



Conservation and Demand Management

2013 Annual Report

Submitted to:

Ontario Energy Board

Submitted on September 30, 2014

TABLE OF CONTENTS

.....	1
TABLE OF CONTENTS	1
EXECUTIVE SUMMARY	3
BACKGROUND	4
1 BOARD-APPROVED CDM PROGRAMS	5
1.1 INTRODUCTION.....	5
1.1.1 <i>General Overview of Kingston Hydro’s Board-Approved CDM Programs</i>	5
1.2 PROGRAM DESCRIPTION.....	5
1.2.1 <i>TOU Pricing</i>	5
1.3 PARTICIPATION.....	6
1.3.1 <i>TOU Pricing</i>	6
1.4 SPENDING.....	6
1.4.1 <i>TOU Pricing</i>	6
1.5 EVALUATION	7
1.5.1 <i>TOU Pricing</i>	7
1.6 CDM VARIANCE ACCOUNT.....	7
1.7 ADDITIONAL COMMENTS.....	7
2 OPA CONTRACTED PROGRAMS & PROGRAM ADMINISTRATION BUDGET	8
2.1 INTRODUCTION.....	8
2.2 2.2 PROGRAM DESCRIPTIONS.....	11
2.2.1 <i>RESIDENTIAL PROGRAMS</i>	11
2.2.1.1 <i>APPLIANCE RETIREMENT INITIATIVE (Exhibit D)</i>	11
2.2.1.2 <i>APPLIANCE EXCHANGE INITIATIVE (Exhibit E)</i>	12
2.2.1.3 <i>HVAC INCENTIVES INITIATIVE (Exhibit B)</i>	13
2.2.1.4 <i>CONSERVATION INSTANT COUPON BOOKLET INITIATIVE (Exhibit A)</i>	14

2.2.1.5	BI-ANNUAL RETAILER EVENT INITIATIVE (Exhibit C).....	16
2.2.2	COMMERCIAL AND INSTITUTIONAL PROGRAMS.....	19
2.2.2.1	EFFICIENCY: EQUIPMENT REPLACEMENT INCENTIVE (ERII) (Schedule C-2).....	19
2.2.2.2	DIRECT INSTALL INITIATIVE (DIL) (Schedule C-3)	22
2.2.2.3	EXISTING BUILDING COMMISSIONING INCENTIVE INITIATIVE (Schedule C-6)	23
2.2.2.4	NEW CONSTRUCTION AND MAJOR RENOVATION INITIATIVE (HPNC) (Schedule C-4)	24
2.2.2.5	ENERGY AUDIT INITIATIVE (Schedule C-1).....	25
2.2.3	INDUSTRIAL PROGRAM.....	26
2.2.3.1	PROCESS& SYSTEMS UPGRADES INITIATIVE (PSUI) (Schedule D-1).....	26
2.2.3.2	MONITORING & TARGETING INITIATIVE (Schedule D-2)	27
2.2.3.3	ENERGY MANAGER INITIATIVE (Schedule D-3).....	28
2.2.3.4	KEY ACCOUNT MANAGER (KAM) (Schedule D-4).....	29
2.2.3.5	DEMAND RESPONSE 3 (Schedule D-6).....	30
2.2.4	LOW INCOME INITIATIVE (HOME ASSISTANCE PROGRAM) (Schedule E)	32
2.2.5	PRE-2011 PROGRAMS COMPLETED IN 2011	33
2.2.5.1	ELECTRICITY RETROFIT INCENTIVE PROGRAM	33
2.2.5.2	HIGH PERFORMANCE NEW CONSTRUCTION.....	34
2.3	PARTICIPATION.....	35
2.4	SPENDING.....	36
2.5	EVALUATION	37
2.6	ADDITIONAL COMMENTS.....	37
3	COMBINED CDM REPORTING ELEMENTS	38
3.1	PROGRESS TOWARDS CDM TARGETS	38
3.2	MODIFICATIONS TO CDM STRATEGY	39

Executive Summary

Kingston Hydro achieved outstanding conservation results in 2013. Kingston Hydro owes its achievements to the willingness of its customers to invest in electricity efficiency, the commitment of its municipal shareholder to environmental sustainability, and the cost effectiveness and customer service benefits of Utilities Kingston's multi-utility model. On behalf of Kingston Hydro, Utilities Kingston provided 13 province-wide saveONenergy programs along with other energy and water conservation services and incentives to its customers in 2013.

Utilities Kingston provides one-on-one, multi-utility conservation help to all customers and free on-site energy and water efficiency walkthroughs for all commercial, multi-residential and qualifying low-income residential customers. In 2013, this strategy, combined with completion of a number of innovative conservation projects by Utilities Kingston's Street-lighting and Water-Wastewater groups, resulted in Kingston Hydro achieving the highest energy savings and best cost effectiveness of any previous year in the 2011-2014 CDM framework.

The Ontario Power Authority reports that by Dec. 31, 2013 Kingston Hydro customers had achieved or contracted to provide 96.2% or 6.38 MW of its 6.63 MW 2014 Net Peak Demand Savings target. That's enough to supply about 5% of Kingston Hydro's 2011-2013 Average Summer Peak Load.

The Ontario Power Authority reports that in 2013 Kingston Hydro customers achieved 6,158,825 kWh of annual energy consumption savings, enough to supply 766 average Kingston Hydro residential customers. Cumulative kWh savings achieved since 2011 are projected by the OPA to be 41,577,146 kWh by the end of 2014, or 111.9% of Kingston Hydro's 2011-2014 cumulative kWh savings target.

OPA reported Program Administration Budget expenses by Kingston Hydro in 2013 were \$304,488. Kingston Hydro delivered \$614,572 in saveONenergy incentives to its customers supporting local electricity conservation investment in 2013.

Since 2011, Kingston Hydro has invested \$2.8M in program administration and saveONenergy customer incentives in projects with a total local investment value of at least \$10M. If we assume an avoided supply cost of \$0.11/kWh, savings to the Ontario electricity system created by Kingston Hydro's \$2.8M expenditure of Ontario Power Authority conservation funding can be estimated at over \$4.5M, making Kingston Hydro customers responsible for a net financial benefit to the provincial rate base of \$1.7M from 2011 through 2013. Kingston Hydro customers who have made investments will reap economic returns from these investments for years to come.

Our customers helped us save our province's energy system close to \$1.8M while generating great economic returns for themselves over and above these savings in the process. We have significantly reduced our community's draw from the Provincial transmission system, reducing the environmental impact of Kingston's electricity use. Kingston Hydro and Utilities Kingston are proud of our community's accomplishments.

Kingston Hydro believes it can achieve at least 100% of its net peak demand reduction target, and 125% of its energy consumption target by the end of 2014.

Energy consumption savings generated in 2013 by Kingston Hydro exceeded previous forecasts, due to the contribution of local Street-lighting and Water-Wastewater projects towards Kingston Hydro's goals. Progress towards peak demand savings did not live up to expectations, largely due to re-classification of a

large demand response provider by the OPA resulting in significant erosion of reported demand savings due to application of a lower Net-to-Gross ratio to savings generated by this provider.

Administrative spending in 2013 was down 18% from 2012, reflecting a drop in the number of Home Assistance and Small Business Lighting Program jobs. Customer uptake plateaus have been reached for these programs, indicating a need for refreshed programs for the 2015-2020 period.

In March, 2014, Kingston Hydro and Utilities Kingston received the inaugural Electricity Distributors' Association "Conservation Leadership Excellence Award", sponsored by the OPA. Kingston Hydro acknowledges the support, investment, hard-work, and persistence of its customers, staff, shareholder The City of Kingston, and the OPA in helping our community save energy, save money, and mitigate our environmental footprint.

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 for electricity distributors. Accordingly, on November 12, 2010, the OEB amended Kingston Hydro's distribution licence to require achievement of 37.16 GWh of energy savings and 6.63 MW of summer peak demand savings between January 1, 2011 and December 31, 2014.

To put Kingston Hydro's conservation challenge in perspective, the conservation targets represent a 5%-7% reduction in both energy consumption and summer peak demand. 37.16 GWh of electricity consumption is enough to supply 4675 average Kingston Hydro Residential customers for a year. Kingston Hydro's summer peak MW target is equivalent to shutting off power for at least one of Kingston Hydro territory's top 3 employers (Queen's University, CFB Kingston, or Kingston General Hospital). The energy conservation targets set for Kingston Hydro are challenging, but achievable.

