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September 30, 2013

Ontario Energy Board
P.O. Box 2319
27th Floor
2300 Yonge Street
Toronto, ON M4P 1E4

Attention: Kirsten Walli
Board Secretary

Re: Hydro Ottawa Limited 2012 Conservation and Demand Management Annual Report

Hydro Ottawa Limited is pleased to submit two hard copies of its 2012 Conservation and Demand Management (“CDM”) Annual Report in accordance with section 2.2 of the Ontario Energy Board’s (the “Board”) CDM Code for Electricity Distributors, issued on September 16, 2010.

This report has also been submitted to the Board online using the Regulatory Electronic Submission System and made available for public review at our offices. In addition, the Annual Report has been posted on our website.

We trust that this 2012 Annual Report meets the Board’s requirements. However, should clarification be required on any of its contents, please do not hesitate to contact the undersigned by phone at 613-738-5499, ext. 7499 or by email at janescott@hydroottawa.com.

Yours truly,

Original signed by

Jane Scott
Manager, Rates & Revenue
Hydro Ottawa

Hydro Ottawa Limited

Conservation and Demand Management 2012 Annual Report

**Submitted to:
Ontario Energy Board**

Submitted on September 30, 2013

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Executive Summary

This annual report is submitted by Hydro Ottawa Limited (Hydro Ottawa) pursuant to the filing requirements set out in the Conservation and Demand Management (CDM) Code (Board File No. EB-2010-0215), specifically Appendix C, Annual Report Template, as a progress report to the previously filed Hydro Ottawa CDM Strategy. This report outlines Hydro Ottawa CDM activities for the period of January 1, 2012 to December 31, 2012. It includes net peak demand and net energy savings achieved during 2011 and 2012, discussion of the current and future CDM framework, CDM program activities, successes and challenges, as well as forecasted savings to the end of 2014.

Hydro Ottawa did not apply for any Board-Approved CDM Programs during 2012; however, as noted in the CDM guidelines, released April 26, 2012, the Ontario Energy Board (OEB) has deemed Time-of-Use (TOU) pricing a Province-wide Board-approved CDM Program. The Ontario Power Authority (OPA) is to provide measurement and verification on TOU savings. At the time of this report, the OPA has not released any verified results for TOU savings to Hydro Ottawa. The original business case produced by the OPA forecasted 308 MWs of TOU savings provincially. Based on Hydro Ottawa's provincial proportion, this represented approximately 20% of Hydro Ottawa's demand target. Because these results will not be available until September 2015, we believe our ability to reach our demand target could be in jeopardy and our ability to provide accurate forecasting for the OEB is seriously compromised. (See section 2.2.1). In 2011, Hydro Ottawa contracted with the Ontario Power Authority to deliver a portfolio of OPA-contracted Province-wide CDM Programs to all customer segments including residential, commercial, institutional, industrial and low income. These programs were rolled out by the OPA in June 2011. In 2011, program activities were focused on building a foundation for full program execution over the next three years of the program term, including staffing, procurement, and program delivery.

In 2012, Hydro Ottawa focused their efforts on lead generation and program execution. In the Commercial and Industrial segments the focus was on leveraging marketplace delivery channels such as heating, cooling and lighting manufacturers, suppliers and distributors for maximum program uptake. Hydro Ottawa achieved excellent program results by working with and through these delivery channels and with major property managers, high volume customers and the municipal, university, school and hospital (MUSH) segment. The efforts of Hydro Ottawa were augmented through the strategic deployment of Energy Managers embedded in a number of large customers including a national retailer, local Colleges and Universities, Federal and Municipal Governments and Property Management organizations with broad scale.

In the Residential segment, Hydro Ottawa focused on mass marketing, direct mail and on-line promotion to attract and enlist greater participation in this segment.

Although program participation continues to increase, channel development broadens and gross results are increasing significantly, the OPA-verified net results significantly discount these efforts. To date Hydro Ottawa has achieved 16.6 MW of net incremental peak demand savings and 35.5GWh of net incremental energy savings in 2012. A summary of the achievements towards the CDM targets is shown below:

OPA-Contracted Province-Wide CDM Programs FINAL 2012 Results

LDC: Hydro Ottawa Limited

FINAL 2012 Progress to Targets	2012 Incremental	Program-to-Date Progress to Target (Scenario 1)	Scenario 1: % of Target Achieved	Scenario 2: % of Target Achieved
Net Annual Peak Demand Savings (MW)	16.6	16.6	19.5%	28.9%
Net Energy Savings (GWh)	35.1	246.0	65.6%	65.7%

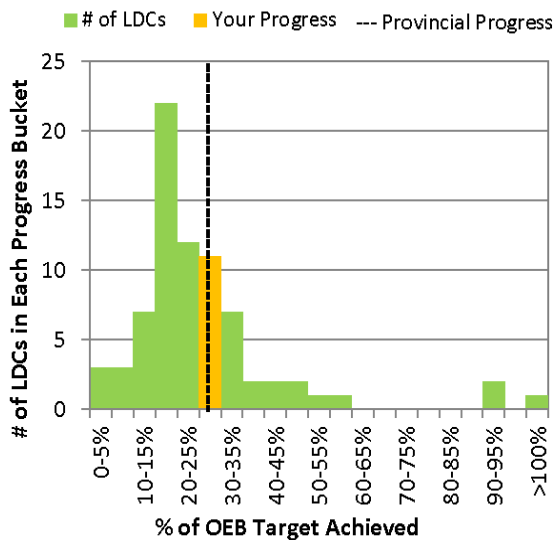
Scenario 1 = Assumes that demand resource resources have a persistence of 1 year

Scenario 2 = Assumes that demand response resources remain in your territory until 2014

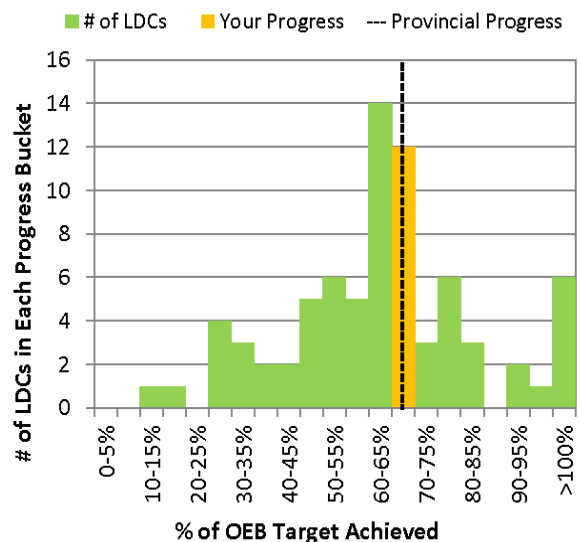
Comparison: Your Achievement vs. LDC Community Achievement (Progress to Target)

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

% of OEB Peak Demand Savings Target Achieved



% of OEB Energy Savings Target Achieved



Hydro Ottawa expects to achieve the 2014 electricity energy savings target and continues to work actively on participant engagement. Although Hydro Ottawa has partnered with other LDCs and has been working with the OPA and the Electrical Distribution Association (EDA) to improve program effectiveness, it is Hydro Ottawa's belief that it will be extremely difficult to achieve its forecasted peak demand target.

Through its targeted and persistent sales and marketing efforts associated with the available saveONenergy initiatives, Hydro Ottawa has achieved excellent program participation. However, the results associated with these efforts are seriously eroded by Evaluation, Measurement and Verification

(EM&V) methodologies that lead to severely discounted net savings of Hydro Ottawa's gross targets. Hydro Ottawa notes that the survey methods of free-ridership have been found to overestimate free-ridership and accordingly may not accurately represent the number of customers that would have adopted a conservation program of their own fruition. Specifically, a study by the American Council for an Energy Efficient Economy (ACEEE) released a study on the topic in 2008.¹ Hydro Ottawa pointed to this study in its comments filed in response to the Ministry's consultation on Conservation First, and advocated for the decoupling of the EM&V process from the setting and measuring of gross targets.

To illustrate the savings deterioration that can result from heavily discounted results, consider the High Performance New Construction Program. This is one of the most complicated programs available to commercial customers because it requires extensive administrative effort on their part and significant aid from the LDC, as well. Regardless of this effort, it was determined (through EM&V) that approximately 50% of the savings were considered to be attributable to free-riders. (See section 4.4 for additional detail).

In-Home Displays (IHD) suffered the same challenge. To date, the OPA has been unable to provide verified savings from thousands of IHD installations in 2012. As a result, we are not able to claim any savings for our efforts. The current measurement methods are not tenable moving forward. (See Section 4.4.9).

The Province-wide programs were limited as a number of initiatives were never brought to market by the OPA. This was identified in the 2011 reporting, however, the lengthy change management process and multiple program design issues resulted in these programs remaining unavailable to LDCs in 2012. This combination of reduced program offerings, ineffective program design, inability to adapt programs to changing market conditions, coupled with results discounted beyond expectations, leaves Hydro Ottawa extremely challenged to meet its demand and energy targets,

LDCs require long term funding, along with the freedom to develop and deliver CDM programs that meet the needs of their customers. Programs that are market-focused at the outset are less costly to manage and will lead to greater customer participation. That, in turn, will lead to higher results.

