



Kitchener-Wilmot Hydro Inc.

Conservation and Demand Management 2011 Annual Report

**Submitted to:
Ontario Energy Board**

Submitted on September 30, 2012

Executive Summary

This annual report is submitted by Kitchener-Wilmot Hydro Inc. in accordance with the filing requirements set out in the CDM Code. 2011 represents Kitchener-Wilmot Hydro's first year of delivering cost effective Conservation Demand Management (CDM) programs to its customer base under the new CDM Code. Kitchener-Wilmot Hydro is pleased to report that the 2011 CDM portfolio generated 12.88 GWh of energy savings and 4.63 MW of peak demand savings in year one and will look to build on this traction in 2012.

Kitchener-Wilmot Hydro did not apply for any Board-Approved CDM Programs during 2011; however, as noted in the CDM guidelines, released April 26, 2012, the Ontario Energy Board (OEB) has deemed Time-of-Use (TOU) pricing a Province-wide Board-Approved CDM Program. The Ontario Power Authority (OPA) is to provide measurement and verification on TOU; thus, for the 2011 timeframe, Kitchener-Wilmot Hydro does not have demand or energy savings to present in this regard.

2011 Program activities were centered on building a foundation for full program execution over the next three years of the program term, including staffing, procurement, and program delivery. Participation in the Consumer and C&I Programs was successful; however, the Industrial Programs saw fewer uptake than originally forecasted largely due to large capital costs and longer sales cycles. As a result, spend level was below the original estimate in the October 2010 Strategy. The dollar shortfall will be carried forward to 2012-2014 for program execution and incentive payments.

Kitchener-Wilmot Hydro believes it is critical to see results and participation from all customers groups to ensure a widespread culture in conservation throughout the Kitchener-Wilmot service territory. Kitchener-Wilmot Hydro will continue to focus on all customer segments going forward to ensure that savings opportunities are available to everyone.

The first year of the 2011-2014 CDM code had its challenges as a new CDM industry was established. One key aspect to Kitchener-Wilmot Hydro's CDM strategy was collaboration with LDCs within the energy sector, both within the electricity and gas industries and was critical to maximizing efficiencies. Kitchener-Wilmot Hydro was able to get out to market quickly largely due to the partnership with Cambridge and North

Dumfries and Waterloo North Hydro also known as the CKW Group. The CKW Group represents the three electric distribution companies serving the Region of Waterloo and has worked together for several years implementing CDM strategy, marketing and delivery tactics. In addition, Kitchener-Wilmot Hydro also has benefited greatly from working closely with its gas partners Kitchener Utilities and Union Gas to promote programs and messaging. Kitchener-Wilmot Hydro will continue to build on these partnerships and continuously look for ways to find commonalities and synergies to maximize budgets and outreach opportunities.

In 2011 Kitchener-Wilmot Hydro made progress towards its energy and peak demand savings CDM targets. Momentum was established across all sectors giving Kitchener-Wilmot Hydro an excellent foundation to build on in the future.

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Background

On March 31, 2010, the Minister of Energy and Infrastructure of Ontario, under the guidance of sections 27.1 and 27.2 of the *Ontario Energy Board Act, 1998*, directed the Ontario Energy Board (OEB) to establish Conservation and Demand Management (CDM) targets to be met by electricity distributors. Accordingly, on November 12, 2010, the OEB amended the distribution license of Kitchener-Wilmot Hydro Inc. (KWH) to require KWH, as a condition of its license, to achieve 90,290 MWh of energy savings and 21.56 MW of summer peak demand savings, over the period beginning January 1, 2011 through December 31, 2014.

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

The Code also requires a distributor to file annual report with the Board. This Annual Report is therefore prepared accordingly 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 license, deliver Board-Approved CDM Programs, OPA-Contracted Province-Wide CDM Programs, or a combination of the two”.

At this time, the implementation of Time-of-Use (“TOU”) Pricing is the only Board-Approved Conservation and Demand Management (“CDM”) program that is being offered in Kitchener-Wilmot Hydro’s service area.

1.2 TOU Pricing

1.2.1 Background

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

In accordance with a Directive dated March 31, 2010 by the Minister of Energy and Infrastructure, the OEB is of the view that any evaluations of savings from TOU pricing should be conducted by the Ontario Power Authority (OPA) for the province, and then allocated to distributors. KWH 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 KWH is not able to provide any verified savings related to KWH’s TOU program at this time.

1.2.2 TOU PROGRAM DESCRIPTION

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

Initiative Frequency: Year round

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

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

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

RPP TOU	Rates (cents/kWh)			
	Effective Date	On Peak	Mid Peak	Off Peak
	01-Nov-10	9.9	8.1	5.1
	01-May-11	10.7	8.9	5.9
	01-Nov-11	10.8	9.2	6.2
	01-May-12	11.7	10	6.5

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

Initiative Activities/Progress:

KWH began transitioning its RPP customers to TOU billing on June 2, 2011. At December 31st, 2011, 85,455 customers were on TOU billing.

1.3 Kitchener-Wilmot's Application with the OEB

In 2011, Kitchener-Wilmot Hydro did not file an application for any Board Approved CDM programs. Kitchener-Wilmot Hydro continued to collaborate with other LDCs to weigh in on potential Board approved programs however nothing materialized in 2011.

2 OPA-Contracted Province-Wide CDM Programs

2.1 Introduction

Effective 02/17/2011, Kitchener-Wilmot Hydro Inc. entered into an agreement with the OPA to deliver CDM programs extending from January 1, 2011 to December 31, 2014. In addition, results will be reported from projects started pre-2011 which completed in 2011:

Table 1: CDM Program Listing

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
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	Feb2011	All general service classes
New Construction and Major Renovation Initiative	Schedule C-4	Feb 2011	All general service classes
Energy Audit	Schedule C-1	Jan 26, 2011	All general service classes
Commercial Demand Response (part of the Residential program schedule)	Schedule B-3	Jan 26, 2011	All general service classes
Demand Response 3 (part of the Industrial program schedule)	Schedule D-6	May 31, 2011	General Service 50 kW & above
Industrial Program			
Process & System Upgrades	Schedule D-1	May 31, 2011	General Service 50 kW & above
Monitoring & Targeting	Schedule D-2	May 31, 2011	General Service 50 kW & above
Energy Manager	Schedule D-3	May 31, 2011	General Service 50 kW & above
Key Account Manager (KAM)	Schedule D-4	May 31, 2011	General Service 50 kW & above
Efficiency: Equipment Replacement	Schedule C-2	May 31, 2011	General Service 50 kW &

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Incentive (part of the C&I program schedule)			above
Demand Response 3	Schedule D-6	May 31, 2011	General Service 50 kW & above
Home Assistance Program			
Home Assistance Program	Schedule E-1	May 9, 2011	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. 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 believed to offer the greatest ratepayer value and greatest amount of persisting savings.