In accordance with the same Minister's directive, the OEB issued the Conservation and Demand Management Code for Electricity Distributors on September 16, 2010. The code sets out the obligations and requirements with which electricity distributors must comply in relation to the CDM targets set out in their licences. To comply with the Code requirements, Kingston Hydro submitted its CDM Strategy on November 1st, 2010 which provided a high level of description of how Kingston Hydro intended to achieve its CDM targets. It further amended this plan with a Budget Addendum filed with the OEB June 10, 2011.

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, 2013 to December 31, 2013.

1 Board-Approved CDM Programs

1.1 Introduction

1.1.1 General Overview of Kingston Hydro's Board-Approved CDM Programs

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

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

1.2 Program Description

1.2.1 TOU Pricing

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. TOU Pricing is enabled by the installation of smart meters and related infrastructure across Ontario.

The OEB establishes TOU prices and has made the implementation of this pricing mechanism mandatory for electricity 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. This means that Smart Metering and TOU implementation costs are recovered from the rates Kingston Hydro customers pay for local delivery of electricity, rather than from the price of electricity itself as are most other CDM activities.

Objectives: TOU pricing creates an economic incentive for residential and small business customers to shift their electricity use to off-peak times. Peak demand reductions are expected from TOU pricing, and energy conservation benefits may also be realized.

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.

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

Initiative Frequency: Year-Round

The RPP TOU price is adjusted twice annually by the OEB. A summary of the RPP TOU pricing during 2012 is provided below:

RPP TOU	Rates (cents/kWh)		
	On Peak	Mid Peak	Off Peak
Effective Date			
May 1, 2012	11.7	10.0	6.5
November 1, 2012	11.8	9.9	6.3
May 1, 2013	12.4	10.4	6.7

Delivery: Pursuant to applicable codes, guidelines, and utility practice, Kingston Hydro has installed and maintains smart meters capable of collecting hourly interval electricity consumption data and an IT infrastructure that is communicates with a Provincial Smart Meter Data Management/Repository (MDM/R) facility. The OEB sets hourly rates for electricity consumption for RPP customers that rise during times of increased electricity demand. Once two way communications with the MDM/R was achieved, Kingston Hydro transferred all RPP customers to TOU billing. TOU Billing was in effect for all eligible customers through 2013.

1.3 Participation

1.3.1 TOU Pricing

All of Kingston Hydro's 23,232 residential and 3,180 GS<50kW customers are participants in TOU Pricing.

1.4 Spending

1.4.1 TOU Pricing

As filed in with the OEB (#EB-2012-0310), Kingston Hydro reports the following Smart Metering Costs as of Dec. 31, 2011:

2012 Capital Cost:	\$87,946
2011 OM&A:	\$43,714
Total OM&A:	\$184,749
Total Capital:	\$4,752,407

1.5 Evaluation

1.5.1 TOU Pricing

In accordance with a Directive dated March 31, 2010 by the Minister of Energy and Infrastructure, the OEB is of the view that any evaluations of savings from TOU pricing should be conducted by the OPA for the province, and then allocated to distributors. As of Sept. 30, 2014, the OPA has not released any verified results for the TOU Pricing program, therefore, the conservation results reported by Kingston Hydro do not include any contribution from Smart Metering and Time of Use Pricing initiatives, nor can Kingston Hydro estimate the savings that TOU Pricing may deliver towards its Conservation targets.

1.6 CDM Variance Account

Kingston Hydro's CDM Variance Account balance as of Dec. 31, 2013 is \$145,693. This amount reflects lost revenues based on verified results of OPA Conservation Programs since the time of the final Lost Revenue Adjustment Mechanism claim made by Kingston Hydro as part of an OEB rate application. Specifically, the balance in this variance account reflects revenues lost by Kingston Hydro due to OPA verified consumption and demand reductions for saveONenergy funded projects from Jan. 1, 2011 through Dec. 31, 2013

1.7 Additional Comments

Kingston Hydro has no additional comments.

2 OPA Contracted Programs & Program Administration Budget

2.1 Introduction

Kingston Hydro has entered into a contract with the OPA. This agreement gives Kingston Hydro the option to deliver available “OPA Contracted” conservation programs to its customers. This agreement is effective January 1, 2011 through December 31, 2014. The Ontario Power Authority will measure and evaluate electricity savings applicable to Kingston Hydro’s CDM targets achieved through delivery of these programs. OPA Contracted Programs, branded province wide as “saveONenergy” Programs, are consistent in their design and eligibility across Ontario. These programs have four broad categories: Consumer, Commercial & Institutional, Industrial, and Low Income.

Additionally, the Ontario Energy Board has permitted Ontario LDCs to count OPA-contracted “Electricity Retrofit Incentive Program” (ERIP) and “High Performance New Construction” Program savings from projects started before 2011 but completed within the 2011-2014 period towards achievement of CDM targets. These savings relate to projects that had incentives pre-approved before January 1st, 2011, but completed after January 1st, 2011 in accordance with program terms and conditions.

The charts on the following pages list the saveONenergy initiatives that have been offered by the OPA to Kingston Hydro for delivery during the 2011-2014. Also listed is a contract schedule reference, the date each program schedule was made available to Kingston Hydro, the customer class the program is targeted towards, and the status of Kingston Hydro’s program offerings in 2013. Short program descriptions are available in each program’s individual section of this report.

Residential saveONenergy Programs				
OPA Contracted Initiative	Schedule Reference or Description	Date schedule posted	Customer Class	Offered by Kingston Hydro in 2013? (Y/N)
Appliance Retirement	Schedule B-1, Exhibit D	<i>Jan 26, 2011</i>	<i>All residential rate classes</i>	YES
Appliance Exchange	Schedule B-1, Exhibit E	<i>Jan 26, 2011</i>	<i>All residential rate classes</i>	YES
HVAC Incentives	Schedule B-1, Exhibit B	<i>Jan 26, 2011</i>	<i>All residential rate classes</i>	YES
Conservation Instant Coupon Booklet	Schedule B-1, Exhibit A	<i>Jan 26, 2011</i>	<i>All residential rate classes</i>	YES
Bi-Annual Retailer Event	Schedule B-1, Exhibit C	<i>Jan 26, 2011</i>	<i>All residential rate classes</i>	YES
Retailer Co-op		<i>Jan 26, 2011</i>	<i>All residential rate classes</i>	NO
Residential Demand Response	Schedule B-3	<i>Aug 22, 2011</i>	<i>All residential rate classes and some general service customers</i>	NO
New Construction Program	Schedule B-2	<i>Jan 26, 2011</i>	<i>All residential rate classes</i>	YES, No Customer Uptake
Home Assistance Program	Schedule E-1	<i>May 9, 2011</i>	<i>All residential rate classes</i>	YES

Commercial & Institutional saveONenergy Programs

OPA Contracted Initiative	Schedule Reference or Description	Date schedule posted	Customer Class	Offered by Kingston Hydro in 2013? (Y/N)
Efficiency: Equipment Replacement	Schedule C-2	Jan 26, 2011	All general service classes	YES
Direct Install Lighting	Schedule C-3	Jan 26, 2011	General Service < 50 kW & qualified tenants embedded within GS>50kW services	YES
Existing Building Commissioning Incentive	Schedule C-6	Feb, 2011	All general service classes	YES, No Customer Uptake
New Construction and Major Renovation Initiative	Schedule C-4	Feb, 2011	All general service classes	YES
Energy Audit	Schedule C-1	Jan 26, 2011	All general service classes	YES
Commercial Demand Response (part of the Residential program schedule)	Schedule B-3	Jan 26, 2011	All general service classes	NO
Demand Response 3 (part of the Industrial program schedule)	Schedule D-6	May 31, 2011	General Service 50 kW & above	YES
Direct Service Space Cooling	Offers free servicing of air conditioning systems and refrigeration units for the purpose of achieving consumption and demand savings.	Program Not offered by OPA	All general service classes	NO
Demand Response 1	Allows customers to voluntarily reduce electricity demand during certain periods of the year pursuant to the DR 1 contract. The contract provides payment for service for the actual electricity reduction provided.	Program Eliminated by OPA	All general service classes	NO

Industrial Programs				
OPA Contracted Initiative	Schedule Reference or Description	Date schedule posted	Customer Class	Offered by Kingston Hydro in 2013? (Y/N)
Process & System Upgrades	Schedule D-1	May 31, 2011	General Service 50 kW & above	YES
Monitoring & Targeting	Schedule D-2	May 31, 2011	General Service 50 kW & above	YES, No Customer Uptake
Energy Manager	Schedule D-3	May 31, 2011	General Service 50 kW & above	Yes, No Customer Uptake
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	Schedule C-2	May 31, 2011	General Service 50 kW & above	YES
Demand Response 3	Schedule D-6	May 31, 2011	General Service 50 kW & above	YES
Key Account Manager		Q3, 2012	Large User rate class	YES
Pre-2011 Programs completed in 2011				
Electricity Retrofit Incentive Program	n/a	n/a	All general service classes	YES
High Performance New Construction	n/a	n/a	All general service classes	YES

As outlined in Kingston Hydro's OEB Filed 2011-2014 Budget Addendum, Kingston Hydro's allocation of Program Administration Funding from the Ontario Power Authority for the 2011-2014 Target Period by Program is as follows:

Consumer Programs: \$615,336.29

Commercial & Institutional Programs: \$807,146.35

Industrial Programs: \$105,830.83

Low Income Programs: \$85,529.89

Portfolio Total PAB: \$1,613,843.36

Some programs intended to be offered during the 2011-2014 period by the OPA to LDCs for delivery have been cancelled. The Direct Service Space Cooling initiative, Demand Response 1, and other consumer initiatives such as the Mid-stream Retail initiative will not be offered. This will reduce the total kW and kWh savings achievable within the 2011-2014 target period.