In addition to the issues outlined above, the uncertainty over programs and changes/delays in EM&V CDM results creates problems when a utility attempts to claim for a Lost Revenue Adjustment Mechanism (LRAM) or true up a Lost Revenue Adjustment Mechanism Variance Account (LRAMVA). In some cases the results are not provided until after the LDC has submitted a LRAM application (for example the TOU results) or the EM&V rules change after a LDC has adjusted their load forecasted, making the chances of meeting the yearly target incorporated in the forecast problematic.

¹ See http://www.aceee.org/files/proceedings/2008/data/papers/5_491.pdf

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 to establish Conservation and Demand Management targets to be met by electricity distributors. Accordingly, on November 12, 2010, the OEB amended the distribution licence of Hydro Ottawa to require Hydro Ottawa, as a condition of its license, to achieve 374.73GWh of energy savings and 85.26 MW of summer peak demand savings, over the period beginning January 1, 2011 through December 31, 2014.

In accordance with the same Minister's directive, the OEB issued the Conservation and Demand Management Code for Electricity Distributors (the Code) on September 16, 2010. The code sets out the obligations and requirements with which electricity distributors must comply in relation to the CDM targets set out in their licences. To comply with the Code requirements, Hydro Ottawa submitted its CDM Strategy on June 13, 2011 which provided a high level of description of how Hydro Ottawa intended to achieve its CDM targets.

The Code also requires a distributor to file annual reports with the Board. This is the second Annual Report by Hydro Ottawa. It has been prepared in accordance with the Code requirement and covers the period from January 1, 2012 to December 31, 2012.

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

On December 21, 2012, the Minister of Energy directed the Ontario Power Authority to fund CDM programs which meet the definition and criteria for OPA-Contracted Province-Wide CDM Programs for an additional one-year period from January 1, 2015 to December 31, 2015.

The Ministerial Directive did not amend the timelines for LDCs to achieve their energy savings and demand savings targets. Therefore, the main focus of the LDCs remains the achievement of CDM targets by December 31, 2014.

1 Conservation Framework

1.1 Current Framework

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

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

Moving forward, the future CDM framework should address the challenges of the current framework and build on its strengths. Currently overbuilt governance and excessive legal requirements associated with Province-Wide OPA programs results in a slow, bureaucratic process, with an overly burdensome administrative process. There is a misalignment of control and risk where LDCs have the accountability to achieve their respective CDM targets as a condition of distribution licence, but the authority for design and funding are controlled substantially by the OPA. In the future, Hydro Ottawa believes adjustments should be made to give LDCs more control and accountability over conservation programs.

The Ministerial Directive provides a bridge for the conservation programs and associated compensation for the participants through 2015; however the subsequent savings would not be attributed to any LDC target and in effect would be 'lost' due to misalignment of the current CDM framework and LDC Targets. In addition, determining administrative funding for LDCs for 2015 is required to maintain current programs and to avoid any loss of momentum in program deployment.

1.2 Future Framework

LDCs support the government's renewed commitment for conservation and demand management in Ontario. LDCs are committed to working with the government and other stakeholders to develop an effective framework for CDM in the Province.

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

To ensure a seamless and smooth transition that maintains and builds upon CDM momentum beyond 2014, a new CDM framework should be in place well before the expiry of the current one. The remainder of 2014 would be utilized for program development and in some cases re-design, economic analysis, procurement and launching of new and revised CDM program initiatives.

Hydro Ottawa will continue to promote a culture of conservation in its service territory and will continue to strive for programs aligned with the unique elements of its market, customer needs and local business drivers. In order to execute this role effectively, the LDCs require a realignment of the administrative and control responsibilities associated with program development, marketing and delivery to provide local LDC control commensurate with the accountability for target achievement.

LDCs further require a stable long term perpetual funding model in order to make conservation and demand management a core part of their utility business, and attract the resources needed to create innovative new programs. In this regard, Hydro Ottawa supports the creation of a standardized funding formula based on an appropriate percent of revenue² formula that is commensurate with and reflective of the new level of responsibilities. Each LDC would set aside this revenue that would become available through the Global Adjustment Mechanism (GAM). Hydro Ottawa further recommends that the Ministry direct the OEB to review the LRAM with a view to adjusting the model to allow utilities to recover their lost revenue based on gross targets rather than net.

Many of the preceding recommendations were provided to the Ministry of Energy in the context of Hydro Ottawa's comments filed in response to the Ministry of Energy's consultation on Conservation First and to review its Long Term Energy Plan. Hydro Ottawa also contributed to the individual submissions from the Electricity Distributors Association (EDA) and the Coalition of Large Distributors (CLD) in response to the Ministry's consultation on Conservation First.

² including the commodity revenue

2 Board-Approved CDM Programs

2.1 Introduction

In its Decision and Order dated November 12 2010 (**EB-2010-0215 & EB-2010-0216**), the OEB ordered that, (to meet its mandatory CDM targets), “Each licenced 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 Pricing has been deemed as a Board-Approved Conservation and Demand Management program that is being offered in Hydro Ottawa’s service area.

2.2 TOU Pricing

2.2.1 BACKGROUND

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

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

At the time of preparation of this report, the OPA had retained the Brattle Group as the evaluation contractor and will be working with an expert panel convened to provide advice on methodology, data collection, models, etc. The initial evaluations are being conducted with five LDCs – Hydro One, THESL, Hydro Ottawa, Thunder Bay and Newmarket. Results are not available at this time but are expected to be available in the fall of 2015. Unfortunately our program will have ended by then.

As of September 30, 2013, the OPA has not released any verified results of TOU savings to Hydro Ottawa. Therefore Hydro Ottawa is not able to provide any verified savings related to LDC’s TOU program at this time. In August 2015, the OPA is expected to release verified savings from TOU. According to the original business case, Hydro Ottawa was expecting approximately 17 MW of savings from TOU (based on the 2010 provincial business case estimate of 308 MW.). Without clear knowledge of the TOU impact, we do not believe we are able to provide accurate forecasts to the OEB.

2.2.2. TOU PROGRAM DESCRIPTION

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

Initiative Frequency: Year-Round

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

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

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

RPP TOU Effective Date	Rates (cents/kWh)		
	On Peak	Mid Peak	Off Peak
November 1, 2010	9.9	8.1	5.1
May 1, 2011	10.7	8.9	5.9
November 1, 2011	10.8	9.2	6.2
May 1, 2012	11.7	10.0	6.5
November 1, 2012	11.8	9.9	6.3
May 1, 2013	12.4	10.4	6.7

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

Initiative Activities/Progress:

Hydro Ottawa began transitioning its RPP customers to TOU billing on May 1, 2010. At December 31st, 2012, 281,823 RPP customers were on TOU billing.

2.3 Hydro Ottawa’s Application with the OEB

There were no LDC programs approved by the OEB in 2012.

3. OPA-Contracted Province-Wide CDM Programs

3.1 Introduction

Effective February 10, 2011, Hydro Ottawa entered into an agreement with the OPA to deliver CDM programs extending from January 1, 2011 to December 31, 2014, which are listed below. Program details are included in Appendix A. In addition, results include projects started pre 2011 which were completed in 2011:

Initiative	Schedule	Date schedule posted	Customer Class	In Market Date
Residential Program				
Appliance Retirement	Schedule B-1, Exhibit D	Jan 26, 2011	All residential rate classes	February 2011
Appliance Exchange	Schedule B-1, Exhibit E	Jan 26, 2011	All residential rate classes	May 2011
HVAC Incentives	Schedule B-1, Exhibit B	Jan 26, 2011	All residential rate classes	February 2011
Conservation Instant Coupon Booklet	Schedule B-1, Exhibit A	Jan 26, 2011	All residential rate classes	March 2011
Bi-Annual Retailer Event	Schedule B-1, Exhibit C	Jan 26, 2011	All residential rate classes	April 2011
Retailer Co-op	n/a	n/a	All residential rate classes	n/a
Residential Demand Response	Schedule B-3	Aug 22, 2011	All residential rate classes	May 2012
New Construction Program	Schedule B-2	Jan 26, 2011	All residential rate classes	Fall 2011
Commercial & Institutional Program				
Efficiency: Equipment Replacement	Schedule C-2	Jan 26, 2011	All general service classes	February 2011
Direct Install Lighting	Schedule C-3	Jan 26, 2011	General Service < 50 kW	March 2011
Existing Building Commissioning Incentive	Schedule C-6	Feb 2011	All general service classes	March 2011

New Construction and Major Renovation Initiative	Schedule C-4	Feb 2011	All general service classes	July 2011
Energy Audit	Schedule C-1	Jan 26, 2011	All general service classes	March 2011
Commercial Demand Response (part of the Residential program schedule)	Schedule B-3	Jan 26, 2011	General Service<50KW	May 2013
Demand Response 3 (part of the Industrial program schedule)	Schedule D-6	May 31, 2011	General Service 50 kW & above	October 2011
Industrial Program				
Process & System Upgrades	Schedule D-1	May 31, 2011	General Service 50 kW & above	February 2011
Monitoring & Targeting	Schedule D-2	May 31, 2011	General Service 50 kW & above	February 2011
Energy Manager	Schedule D-3	May 31, 2011	General Service 50 kW & above	August 2012
Key Account Manager ("KAM")	Schedule D-4	May 31, 2011	General Service 50 kW & above	August 2012
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	Schedule C-2	May 31, 2011	General Service 50 kW & above	February 2011
Demand Response 3	Schedule D-6	May 31, 2011	General Service 50 kW & above	October 2011
Home Assistance Program				
Home Assistance Program	Schedule E-1	May 9, 2011	All residential rate classes	January 2012

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

Pre-2011 Programs				
Electricity Retrofit Incentive Program	n/a	n/a	All general service classes	
High Performance New Construction	n/a	n/a	All general service classes	
Toronto Comprehensive	n/a	n/a	All general service classes	

Multifamily Energy Efficiency Rebates	n/a	n/a	All general service classes
Data Centre Incentive Program	n/a	n/a	All general service classes
EnWin Green Suites	n/a	n/a	All general service classes

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

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

Industrial Program		
DR1	As above	No customer uptake for this initiative. Removed in Q4, 2012.