Table 2: 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 the 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. As per the OPA, there are no plans to launch this Initiative 2012.

Industrial Program		
Demand Response 1 (DR1)	This Initiative allows distribution customers to voluntarily reduce electricity demand during certain periods of the year pursuant to the DR 1 contract. The Initiative provides DR payment for the actual electricity reduction provided during a demand response event.	No customer uptake for this Initiative

The Master CDM Program Agreement includes a 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 Program Descriptions

2.2.1 RESIDENTIAL PROGRAM

In 2011, residential programs accounted for 17% of Kitchener-Wilmot Hydro's energy savings and 19% of peak demand savings. All of the in-market residential programs contributed to the total but the HVAC program was the main driver contributing over 50% of the energy savings and over 70% of the demand savings within the Consumer Portfolio.

Kitchener-Wilmot Hydro initiated two consumer market strategies to support the launch of CDM in 2011. Mass marketing and stakeholder relationships with industry partners were both utilized to take advantage of early program uptake.

Through mass marketing campaigns KWH created strategic partnerships with industry partners and channel partners to target specific programs within specific consumer sectors. Industry partners commenced with the CKW Group partnership which moved early on to create and implement a joint residential marketing and communication plan. Kitchener Utilities another partner supported in specific marketing outreach as well as channel development in the HVAC program. A few channel partner relationships focused at the HVAC level as well as some retailer involvement for both fridge and freezer and coupons.

APPLIANCE EXCHANGE INITIATIVE

Target Customer Type(s): Residential Customers

Initiative Frequency: Spring and Fall

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

Description: This Initiative involves appliance exchange events. Exchange events are held at local retail locations and customers are encouraged to bring in their old room air

conditioners (AC) and dehumidifiers in exchange for coupons/discounts towards the purchase of new energy efficient equipment.

Targeted End Uses: Window air conditioners and portable dehumidifiers.

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

Additional detail is available:

- Schedule B-1, Exhibit C
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>

Marketing Activities/Progress:

CDM staff member from Kitchener-Wilmot Hydro attended the spring weekend event at a local retailer to help promote the program as well as cross promote with other initiatives to customers. Kitchener-Wilmot Hydro also collaborated with Sears in an effort to complement their retail advertising efforts.

In Market Date: May 14-15 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 projected by the LDCs did not materialize.
- Challenges with working with retailers as the market was still learning the program details
- 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.

APPLIANCE RETIREMENT INITIATIVE

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

Objectives: Achieve energy and demand savings by permanently decommissioning certain older, inefficient refrigeration appliances 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: Old inefficient large refrigerators, large freezers, window air conditioners and portable dehumidifiers.

Delivery: OPA contracts for province-wide marketing, call center, appliance pick-up and decommissioning processes. LDC provides local marketing and relationship building with retailers as well as coordination with municipal pick-up where available.

Additional detail is available:

- Schedule B-1, Exhibit D
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>

Marketing Activities/Progress:

Below is a comprehensive list of marketing initiatives and activities undertaken by Kitchener-Wilmot Hydro to promote the Appliance Retirement Initiative. It is important to note that collaboration with Waterloo North Hydro and Cambridge and North Dumfries Hydro was a vital component when creating and executing on a regional strategy. Every effort was made to cooperate and share resources, ad space and creative costs with these partnering LDCs. This collaboration allowed us to increase our reach, frequency and ultimately our success within the program. In 2011 KWH retired

631 refrigerators and freezers which was an increase over 2010's 607 units. Although Kitchener-Wilmot Hydro was able to match 2010 efforts it is becoming increasingly challenging to find older refrigerators and freezers within the marketplace. In 2011 a mass marketing initiative was conducted in conjunction with forming strategic partnerships with local retailers and the Region of Waterloo.

- Print/ newspaper ads ran in the Kitchener Citizen from August 2011 to December 2011 reaching over 35,000 customers.
- Program was advertised in a joint partnership publication called Natural Comforts that is distributed to over 26,000 homes in KWH service territory.
- Newspaper ads in Parent and Child Guide in Sept 2011 with distribution of over 50,000.
- Program banners jointly branded with Waterloo North Hydro and Cambridge and North Dumfries to promote the program in our lobby and at special events.
- Call center "on hold" messaging and sign display on front of building promoting the program to all customers and employees.
- Sponsorship with the Kitchener Rangers hockey team on the scoreboard with a commercial supporting the saveONenergy FOR HOME programs through the mysaveONenergy Pledge reaching over 6,000 customers per game.
- saveONenergy branded ice scrapers provided as a promotional item giveaway in our lobby and at community events.
- Program brochure jointly branded with Waterloo North Hydro and Cambridge North Dumfries to promote the programs in our lobby and at special events.
- Promotion of programs at retailer locations in conjunction with Appliance Exchange and Coupon events (Home Depot and Canadian Tire).
- Newspaper advertisement in the Waterloo Region Record jointly branded with Waterloo North Hydro and Cambridge North Dumfries Hydro to promote energy savings tips and saveONenergy FOR HOME programs during Earth Hour.
- Advertisement promoting our free pick-up service on the Region of Waterloo website.
- Posters and site visits to local retailers who sell new Refrigerators and Freezers (TA Appliances).
- Collaboration with local conservation groups including REEP and CREW to help promote to their customers.

In Market Date: February 17, 2011

Lessons Learned:

- The Appliance Retirement Initiative (previously The Great Refrigerator Round-Up) has been offered by LDCs since 2007. KWH peaked at over 800 Fridges and Freezers in 2008 and has seen a steady decline in participation. With older refrigerators and freezers becoming less common and as we continue to push market uptake we feel that this program is reaching 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 outreach strategy and we expect our messaging to become more targeted.
- This initiative has and continues to face competition from independent retailers and regional municipalities. Locally, the Region of Waterloo offers a strong curbside pick up at no cost to customers and it often the preferred route for many customers. We continue to try and work with the Region to promote our service.
- Results are very responsive to province wide advertising.

HVAC INCENTIVES INITIATIVE

Target Customer Type(s): Residential Customers and Commercial Customers
(Businesses with residential systems)

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 promote to customers and 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_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf and
- saveONenergy website <https://saveonenergy.ca/Consumer.aspx>

Marketing Activities/Progress:

Below is a comprehensive list of marketing and activities undertaken by Kitchener-Wilmot Hydro to promote the HVAC program. Kitchener-Wilmot Hydro worked in collaboration with Waterloo North Hydro and Cambridge and North Dumfries to share resources, strategy, creative costs and ad space. Further to this collaboration Kitchener-Wilmot Hydro strengthened its partnership with the local gas utility, Kitchener Utilities. Kitchener Utilities strong HVAC contractor database allowed us to ensure all contractors joined the program early on and provided support for contractors in the program to help them sell more energy efficient units. The HVAC program accounted for 9% of the total energy savings for Kitchener-Wilmot Hydro and will continue to be a key performer within the CDM portfolio.