As outlined in sections 4.1 and 7 of Kingston Hydro's board filed CDM Strategy, achieving its projected savings from residential and small commercial customer classes would depend heavily on the success of Low Income Residential and Small Commercial Direct Install programs. With the Home Assistance Program not in market until Q3 2012 and the Direct Service Space Cooling initiative cancelled, Kingston Hydro expects that results of these key programs will be lower than expected for the 2011-2014 period.

The Master CDM Program Agreement includes program change management provisions in Article 3. Collaboration between the OPA and the Local Distribution Companies commenced in 2011 as a 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. 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. In 2012 changes began to be made to existing programs that will improve achievable savings, but some potential changes to programs suggested by Kingston Hydro that could increase effectiveness of saveONenergy programs in Kingston Hydro territory have not been implemented by the OPA as of Dec. 31, 2013.

2.2 Program Descriptions

2.2.1 RESIDENTIAL PROGRAMS

2.2.1.1 APPLIANCE RETIREMENT INITIATIVE (Exhibit D)

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

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

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

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

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

Additional detail is available:

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

Initiative Activities/Progress: Kingston Hydro promotes the Appliance Retirement program on its website through its Customer Service Representatives and through affiliated websites and communications

(Utilities Kingston, The City of Kingston, and saveONenergy). Kingston Hydro customer service is provided by the same CSRs that provide information to the public about the City of Kingston waste disposal options, creating a higher than average customer awareness rate. There is high awareness in the general public about this program due to province-wide marketing efforts.

The OPA reports that Kingston Hydro had 46 participants in the Appliance Retirement Program in 2013, compared to 182 in 2011 and 91 in 2012. Kingston Hydro has been offering this program since 2007, meaning that this program has achieved market saturation and cannot be relied upon to deliver significant annual savings in coming years without significant program changes.

Net Peak Demand Savings in MW from this initiative projected at Dec. 31, 2014: 18 kW, 0.3% of Target

Cumulative 2011-2014 kWh savings achieved as of Dec. 31, 2013: 425,778 kWh, 1% of Target

In Market Date: Q2, 2011

Lessons Learned:

- Kingston Hydro was one of the first LDCs in Ontario to offer the pre-cursor program, the Great Refrigerator Roundup. That program was analogous to the Appliance Retirement Initiative, with Kingston acting as a pilot test community for the province-wide initiative that began in 2007. As outlined in Kingston Hydro's CDM Strategy, Kingston Hydro believes the Appliance Retirement Initiative has reached market saturation within its territory.
- In Kingston Hydro's opinion, inclusion of other appliances and the offer of a meaningful financial incentive toward purchase of a replacement appliance could revive customer interest in this program.
- Results are responsive to province wide advertising.
- Projected savings from this initiative are not high enough to warrant prioritization of it within Kingston Hydro's consumer marketing mix.

2.2.1.2 APPLIANCE EXCHANGE INITIATIVE (Exhibit E)

Target Customer Type(s): Residential Customers

Initiative Frequency: Spring and Fall

Objective: The objective of this initiative is to remove and permanently decommission older, inefficient window air conditioners and portable dehumidifiers.

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

Initiative Activities/Progress:

Kingston Hydro would like to thank the Princess St. and Division St. Canadian Tire locations for participating in this OPA Contracted program.

The OPA reports that 7 appliances were exchanged through this program in 2013.

Net Peak Demand Savings in MW from this initiative projected at Dec. 31, 2014: 10 kW, 0.2% of Target

Cumulative 2011-2014 kWh savings achieved as of Dec. 31, 2013: 62,461 kWh, 0.2% of Target

In Market Date: Q2, 2011

Lessons Learned:

- Kingston Hydro territory encompasses only the older, central part of the City of Kingston. It has a very high proportion of students, lower-incomes, and rental properties. There are geographically concentrated high transience areas such as the student housing area within Kingston Hydro territory. As such, there is a thriving local secondary market in Kingston for small appliances such as air-conditioners and dehumidifiers. Landlords and tenants will typically leave appliances in place until failure or sell installed and existing units to new tenants. Unless the incentive towards a new unit is increased, Kingston Hydro does not believe its customers will participate in this program enough to contribute significantly towards achievement of Kingston Hydro's conservation targets. Most of Kingston's largest appliance dealers are located outside of Kingston Hydro's territory, leading to lower effectiveness of this program in Kingston Hydro territory.

2.2.1.3 HVAC INCENTIVES INITIATIVE (Exhibit B)

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

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

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

Targeted End Uses: Central air conditioners and furnaces

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

Additional detail is available:

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

Initiative Activities/Progress: Kingston Hydro promotes the HVAC incentives initiative through community relations and consumer event channels. Kingston Hydro and City of Kingston call centre staff are aware of the program and promote it to those who call looking for incentive information on furnaces. Contractor participation in Kingston Hydro territory is similar to that in comparable communities.

The OPA reports that 163 Kingston Hydro customers participated in this program during 2013.

Net Peak Demand Savings in MW from this initiative projected at Dec. 31, 2014: 209 kW, 3.2% of Target

Cumulative 2011-2014 kWh savings achieved as of Dec. 31, 2013: 1,350,544 kWh, 3.6% of Target

In Market Date: Q1, 2011

Lessons Learned:

- Compared to other centrally administered province-wide Consumer CDM programs, this program has been effective for Kingston Hydro. It has low administrative overhead and yields the highest 2014 achieved kW and kWh per customer for provincially administered Consumer programs.
- Channel engagement (i.e. collaboration with HRAI and HVAC contractors) is a highly effective method of connecting with customers at a time when they are making purchase decisions that can affect electricity consumption and demand for years to come. However, only 1,587 of Ontario's nearly 5000 HVAC contractors are enrolled to provide the incentive to customers. Training requirements and paperwork requirements are too onerous for the majority of Ontario contractors, leading to lower uptake rates.
- There appears to be spillover from non-HRAI contractors who are ineligible for this initiative. There are cases where smaller independent contractors or non-HRAI contractors are offering their own incentives to make sales (i.e. discounting their installations to match the value of the OPA incentive). As this occurs outside of the initiative, these installations not being captured.

2.2.1.4 CONSERVATION INSTANT COUPON BOOKLET INITIATIVE (Exhibit A)

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

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

Description: This initiative provides customers with year round coupons. The coupons offer instant rebates towards the purchase of a variety of low cost, easy to install energy efficient measures. They 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.saveONenergy.ca. Kingston Hydro printed its own branded coupons which have been distributed at various community events over the course of 2013. This should improve uptake from Kingston Hydro customers.

Targeted End Uses: ENERGY STAR® qualified Standard Compact Fluorescent Lights (CFLs), ENERGY STAR® qualified Light Fixtures lighting control products, weather-stripping, hot water pipe wrap, electric water heater blanket, heavy duty plug-in timers, advanced power bars, clotheslines, baseboard heater programmable thermostats, LED bulbs and other equipment.

Delivery: OPA contracts centrally for the distribution of the coupon booklets across Ontario. LDCs distribute 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
- saveONenergy website: <https://saveONenergy.ca/Consumer.aspx>

Initiative Activities/Progress: In 2013, Kingston Hydro made the coupons available at numerous public events such as the annual off-grid Earth Hour concert, Public Works Day, the Home Show, in City and Utility public buildings, the SWITCH sustainable energy awards, in Utilities Kingston's Water Conservation Garden, in Utilities Kingston energy and water conservation packages, at its customer service desk, and at other public presentations and events.

The OPA reports that 1739 of these coupon redemptions were allocated to Kingston Hydro by the OPA during 2013.