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, and continued in 2012, as the change management process was implemented to enhance the saveONenergy program suite. The change management process allows for modifications to the Master Service Agreement and initiative Schedules. The program enhancements give LDCs additional tools and greater flexibility to deliver programs in a way that meets the needs of customers and further drives participation in the Initiatives.

3.2 Program Descriptions

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

3.2.1 RESIDENTIAL PROGRAMS

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

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

Discussion: The inclusion of LED technology into the Biannual Retailers events in 2012 and the annual coupons in 2013, as well as some LDC custom coded coupons, has had a positive effect on consumer engagement. The revamped peaksaverPLUS program is the main Residential Initiative which drives savings for LDCs and has been well received by consumers eager to utilize an In Home Display to help manage their energy consumption.

The Residential Program Portfolio is predominately a carryover of Initiatives from previous programs. It is mostly driven by retailers and contractors who many not have fully delivered what was anticipated. Three new initiatives were never launched and subsequently removed from schedule in 2013 with no new additions. Delays in communication with regards to Initiative offerings and results reporting have hampered LDCs abilities to engage customers and promote participation. Provincial wide advertising has provided limited value due to inconsistency and non-specific messaging.

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

3.2.1.1 *Appliance Retirement Initiative (Exhibit D)*

Initiative Activities/Progress:

Bill insert	Feb – Apr	all residential customers
Insert	daily newspaper x2	last chance for 15 year old appliances
Online	daily newspaper	last chance for 15 year old appliances
Print ad	community newspaper E	last chance for 15 year old appliances
Print ad	community newspaper F	last chance for 15 year old appliances
Event Team	promoted at over 100 community conservation events	
Print collateral	Inclusion in the omnibus FOR HOME brochure.	

Additional Comments:

- Anticipating the increase in appliance eligibility age to 20 years in 2013, many LDCs increased marketing and outreach throughout 2012 in an effort to increase uptake and achieve savings.
- Due to the maturity of the program, and the revised eligibility requirements to a minimum of 20 years old, this Initiative appears to have reached market saturation and has been under consideration for removal from the Portfolio.
- Rather than strictly remove this Initiative from the schedules, the OPA and LDCs could review what opportunities there are to include other measures such as stoves, dishwashers, washers and dryers. The framework of this Initiative may be a suitable foundation for a more holistic residential appliance retirement program. As such, the Residential portfolio could be strengthened through program evolution rather than weakened through diminished program offerings.
- The OPA and LDCs continue working to establish partnerships with Independent retailers and municipalities.

3.2.1.2 *Appliance Exchange Initiative (Exhibit E)*

Initiative Activities/Progress:

There was only a spring exchange event hosted by Canadian Tire. There was very little advance notice of the event. Canadian Tire chose not to promote window air conditioners as a part of the event. They only featured dehumidifiers. Hydro Ottawa did not do any promotion or engagement with this program.

There was no fall exchange event in 2012.

Additional Comments:

- This Initiative, eligible measures and incentive amounts are influenced by the retail partner with no direct involvement from the LDCs. The restrictive, limited and sometimes non-participation of local stores can diminish the savings potential for this Initiative.
- To date there has only been one retailer participant in the Appliance Exchange Initiative. The Fall events have not had retailer participation, therefore savings anticipated by the LDCs have not materialized.
- Evaluation, Measurement, and Verification (EMV) results indicated that the value of savings for retired room air conditioners (a/c) has dropped resulting in the retail participant not accepting room a/c's during the Spring 2013 event.
- Notification regarding retailer participation and eligible measures continues to be delayed. Improved communications will aid in appropriate resource allocation and marketing of the Initiative.
- This Initiative may benefit from the disengagement of the retailer and allowing LDCs to conduct these events, possibly as part of a larger community engagement effort, with the backing of ARCA for appliance removal.
- The initiative appears to require more promotion from retailers.

3.2.1.3 *HVAC Incentives Initiative (Exhibit B)*

Initiative Activities/Progress:

Bill insert	Feb – Apr	all residential customers
Print ad	community newspapers English	reminder of incentives available
Print ad	community newspaper French	reminder of incentives available

Event Team promoted at over 100 community conservation events

Print collateral Inclusion in the omnibus FOR HOME brochure.

Corporate newsletter, message on hold

Additional Comments:

- Incentive levels appear to be insufficient to prompt Participants to upgrade HVAC equipment prior to end of useful life. It is hoped that the introduction of an Air Miles incentive in 2013 may help with this.
- This Initiative is contractor driven with LDCs responsible for marketing efforts to customers. More engagement with the HVAC contractor channel should be undertaken to drive a higher proportion of furnace and Central Air Conditioner (CAC) sales to eligible units.
- Channel partners require timeliness of the Rebate process to maintain a positive relationship between consumers, contractors, the OPA, and the participating LDC. Due to a contracting delay no applications were processed from approximately the end of October 2012 to February 2013.
- HVAC results reported by the OPA have been delayed and are not complete or accurate. As a result, LDCs are unable to make informed adjustments to their marketing strategies.
- In an effort to build capacity, mandatory training has been instituted for all participating HVAC contractors. This could present too much of a barrier for participation for some contractors as the application process already presents a barrier to contractor sales. It has been noted that there are approximately 4500-5000 HVAC contractors in the Province, however only 1500 are participating in program.
- There are cases where non-participating contractors are offering their own incentives (by discounting the cost of installations to match the value of the OPA incentive) to make the sale. As this occurs outside of the Initiative, these installations should be attributed to the appropriate LDC.

3.2.1.4 Conservation Instant Coupon Initiative (Exhibit A)

Initiative Activities/Progress:

The delay of the re-instatement of the annual coupon (September) falling immediately before the Fall Coupon Event did not allow sufficient time to promote the coupons in 2012.

Additional Comments:

- This Initiative was ineffective for most of 2012 as the Instant coupons (annual) were not available to consumers until September 2012. As such, savings budgeted by LDCs did not materialize.

- The timeframe for retailer submission of redeemed coupons vary from retailer to retailer and in some cases has been lengthy. The delays and incomplete results reporting limits the ability to react and respond to Initiative performance or changes in consumer behaviour. This also resulted in the delayed launch of the Initiative in 2012.
- Coupon booklets were not printed and mailed out in 2012. As such, Coupons were not widely available to consumers without the ability to download and print them.
- Without Provincial coupon distribution, and delay in Initiative launch, consumers may not have been aware of the online coupons. This Initiative could benefit from provincial marketing as a substitute to distribution.
- LDCs should be able to custom code all coupons to provide 100% allocation and push specific coupons based on localized needs.
- The product list could be distinctive from the Bi-Annual Retailer Event Initiative in order to gain more consumer interest and uptake.
- Program evolution, including new products and review of incentive pricing for the coupon Initiatives, should be a regular activity to ensure continued consumer interest.

3.2.1.5 Bi-Annual Retailer Event Initiative (Exhibit C)

Initiative Activities/Progress:

Bill insert	Feb – Apr	all residential customers
Print ad	community newspapers E	call out to see the event team at participating retailers
Print ad	community newspapers F	call out to see the event team at participating retailers
Corporate newsletter, message on hold		

Additional Comments:

- This Initiative is strongly influenced by the retail participants and has no direct involvement from the LDCs.
- The Product list has changed very little over the past four years.
- Limited engagement of local retailers can restrict the savings potential for this Initiative.

