a result, WNH required significant time to familiarize themselves with the new schedules and initiative rules, develop processes and procedures to deliver the initiatives, and procure the necessary program delivery support services and resources prior to being market ready and launching the initiatives. This led to an interruption in program availability and delivery which translated into having to reengage the market which proved to be a slow process.

Many of the initiatives customers had become accustomed to experienced significant makeovers, and rebranding, while many new initiatives were launched which required WNH to provide significant education, engagement of customers, channel partners and stakeholders. And although the new framework provides a period of four year certainty surrounding the initiatives and their associated incentives, reengaging customers and 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.

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 noted earlier programs and initiatives were rolled out throughout the year. In addition, a number of programs were not available in 2011, 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. *peaksaverPLUS*TM 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.

Many of the initiatives begin 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.

Based on the foundation and framework developed in 2011, increased marketing efforts, additional resourcing and program enhancements, WNH has observed a steady increase in market awareness, initiative uptake and the pipeline of projects. Furthermore the settling of the initiative delivery and application processes coupled with comfort with

the initiatives, results are on the rise, program uptake, and as a result WNH is optimistic in its ability to achieve the CDM targets.

3 Combined CDM Reporting Elements

3.1 Progress Towards CDM Targets

WNH achieved an incremental net peak demand savings of 2.10 MW in 2011, of which 1.45 MW is expected to persist through 2014 which represents 9.18% of WNH's net peak demand target. Table 12 summarizes net peak demand savings and their contribution towards the CDM targets.

TABLE 12: NET PEAK DEMAND SAVINGS AT THE END USER LEVEL (MW)

Implementation Period	Annual			
	2011	2012	2013	2014
2011 - Verified	2.10	1.52	1.52	1.45
2012				
2013				
2014				0.00
Verified Net Annual Peak Demand Savings Persisting in 2014:				1.45
Waterloo North Hydro Inc. 2014 Annual CDM Capacity Target:				15.79
Verified Portion of Peak Demand Savings Target Achieved in 2014(%):				9.18%
LDC Milestone submitted for 2011 (4.3 MW)				27.23%
	Variance			-18.05%

Variances in WNH's net peak demand can be attributed to a number of factors most of which are outside of the WNH's control. Factors 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 above results do not reflect do not reflect 649 kW currently under contract and should these contracts persist the variance is decreased to 13.93%.
- Large projects results not reflected in early results due to long project timelines, therefore larger projects are expected to decrease the variance in 2013 and 2014.
- 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.
- Programs not available for a full year and several programs not in market at all.
- No attribution of TOU rates savings. WNH expects net demand savings as a result of TOU Rates would decrease the variance.

WNH achieved an incremental net energy savings of 6.49 GWh's in 2011, resulting in a cumulative total of 25.67 GWh's in 2014, which represents 38.61% of WNH net energy

target. Table 13 summarizes net energy savings and their contribution towards the CDM targets.

TABLE 13: NET ENERGY SAVINGS AT THE END-USER LEVEL (GWH)

Implementation Period	Annual				Cumulative
	2011	2012	2013	2014	2011-2014
2011 - Verified	6.49	6.46	6.44	6.27	25.67
2012					
2013					
2014					
Verified Net Cumulative Energy Savings 2011-2014:					25.67
Waterloo North Hydro Inc. 2011-2014 Cumulative CDM Energy Target:					66.49
Verified Portion of Cumulative Energy Target Achieved (%):					38.61%
LDC Milestone submitted for 2011 (19.097 GWh)					19.10
Variance					34.41%

Variance's in WNH's net energy savings can be attributed to a number of factors, most of which are outside of the control of WNH. Factors include, but are not limited to:

- 2011 program results, which accounted for 28% of the total achieved in 2011.
- 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.
- 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.

3.2 CDM Strategy Modifications

WNH will not be modifying their original CDM strategy at this time as WNH is confident and optimistic that with enhancements to current programs, increased resources program outreach and engagement, the launching of the not in market OPA-Contracted Province-Wide Programs or replacement thereof, coupled with contribution from TOU Rates will make up for the variance.