- Newspaper ads ran in the Kitchener Citizen from August 2011 to December 2011.
- Sell sheets were delivered to HVAC contractors to hand out to customers during site visits.
- Advertising in Natural Comforts that is distributed to over 26,000 homes.
- Banners and posters highlighting program incentives were made available to HVAC contractor in store locations.
- Messaging “on hold” and front display promoting savings of Energy Star AC.
- Program banners jointly branded with Waterloo North Hydro and Cambridge North Dumfries to promote the program in our lobby and at special events.

- Sponsorship with the Kitchener Rangers on the scoreboard with a commercial supporting the saveONenergy FOR HOME programs through the mysaveONenergy Pledge.
- Presentations and summary sheets provided to all Kitchener-Wilmot Hydro customer service representatives to answer customer questions and offer energy savings tips.
- saveONenergy branded ice scrapers provided as a promotional item giveaway in our lobby and at community events.
- Program brochure jointly branded with Waterloo North Hydro and Cambridge North Dumfries to promote the programs in our lobby and at special events.
- Promotion of programs at retailer locations in conjunction with Appliance Exchange and Coupon events.
- Bill insert in collaboration with Kitchener Utilities highlighting benefits of energy efficient furnace and AC.
- Newspaper advertisement in the Waterloo Region Record jointly branded with Waterloo North Hydro and Cambridge North Dumfries to promote energy savings tips and saveONenergy FOR HOME programs during Earth Hour.

In Market Date: February 17, 2011

Lessons Learned:

- Channel engagement is a highly effective method of connecting with customers. Working with the local Gas Utility, Kitchener Utilities allowed us to sign up more contractors for the program while supporting them with their marketing and sales efforts. The cancelation of the Federal Eco Energy incentives make the OPA incentives even more compelling in helping to influence buying behavior towards more energy efficient models.
- 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.

CONSERVATION INSTANT COUPON BOOKLET INITIATIVE

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

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

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

Delivery: OPA contracts centrally for the distribution of the coupon booklets across Ontario. LDC distributes coupons at local events. 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>

Marketing Activities/Progress:

Below is a comprehensive list of marketing and activities undertaken by Kitchener-Wilmot Hydro 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 Waterloo North Hydro Inc. and Cambridge North Dumfries Hydro in our endeavor to jointly deliver the program.

- Sponsored the Rotary Dream Home which saw over 25,000 visitors. Handed out coupons and included signage throughout the home promoting energy saving tips.
- Newspaper ads ran in the Kitchener Citizen from August, 2011 to December 2011.
- Program banners jointly branded with Waterloo North Hydro and Cambridge North Dumfries Hydro to promote the program in our lobby and at special events.
- Sponsorship with the Kitchener Rangers on the scoreboard with a commercial supporting the saveONenergy FOR HOME programs through the mysaveONenergy Pledge reaching over 6,000 customers per game.
- Promotion of the programs through mysaveONenergy Pledge stickers on information boards in our company lobby.
- saveONenergy branded ice scrapers provided as a promotional item giveaway in our lobby and at community events.
- Program brochure jointly branded Waterloo North Hydro and Cambridge North Dumfries Hydro to promote the programs in our lobby and at special event.
- Promotion of programs at retailer locations in conjunction with Appliance Exchange and Coupon events.
- Newspaper advertisement in the Waterloo Region Record jointly branded with Waterloo North Hydro and Cambridge North Dumfries Hydro to promote energy savings tips and saveONenergy FOR HOME programs during Earth Hour.

In Market Date: April 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 behavior.

BI-ANNUAL RETAILER EVENT INITIATIVE

Target Customer Type(s): Residential Customers

Initiative Frequency: Bi-annual events

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

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

Targeted End Uses: Same as 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.

Additional detail is available:

- Schedule B-1, Exhibit C
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>

Marketing Activities/Progress:

Kitchener-Wilmot Hydro participated by setting up a display at the retailer to promote and talk to customers about ways to save energy.

In Market Date: April 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.

NEW HOME CONSTRUCTION PROGRAM

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

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

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

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

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

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

- Schedule B-1, Exhibit C
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeh

[olders/current electricity contracts/pdfs/Schedule%20B-2%20New%20Construction%20Program.pdf](#) and

- saveONenergy website <https://saveonenergy.ca/Consumer.aspx>

Marketing Activities/Progress:

Below is a comprehensive list of marketing and activities undertaken by Kitchener-Wilmot Hydro to promote the New Home Construction Initiative.

- Sponsored the Rotary Dream Home and worked with the builder to install energy efficient measures to advertise and promote within the home. Over 25,000 people walked through the home where displays were set up highlighting energy star fans, CFL lights and energy efficient furnace and AC.
- Two bill inserts sent out promoting the Dream Home and highlighting the energy efficient measures and energy efficient homes and directing them to saveonenergy.ca. Bill inserts were sent to approximately 80,000 accounts

In Market Date: February 17, 2011

Lessons Learned:

- The application process was too cumbersome for builders to take notice. Provincially 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.

RESIDENTIAL DEMAND RESPONSE PROGRAM

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 product were available.

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

Delivery: LDC's recruit customers and procure technology

Additional detail is available:

- Schedule B-1, Exhibit C
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>

In Market Date: Due to delays in technology availability and interoperability, this program was not in market in 2011. Kitchener-Wilmot Hydro in collaboration with CNDH and WNH met with service providers and researched possible technology options. Pilots of in-home displays were conducted and an initial strategy was created for market launch.

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.

LOW INCOME INITIATIVE (HOME ASSISTANCE PROGRAM)

Target Customer Type(s): Income Qualified Residential Customers

Initiative Frequency: Year Round

Objective: The objective of this Initiative is to offer free installation of energy efficiency measures to income qualified households for 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:

Kitchener-Wilmot Hydro in partnership with Cambridge and North Dumfries and Waterloo North Hydro in a large Request for Proposals spearheaded by Brantford Power Inc. A third party delivery service provider was contracted in December 2011. Marketing plans and launch strategy were planned and created in late 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.

2.2.2 COMMERCIAL AND INSTITUTIONAL PROGRAM

Kitchener-Wilmot Hydro has 7600 small businesses and 955 large commercial accounts and knows that this group will generate a significant portion of the energy savings and peak demand savings over the four year CDM program. KWH has seen excellent program uptake in prior years within both the small business and larger customer sectors providing strong awareness and consistent participation. Furthermore, market saturation is noticeable in some programs and technologies increasing the requirement for segmentation and targeted marketing.