Net Peak Demand Savings in MW from this initiative projected at Dec. 31, 2014: 10 kW, 0.2% of Target

Cumulative 2011-2014 kWh savings achieved as of Dec. 31, 2013: 492,672 kWh, 1.3% of Target

In Market Date: Q2, 2011

Lessons Learned:

- The downloadable coupons are a very popular and effective communication tool. Year-round downloadable coupons should help drive traffic to the saveONenergy Consumer web-resources.
- Coupons are useful for engaging customers at public events in two ways
 - They are good for a starting point to discuss conservation for those who do not have a high level of energy literacy or who do not conserve.

- They help identify those who are passionate conservers – these folks are proud to say that they have already done the things suggested in the coupons. This customer is almost as common as non-conservers at our booths.
- Coupon redemption rates are relatively low. Kingston Hydro will change its strategy in 2014 to attempt to integrate coupons into its Energy Insights program that offers tailored, customer specific recommendations, making sure that the coupons offered are directly related to quantifiable savings in an individual customer’s home.

2.2.1.5 BI-ANNUAL RETAILER EVENT INITIATIVE (Exhibit C)

Target Customer Type(s): Residential Customers

Initiative Frequency: Bi-annual events

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

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

Targeted End Uses: 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_electricty_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf
- saveONenergy website: <https://saveONenergy.ca/Consumer.aspx>

Initiative Activities/Progress: Kingston Hydro did not conduct in-store marketing or promotion of Bi-Annual Retailer events.

The OPA reports that 4737 purchases made with these coupons were allocated to Kingston Hydro during 2013.

Net Peak Demand Savings in MW from this initiative projected at Dec. 31, 2014: 22 kW, 0.3% of Target

Cumulative 2011-2014 kWh savings achieved as of Dec. 31, 2013: 1,164,470 kWh, 3.1% of Target

In Market Date: Q2, 2012

Lessons Learned:

- The emergence of LED bulbs for household should drive coupon redemption in the coming years.

- Program evolution, including new products and review of incentive pricing for the coupon initiatives, must be a regular activity to ensure continued consumer interest.

2.2.1.6 RETAILER CO-OP

Target Customer Type(s): Residential Customers

Initiative Frequency: Year Round

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

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

Targeted End Uses: Various

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

Initiative Activities/Progress: Kingston Hydro did not participate in Retailer Co-op activities. Due to the small impact of consumer retail activities to Kingston Hydro's targets, resources were focused elsewhere. The major consumer retailers of appliances, HVAC equipment, and other electronic devices that service Kingston are not in Kingston Hydro territory.

In Market Date: N/A

Lessons Learned:

- Given the relatively small savings produced per customer for retail-level initiatives and the large projected \$/kWh costs for marketing and staff time, Kingston Hydro chose to focus resources in other areas during 2013.
- As most major retailers are outside of Kingston Hydro territory, allocating savings to Kingston Hydro for these efforts and evaluating results may prove extremely difficult, resource intensive, or impossible. Kingston Hydro does not want to increase customer confusion by promoting its own branded coupons at retailers in Hydro One territory.

2.2.1.7 RESIDENTIAL DEMAND RESPONSE PROGRAM (Schedule B-3)

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

Initiative Frequency: Year round

Objective: The objectives of this Initiative are to enhance the reliability of the IESO-controlled grid by accessing and aggregating specified residential and small commercial end uses for the purpose of peak

demand reduction, increasing consumer awareness of the importance of reducing summer demand and providing consumers their current electricity consumption and associated costs.

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

Targeted End Uses: Central air conditioning, 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
- saveONenergy website: <https://saveONenergy.ca/Consumer.aspx>

Initiative Activities/Progress: Kingston Hydro has chosen not to offer Residential Demand response to its customers. Kingston Hydro customers have much lower incidence of central A/C than the provincial average. In a service territory with a population of 58,000, more than 15,000 students leave during the summer months, reducing demand for air conditioning. A large portion of the population rents their homes and cannot consent to modifications to the thermostat or HVAC system. As Kingston Hydro is a winter peaking utility, there are few direct system benefits to investment in residential demand response. Utilities Kingston has participated in studies that suggest savings from IHDs do not have persistence enough to be cost effective.

Since Kingston Hydro has already achieved most of its peak demand reduction target, Kingston Hydro will continue to monitor the success of other utilities' IHD programs.

In Market Date: N/A

Lessons Learned: N/A

2.2.1.8 NEW CONSTRUCTION PROGRAM (Schedule B-2)

Target Customer Type(s): Residential New Home Builders

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 switches, ECM motors, ENERGY STAR qualified central a/c, lighting control products, lighting fixtures, EnerGuide 83 whole homes, 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_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-2%20New%20Construction%20Program.pdf
- saveONenergy website: <https://saveONenergy.ca/Consumer.aspx>

Initiative Activities/Progress: Though no applications for the New Construction program were completed in 2013, several potential applicants were identified through having Kingston Hydro conservation representatives attend City planning and zoning pre-consultation meetings. Kingston Hydro territory does not have much green field construction of new homes, limiting opportunities for this initiative.

In Market Date: Q2, 2011

Lessons Learned:

- The OPA’s quick response in solving the “one-application per home” issue has decreased the administrative burden for participation by larger volume home builders.
- Administrative requirements must align with perceived stakeholder payback. The cost of EnerGuide home visits in the current marketplace and the administrative burden of applying for a single-home custom build project make participation in this program not worth the time of many homebuilders within Kingston Hydro territory. Increased incentives or new prescriptive measures are necessary to attract more participation.
- The program is not attractive for individuals or contractors building a small quantity of homes. This program is designed exclusively for large developers. Kingston Hydro would like to see more incentives and a lower administrative burden for smaller or individual home builders.
- Cooperation with local building and development officials is key to identifying and communicating with potential applicants. Coordinated marketing efforts are appreciated by builders who have many requirements, obligations, and opportunities to balance in a project.

2.2.2 COMMERCIAL AND INSTITUTIONAL PROGRAMS

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

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

Initiative Frequency: Year round

Objective: The objective of this initiative is to offer incentives to non-residential distribution customers, promoting investments in electricity conservation that reduce demand and consumption through equipment upgrades such as more energy efficient equipment for lighting, space cooling, ventilation and other purposes.

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 using OPA supplied worksheets for associated measures; or 3) custom projects for more complex or unique energy efficiency upgrades.

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

Delivery: LDC delivered.

Additional detail is available:

- Schedule C-22:
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20C-2%20ERII%20Initiative.pdf
- saveONenergy website: <https://saveONenergy.ca/Business/Program-Overviews/Retrofit-for-Commercial.aspx>

Initiative Activities/Progress: During 2013 Kingston Hydro focused its resources heavily the ERII program. This program offered the largest and most cost effective kWh savings opportunities of all saveONenergy initiatives and is forecasted to provide the majority of Kingston Hydro's achieved kWh savings through the 2011-2014 target period. Many ERII projects take years to develop and reach completion. As such, special emphasis on this initiative early in the target period is seen as vital to achieving Kingston Hydro's targets.

Kingston Hydro runs the ERII program in-house, leveraging the close relationships it has with its customers. Utilities Kingston's Certified Energy Managers offer all Kingston Hydro Commercial, Institutional, and Industrial customers free electricity and water efficiency walkthroughs and one-on-one help filling out saveONenergy applications. Kingston Hydro believes that its policy of 100% pre and post project inspections for all ERII/Retrofit program projects allows it to form good working relationships and encourages repeat applications for new and expanded electricity conservation measures or other facilities owned by an individual customer. This practice also ensures that savings can be verified. Finally, Kingston Hydro's PAB funded "Retrofit Referral Fee" encourages engagement of the electrical contractor trades. This \$250 referral fee is paid to contractors who make sure a Kingston Hydro representative can meet with Kingston Hydro customers at a time when they are considering new or upgraded equipment. This allows Kingston Hydro to perform pre-project inspections and help with applications, allowing pre-approved saveONenergy incentives to be confirmed to the customer in time to affect their business decisions.

Utilities Kingston itself stepped up to the plate with significant investments in energy efficiency partially funded by the ERII program in 2013. Replacement of the entire City of Kingston street lighting stock with LED bulbs, and an innovative program of active water distribution system leak detection and repair delivered large, cost effective electricity savings towards Kingston Hydro's conservation targets.

The OPA reports that 68 ERII projects were completed in Kingston Hydro territory during 2013.

Net Peak Demand Savings in MW from this initiative projected at Dec. 31, 2014: 1109 kW, 16.7% of Target.