- Program evolution, including new products and review of incentive pricing for the coupon Initiatives, must be a regular activity to ensure continued consumer interest.
- The Product list could be distinctive from the Conservation Instant Coupon Initiative in order to gain more consumer interest and uptake.
- A review conducted by the Residential Working Group in Q4 2011 identified three areas of need for Initiative evolution: 1) introduction of product focused marketing; 2) enhanced product selection and 3) improved training for retailers as retail staff tend not to be knowledgeable regarding the products or promotion.
- LDCs should be able to custom code all coupons to provide 100% allocation and push specific coupons based on localized needs.
- Communications regarding retailer participation continues to be delayed. Improved communications will aid in appropriate resource allocation and marketing of the Initiative.
- This Initiative may benefit from a more exclusive relationship with a retailer appropriate to the program. There should be a value proposition for both the retailer and LDC.

~~3.2.1.6~~ ***Retailer Co-op***

Initiative Activities/Progress:

LDCs are not involved in this program.

Additional Comments:

- This is a retailer Initiative with no direct benefit to the LDCs
- Limited engagement of local retailers can restrict the savings potential for this Initiative.
- The availability of retailer and/or LDC staff with product knowledge and the ability to conduct demonstration in store during the events would be an asset. This could be a valuable role for LDCs, however many LDCs are limited by available resources and unable to participate.

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

Initiative Activities/Progress:

Print ad Greater Ottawa Home Builders Association annual directory and magazine

One-on-one outreach to local builders

Print collateral Inclusion in the omnibus FOR HOME brochure.

Additional Comments:

- This Initiative provides incentives to home builders for incorporating energy efficiency into their buildings. To support this, LDCs need to provide education to the consumers regarding the importance of choosing the energy efficient builder upgrade options without an immediate benefit to the consumer.
- Following limited participation in 2011, the application process was revisited in 2012 to streamline administration in response to builder feedback. Participation levels are expected to grow but there will be a lag to when results materialize as homes pre-approved could take a year or more to be completed.
- Administrative requirements, in particular individual home modeling, must align with perceived stakeholder payback. As per the Electricity Distributors Association (“EDA”) Working Groups, changes are being processed through change management for 2012. However, the lengthy change management process has resulted in continued non-participation from builders.

3.2.1.8 Residential Demand Response Program (Schedule B-3)

Initiative Activities/Progress:

Radio ads	30 second and 10 second tags
Direct mail	new participants, continuing participants
E-blasts	Pledge opt-ins, continuing participants
Special event	radio, remote, retailer engagement, buckslips
Out-of-home	billboards
Transit ads	bus exterior kings and extensions
Print ads	community newspapers E+F
Event Team	promoted at over 100 community conservation events
Print collateral	Inclusion in the omnibus FOR HOME brochure.
Corporate newsletter, message on hold	

Additional Comments:

- The schedule for peaksaverPLUS was posted in August 2011, but this did not provide adequate time for product procurement for 2011, implementation was delayed until 2012 as minor changes to the provincial technical specifications were required to facilitate procurement.
- The Hydro Ottawa Smart Meter network (AMI) is not readily able to communicate directly to an In Home Display. This known limitation is common across most Ontario LDCs and was ignored by OPA throughout the extensive consultative program design process with LDCs. Integration of In Home Display units with the AMI network requires considerable lead times for LDC analysis and assessment, product procurement, and testing.
- In Home Display procurement options were seriously constrained by the requirement for real time whole home consumption data within the established participant based funding cap.
- Similarly load control device procurement options were seriously constrained by the requirement to use equipment compatible with a very short list of OPA approved and contracted control systems.
- This program contributes by far the most demand savings results of the residential portfolio. It represents a demand response resource that should be aggressively sustained over time. To accomplish this, the program should be modified over time to provide improved customer engagement and reward, more relevant equipment offerings such as two way information and control, consumer portals offering the opportunity for analytics and social benchmarking as well as accessibility via mobile devices. The constraints imposed by the program funding caps, technical requirement specifications and real time data requirements should be opened or adjusted to encourage a broader range of equipment, services and offerings.
- Province wide marketing of this program has limited value due to the variance in offerings among LDCs. Marketing of this program should be left to individual LDCs

3.2.2 COMMERCIAL AND INSTITUTIONAL PROGRAM

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

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

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

Discussion: Throughout 2011 and 2012 the Commercial and Institutional (C&I) Working Group has strived to enhance the existing C&I programs and rectify identified program and system deficiencies. This has proven to be a challenging undertaking, normally requiring months to complete what are sometimes relatively minor changes due to the current CDM Change Management framework. Overbuilt governance, numerous initiative requirements, complex program structure and lengthy change management have restricted flexibility required to deliver results. In addition, Evaluation, Measurement and Verification (EM&V) has not yet achieved transparency. LDCs are held accountable for these results yet are not in control of the process for program evolution and redesign as required to address changing market conditions.

The effectiveness of LDC program delivery has been hampered by inconsistent interpretation of program rules and eligibility, limited effectiveness of provincial marketing efforts, cumbersome online administration systems and revolving OPA support personnel.

Despite these challenges Hydro Ottawa, working in cooperation with the OPA, has been able to resolve a number of issues. In particular, an accomplishment of 2012 was the advent of the expedited change management process as a means to accelerate certain program changes.

Looking ahead there is minimal opportunity to make valuable changes to the current program suite and have these changes impact LDC 2014 results. LDCs and the OPA should look beyond the current Initiatives and work to launch new programs, built on the strengths of the 2011-2014 programs, which will meet the needs of the industry and consumers.

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

Initiative Activities/Progress:

Print ads	community newspaper E
Print ads	community magazines E
Print ad	Greater Ottawa Home Builders Association annual directory and magazine
Online ads	geo targeted local and national newspaper sites
Radio	10 second tags
Special Event	BOMEX tradeshow

Interview local news radio station

Collateral part of omnibus sell sheet FOR BUSINESS

Channel Sales Strategy

Additional Comments:

- It appears that the marketplace largely understands the programs now and a large proportion of LDC savings are attributed to ERII.
- The centralized process review used for 2012 project payment has been streamlined by the OPA and payments for projects were greatly improved – faster and more consistent compared to 2011.
- Capability building programs under the Process and Systems Upgrade Initiative have had very positive contributions to ERII program.
- This Initiative is limited by the state of the economy and the ability of commercial/institutional facility to complete capital upgrades.
- Applicants and Applicant Representatives continue to express dissatisfaction and difficulty with the online application system. This issue has been addressed by LDCs through application training workshops, Key Account Managers, channel partner/contractor training and LDC staff acting as customer Application Representatives. Although this has been an effective method of overcoming these issues and encouraging submissions, it also reflects on the complexity and time consuming nature of the application process. As such, Applicant Representatives continue to influence the majority of applications submitted. Continued development of Channel Partners is essential to program success.
- Lighting is still the most popular measure. Other market sectors are not as engaged yet. There continues to be significant barriers to program participation from HVAC (Unitary AC) and compressed air channel partners.
- Prescriptive and Engineered worksheets provide a much needed simplified application process for customers. However, the eligible measures need to be updated and expanded in both technology and incentive amounts to address changing product costs and evolution of the marketplace.
- Expanding the capacity of the engineered applications can offer customers an opportunity to maximize savings and incentives. Recognizing this, Toronto Hydro and London Hydro worked together to develop and provide the OPA with compressed air engineered worksheets for inclusion in the Initiative in Q3, 2012. To date, these have not been accepted and provided to LDCs for use.
- An identified deficiency in the various renditions of the equipment replacement is the “hard stop” of the program as of a specific date. Without a streamlined transition into a new program, many customers become frustrated and refused to participate. LDCs struggle to repair customer and channel partner relationships and gain momentum in the market place once again.

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

Initiative Activities/Progress:

Print ad	community newspaper E
Interview	local news radio station
Collateral	customized sell sheets for contractors
Collateral	part of omnibus sell sheet FOR BUSINESS

Additional Comments:

- Successful execution of the previous rendition of this Initiative that have been in market since 2009 has resulted in diminished potential for the 2011-2014 Initiative in Hydro Ottawa service territory
- The inclusion of a standard incentive for additional measures increased project size and drove higher energy and demand savings results in some situations.
- Electrical contractor's margins have been reduced due to delays in adjusting the program price caps in the face of rising costs attributed to labour rate increases, increased cost of materials, greater distances between retrofits, more door knocking required before a successful sale and no funding for lifts. This reduction in the profitability of DIL work accompanied by ample competing, high margin work has led to a reduction in contractor channel participation.
- Ambiguity with regard to eligibility resulted in numerous project rejections following installation due to perceived ineligibility. Hydro Ottawa carried considerable financial liability while this was worked through with OPA.
- Currently LDCs are unable to offer these standard incentives to prior participants. The ability to return to prior participants and offer a standard incentive on the remaining measures has potential to provide additional energy and demand savings.
- Measures list issues with no LED option.

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

Initiative Activities/Progress:

Collateral part of omnibus sell sheet FOR BUSINESS

Channel Sales Strategy

Additional Comments:

- Initiative name does not properly describe the Initiative.
- There was minimal participation for this Initiative. It is suspected that the lack of participation in the program is a result of the Initiative being limited to space cooling and a limited window of opportunity (cooling season) for participation.
- Participation is mainly channel partner driven, however the particulars of the Initiative have presented a too significant of a barrier for many channel partners to participate.
- The customer expectation is that the program be expanded to include a broader range of measures for a more holistic approach to building re-commissioning and chilled water systems used for other purposes should be made eligible and considered through Change Management.
- This initiative should be reviewed for incentive alignment with ER11, as currently a participant will not receive an incentive if the overall payback is less than 2 years.