In 2011, Kitchener-Wilmot Hydro in partnership with Cambridge and North Dumfries Hydro and Waterloo North Hydro designed and began implementation of a push pull strategy that drove education and awareness to customers and channel partners.

Multiple communication channels were incorporated including print, online, radio, presentations, face to face meetings and hands on training.

EFFICIENCY: EQUIPMENT REPLACEMENT INCENTIVE (ERII)

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, air compressors, process equipment improvements, 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>

Marketing Activities/Progress:

Kitchener-Wilmot Hydro was active in the market under the ERIP program and therefore had some traction in the market for the launch of ERII in 2011. However, the process by which to participate had changed greatly and a significant effort was required to educate past participants as well as spreading the awareness to new potential customers. The Retrofit program in 2011 accounted for 24% of the total energy savings and will continue to be the main driver in this portfolio over the next few years. To ensure market participation remained high in 2011, Kitchener-Wilmot Hydro continued to focus its strategy on three areas. Communication to customers; Channel partner engagement; and Customer Data/ Segmentation. By focusing on these three objectives Kitchener-Wilmot Hydro believes it will increase its efficiency and effectiveness with communication and delivery to its customers.

- Kitchener-Wilmot Hydro in collaboration with Cambridge and North Dumfries and Waterloo North Hydro sent out a Request for Proposal for the evaluation of retrofit applications in the first quarter of 2011.
- Kitchener-Wilmot Hydro in collaboration with Cambridge and North Dumfries and Waterloo North Hydro launched a breakfast series for all commercial customers within the Waterloo Region. The objective was to communicate the availability of incentives and how to participate. Throughout 2011 breakfast presentations including air compressors, building the business case for energy efficiency as well as energy audits. Uptake in the breakfast sessions continued to grow and the CKW group was able to tie projects and savings to these events.
- Kitchener-Wilmot Hydro in partnership with Cambridge and North Dumfries and Waterloo North Hydro advertised in the Exchange Magazine focusing on news and success stories of businesses within the Kitchener, Waterloo Cambridge region.
- Kitchener-Wilmot Hydro in partnership with Waterloo North Hydro became a sponsor of the Kitchener Waterloo Chamber of Commerce and advertised in their online newsletter and helped to run and organize the Energy & Environment Tradeshow. Additional advertising in the Advocate helped Kitchener-Wilmot Hydro reach smaller businesses within the community.
- Kitchener-Wilmot Hydro and Cambridge and North Dumfries and Waterloo North Hydro continued to execute on a channel partner engagement strategy in 2011. One on one meetings and presentations were conducted throughout 2011 thereby strengthening relationships and educating channel partners on the

- incentives and how it can help them sell more. This helped us reach a greater audience and help us reach greater participation in the program.
- The CKW Group ran six hands-on training modules to channel partners to help them become knowledgeable with the application process and understanding on how to spot more energy savings. Computer sessions allowed channel partners to walk through the application process step by step while receiving coaching from LDC experts.
 - Recognizing the need for online application support the CKW Group created an application support document to help customers and channel partners navigate step by step through the on-line application process.
 - The CKW Group ran two breakfast seminars to all Channel Partners in the Region to provide program updates and attempt to increase participation in our CDM programs. At this time we provided updates on statistics and tips for making the process simpler.
 - The CKW Group also ran the 2nd Annual Technology Symposium. Rebranded to saveONenergy Technology Symposium the show was an enormous success. Having no other show like it in southern Ontario this show brought together over 60 exhibitors selling energy efficient technology and over 300 customers from the region all to learn and discuss best practices on how to save energy. It was a very successful event that drove excellent awareness and energy efficient projects.
 - Kitchener-Wilmot Hydro continued to add to its commercial customer contact database and began applying NAICS codes to all customer accounts in an effort to move towards greater segmentation marketing.
 - Kitchener-Wilmot Hydro regularly would perform on site visits to customer' facilities to understand where opportunities existed and help the customer to attain the necessary information to perform a business case analysis.

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).
- 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. KWH struggled to repair customer and channel partner relationships and gain momentum in the marketplace once again.

- 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 significant 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. Given these difficulties, some LDCs (and their third party service providers) have needed to develop parallel systems to monitor their applications.
- 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. Based on the lessons learned in the 2011 process, the centralized process review used for 2012 project payment has been streamlined by the OPA.

DIRECT INSTALL INITIATIVE (DIL)

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:

- Kitchener-Wilmot Hydro in partnership with their delivery partner has been very successful with the previous Power Savings Blitz program completing over 1,800 retrofits since program inception back in 2008. As a result of this success the number of eligible customers was significantly diminished therefore program participation is decreasing, while the amount of effort to gain program participants is increasing as the remaining customers are more difficult to reach.
- Kitchener-Wilmot Hydro issued an extension to the existing program delivery contract with 2010 program delivery service provider to continue program delivery and momentum. Meanwhile 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.
- Kitchener-Wilmot Hydro in partnership with Cambridge and North Dumfries Hydro and Waterloo North 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.

- 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 would cold call eligible program participants and perform assessments to further increase participation.
- Kitchener-Wilmot Hydro 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.
- Kitchener-Wilmot Hydro presented at breakfast series and promoted through their relationship with the Kitchener Waterloo Chamber of Commerce including radio, newsletter and sponsored events

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.
- 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.

EXISTING BUILDING COMMISSIONING INCENTIVE INITIATIVE

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

Initiative Frequency: Year round

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

Description: This Initiative offers Participants incentives for the following:

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

Targeted End Uses: Chilled water systems for space cooling

Delivery: LDC delivered.

Additional detail is available:

- Schedule C-6
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:

Kitchener-Wilmot Hydro Inc. 2011 CDM Annual Report

- To date there has been no uptake with this initiative in Kitchener-Wilmot Hydro's distribution service territory.
- As the nature of this program only lends itself to a small number of Kitchener-Wilmot Hydro customers; individual, on-site discussions and engagement was utilized for initiative promotion and customer support for the most apart although the initiative was promoted at all key account breakfasts and annual Technology Symposium.

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.

NEW CONSTRUCTION AND MAJOR RENOVATION INITIATIVE (HPNC)

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:

- Kitchener-Wilmot Hydro in collaboration with Cambridge and North Dumfries and Waterloo North Hydro issued an RFP for the delivery and evaluation of the program. The RFP was not issued until 4th quarter as full review of service providers was required and many were still getting up to speed on program details. Another hold up was due to the fact that Enbridge, a leading contender, could not finalize their contract with Union Gas as a subcontractor to our area. Once this was finalized we awarded the contract to Enbridge with Union Gas delivering the program at the local level.
- Union Gas was familiar with HPNC generation 1 and therefore was able to hit the ground running by communicating with established design build engineering.
- Kitchener-Wilmot Hydro, Cambridge North Dumfries and Waterloo North Hydro offered Enbridge a presentation opening at the annual Technology Symposium in an effort to getting the word out on the program incentives and process for participation.
- Kitchener-Wilmot Hydro worked in partnership with Union Gas to identify potential leads in the program
- Kitchener-Wilmot Hydro in collaboration with Cambridge North Dumfries and Waterloo North Hydro presented to channel partners at breakfast session on the incentives available to customers.
- Marketing banners and sell sheets were created for promotional events and customer site visits.