Cumulative 2011-2014 kWh savings achieved as of Dec. 31, 2013: 27,140,002 kWh, 73% of Target

In Market Date: Q2, 2011

Lessons Learned:

- ERII (previously Equipment Replacement Incentive Program – ERIP) has been offered by LDCs for many years. It is a high performing program that some of Kingston Hydro’s largest customers have been aware of for some time.
- The number of ERII applications received in 2013 was up 9.7% from 2012, the previous high for participation. Kingston Hydro’s 2013 efforts in promotion of the program, its Retrofit Referral Fee program, customer service focus delivering timely pre-project approvals, free electricity efficiency walkthroughs, and following up with customers on post-project applications has been very cost effective.
- Pre-project and post-project walkthroughs are required for each applicant by Kingston Hydro. Photographic evidence is collected of pre and post project equipment condition. Customers are made aware of their most cost effective conservation opportunities, and given options for future conservation projects. Help is offered one-on-one, in person, to each applicant. This ensures that most applications are entered correctly, minimizing administrative work. It also gives Kingston Hydro the opportunity to manage customer expectations realistically. Finally, the inspection and verification of pre and post project equipment condition and operation means that Kingston Hydro has an accurate accounting of actual savings in its territory and can demonstrate causation for ERII projects.
- By far the most successful means of customer engagement was leveraging existing relationships developed over years.
- Kingston Hydro finds that its customers prefer on-site inspections/walkthroughs, small workshops, and one-on-one interaction. They are not likely to work through an entire saveONenergy application on their own. Provision of one-on-one, on-site help, from someone business customers have a relationship with is key to the success of Kingston Hydro’s ERII program.
- The Custom stream of the ERII program offers an opportunity to help fund innovative projects. The development cycle for these applications is long, in some cases multi-year. Working with customers on longer term, more innovative and “out there” ideas, great results can be achieved. For example, an OPA Conservation Fund project started in 2011 led by St. Lawrence College’s Sustainable Energy Applied Research Centre helped Utilities Kingston calculate the variable kWh per m3 of treated water and sewage volume in Kingston Hydro territory. With further revisions to the methodology, Utilities Kingston was able to justify increased investment in active leak

detection and repair in the municipal water distribution system and become eligible for saveONenergy incentives while contributing significantly to Kingston Hydro's conservation target progress.

- The application system and process is burdensome for customers. Due to the complexity of the online application system, many customers prefer to use paper applications. One-on-one help from our conservation team is vital to help our customers overcome this challenge.

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

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

Initiative Frequency: Year round

Objective: The objective of this Initiative is to offer free installation of eligible lighting and water heating measures of up to \$1,500 plus additional cost sharing incentives to eligible owners and tenants of commercial, institutional and agricultural facilities, as well as multi-family buildings, for the purpose of achieving electricity savings and peak demand savings.

Description: The Direct Install Lighting Initiative targets customers in the General Service <50kW account category and other qualifying customers of multi-tenant commercial buildings. This Initiative offers turnkey lighting and electric hot water heater measures at no cost to qualifying small businesses. In addition, standard prescriptive incentives are available for eligible equipment beyond the initial no-cost upgrades. On Dec. 4, 2012, the no-cost/free installation limit was raised to \$1500.

Target End Uses: Lighting in commercial, institutional and/or light industrial spaces.

Delivery: All Kingston Hydro GS<50kW and other qualifying customers have been contacted by Kingston Hydro by phone and with targeted mailings and other communications. Contracted resources provide outgoing calls to customers and assessment scheduling. Customers are offered a free lighting assessment where they receive a detailed business case for investment in DIL program eligible measures. They may then sign a work order and select the licensed electrical contractor of their preference to install the measures.

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>
- saveONenergy website: <https://saveONenergy.ca/Business.aspx>

Initiative Activities/Progress: An outgoing call campaign, marketing efforts with local business associations, and other communications were conducted. After close to 500 Direct Install retrofits completed in 2011 and 2012, only 62 were reported to be completed in 2013. Approximately 40% of eligible Kingston Hydro customers have received free lighting retrofits since 2008. Since OPA program rules prevent LDCs from offering the program to previous participants of the Power Savings Blitz that was in place from 2008 to 2011, potential uptake of the current Initiative was impacted. Major program or value proposition re-design and changes to eligibility are necessary to see significant uptake of a commercial direct install program in the future.

Net Annual Peak Demand Savings in MW projected at 2014 from this initiative: 384 kW, 5.8% of Target.

Cumulative 2011-2014 kWh savings achieved as of Dec. 31, 2013: 4,263,716 kWh, 11.5% of Target

In Market Date: Q4, 2011

Lessons Learned:

- With around 40% of eligible customers participating in either the Power Savings Blitz or Small Business Lighting programs, remaining customers are typically either not responsive to marketing or were ineligible as they did not have enough eligible measure opportunities to meet program minimum work order values. As predicted, a significant slowdown in DIL occurred in 2013 due to these factors.
- By far the most effective marketing activity was an outgoing call campaign made by our contractors to target customers.
- Kingston Hydro uses a unique model whereby independent third-party assessors specially trained in energy efficiency auditing visit each participant. This means that ALL electricity efficiency opportunities are specified in the work order. This model prevents “cherry picking” by electricians and ensures that all SBL-eligible conservation opportunities over and above the “free” \$1000 or \$1500 are quantified and presented to customers.
- Kingston Hydro performed QA/QC as per OPA guidelines for 2013 completed work orders. Of the six QA/QC visits, only one minor discrepancy was found, and it has been corrected. Contractors involved in the program should be commended for doing high quality work, addressing all customer warranty issues, and ensuring that work orders are followed.
- Due to the persistence of customer complaints about door-to-door energy retailer sales tactics, evidence of retailers mis-representing themselves as representatives of Utilities Kingston, Kingston Hydro, “Ontario Hydro”, “your hydro company” or the Ontario Power Authority, and resultant customer confusion, Utilities Kingston and Kingston Hydro have a ‘no door-to-door’ policy. While door to-door sales could be highly effective for the small commercial market, leading to uptake over and above the current SBL Program plateau, this Ontario energy market dynamic limits the availability of this option to LDCs and has eroded consumer trust in LDC and OPA branded programs.

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

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

Initiative Frequency: Year round

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

Description: This Initiative offers Participants incentives for the following:

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

Targeted End Uses: Chilled water systems for space cooling

Delivery: LDC delivered.

Additional detail is available:

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

Initiative Activities/Progress: Kingston Hydro explored this initiative with its large customers who could benefit. It was not seen as a program that they were interested in. Kingston Hydro reports no participation, kW or kWh savings from this initiative.

In Market Date: Q2, 2011

Lessons Learned:

- There was no customer uptake for this initiative. Kingston Hydro's customers prefer the Retrofit Program to this initiative to fund capital upgrades.

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

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

Initiative Frequency: Year round

Objective: 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. 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.

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

Initiative Activities/Progress: Kingston Hydro has worked with the City of Kingston’s building department and has representatives in regular attendance at municipal “Pre-consultation” and planning meetings which all major construction and renovation projects within its territory go through. One building project that earned incentives under this initiative was completed in 2013. Kingston Hydro’s efforts to reach builders before projects are approved or get building permits should result in moderate kW and kWh conservation achievements in the future. A number of modelling incentives and initial applications came in for projects that will be completed in future years.

Net Annual Peak Demand Savings in MW projected at 2014 from this initiative: 22kW, 0.3% of Target.

Cumulative 2011-2014 kWh savings achieved as of Dec. 31, 2013: 122,395 kWh, 0.3% of Target.

In Market Date: Q2, 2011

Lessons Learned:

- Engagement of development proponents during the City of Kingston pre-consultation process is key to driving program participation. Follow up and engagement by Utilities Kingston conservation staff with both consulting engineers and developers is required to develop applications.

2.2.2.5 ENERGY AUDIT INITIATIVE (Schedule C-1)

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

Initiative Frequency: Year round

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

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

Targeted End Uses: Various

Delivery: LDC delivered.

Additional detail is available:

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

Initiative Activities/Progress: During 2013, Kingston Hydro provided audit funding to two customers.

Net Annual Peak Demand Savings in MW from this initiative projected at Dec. 31, 2014: 44kW, 0.6% of Target

Cumulative 2011-2014 kWh savings achieved as of Dec. 31, 2013: 571,447 kWh, 1.5% of Target

In Market Date: Q2, 2011

Lessons Learned:

- In order to increase the conversion of audit measures to retrofit projects, Kingston Hydro believes that the OPA should consider making it mandatory for those who receive Audit funding to enter RETROFIT application information for pre-approval of any measures identified with less than three year paybacks.
- Kingston Hydro’s provision of free walkthrough electricity efficiency assessments and short reports for all commercial customers has made the audit program somewhat irrelevant for customers looking at simpler energy retrofits.
- The Audit Program has helped justify some significant investment in electricity conservation by a small number of customers. Our municipal customer, the City of Kingston, was able to utilize Audit funding pre-approval granted in 2013 to help prepare their Energy Conservation Plan under O.Reg. 397.11, due in July 2014. This may result in significant retrofit measures in municipal buildings to take place in the 2015-2020 timeframe.
- Introduction of eligibility for customers to investigate one component of their operation has been positively received by customers.