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

Initiative Activities/Progress:

Hydro Ottawa has Enbridge under contract as delivery agent for this program. Enbridge works in conjunction with the Hydro Ottawa sales team and engineering staff to deliver the program.

Collateral part of omnibus sell sheet FOR BUSINESS

Channel Sales Strategy

Additional Comments

- There is typically a long sales cycle for these projects, and then a long project development cycle. As the program did not launch until mid-2011 and had limited participation, results did not appear in 2011. Minimum results are expected to appear in 2012. The majority of the results are expected in 2013-2014, with a reduced benefit to cumulative energy savings targets.

- With the Ministerial Directive facilities with a completion date near the end of 2014 currently have some security that they will be compensated for choosing efficient measures.
- Participants estimated completion dates tend to be inaccurate and are usually 6 months longer. This could result in diminished savings towards target when facilities are not substantially completed by December 31, 2014.
- The custom application process requires considerable customer support and skilled LDC staff. As there has been no defined administrative funding beyond 2014, many LDCs are unsure how these project applications will be finalized.
- The effort required to participate through the custom stream exceeds the value of the incentive for many customers.
- This Initiative has a very low Net-to-Gross ratio, which results in 50%the proposed target savings being 'lost'.

3.2.2.5 Energy Audit Initiative

Initiative Activities/Progress:

Collateral part of omnibus sell sheet FOR BUSINESS

Channel Sales Strategy

- Customer uptake was limited in 2011, however improved throughout 2012 especially with the new audit component for one system (i.e. compressed air).
- The energy audit Initiative is considered an 'enabling' Initiative and 'feeds into' other saveONenergy Initiatives. There are no savings attributed to LDC targets from an audit.
- Audit reports from consultants vary considerably and in some cases, while they adhere to the Initiative requirements, do not provide value for the Participant. A standard template with specific energy saving calculation requirements should be considered.
- Customers look to the LDCs to recommend audit companies. A centralized prequalified list provided by the OPA may be beneficial.
- Participants are limited to one energy audit which restricts enabling and direction to the other Initiatives. This Initiative should be evaluated for additional customer participation when presented with a new scope of work.

3.2.3 INDUSTRIAL PROGRAM

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

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

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

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

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

Extensive legal documents, complex program structure and lengthy change management have restricted the change and growth of this Portfolio. While the expedited change management has benefited the Commercial Portfolio, the Industrial Portfolio has not seen the same results due to the narrow scope of the process. For 2013, a change to the threshold for small capital projects and a new small capital project agreement are expected to improve the number of projects and savings achieved within PSUI. Likewise, a decision to proceed with natural gas load displacement generation projects will also increase uptake although results may not be counted towards LDC targets due to in-service dates beyond 2014. Looking ahead there is minimal opportunity to make additional valuable changes to the current program suite and have these changes reflected in LDC 2014 results

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

Initiative Activities/Progress:

Collateral part of omnibus sell sheet FOR BUSINESS

Channel Sales Strategy

Additional Comments:

- Approximately 100 engineering study applications have been submitted. This is a strong indication that there is the potential for large projects with corresponding energy savings. Most of these studies have been initiated through the Energy Manager and KAM resources.
- This Initiative is limited by the state of the economy and the ability of a facility to complete large capital upgrades.
- There is typically a long sales cycle for these projects, and then a long project development cycle. As such, limited results are expected to be generated in 2012. The majority of the results are expected in 2013-2014, with a much reduced benefit to cumulative energy savings targets.
- Delays with processing funding payments have caused delayed payments to Participants beyond contract requirements. In some cases, LDCs have developed a separate side agreement between the LDC and Participant acknowledging that the Participant cannot be paid until the funds are received.
- The contract required for PSUI is a lengthy and complicated document. A key to making PSUI successful is a new agreement for 'small' projects which is a simplified with less onerous conditions for the customer.
- To partially address this, changes were made to the ERII Initiative which allowed smaller projects to be directed to the Commercial stream. . Most industrial projects to-date have been submitted as ERII projects due to less onerous contract and M&V requirements.
- A business case was submitted by the Industrial Working Group in July 2012 which would change the upper limit for a small project from 700 MWh to 1 million dollars in incentives. This would allow more projects to be eligible for the new small capital project agreement and increase participant uptake, while still protecting the ratepayer. To date this change has not been implemented. (OR the small capital project agreement was finalized through change management in XX 2013).
- While there is considerable customer interest in on-site Load Displacement (Co-Generation) projects, in 2012 the OPA was accepting waste heat/waste fuel projects only. Natural gas generation projects were on hold awaiting a decision on whether PSUI will fund these types of projects. In June 2013, a decision was made to allow natural gas load displacement generation projects to proceed under PSUI. It is expected that a number of projects will proceed although results may not be counted towards LDC targets due to in-service dates beyond 2014.

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

Initiative Activities/Progress:

Collateral part of omnibus sell sheet FOR BUSINESS

Channel Sales Strategy

Additional Comments:

- The M&T initiative is targeted at larger customers with the capacity to review the M&T data. This review requires the customer facility to employ an Energy Manager, or a person with equivalent qualifications, which has been a barrier for some customers. As such, a limited number of applications have been received to date.
- The savings target required for this Initiative can present a significant challenge for smaller customers.
- Through the change management process in 2013, changes are being made to ERII to allow smaller facilities to employ M&T systems.

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

Initiative Activities/Progress:

Hydro Ottawa deployed three Embedded Energy Managers and one Roving Energy Manager in 2012.

Additional Comments:

- There is a ramp up required for new energy manager development, to familiarize themselves with facilities and staff and establish “credibility”. Energy Managers started filling their pipeline with projects but few projects were implemented in 2012.
- OPA funded Energy Managers are a valuable resource and have identified numerous energy saving projects within their respective large commercial/industrial facilities.
- Requirement that 30% of target must come from Non-incented projects is identified as an issue
- A decision on extending funding is required in 2013 for this important Initiative, which should continue beyond 2014, failing which these expert resources will be lost.

3.2.3.4 Key Account Manager (Schedule D-4)

Initiative Activities/Progress:

Hydro Ottawa deployed one Key Account Manager in 2012.

Additional Comments

- Customers appreciate dealing with a single contact to interface with an LDC, a resource that has both the technical and business background who can communicate easily with the customer and the LDC.
- Finding this type of skill set has been difficult. In addition, the short-term contract discourages some skilled applicants resulting in longer lead times to acquire the right resource.
- A decision on extending funding is required in 2013 for this important Initiative, which should continue beyond 2014, failing which these expert resources will be lost in favour of full-time employment elsewhere.

3.2.3.5 Demand Response 3 (D-6)

Initiative Activities/Progress:

As the contracts are with the Aggregators, Hydro Ottawa has limited insight to which companies are participating.

Collateral part of omnibus sell sheet FOR BUSINESS

Channel Sales Strategy

Additional Comments:

- Until early 2013 customer data was not provided on an individual customer basis due to contractual requirements with the aggregators. This limited LDCs' ability to effectively market to prospective participants and verify savings.
- No program improvements were made in 2012 however, it was accepted that prior participants who renew their DR3 contract within the 2011-2014 term will contribute to LDC targets.

Metering and settlement requirements are expensive and complicated and can reduce customer compensation amounts, and present a barrier to smaller customers.

- Compensation amounts for new contracts and renewals have been reduced from the initial launch of this program (premium zones and 200 hour option have been discontinued) and subsequently there has been a corresponding decrease in renewal revenue.

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

Initiative Activities/Progress:

A third party contractor was secured to deliver this service in 2012.

Outreach to social housing providers was the first and most effective way to start the program.

Uptake was slower than anticipated but over 500 households benefited from this program.

Additional Comments:

- Awareness of the program among social agencies took time to develop. Benefits started to become evident in late 2012.
- Centralized payment processes were not developed in 2011. The payment process was established in 2012.
- The process for enrolling in social housing was complicated and time consuming. This was addressed in late 2012.
- The financial scope, complexity, and customer privacy requirements of this Initiative are challenging for LDCs and most have contracted this program out.