In Market Date: November 2011

Kitchener-Wilmot Hydro Inc. 2011 CDM Annual Report

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 must 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.

ENERGY AUDIT INITIATIVE

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

Initiative Frequency: Year round

Objective: The objective of this Initiative is to offer incentives to owners and lessees of commercial, institutional, multi-family buildings and agricultural facilities for 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-
[1http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20C-1%20Energy%20Audit%20Initiative.pdf](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>

Marketing Activities/Progress:

- Kitchener-Wilmot Hydro in partnership with Cambridge and North Dumfries Hydro and Waterloo North 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.
- Kitchener-Wilmot Hydro in partnership with Cambridge and North Dumfries Hydro and Waterloo North Hydro held their annual Technology Symposium where one of 8 focus sessions was devoted to educating customers on the value of energy audits, merits of the program and the projects that audits helped to drive. In addition several energy audit firms exhibited at the all-day event.
- Kitchener-Wilmot Hydro provided ongoing local marketing and customer support for the initiative in various forms including promotion of the initiative at all key account events in short presentations and take away print material, directly to

customers over the phone, by mail, by email as well as at face-to-face customer meetings.

- Kitchener-Wilmot Hydro in partnership with Cambridge and North Dumfries Hydro and Waterloo North 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: March 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 Initiative

2.2.3 INDUSTRIAL PROGRAM

PROCESS& SYSTEMS UPGRADES INITIATIVE (PSUI)

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

Initiative Frequency: Year round

Objectives: The objectives of this Initiative are to:

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

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

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

Targeted End Uses: Process and systems

Delivery: LDC delivered

Additional detail is available:

- Schedule D-1
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/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 handful of Kitchener-Wilmot Hydro 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, and then 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 ERIL 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.

MONITORING & TARGETING INITIATIVE

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

Initiative Frequency: Year round

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

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 handful of Kitchener-Wilmot Hydro customers; 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.

ENERGY MANAGER INITIATIVE

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

Initiative Frequency: Year round

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

Description: This Initiative provides customers the opportunity to access funding to engage an on-site, full time embedded energy manager, or an off-site roving energy manager who is engaged by the LDC. The role of the energy manager is to take control of the facility's energy use by monitoring performance, leading awareness programs, and identifying opportunities for energy consumption improvement, and spearheading projects. Participants are funded 80% of the embedded energy manager's salary up to \$100,000 plus 80% of the energy manager's actual reasonable expenses incurred up to

\$8,000 per year. Each embedded energy manager has a target of 300 kW/year of energy savings from one or more facilities. LDCs receive funding of up to \$120,000 for a Roving Energy Manager plus \$8,000 for expenses.

Targeted End Uses: 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>

Marketing Activities/Progress:

Discussions took place at an individual customer level to introduce this program. Kitchener-Wilmot Hydro in partnership with Cambridge and North Dumfries and Waterloo North Hydro began to sign up customers to complete their application.

In Market Date: November 2011

Lessons Learned:

- At the beginning, it took longer than expected to set up the energy manager application process.
- Finding qualified resources to fill these positions has proved to be a challenge in the marketplace.
- The 30% demand savings target for no incented results is virtually unattainable

KEY ACCOUNT MANAGER (KAM)

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

Marketing 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.

DEMAND RESPONSE 3

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

Initiative Frequency: Year round

Objective: This Initiative provides for Demand Response (DR) 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 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:

Kitchener-Wilmot Hydro in partnership with Cambridge and North Dumfries and Waterloo North Hydro completed a full review of all the active provincial aggregators to learn about the program and to understand customer eligibility criteria. Establishing relationships with the aggregators' sales staff was a first step into the program. Kitchener-Wilmot Hydro continued to increase its market knowledge in 2011 and has a lot of success stories/ case studies to build on in the region.

In Market Date: February 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. LDCs are now approaching the Aggregators individually and working to develop agreements in order to identify potential customers of this initiative.

2.2.4 PRE-2011 PROGRAMS COMPLETED IN 2011**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: Refer to section 2.2.2.1

Delivery: LDC delivered.

Initiative Activities/Progress:

Kitchener-Wilmot Hydro was responsible for reviewing the post-project submissions and approving final payment. No new applications were received in 2011 for this program.

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:

Kitchener-Wilmot Hydro was not responsible for the post-project submissions associated with this program. Any new applications were sent through the 2011 initiative.

2.3 Participation

Table 3: Participation/ Uptake by Initiative

Initiative	Activity Unit	Uptake/ Participation Units
Consumer Program		
Appliance Retirement	Appliances	631
Appliance Exchange	Appliances	69
HVAC Incentives	Equipment	2,261
Conservation Instant Coupon Booklet	Coupons	8,184
Bi-Annual Retailer Event	Coupons	14,195
Retailer Co-op	Items	0
Residential Demand Response	Devices	271
New Construction Program	Houses	0
Business Program		
Efficiency: Equipment Replacement	Projects	50
Direct Installed Lighting	Projects	239
Existing Building Commissioning Incentive	Buildings	0
New Construction and Major Renovation Incentive	Buildings	0
Energy Audit	Audits	0
Commercial Demand Response (part of the Residential program schedule)	Devices	9
Demand Response 3 (part of the Industrial program schedule)	Facilities	7
Industrial Program		
Process & System Upgrades*	Projects	0
a) preliminary engineering study		0
b) detailed engineering study		0
c) project incentive		0
Monitoring & Targeting	Projects	0
Energy Manager	Managers	0
Key Account Manager (KAM)	Managers	0
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	Projects	10
Demand Response 3	Facilities	4
Home Assistance Program		
Home Assistance Program	Units	0
Pre 2011 Programs Completed in 2011		
Electricity Retrofit Incentive Program	Projects	68
High Performance New Construction	Projects	0