2.2.3 INDUSTRIAL PROGRAM

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

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

Initiative Frequency: Year round

Objectives: The objectives of this Initiative are to:

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

Description: PSUI is an energy management initiative that includes three parts: 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 project costs
- c) A one year payback

Targeted End Uses: Processes and systems at large industrial and or institutional customers

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

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
- saveONenergy website: <https://saveONenergy.ca/Business.aspx>

Initiative Activities/Progress: Numerous larger customers were approached by Kingston Hydro to gauge interest in the PSUI program. Most customers in Kingston Hydro territory either could not guarantee minimum kWh savings levels or were more interested in participating in the RETROFIT program.

Kingston Hydro believes that there is potential for a number of PSUI applications that are possible in years to come, partially due to the incentive for demand peak shaving provided to Class A customers through the Global Adjustment Allocation initiative of the IESO.

No participants in 2013. 0 kW and 0 kWh savings achieved.

In Market Date: Q2, 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 are not projected before the end of 2014, and then only if some prospects follow through with an application.
- Given the size of the projects involved, the contract required for PSUI is a lengthy and complicated document. Application documents are extensive and unnecessarily detailed at the front end of the process, scaring some customers off.

2.2.3.2 MONITORING & TARGETING INITIATIVE (Schedule D-2)

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

Initiative Frequency: Year round

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

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

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
- saveONenergy website: <https://saveONenergy.ca/Business.aspx>

Initiative Activities/Progress: Kingston Hydro had no uptake by customers of this initiative during 2013.

In Market Date: Q3, 2011

Lessons Learned:

- N/A

2.2.3.3 ENERGY MANAGER INITIATIVE (Schedule D-3)

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

Initiative Frequency: Year round

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

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

Targeted End Uses:

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

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
- saveONenergy website: <https://saveONenergy.ca/Business.aspx>

Initiative Activities/Progress: Kingston Hydro approached each of its largest customers early in the target period to make them aware of the opportunity for an embedded energy manager. Business cases were created by Kingston Hydro and its customers, and it was decided by the customers that they would prefer to utilize KAM resources rather than an embedded manager.

In Market Date: Q2, 2011

Lessons Learned:

- Kingston Hydro's larger customers prefer the KAM approach because it offers targeted, temporary help without the commitment or contract obligations of an Embedded Energy Manager.

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

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

Initiative Frequency: Year round

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 or ERII initiatives. 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.

Description: See above.

Targeted End Uses: Large, Class A Customers with demand over 5 MW. In Kingston Hydro's territory, these include Kingston General Hospital, CFB Kingston, and Queen's University.

Delivery: Kingston Hydro had applied and been accepted as a junior member of a Hydro One/Veridian application to the OPA for KAM funding. Delivery of KAM resources to Kingston Hydro's Class A customers began in 2012.

Additional detail is available:

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

Initiative Activities/Progress: Union Gas supplies dedicated KAM resources to Kingston Hydro as part of its participation in a contract led by Hydro One. KAM resources were instrumental in helping Kingston General Hospital complete its post project submission and EM&V for a large custom ERII/Retrofit Project in 2013.

In Market Date: Q3 2012

Lessons Learned:

- KAM resources have been a welcome, well-qualified, and cost effective addition to Kingston Hydro’s conservation team.

2.2.3.5 DEMAND RESPONSE 3 (Schedule D-6)

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

Initiative Frequency: Year round

Objective: This initiative provides for Demand Response (DR) payment for service to DR3 participants to compensate them for making available electricity demand response during a demand response event.

Description: Demand Response 3 (DR3) is for commercial and industrial customers with demand 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: Large Industrial loads, commercial & institutional loads, Behind the Meter Generation

Delivery: DR3 is delivered by Demand Response Providers, under contract to the OPA. The OPA administers contracts with all Demand Response Providers and Direct Participants that provide in excess of 5 MW of demand response capacity. The 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
- saveONenergy website: <https://saveONenergy.ca/Business.aspx>

Initiative Activities/Progress: The Queen’s University-KGH Combined Heat and Power Facility entered into a long-term DR3 contract with the OPA in Q1, 2011. This contract provides 5MW of demand response capacity through Dec. 31, 2014. Kingston Hydro’s peak demand target and net verified savings under Scenario 2 show that 65% of Kingston Hydro’s peak demand target will be met from this facility if it continues to participate in DR3 as it is contracted to do so through Dec. 31, 2014.

In order to facilitate this large amount of demand response generation capability, Kingston Hydro continues to work with Queen’s-KGH to make changes to operational and notification protocols, make capital investments in the distribution system and SCADA system to allow for safe and coordinated demand response operation, and to maximize the ability of the facility to respond in all situations to notifications from the IESO. Scheduled extensive capital works in downtown Kingston during 2013 presented a challenge to maintaining DR3 availability, but this challenge was met successfully.

It should be noted that the bulk of expenses incurred by Kingston Hydro in the course of enabling demand response capability for the 5MW Queen’s-KGH CHP generator were not PAB eligible expenses. Much of the engineering and technical work required is fundable through rates or customer charges as per the Distribution System Code and are exclusive of CDM programming.

In 2013, a re-interpretation of a Master Agreement schedule clause by the Ontario Power Authority caused a significant decrease in the net-to-gross ratio for kW demand savings provided by the 5MW Queen’s-KGH CHP facility. Despite supplying heat and electricity needs to two Class A >5MW customers while offering stellar demand response (i.e. only filing for downtime in accordance with and allowable under its DR3 Contract with the IESO), and despite being the largest individual non-aggregated DR3 supplier in the province, the CHP facility is not considered an “Industrial” facility as electricity and steam generation are not specifically defined as “Industrial” processes as per prescribed NCAIS industry codes that are eligible for industrial funding. More strangely, Kingston Hydro has industrial savings verified and allocated to it by the OPA for the “Industrial” program that are not from the 5MW CHP facility, despite Kingston Hydro territory not having any customers that fit eligible NCAIS classes.

Kingston Hydro finds this re-classification of the facility problematic and inconsistent with other OPA interpretations as outlined above. The OPA has confirmed eligibility for industrial funding of KAM resources for the Class A customers who jointly own the CHP facility which exists on their shared campus. Kingston Hydro has no “Industrial” customers that fit eligible NCAIS industry codes, but receives an Industrial PAB funding allocation. Other “Industrial” programs are available to Class A customers. It seems arbitrary that a large, reliable DR3 provider and energy generation facility for two Class A customers would not be considered “Industrial”

The result is that this 5MW, highly reliable DR3 provider’s Net-to-Gross ratio was reduced in 2013 from approximately 84% to 76%. The net savings contracted to be provided by this facility fell from 4.2 MW to 3.8 MW as of the date of this re-interpretation by the OPA. This results in an impact to Kingston Hydro’s peak demand conservation target progress of upwards of 6%. As Kingston Hydro is on track to achieve both of its demand and energy conservation targets, this could represent a significant decrease to Kingston Hydro’s performance incentives. Kingston Hydro is seeking further information about this issue from the OPA and the Ministry in hopes of resolving it before the end of 2014.

Two other customers participated in DR3 in Kingston Hydro territory in 2013.

Net Peak Demand Savings in MW from this initiative projected at Dec. 31, 2014: 4,220 kW, 66.7% of Target.

Cumulative 2011-2014 kWh savings achieved as of Dec. 31, 2013: 283,300kWh, 0.8% of Target

In Market Date: Q1, 2011

Lessons Learned:

- Despite Kingston Hydro referring many commercial customers to DR3 aggregators, few customers in Kingston seem to have the scale of DR capacity needed to enter into an economically feasible DR contract with an aggregator.

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

Target Customer Type(s): Income Qualified Residential Customers

Initiative Frequency: Year Round

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

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

Targeted End Uses: Lighting, phantom load, refrigeration, air conditioning, dehumidification, electric heating, and others.

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>
- saveONenergy Website: <https://saveonenergy.ca/homeassistance/>

Initiative Activities/Progress: Hearthmakers Energy Cooperative, a member of Green Communities Canada, leads a team of assessors, customer service staff, intake professionals, and contractors who deliver Kingston Hydro's Home Assistance Program. Delivery of the program did not start until Q3 2012 due to OPA delays in bringing the program to market. Kingston Hydro's Home Assistance Program team has enrolled a number of Social Housing Providers in the program, resulting in the opportunity to visit hundreds of pre-qualified participants in 2013 and completing an amazing 343 home energy assessments and retrofits.

2013 results were driven largely through collaboration with Kingston's Social Housing Providers. Streamlined intake and scheduling for assessments allowed for incredible cost effectiveness. Customer feedback about the program was overwhelmingly positive. Customers who participated in the program achieved annual electricity consumption reductions of around 800 kWh, equivalent to a 10% reduction in

consumption for the average Kingston Hydro residential customer. Integration and delivery of water and gas savings measures during HAP visits was initiated by the end of 2013, further leveraging Utilities Kingston's multi-utility model to improve cost effectiveness and savings achievement for this program.

Net Peak Demand Savings in MW from this initiative projected at Dec. 31, 2014: 32 kW, 0.5% of Target.

Cumulative 2011-2014 kWh savings achieved as of Dec. 31, 2013: 684,042 kWh, 1.8% of Target

In Market Date: Q3, 2012

Lessons Learned:

- Each Home Assistance Program retrofit completed in 2013 ensured an in-home assessment and one-on-one conservation education session. For those customers comfortable using a computer with an internet connection, the assessor also helped the customer sign up for Utilities Kingston's new "MyUtilities" portal, an online tool which allows customers to analyze their smart meter, water, and gas consumption data. This portal offers access to analysis and data viewing tools that help drive conservation.
- This program has forged stronger links between Utilities Kingston's Credit and Collection staff, the Conservation Department, and local social services providers.
- Original Project Administration Budget Allocation for Low Income Programs from the OPA is less than half that devoted to Consumer programs. In order to address this imbalance, Kingston Hydro requested re-allocation of a significant portion of the Consumer PAB budget and this re-allocation was granted by the OPA. This PAB money has been put to good, cost-effective use by Kingston Hydro and its lower income customers.
- The program has high fixed costs, customers who are hard to reach using direct or mass marketing efforts, and much more administratively burdensome application and retrofit procedures than comparable Commercial and Institutional programs. A low income Ontarian has to go through more paperwork to receive a few light bulbs and some one-on-one help than a business owner has to go through to get thousands of dollars of free lighting and additional incentives through the SBL program. The application and qualification process needs to be streamlined and made more accessible by the OPA in line with the needs and abilities of the target market for the HAP program.
- Kingston Hydro's 2011-2014 CDM strategy notes that the prevalence of seniors, students, and households with lower than average incomes makes it an especially relevant program for our community.

2.2.5 PRE-2011 PROGRAMS COMPLETED IN 2011

2.2.5.1 ELECTRICITY RETROFIT INCENTIVE PROGRAM

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

Initiative Frequency: Year Round

Objective: Analogous to ERII, refer to section 2.2.2.1.

Description: Analogous to ERII, refer to section 2.2.2.1.

Targeted End Uses: Analogous to ERII, refer to section 2.2.2.1.

Delivery: Analogous to ERII, refer to section 2.2.2.1.

Initiative Activities/Progress:

The OPA reports that zero pre-2011 ERIP projects were completed in 2013 within Kingston Hydro territory.

Net Annual Peak Demand Savings in MW projected at 2014 from this initiative: 12 kW, 0.2% of Target

Cumulative 2011-2014 kWh savings from this initiative achieved as of Dec. 31, 2013: 317,348 kWh, 0.1% of Target

2.2.5.2 HIGH PERFORMANCE NEW CONSTRUCTION

Target Customer Type(s): Commercial, Institutional, and Agricultural 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 High Performance 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: Building modeling, lighting, space cooling, ventilation and other measures

Delivery: The High Performance New Construction program was delivered by Enbridge Gas under contract with the OPA (and subcontracted to Union Gas), which ran until December 2010.

Initiative Activities/Progress: The OPA reports that 0 pre-2011 HPNC projects were completed in 2013.

Net Annual Peak Demand Savings in MW projected at 2014 from pre-2011 projects: 167 kW, 2.6% of Target

Cumulative 2011-2014 kWh savings from this initiative achieved as of Dec. 31, 2013: 2,305,850 kWh, 6.2% of Target

2.3 Participation

#	Initiative	Unit	2012 Participation
Consumer Program			
1	Appliance Retirement	Appliances	46
2	Appliance Exchange	Appliances	7
3	HVAC Incentives	Equipment	163
4	Conservation Instant Coupon Booklet	Products	1,739
5	Bi-Annual Retailer Event	Products	4,737
6	Retailer Co-op	Products	0
7	Residential Demand Response	Devices	0
8	Residential New Construction	Houses	0
Business Program			
9	Efficiency: Equipment Replacement	Projects	68
10	Direct Install Lighting	Projects	62
11	Existing Building Commissioning Incentive	Buildings	0
12	New Construction and Major Renovation Incentive	Buildings	1
13	Energy Audit	Audits	2
14	Commercial Demand Response (part of the Residential program schedule)	Devices	0
15	Demand Response 3 (part of the Industrial program schedule)	Facilities	2
Industrial Program			
16	Process & System Upgrades	Projects ²	0
17	Monitoring & Targeting	Projects ³	0
18	Energy Manager	Managers ^{2,3}	0
19	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	Projects	0
20	Demand Response 3	Facilities	1
Home Assistance Program			
21	Home Assistance Program	Homes	343
Pre 2011 Programs Completed in 2011			
22	Electricity Retrofit Incentive Program	Projects	0
23	High Performance New Construction	Projects	2

All figures from OPA Verified Kingston Hydro Conservation Results, 2012

2.4 Spending

2.5

Kingston Hydro Corporation OPA Reported Initiative and Program Level Spending By Year

Initiative	Program Administration Costs			*Customer Incentives		
	2011	2012	2013	2011	2012	2013
Consumer Program						
Appliance Retirement	\$5,689.00	\$13,503.00	\$17,261.00	\$24,625.00	\$26,068.00	\$11,120.00
Appliance Exchange	\$0.00	\$0.00	\$0.00	\$0.00	\$1,990.00	\$0.00
HVAC Incentives	\$5,689.00	\$13,503.00	\$20,518.00	\$86,220.00	\$93,869.00	\$44,500.00
Conservation Instant Coupon Booklet	\$5,689.00	\$13,503.00	\$20,909.00	\$734.00	\$4,136.00	\$1,258.00
Bi-Annual Retailer Event	\$0.00	\$0.00	\$0.00	\$2,752.00	\$6,518.00	\$11,494.00
Retailer Co-op	0	0	0	Included in Bi-annual Retailer Event		
Residential New Construction	\$5,689.00	\$13,503.00	\$0.00	\$19.00	\$28.00	\$0.00
Consumer Program Total	\$22,755	\$54,011	\$58,689	\$114,349	\$132,610	\$68,372
Business Program						
Retrofit	\$34,682.00	\$114,542.00	\$103,947.00	\$0.00	\$400,504.00	\$256,050.00
**Direct Install Lighting	\$51,661.00	\$100,881.00	\$36,865.00	\$88,835.00	\$341,529.00	\$66,983.00
Building Commissioning	\$10,079.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
New Construction	\$9,909.00	\$18,760.00	\$11,411.00	\$0.00	\$0.00	\$1,970.00
Energy Audit	\$9,909.00	\$18,760.00	\$10,157.00	\$0.00	\$0.00	\$39,994.00
Business Program Total	\$116,240	\$252,944	\$162,379	\$88,835	\$742,033	\$364,996
Industrial Program						
Process & System Upgrades	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Monitoring & Targeting	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Energy Manager	\$841.00	\$9,939.00	\$4,928.00	\$0.00	\$0.00	\$0.00
Industrial Program Total	\$841	\$9,939	\$4,928	\$0	\$0	\$0
Home Assistance Program						
Home Assistance Program	\$4,722.00	\$55,015.00	\$78,092.00	\$0.00	\$1,645.00	\$162,872.00
Home Assistance Program Total	\$4,722	\$55,015	\$78,092	\$0	\$1,645	\$162,872
Aboriginal Program						
Home Assistance Program Aboriginal	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Aboriginal Program Total	\$0	\$0	\$0	\$0	\$0	\$0
Pre-2011 Programs completed in 2011						
Pre-2011 Programs completed in 2011 Total	\$0.00	\$0.00	\$0.00	\$97,410.00	\$172,175.00	\$18,332.00
Pre-2011 Programs completed in 2011 Total	\$0	\$0	\$0	\$97,410	\$172,175	\$18,332
Other						
Program Enabled Savings	\$0.00	\$0.00	\$0.00	N/A	N/A	N/A
Other Total	0	0	0			

OPA-Contracted LDC Portfolio Total	\$144,558	\$371,909	\$304,088	\$300,594	\$1,048,463	\$614,572
---	------------------	------------------	------------------	------------------	--------------------	------------------

Kingston Hydro Calculated Financial Performance of Electricity CDM Portfolio

Total 2011-2013 Portfolio Spending	\$2,784,184.00
Cumulative 2011-2014 kWh Savings	41,577,146
Estimated avoided supply cost per kWh	\$0.11
Estimated avoided Generation & Distribution Costs	\$4,573,486.06
Blended Estimate of Kingston Hydro Customer Savings	\$1,789,302.06
Savings per customer 2011-2013	\$66.03

Financials for Demand Response resources have been excluded for the purposes of this report.