3.2.5 PRE-2011 PROGRAMS

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

4 2012 LDC CDM Results

4.1 Participation and Savings

Table 1: Hydro Ottawa Limited Initiative and Program Level Savings by Year (Scenario 1)

Initiative	Unit	Incremental Activity (new program activity occurring within the specified reporting period)				Net Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period)				Net Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period)				Program-to-Date Verified Progress to Target (excludes DR)	
		2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2014 Net Annual Peak Demand Savings (kW)	2011-2014 Net Cumulative Energy Savings (kWh)
Consumer Program															
Appliance Retirement	Appliances	4,110	2,604			246	146			1,754,416	1,040,845			384	10,133,028
Appliance Exchange	Appliances	183	178			19	25			22,795	43,987			32	212,803
HVAC Incentives	Equipment	9,680	7,006			2,880	1,606			5,465,411	2,825,583			4,496	30,368,301
Conservation Instant Coupon Booklet	Items	29,328	1,728			69	13			1,104,610	78,235			82	4,653,146
Bi-Annual Retailer Event	Items	48,698	59,361			94	83			1,644,342	1,498,537			177	11,072,979
Retailer Co-op	Items	0	0			0	0			0	0			0	0
Residential Demand Response (switch/pstat)	Devices	5,701	16,134			3,193	7,249			8,266	55,891			0	64,158
Residential Demand Response (IHD)	Devices	0	9,659			0				0					
Residential New Construction	Homes	0	0			0	0			0	0			0	0
Consumer Program Total						6,500	9,122			9,999,841	5,553,079			5,161	56,504,505
Business Program															
Retrofit	Projects	304	547			2,832	5,116			14,868,304	22,549,482			7,769	126,368,494
Direct Install Lighting	Projects	1,025	1,073			1,416	843			3,870,853	3,365,166			1,623	23,651,949
Building Commissioning	Buildings	0	0			0	0			0	0			0	0
New Construction	Buildings	0	5			0	14			0	16,176			14	48,528
Energy Audit	Audits	8	24			0	124			0	604,230			124	1,812,690
Small Commercial Demand Response	Devices	7	33			4	21			16	120			0	137
Small Commercial Demand Response (IHD)	Devices	0	0			0				0				0	0
Demand Response 3	Facilities	10	11			597	644			23,305	9,354			0	32,660
Business Program Total						4,850	6,761			18,762,479	26,544,529			9,530	151,914,457
Industrial Program															
Process & System Upgrades	Projects	0	0			0	0			0	0			0	0
Monitoring & Targeting	Projects	0	0			0	0			0	0			0	0
Energy Manager	Projects	0	0			0	0			0	0			0	0
Retrofit	Projects	12				81				533,952				81	2,135,807
Demand Response 3	Facilities	0	1			0	42			0	1,010			0	1,010
Industrial Program Total						81	42			533,952	1,010			81	2,136,817
Home Assistance Program															
Home Assistance Program	Homes	0	394			0	26			0	319,766			26	959,298
Home Assistance Program Total						0	26			0	319,766			26	959,298
Pre-2011 Programs completed in 2011															
Electricity Retrofit Incentive Program	Projects	169	0			934	0			4,899,976	0			934	19,599,902
High Performance New Construction	Projects	14	12			321	807			1,651,092	2,431,058			1,129	13,897,541
Toronto Comprehensive	Projects	0	0			0	0			0	0			0	0
Multifamily Energy Efficiency Rebates	Projects	0	0			0	0			0	0			0	0
LDC Custom Programs	Projects	0	0			0	0			0	0			0	0
Pre-2011 Programs completed in 2011 Total						1,255	807			6,551,068	2,431,058			2,062	33,497,443
Other															
Program Enabled Savings	Projects	0	0			0	0			0	0			0	0
Time-of-Use Savings	Homes														
Other Total							0				0			0	0
Adjustments to Previous Year's Verified Results															
Energy Efficiency Total											-209			-217	953,652
Demand Response Total (Scenario 1)						8,893	8,803			35,815,751	34,783,066			16,861	244,914,556
OPA-Contracted LDC Portfolio Total (inc. Adjustments)						3,794	7,956			31,588	66,376			0	97,964
						12,687	16,550			35,847,339	35,093,510			16,644	245,966,172
Activity & savings for Dem and Response resources for each year and quarter represent the savings from all active facilities or devices contracted since January 1, 2011.												Due to the limited timeframe of data, which didn't include the summer months, 2012 IHD results have been deemed inconclusive. The IHD line item on the 2012 annual report will be left blank. Once a full year of data is available (2013 evaluation), and the savings are quantified, 2012 results will be updated to reflect the quantified savings.			
												Full OEB Target:		85,260	374,730,000
												% of Full OEB Target Achieved to Date (Scenario 1):		19.5%	65.6%

Table 1: Summarized Program Results

Program	Gross Savings		Net Savings		Contribution to Targets	
	Incremental Peak Demand Savings (MW)	Incremental Energy Savings (GWh)	Incremental Peak Demand Savings (MW)	Incremental Energy Savings (GWh)	Program-to-Date: Net Annual Peak Demand Savings (MW) in 2014	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (GWh)
Consumer Program Total	10.4624735	10.01280542	9.122	5.553079	5.161	56.504505
Business Program Total	8.933233434	35.90693613	6.761	26.544529	9.530	151.914457
Industrial Program Total	0.041904523	0.001009881	0.042	0.001010	0.081	2.136817
Home Assistance Program Total	0.026307788	0.000319766	0.026	0.319766	0.026	0.959298
Pre-2011 Programs completed in 2011 Total	0.94810428	2.256860882	0.807	2.431058	2.062	33.497443
Total OPA Contracted Province-Wide CDM Programs (inc. Adjustments)	20.41202352	48.17793207	16.550	35.093510	16.644	245.966172

4.2 Evaluation

See 4.4 Additional Comments

4.3 Spending

Table 3: 2012 Spending

Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
Consumer Program					
Appliance Retirement	109,598.25				109,598.25
Appliance Exchange	28,706.35				28,706.35
HVAC Incentives	112,539.09				112,539.09
Conservation Instant Coupon Booklet	119,559.12				119,559.12
Bi-Annual Retailer Event	70,600.92				70,600.92
Retailer Co-op					
Residential Demand Response	933,962.87		2,759,390.00		3,693,352.87
New Construction Program	1,269.75				1,269.75
Business Program					
Efficiency: Equipment Replacement	847,779.72		3,827,668.56		4,675,448.28
Direct Installed Lighting	500,392.81	275,896.00	969,688.50		1,745,977.31
Existing Building Commissioning Incentive	55,465.15				55,465.15
New Construction and Major	271,288.91		29,479.90		300,768.81

Renovation Initiative					
Energy Audit	62,431.48		154,704.72		217,136.20
Small Commercial Demand Response (part of the Residential program schedule)					
Demand Response 3 (part of the Industrial program schedule)					
Industrial Program					
Process & System Upgrades	18,818.70				18,818.70
a) preliminary engineering study					
b) detailed engineering study					
c) program incentive					
Monitoring & Targeting	18,818.20				18,818.20
Energy Manager				49,700.00	
Key Account Manager ("KAM")	1,068.13			39,600.00	1,068.13
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)					
Demand Response 3	87,956.82				87,956.82
Home Assistance Program					
Home Assistance Program	91,862.50		130,602.20		222,464.71
Pre 2011 Programs					

Electricity Retrofit Incentive Program			524,329.89		524,329.89
High Performance New Construction					
Toronto Comprehensive					
Multifamily Energy Efficiency Rebates					
Data Centre Incentive Program					
EnWin Green Suites					
Initiatives Not In Market					
Midstream Electronics					
Midstream Pool Equipment					
Demand Service Space Cooling					
Demand Response 1 (Commercial)	84,987.37				84,987.37
Demand Response 1 (Industrial)					
Home Energy Audit Tool					
TOTAL Province-wide CDM PROGRAMS	3,417,106.15	275,896.00	8,395,863.77	0.00	12,088,865.92

Table 4: Cumulative Spending (2011-2014)

Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
Consumer Program					
Appliance Retirement	210,437.40				210,437.40
Appliance Exchange	61,987.95				61,987.95
HVAC Incentives	226,775.68				226,775.68
Conservation Instant Coupon Booklet	222,975.50				222,975.50
Bi-Annual Retailer Event	144,401.27				144,401.27
Retailer Co-op					
Residential Demand Response	1,347,942.78		2,759,390.00		4,107,332.78
New Construction Program	5,725.25				5,725.25
Business Program					
Efficiency: Equipment Replacement	1,128,846.54		5,206,829.29		6,335,675.83
Direct Installed Lighting	751,058.02	461,076.00	1,852,629.75		3,064,763.77
Existing Building Commissioning Incentive	91,081.75				91,081.75
New Construction and Major Renovation Initiative	416,920.07		29,479.72		446,399.97
Energy Audit	97,821.08		154,704.72		252,525.80

Small Commercial Demand Response (part of the Residential program schedule)					
Demand Response 3 (part of the Industrial program schedule)					
Industrial Program					
Process & System Upgrades	29,154.52				29,154.52
a) preliminary engineering study					
b) detailed engineering study					
c) program incentive					
Monitoring & Targeting	29,131.02				29,131.02
Energy Manager				49,720.00	
Key Account Manager ("KAM")	1,068.13			39,600.00	1,068.13
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)					
Demand Response 3	134,033.98				134,033.98
Home Assistance Program					
Home Assistance Program	438,602.20		130,602.20		569,204.40
Pre 2011 Programs					
Electricity Retrofit Incentive Program			3,188,459.61		3,188,459.61
High Performance New Construction					

Toronto Comprehensive					
Multifamily Energy Efficiency Rebates					
Data Centre Incentive Program					
EnWin Green Suites					
Initiatives Not In Market					
Midstream Electronics					
Midstream Pool Equipment					
Demand Service Space Cooling	1515.33				1515.33
Demand Response 1 (Commercial)	131,170.52				131,170.52
Demand Response 1 (Industrial)					
Home Energy Audit Tool					
TOTAL Province-wide CDM PROGRAMS	5,470,648.99	461,076.00	13,322,095.47	89320.00	19,253,820.46

4.4 Additional Comments

There were many shortcomings associated with the design and delivery of OPA Province–Wide CDM Initiatives that had serious negative impacts on Hydro Ottawa’s CDM program results. Many initiatives were late to market or were never released. Those that did make it to market carried a range of design limitations, cumbersome administration and a change process that made timely edits and adjustments impossible.