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2.4 Spending

Table 4: Program Spending by Initiative

Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	Total
Consumer Program					
Appliance Retirement	\$36,234.82	\$0	\$0	\$0	\$36,235
Appliance Exchange	\$18,005.50	\$0	\$0	\$0	\$18,006
HVAC Incentives	\$45,481.79	\$0	\$0	\$0	\$45,482
Conservation Instant Coupon Booklet	\$54,577.85	\$0	\$0	\$0	\$54,578
Bi-Annual Retailer Event	\$0	\$0	\$0	\$0	\$0
Retailer Co-op	\$0	\$0	\$0	\$0	\$0
Residential Demand Response	\$16,762.02	\$0	\$0	\$0	\$16,762
New Construction Program	\$22,950.43	\$0	\$0	\$0	\$22,950
Business Program					
Efficiency: Equipment Replacement	\$120,485.94	\$0	\$435,294.31	\$0	\$555,780.25
Direct Installed Lighting	\$9,430.94	\$50,814.00	221,118.50	\$0	\$281,363.44
Existing Building Commissioning Incentive	\$2,828.87	\$0	\$0	\$0	\$2,828.87
New Construction and Major Renovation Initiative	\$3,884.43	\$0	\$0	\$0	\$3,884.43
Energy Audit	\$23,859.80	\$0	\$0	\$0	\$23,859.80
Commercial Demand Response (part of the Residential program schedule)	\$0	\$0	\$0	\$0	\$0.00
Demand Response 3 (part of the Industrial program schedule)	\$1,956.91	\$0	\$0	\$0	\$1,956.91
Industrial Program					
Process & System Upgrades	\$8,392.84	\$0	\$0	\$0	\$8,392.84
a) preliminary engineering study	\$2,877.47	\$0	\$0	\$0	-
b) detailed engineering study	\$2,352.47	\$0	\$0	\$0	-
c) program incentive	\$3,162.90	\$0	\$0	\$0	-
Monitoring & Targeting	\$1,380.12	\$0	\$0	\$0	\$1,380.12
Energy Manager	\$1,380.12	\$0	\$0	\$0	\$1,380.12
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	\$0	\$0	\$0	\$0	\$0.00
Demand Response 3	\$1,949.81	\$0	\$0	\$0	\$1,949.81
Home Assistance Program					
Home Assistance Program	\$10,573.24	\$0	\$0	\$0	\$10,573.24

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Pre 2011 Programs Completed in 2011					
Electricity Retrofit Incentive Program	\$0	\$0	\$794,452.90	\$0	\$794,452.90
High Performance New Construction	\$0	\$0	\$0	\$0	\$0.00
TOTAL Province-wide CDM PROGRAMS	\$380,135.43	\$50,814.00	\$1,450,865.71	\$0.00	\$1,881,815.14

Table 5: Peaksaver Extension

Residential DR Program - 2011					
	Q1	Q2	Q3	Q4	Total
Funding Received					
Fixed	\$0.00	\$0.00	-\$92,917.30	\$0.00	-\$92,917.30
Variable	\$0.00	-\$73,500.00	-\$40,810.00	\$0.00	-\$114,310.00
Total	\$0.00	-\$73,500.00	-\$133,727.30	\$0.00	-\$207,227.30
Expense Reporting					
Fixed	Q1	Q2	Q3	Q4	Total
Marketing	\$0.00	\$9,587.34	-\$227.40	\$0.00	\$9,359.94
Administration	\$176.15	\$20,036.72	\$0.00	\$0.00	\$20,212.87
IT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total	\$176.15	\$29,624.06	-\$227.40	\$0.00	\$29,572.81
Variable	Q1	Q2	Q3	Q4	Total
Installation Only	\$18,762.00	\$61,188.00	\$8,680.00	\$0.00	\$88,630.00
Thermostat & Install	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Relay Switch	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total	\$18,762.00	\$61,188.00	\$8,680.00	\$0.00	\$88,630.00
Maintenance	Q1	Q2	Q3	Q4	Total
	\$560.00	\$840.00	\$420.00	\$0.00	\$1,820.00
Financial Incentives	Q1	Q2	Q3	Q4	Total
	\$3,300.00	\$2,450.00	\$950.00	\$0.00	\$6,700.00

2.5 Evaluation

The table below represents key findings from the OPA’s province-wide evaluation of the provincial results.

2.5.1 EVALUATION FINDINGS

Table 6: Key Evaluation Findings from the OPA

Initiative	Evaluation Findings
Consumer Program	
Appliance Retirement	<ul style="list-style-type: none"> * Overall participation continues to decline year over year * 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 * Measure Breakdown: 66% refrigerators, 30% freezers, 4% Dehumidifiers and window air conditioners * 3% of net resource savings achieved through the Retailer pick-up stream * Measure Breakdown: 90% refrigerators, 10% freezers * Net-to-Gross ratio for the initiative was 50% * 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
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) * Measure Breakdown: 75% window air conditioners, 25% dehumidifiers * Dehumidifiers and window air conditioners contributed almost equally to the net energy savings achieved * 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

	<ul style="list-style-type: none"> * 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%) 	
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) 	
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 	
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. 	
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 	
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 	
New Construction Initiative	<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		
Efficiency: Equipment Replacement	<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 	

	<ul style="list-style-type: none"> * 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 	
Direct Installed 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 * 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 	
Existing Building Commissioning Incentive	<ul style="list-style-type: none"> * Initiative was not evaluated in 2011, no completed projects in 2011 	
New Construction and Major Renovation Initiative	<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)	
Energy Audit	* The evaluation is ongoing. The sample size for 2011 was too small to draw reliable conclusions.	
Commercial Demand Response (part of the Residential program schedule)	* See residential demand response (#7)	
Demand Response 3 (part of the Industrial program schedule)	* See Demand Response 3 (#20)	
Industrial Program		
Process & System Upgrades	* Initiative was not evaluated in 2011, no completed projects in 2011	
Monitoring & Targeting	* Initiative was not evaluated in 2011, no completed projects in 2011	
Energy Manager	* Initiative was not evaluated in 2011, no completed projects in 2011	
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	* See Efficiency: Equipment Replacement (#9)	
Demand Response 3	* Program performance for Tier 1 customers increased with DR-3 participants	

	<p>providing 75% of contracted MW for both sectors</p> <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		
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		
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) 	
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%) 	
Toronto Comprehensive	<ul style="list-style-type: none"> * Initiative was not evaluated * Net-to-Gross ratios used are consistent with the 2010 evaluation findings 	
Multifamily Energy Efficiency Rebates	<ul style="list-style-type: none"> * Initiative was not evaluated * Net-to-Gross ratios used are consistent with the 2010 evaluation findings 	
Data Centre Incentive Program	<ul style="list-style-type: none"> * Initiative was not evaluated 	
EnWin Green Suites	<ul style="list-style-type: none"> * Initiative was not evaluated 	