*2011-2013 numbers are actuals and represent amounts paid to LDCs/vendors for each initiative (i.e. excludes accruals), therefore savings can be in a different year than the incentive payments.

**Customer Incentive values align with install dates as reported in the small business lighting portal

Evaluation

Kingston Hydro's evaluation of conservation results for 2013 was received from the OPA in August, 2014. Kingston Hydro would like to note that it has identified a number of variances between OPA reported results and its own calculations of kWh and kW savings achieved in 2013. Kingston Hydro expects these variances to be accounted for in further adjustments to OPA verified results before the 2014 annual report is submitted. A copy of Kingston Hydro's relevant evaluation results follows.

Kingston Hydro's Program Administration Spending as of Dec. 31, 2013 is reported by the OPA to be \$820,585, or approximately 51% of its total OPA Allocated Project Administration Budget.

A copy of Kingston Hydro's OPA Verified 2013 Conservation and Demand Management Results is attached to this document.

2.6 Additional Comments

Kingston Hydro believes that attentive customer service and in-person, on-site conservation consultations are key to conservation program success. Programs get better results when customers have someone to talk to. OPA programs and application procedures assume a level of sophistication, computer literacy, and energy management knowledge that many Kingston Hydro customers do not have. As Kingston Hydro's conservation services provider, it's Utilities Kingston's job to get out into the community, make our customers aware of saveONenergy programs, and help them through the process of investing in electricity conservation and applying for incentives.

We need to thank our customers for the trust they have put in Utilities Kingston and Kingston Hydro by directing investment away from core business functions or discretionary consumer spending to electricity conservation. We are proud to have helped our customers save money and reduce the environmental impact of their electricity use.

Kingston Hydro is fortunate that its relationship with affiliate Utilities Kingston allows close collaboration with the local Water, Wastewater, and Natural Gas provider, as required in the CDM Code. This improves conservation program cost effectiveness and value to its customers.

We are grateful for the assistance and patience of the staff of the Ontario Power Authority as we seek to improve program delivery, transactional efficiency, and fully verify savings and Master Agreement compliance.

3 Combined CDM Reporting Elements

3.1 Progress Towards CDM Targets

OPA-Contracted Province-Wide CDM Programs Final Verified 2013 Results

LDC: Kingston Hydro Corporation

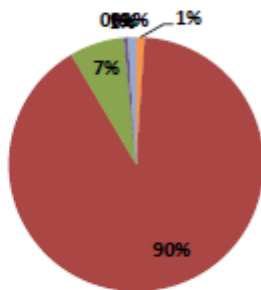
FINAL 2013 Progress to Targets	2013 Incremental	Program-to-Date Progress to Target (Scenario 1)	Scenario 1: % of Target Achieved	Scenario 2: % of Target Achieved
Net Annual Peak Demand Savings (MW)	4.7	2.2	32.5%	96.2%
Net Energy Savings (GWh)	6.2	41.6	111.9%	111.9%

Scenario 1 = Assumes that demand response resources have a persistence of 1 year

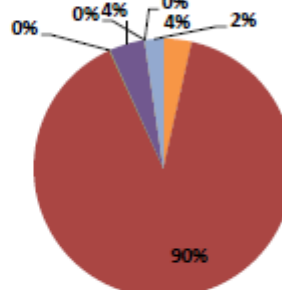
Scenario 2 = Assumes that demand response resources remain in the LDC service territory until 2014

Achievement by Sector

2013 Incremental Peak Demand Savings (MW)



2013 Incremental Energy Savings (GWh)



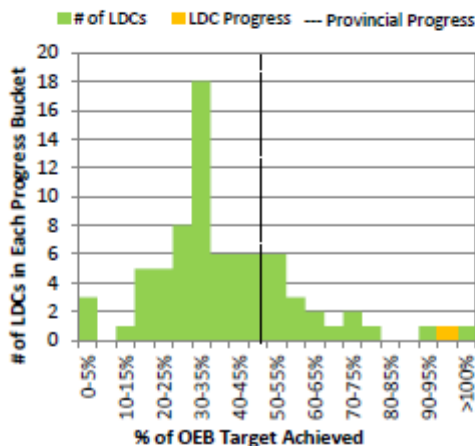
■ Consumer
 ■ Business
 ■ Industrial
 ■ HAP
 ■ ACP
 ■ Program Enabled
 ■ Other*

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

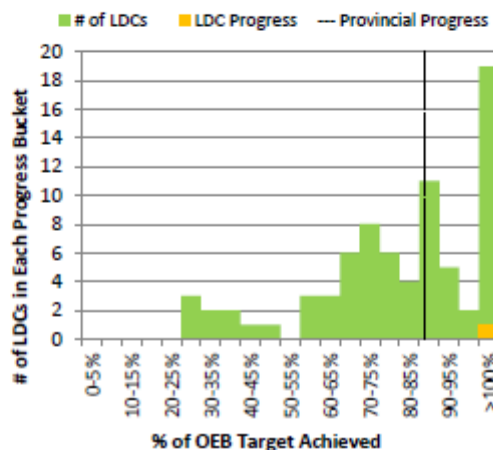
Comparison: LDC Achievement vs. LDC Community Achievement (Progress to Target)

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

% of OEB Peak Demand Savings Target Achieved



% of OEB Energy Savings Target Achieved



3.2 Modifications to CDM Strategy

Since evaluation results for 2013 were released in Q3, 2014, Kingston Hydro can implement strategy modifications identified during the 2014 program year, and apply lessons learned to consultations and planning underway for the 2015-2020 “Conservation First” Provincial Framework. Kingston Hydro believes

that the following modifications to its CDM strategy will result in more cost effective achievement of its 2014 conservation targets:

- Shifting of PAB resources
 - PAB resources will be continue to be heavily devoted to in-house delivery of the ERII program, the most cost effective and largest potential source of verified kW and kWh savings.
 - Given Kingston Hydro's 2011-2013 PAB Cost Effectiveness, it will have funds available to try novel approaches to enabling conservation with PAB funding. Kingston Hydro and Utilities Kingston hope to use this administrative funding to develop more innovative linkages between electricity conservation and water and gas conservation programming, with a special focus on the vastly underserved residential customer class.

Kingston Hydro believes that its targets can be achieved by using solely OPA Contracted saveONenergy programs. As mentioned in s. 3.1, Kingston Hydro now believes it will meet both its peak demand and energy consumption targets. With focused investment and hard work, Kingston Hydro may be able to exceed these targets by 5-10%.

In last year's annual report, Kingston Hydro noted the following, "As much of the 'low hanging fruit' has been picked at our larger customers, and market saturation is being observed for some consumer and small commercial programs, Kingston Hydro will have difficulty repeating 2012's level of achieved savings and cost-effectiveness."

2013's results surpassed those of 2012. Kingston Hydro and Utilities Kingston have learned that investment in longer-term, innovative, multi-utility projects can help deliver cost effective energy savings that can counteract the "low-hanging fruit" effect. Innovative linkages between energy and water conservation developed through applied research funded by the OPA and conducted by Utilities Kingston and local partners led to verification of large energy savings through water distribution system active leak detection and repair. Utilities Kingston's street lighting department achieved great, long-persistence savings through a full-territory LED Street lighting retrofit. Utilities Kingston's multi-utility model can deliver CDM innovations that lead to consistent conservation program performance.

In 2013, a full OPA Program "CDM Program Quality Assurance Inspection" of Kingston Hydro's saveONenergy program delivery was conducted on behalf of the OPA by Bronson Consulting. This Quality Assurance Inspection provided invaluable insight into Kingston Hydro program delivery. Numerous processes and procedures have been implemented to ensure Master Agreement compliance, and full mitigation of variances and other findings has been conducted by Kingston Hydro as per the instructions of the OPA.