Consumer Programs

1. **Home Energy Audit Tool, Midstream Pool Equipment, Midstream Electronics Initiatives** were never launched and subsequently withdrawn with no new additions.
2. Due to the maturity of the **Appliance Retirement Initiative**, and the revised eligibility requirements to appliances at least 20 years old, this Initiative appears to have reached market saturation. It is currently under consideration for removal from the portfolio.
3. The **Appliance Exchange Initiative** is at the discretion of Participating Retailers. Only one retailer hosted a spring event in 2012. There was no fall event. The elimination of one event restricted participation and reduced results.
4. The **Instant Coupon Initiative** was ineffective for most of 2012 as the annual Instant coupons were not available to consumers until September 2012 and once they were offered, they were only available on line. For illustration purposes, Hydro Ottawa customers used 30,000 printed coupons in 2011 and only 1,700 online coupons in 2012.
5. The **Bi-Annual Retailer Event Initiative** is a contracted arrangement between the participating retailer and the OPA. LDCs have prescribed engagement opportunities with the participating retailers. The reporting of coupon redemption results is not timely due to the contracted reporting timelines.
6. The **New Construction Program** was burdened with a cumbersome administrative process that vastly outweighed the benefit to builders. This process has been streamlined somewhat in response to builder feedback but participation has been minimal.
7. Implementation of the **Residential Demand Response Program** was delayed until 2012 as changes to the provincial technical specifications were required to facilitate procurement. This program contributes heavily towards the Consumer Program overall results but constraints imposed by the program funding caps, technical specifications and real time data requirements should be reviewed to encourage a broader range of equipment, services and offerings for LDCs to maintain a relevant offer as this market evolves.
8. **In Home Displays (IHDs)** formed an important part of the residential offering for many customers. Hydro Ottawa has installed IHDs in residential homes throughout 2012. In spite of this significant amount of time and approximately 10,000 installations, the OPA has been unable to determine the savings value of In-Home Displays through their EM&V process. As a result, Hydro Ottawa has no savings to report for these efforts. This

has a significant negative impact on our results based on the original business case for IHDs. Because there are no results to date and no certainty around future results, Hydro Ottawa is unsure if it should continue to pursue this program.

Business Program

The Business Program has been hampered by inconsistent interpretation of program rules and eligibility, limited effectiveness of provincial marketing efforts, dated technologies and measures, cumbersome online administration systems and time consuming change management processes.

1. In the case of the **Efficiency: Equipment Replacement Incentive (ERII)** the OPA centralized application system (CRM) requires significant back office LDC processing to help participants navigate the application process. Eligible measures need to be updated and expanded in both technology and incentive amounts to address changing product costs and technology evolution.
2. The **Direct Install Initiative (DII) has been in market since 2009**. The early success of the program was encouraging; however the program has not remained up to date with market needs and conditions. The product list for the program must be updated with current technologies and should be monitored and adjusted regularly. Product costs have also increased over time, eroding the contractor profit margins. This has led to a severe reduction in their participation.
3. **Existing Building Commissioning Incentive Initiative** has had minimal participation as it mostly limited to space cooling
4. There is typically a long sales cycle (3-5 years) associated with any **New Construction and Major Renovation Initiative (HPNC)**. These projects with their long project development cycle are impacted by the program end date and heavily discounted EMV results.
5. The **Direct Service Space Cooling Initiative** was never launched.

Industrial Program

The Industrial initiatives have not generated significant savings in the Ottawa market because the region has a very light industrial base. However, Hydro Ottawa has rolled out these initiatives where possible.

1. The **Monitoring & Targeting Initiative** is targeted at larger customers with the capacity to analyze and respond to the M&T data. This requires the customer facility to employ an Energy Manager, or a person with equivalent qualifications, which has been a barrier for some customers. As such, a limited number of applications have been received to date. This combined with the savings target required has limited the initiative uptake for smaller customers.
2. One of the most successful elements of the Industrial program has been the capability building enabled by the **Embedded Energy Manager (EEM), Roving Energy Manager (REM) and Key Account Manager (KAM Initiatives)**. These resources are difficult to find and require time to establish themselves but once in place, they have been very successful at identifying and delivering energy efficiency opportunities. To date, Hydro Ottawa has placed six EEMs, 1 REM and 1 KAM in specific key accounts.

3. The current **Demand Response 3 Initiative (DR3)** is targeted at Industrial customers and is not particularly well suited for the Ottawa market which is primarily comprised of Commercial and Institutional customers. Compensation amounts for new contracts and renewals have been reduced from the initial launch of this program (premium zones and 200 hour option have been discontinued). Metering and settlement requirements are expensive and complicated and present a participation barrier to smaller customers. Hydro Ottawa has had some limited success in this area.
4. The **Demand Response 1 Initiative (“DR1”)** has had no customer uptake and was removed from the Schedule in Q4, 2012.

Home Assistance Program

The **Home Assistance Program** is only marginally cost effective and delivers exceedingly low results per participant. This ineffective program is not attractive to Social Housing providers as they perceive it to be time consuming and burdened with paperwork for minimal value.

4.4.1 LRAM

Hydro Ottawa is concerned that the issues that have been identified above, namely programs that have not materialized, were delayed or for which the results are still under review (for example TOU pricing or Residential IHD), can adversely affect an LDC’s ability to be held whole in terms of lost revenue due to CDM. For those LDCs that claim a LRAM ex post, if the results are not available or are subsequently changed, then there is a disconnect between the lost revenue applied for and that actually lost and if there is a true up it would be done years after the lost revenue occurred.

For those utilities recovering the lost revenue through an ex ante adjustment to their load forecast, that adjustment normally reflects the anticipated CDM results based on expected programs and current EM&V methodologies. When program results do not match those anticipated then the utility is required to record the shortfall in the Lost Revenue Adjustment Mechanism Variance Account (LRAMVA) and may never be able to properly recover the appropriate lost revenue.

Hydro Ottawa’s results for 2012 were limited as a result of the above-mentioned shortcomings of OPA Province–Wide CDM Initiatives. The lack of success through OPA Province–Wide CDM Initiatives is further diminished by the difficult processes and negative experience with Board Approved CDM programs by those LDCs making application.

These limitations are easily addressed with a change to the CDM funding and regulatory structure that aligns LDC accountability with the requisite control over program design and delivery. OPA may continue to contribute in an ongoing and valuable role as a service provider to the LDCs providing centralized services for analytics, research and evaluation, but, they must not be in command and control of LDC success. To be successful, LDCs must be given greater control over this important condition of their distribution licence.

5 Combined CDM Reporting Elements

5.1 Progress Towards CDM Targets

Table 5: Net Peak Demand Savings at the End User Level (MW)

Implementation Period	Annual (MW)			
	2011	2012	2013	2014
2011 – Verified by OPA	12.7	8.9	8.9	8.3
2012 – Verified by OPA		16.6	8.5	8.4
2013				
2014				
Verified Net Annual Peak Demand Savings in 2014:				16.6
HYDRO OTTAWA 2014 Annual CDM Capacity Target:				85.3
Verified Portion of Peak Demand Savings Target Achieved (%):				19.5%

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

Implementation Period	Annual (GWh)				Cumulative (GWh)
	2011	2012	2013	2014	2011-2014
2011 – Verified by OPA	35.8	35.8	35.7	34.	141.4
2012 – Verified by OPA		35.1	34.9	34.4	104.6
2013					
2014					
Verified Net Cumulative Energy Savings 2011-2014:					246.0
HYDRO OTTAWA 2011-2014 Cumulative CDM Energy Target:					374.7
Verified Portion of Cumulative Energy Target Achieved (%):					65.6%

5.2 Variance from Strategy

There is no variance from our current strategy.

5.3 Outlook to 2014 and Strategy Modifications

There is no variance from our current strategy and we do not anticipate any modification to our strategy.

6.0 Conclusion

Over the course of 2012, Hydro Ottawa has achieved 16.6MW in peak demand savings and 35.1GWh in energy savings, which results in an accomplishment to date of 19.5% and 65.6% of Hydro Ottawa's 2014 demand and energy targets, respectively. These results are representative of a considerable effort by Hydro Ottawa, in cooperation with other LDCs, customers, channel partners and stakeholders to overcome many operational and structural issues that limited program effectiveness across all market sectors. This achievement is a success and the relationships built within the 2011-2014 CDM program term will aid results in subsequent CDM terms.