2.5.2 EVALUATION RESULTS

Table 7: Evaluated Results by Initiative

Initiative			Gross Savings		Net Savings		Contribution to Targets	
	NTG (KW)	NTG (KWh)	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								
Appliance Retirement	51%	52%	72	520,136	36	262,506	35	1,049,114
Appliance Exchange	52%	52%	14	16,611	7	8,561	3	30,319
HVAC Incentives	61%	60%	1,063	1,967,839	642	1,178,372	642	4,713,489
Conservation Instant Coupon Booklet	114%	111%	17	277,453	19	305,679	19	1,222,717
Bi-Annual Retailer Event	113%	110%	25	438,730	27	479,313	27	1,917,251
Retailer Co-op	-	-	0	0	0	0	0	0
Residential Demand Response	-	-	152	0	152	0	0	0
New Construction Program	-	-	0	0	0	0	0	0
Business Program								
Efficiency: Equipment Replacement	74%	76%	759	4,004,164	564	3,057,370	551	12,179,524
Direct Installed Lighting	93%	93%	244	679,924	261	631,336	211	2,373,597
Existing Building Commissioning Incentive	-	-	0	0	0	0	0	0
New Construction and Major Renovation Incentive	-	-	0	0	0	0	0	0
Energy Audit	-	-	0	0	0	0	0	0
Commercial Demand Response (part of the Residential program schedule)	-	-	6	0	6	0	0	0

Demand Response 3 (part of the Industrial program schedule)	n/a	n/a	600	17,768	454	17,768	0	17,768
Industrial Program								
Process & System Upgrades	-	-	0	0	0	0	0	0
Monitoring & Targeting	-	-	0	0	0	0	0	0
Energy Manager	-	-	0	0	0	0	0	0
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	74%	75%	54	359,559	40	271,185	40	1,084,740
Demand Response 3	n/a	n/a	1,724	85,285	1453	85,285	0	85,285
Home Assistance Program								
Home Assistance Program	-	-	0	0	0	0	0	0
Pre-2011 Programs completed in 2011								
Electricity Retrofit Incentive Program	58%	59%	1,663	11,190,915	964	6,580,023	964	26,320,0922
High Performance New Construction	50%	50%	2	10,461	1	5,230	1	20,922
Toronto Comprehensive	-	-	0	0	0	0	0	0
Multifamily Energy Efficiency Rebates	-	-	0	0	0	0	0	0
Data Centre Incentive Program	-	-	0	0	0	0	0	0
EnWin Green Suites	-	-	0	0	0	0	0	0

Table 8: 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)
Residential Program Total	1,341	3,220,769	883	2,234,431	726	8,932,891
Commercial & Institutional Program Total	1,609	4,701,856	1,284	3,706,474	762	14,570,889
Industrial Program Total	1,778	444,843	1,493	356,470	40	1,170,025
Home Assistance Program Total	0	0	0	0	0	0
Pre-2011 Programs completed in 2011 Total	1,665	11,201,376	965	6,585,253	965	26,341,014
Total OPA Contracted Province-Wide CDM Programs	6,393	19,568,845	4,625	12,882,629	2,493	51,014,819

2.6 Additional Comments

Challenges in 2011:

When Kitchener-Wilmot Hydro signed the Master Agreement in early 2011, a number of Initiative Schedules were not available (three C&I initiatives, Industrial Program and Low Income Program). Although the Residential and three C&I Program Initiatives were released at that time, they were not readily available for Kitchener-Wilmot Hydro customers due to a number of challenges:

1. Application and payment processes were not established
2. Application forms and worksheets were not available
3. The iCon system (both customer and LDC sites) was not launched until March 2011 and there are still various issues identified to date that delayed program uptake
4. There were kinks in some program design that were recognized after the release of the Schedules which affected the actual roll out in the market (i.e. Residential New Construction)

Initiatives were in the “start-up” mode as Kitchener-Wilmot Hydro and the OPA finalized Schedules, developed internal processes, and procured services and resources prior to marketing the initiatives to our customers. While the majority of initial elements, both internal and external of the programs were delivered during the course of 2011, results suffered accordingly.

Even with these challenges, Kitchener-Wilmot Hydro delivery of the 2011-2014 CDM Portfolio over the first 12 months of the contract term has been successful. The 2011 performance results were sufficient to build on for the next three years of the program term. Kitchener-Wilmot Hydro believes that the results could have been better if there were fewer challenges and if all program initiatives were in market in 2011.

Recommendations:

Many of the obstacles encountered in delivering Province Wide Programs in 2011 were out of Kitchener-Wilmot’s control. However, Kitchener-Wilmot acknowledges that working closely with all the parties involved (the OPA, the OEB, channel partners, and the customers) to identify solutions to these problems will contribute to the success of the programs moving forward. A few recommendations are:

- Allow LDCs to have more flexibility implementing OPA-Contracted Province-wide Programs – LDCs know their customers and their needs more than any other entity. LDCs should be allowed to customize the delivery of the programs to their customers. An example is to establish a simplified/customized application process for most C&I and Industrial initiatives.
- Make it simple/straightforward for LDCs to apply for Board-Approved CDM Programs – Board-Approved CDM Programs may be necessary to ensure that many LDCs achieve their targets. In addition, it is ideal to have the approval process relatively quick, if possible, given the short amount of time left to design and launch a new program that would have a measureable impact on LDC's targets. The duplicate issue with existing programs should also be carefully reviewed.
- OPA-Contracted Province-Wide Program rules and eligibility requirements should be revised to influence more participation – Overly complex, lengthy, and onerous application processes are one of the main barriers to the success of some program initiatives.
- There should be a faster process to implement program changes and modifications
- In order for LDCs to adjust tactics in the marketplace in a timely manner, reporting performance results and evaluation results to LDCs should be timely, more frequent, and transparent

3 Combined CDM Reporting Elements

3.1 Progress Towards CDM Targets

Kitchener-Wilmot Hydro has achieved 21.5% and 56.8% of its demand and energy savings respectively. Kitchener-Wilmot feels that it is positioned to build on these initial results throughout year over year.

Table 9: 2011 Verified Results vs Milestones

	2011 Milestones as per 2010 Strategy		2011 Verified Annual Results		Variance to 2011 Milestones
	MW/MWh	(% to Target)	MW/MWh	(% to Target)	MW/MWh
Demand Savings	6.1	28%	4.6	21%	-1.5
Energy Savings	21,190	23%	12,882	14%	-8,308

Kitchener-Wilmot Hydro continued to see strong numbers in the commercial and institutional markets in 2011. Pre-2011 and 2011 programs contributed to the success and Kitchener-Wilmot Hydro is encouraged by the traction in each of the sectors. Strong market awareness of the incentive programs from pre-2011 ERIP in conjunction with creating and implementing a thorough marketing and communication plan in 2011 helped to influence customers with their efficiency standards. Kitchener-Wilmot Hydro will continue to build on its initial strategy by moving into segmentation, based on industry type, processes and overall outlook on energy management as a corporate objective. Kitchener-Wilmot Hydro also sees great potential with mid to smaller size commercial customers who are not aware of the incentive programs. New communication channels that target the right individuals within the organization will allow us to improve our ability to support customers through the application process thereby providing a positive experience. This will improve our participation rates through word of mouth and ultimately promote continuous energy management improvement.

Kitchener-Wilmot Hydro does see a few risks that will need to be monitored. The application process continues to be a struggle for many customers and channel partners. Due to the perceived process many smaller customers and channel partners who do not have additional resources react by not participating in the programs. Continued channel partner and customer training is planned to try and overcome some of the perceived feelings and hopefully generate greater participation rates.

Kitchener-Wilmot Hydro realizes that it must work hard to spread awareness and locate other low hanging fruit projects as well as targeting more technical custom projects that

deliver significant energy savings. By building this capability internally Kitchener-Wilmot Hydro will be able to spread out where the savings are generated and provide us with the ability to spot deeper energy savings with all commercial customers.

Kitchener-Wilmot Hydro saw positive results from the consumer market and recognizes the potential that exists in the short and long term. The Consumer initiative made up 19% and 17% of the total peak demand savings and total energy savings respectively. Although this was lower than the original CDM strategy Kitchener-Wilmot Hydro sees areas for improvement and initiatives to build on. The HVAC program was a leader within the portfolio making up 73% of the consumer peak demand savings and 53% of the consumer energy savings. Kitchener-Wilmot Hydro does see some risks with consumer programs which include the saturation of the appliance retirement program, peaksaver plus in home display technology and deployment. Kitchener-Wilmot Hydro will continue to support all of the consumer programs, including, coupons, appliance retirement, peaksaver plus, HVAC and new home construction in an effort to provide value to all of its residential customers. It is projected that an increased push in marketing and promotions will build awareness and drive up the contribution from the consumer market as this will be critical piece in Kitchener-Wilmot Hydro reaching its four year target. Kitchener-Wilmot Hydro continues to look for new ideas and best practices that can offer added value to the existing portfolio. The need for education programs within the schools would be one area to expand to ensure that the culture of conservation is taught at the grade school level.

Kitchener-Wilmot Hydro saw a mix in the Industrial market. Making up over 30% of the peak demand savings highlights the successes in demand response over the past few years. However, due to price options demand response only saw one new participant in the 2nd half of 2011. This is a major risk as Demand Response is a key driver for demand savings and will be critical in achieving our peak demand target. Once the price per KW is restored Kitchener-Wilmot Hydro feels that it has some great case examples to build on within its customer base. Larger industrial retrofits were not prevalent in 2011 and only a few projects were eligible for the preliminary engineering study or the detailed engineering study. However, due to timing and contract commitment customers opted for the retrofit application track. Due to the size of the majority of commercial customers in our territory and the longer sales cycles only a few opportunities will arise. Furthermore the hard stop in 2014 will deter some customers from participating.

Kitchener-Wilmot Hydro will continue to strategically target pre-qualified customers to promote the industrial programs but acknowledges that few opportunities exist.

Kitchener-Wilmot Hydro has a lot of lessons and successes to build on from 2011. Delivering a comprehensive portfolio of conservation programs in the consumer, commercial and industrial sectors offers great value and opportunity for all customers within our service territory. In 2011 program processes and plans were created to support CDM over the long term and we were rewarded with many success stories and evidence of traction in all programs in market. In 2012 and 2013 Kitchener-Wilmot Hydro will move its CDM strategy into full gear, through continuous promotion and communication to all customers in our region. Collaboration is a cornerstone objective that has proven to drive both internal and external advancement in marketing and delivering conservation. Focusing on synergies and partnerships where efficiencies can be achieved will ensure that Kitchener-Wilmot not only reach its targets but provide the best value to its customers.

Table 9: Net Peak Demand Savings at the End User Level (MW)

Implementation Period	Annual (MW)			
	2011	2012	2013	2014
2011 - Verified	4.63	2.56	2.56	2.49
2012				
2013				
2014				
Verified Net Annual Peak Demand Savings in 2014:				2.49
Kitchener-Wilmot Hydro Inc. 2014 Annual CDM Capacity Target:				21.56
Verified Portion of Peak Demand Savings Target Achieved (%):				11.56%
Kitchener-Wilmot Hydro Inc. Strategy, Milestone submitted for 2011				28.29%
Variance	6.1			(16.73)

Variances in the 2011 Net Peak Demand Savings as reported by the OPA can be attributed to a few key items;

- Initiatives such as DR3 and Residential Demand Response weigh heavily in the success of meeting our peak demand target. These programs proved to be a challenge to deliver in 2011, as discussed earlier in the report.
- The assumed one year persistence of DR3, the results above do not reflect approximately 1.9MW currently under contract. Should these contracts persist until 2014 the variance would be reduced to 10%.
- Large projects that will have the most significant impact on peak demand savings will not be seen in the results until 2012 and following years.
- The price per KW for DR participants is not as lucrative as it once was and had impacted new participant rates.

Table 10: Net Energy Savings at the End-User Level (GWh)

Implementation Period	Annual (GWh)				Cumulative (GWh)
	2011	2012	2013	2014	2011-2014
2011 - Verified	12.88	12.78	12.77	12.59	51.01
2012					
2013					
2014					
Verified Net Cumulative Energy Savings 2011-2014:					51.01
Kitchener-Wilmot Hydro 2011-2014 Cumulative CDM Energy Target:					90.29
Verified Portion of Cumulative Energy Target Achieved (%):					56.50%
Kitchener-Wilmot Hydro Inc. Strategy, Milestone submitted for 2011					23.5%
Variance	21.19 <i>cumulative</i>				33%

Variances in the 2011 Net Energy Savings as reported by the OPA can be attributed to a few key items:

- Energy Savings attributed from pre-2011 initiatives contributed to 51% of the total achieved in 2011.
- The HVAC Incentive initiative represents the greatest portion of savings in the residential programs. This initiative had not previously been delivered by Kitchener-Wilmot Hydro and the participation rates and associated savings were best estimates at the time KWH filed its strategy.
- The cumulative effect of Net Energy Savings is greater than anticipated when the strategy was written. Savings have demonstrated a significantly higher rate of persistence, resulting in a higher cumulative contribution towards the 2014 target.

3.2 CDM Strategy Modifications

Kitchener-Wilmot Hydro does not have any modifications to make to its strategy at this time. Comments regarding enhancements to delivery can be found in section 2.6 Additional Comments. Given the outcome in 2011 Kitchener-Wilmot Hydro is currently reviewing its 2012-2014 forecasted numbers and re-evaluating its initial CDM strategy to reflect the unforeseen changes to programs and delivery in 2011. For example Board Approved programs will not play a significant role in reaching our targets as we original had thought. Once a thorough review and analysis is completed Kitchener-Wilmot Hydro will consider resubmitting an updated strategy.