Despite its commitment to continued improvements to its existing programs, Hydro Ottawa expects to face challenges in the remaining years of the current CDM framework. With the current slate of available OPA Programs, and the current forecast of implementation and declining projected savings (through EM&V), Hydro Ottawa expects to meet its 374.73 GWh consumption savings target, but, will be very challenged to meet the 85.26 MW demand savings target. Hydro Ottawa has concerns as it relates to the OPA's ability to accurately track and report results stemming from the current suite of province-wide programs. Hydro Ottawa's concern is evidenced by the recent claw back of kW's related to the Residential Program – Heating and Cooling. Hydro Ottawa lost 18% of its 2011 results associated with this Initiative due to inaccurate measurement and poor OPA oversight of the programs' results. Hydro Ottawa is not confident in its ability to recoup the losses incurred due to the short amount of time available. Moreover, it is not appropriate to ask LDCs such as Hydro Ottawa to recoup losses that it becomes aware of two years after the fact. The regulatory environment governing such programs should lend themselves to, rather than detract from, the principles of transparency and predictability.

Hydro Ottawa is further concerned about the OPA's ability to produce accurate EM&V results. Examples of this include the Commercial New Construction Program (HPNC) where current EM&V methodology will now significantly reduce Hydro Ottawa's forecasted net results from 6MW's down to 1.67 MW's. A similar situation is occurring with the popular Direct Install Lighting Program. In both cases, the programs are becoming too onerous for the LDCs (based on recent heavily discounted results) to make these programs worthwhile to offer to their customers.

Looking ahead there is little to no opportunity within the existing CDM framework to make changes to the current program portfolio that will positively impact 2014 results. However, LDCs with the support of the OPA can use the current OPA Innovation Fund or the OPA Conservation Fund to test new technologies that could provide worthwhile results for the 2014 targets. Furthermore, these programs, if successful, could become province-wide programs in early 2015. However, this will require that the OPA work effectively with the LDCs to remove current application barriers that exist, in order to process LDC requests and make decisions in an expeditious fashion.

Beyond 2014, new and/or adjusted programs may be brought to market quickly and effectively, but, only if the current processes governing CDM program development and delivery are significantly changed. Hydro Ottawa understands its customers and its local market needs. It is in the best position to work cooperatively with other LDCs with similar issues and aspirations to design, develop and implement

targeted, effective and market sensitive programs that will improve customer participation and lead to increased results at lower costs. Hydro Ottawa looks forward to changes to this framework.

Appendix A: Initiative Descriptions

Residential Program

APPLIANCE RETIREMENT INITIATIVE (Exhibit D)

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

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

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

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

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

Additional detail is available:

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

APPLIANCE EXCHANGE INITIATIVE (Exhibit E)

Target Customer Type(s): Residential Customers

Initiative Frequency: Spring and Fall

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

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

Targeted End Uses: Window air conditioners and portable dehumidifiers

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

Additional detail is available:

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

HVAC INCENTIVES INITIATIVE (Exhibit B)

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

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

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

Targeted End Uses: Central air conditioners and furnaces

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

Additional detail is available:

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

CONSERVATION INSTANT COUPON INITIATIVE (Exhibit A)

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

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

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

Targeted End Uses: ENERGY STAR® qualified Standard Compact Fluorescent Lights (“CFLs”), ENERGY STAR® qualified Light Fixtures lighting control products, weather-stripping, hot water pipe wrap, electric water heater blanket, heavy duty plug-in Timers, Advanced power bars, clothesline, baseboard programmable thermostats.

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

Additional detail is available:

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

BI-ANNUAL RETAILER EVENT INITIATIVE (Exhibit C)

Target Customer Type(s): Residential Customers

Initiative Frequency: Bi-annual events

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

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

Targeted End Uses: As per the Conservation Instant Coupon Initiative

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

Additional detail is available:

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

~~RETAILER CO-OP~~

Target Customer Type(s): Residential Customers

Initiative Frequency: Year Round

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

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

Targeted End Uses: As per the Conservation Instant Coupon Initiative

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

NEW CONSTRUCTION PROGRAM (Schedule B-2)

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

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

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

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

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

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

Additional detail is available:

- Schedule B-1, Exhibit
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-2%20New%20Construction%20Program.pdf and
- SaveONenergy website <https://saveonenergy.ca/Consumer.aspx>

RESIDENTIAL DEMAND RESPONSE PROGRAM (Schedule B-3)

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

Initiative Frequency: Year round

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

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

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

Delivery: LDC's recruit customers and procure technology

Additional detail is available:

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

C&I Program

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

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

Initiative Frequency: Year round

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

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

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

Delivery: LDC delivered.

Additional detail is available:

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

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

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

Initiative Frequency: Year round

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

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

Target End Uses: Lighting and electric water heating measures

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

Additional detail is available:

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

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 and
- SaveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Existing-Building-Commissioning.aspx>

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

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

Initiative Frequency: Year round

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

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

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

Delivery: LDC delivers to customers and design decision makers.

Additional detail is available:

- Schedule C-4
<http://www.powerauthority.on.ca/sites/default/files/page/ScheduleC-4NewConstructionInitiativeV2.pdf> and
- SaveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/New-Construction.aspx>

ENERGY AUDIT INITIATIVE (Schedule C-1)

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

Initiative Frequency: Year round

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

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

Targeted End Uses: Various

Delivery: LDC delivered.

Additional detail is available:

- Schedule C-1
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20C-1%20Energy%20Audit%20Initiative.pdf and

- SaveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Audit-Funding.aspx>

Industrial Program

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

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

Initiative Frequency: Year round

Objectives: The objectives of this Initiative are to:

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

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

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

Targeted End Uses: Process and systems

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

Additional detail is available:

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

MONITORING & TARGETING INITIATIVE (Schedule D-2)

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

Initiative Frequency: Year round

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

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

Targeted End Uses: Process and systems

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

Additional detail is available:

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

ENERGY MANAGER INITIATIVE (Schedule D-3)

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

Initiative Frequency: Year round

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

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

Targeted End Uses: Process and systems

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

Additional detail is available:

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

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

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

Initiative Frequency: Year round

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

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

Targeted End Uses: Process and systems

Delivery: LDC delivered

Additional detail is available:

- 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

DEMAND RESPONSE 3 (Schedule D-6)

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

Initiative Frequency: Year round

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

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

Targeted End Uses: Commercial and Industrial Operations

Delivery: DR3 is delivered by Demand Response Providers (“DRPs”), under contract to the OPA. The OPA administers contracts with all DRPs and Direct Participants (who provide in excess of 5 MW of demand response capacity). OPA provides administration including settlement, measurement and verification, and dispatch. LDCs are responsible for local customer outreach and marketing efforts.

Additional detail is available:

- Schedule D-6
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20D-6%20Demand%20Response%203%202011-2014.pdf
and
- SaveONenergy website <https://saveonenergy.ca/Business.aspx>

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

HOME ASSISTANCE PROGRAM (Schedule E1)

Target Customer Type(s): Income Qualified Residential Customers

Initiative Frequency: Year Round

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

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

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

Delivery: LDC delivered.

Additional detail is available:

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

Appendix B: Pre-2011 Programs

ELECTRICITY RETROFIT INCENTIVE PROGRAM

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

Initiative Frequency: Year Round

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

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

Targeted End Uses: Electricity savings measures

Delivery: LDC Delivered

HIGH PERFORMANCE NEW CONSTRUCTION

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

Initiative Frequency: Year round

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

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

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

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

~~TORONTO COMPREHENSIVE INITIATIVE~~

Target Customer Type(s): Commercial and Institutional Customers

Initiative Frequency: Year round

Objective:

Description: This Initiative is specific to Toronto Hydro's Service Area.

Targeted End Uses:

Delivery:

MULTIFAMILY ENERGY EFFICIENCY REBATES

Target Customer Type(s): Residential Multi-unit buildings

Initiative Frequency: Year round

Objective: Improve energy efficiency of Multi-unit building

Description: OPA's Multifamily Energy Efficiency Rebates (MEER) Initiative applies to multifamily buildings of six units or more, including rental buildings, condominiums, and assisted social housing. The OPA contracted with GreenSaver to deliver the MEER Initiative outside of the Toronto Hydro service territory. Activities delivered in Toronto were contracted with the City.

Similar to ERII and ERIP, MEER provides financial incentives for prescriptive and custom measures, but also funds resident education. Unlike ERII, where incentives are paid by the LDC, all incentives through MEER are paid through the contracted partner (i.e. GreenSaver).

Targeted End Uses: Electricity saving measures

Delivery: OPA contracted with Greensaver

~~DATA CENTRE INCENTIVE PROGRAM~~

Target Customer Type(s):

Initiative Frequency: Year round

Objective:

Description: This Initiative is specific to Powerstream's Service Area.

Targeted End Uses:

Delivery:

~~ENWIN GREEN SUITES~~

Target Customer Type(s):

Initiative Frequency: Year round

Objective:

Description: This Initiative is specific to EnWin's Service Area.

Targeted End Uses:

Delivery: