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BY COURIER

September 30, 2013

Ms. Kirsten Walli
Secretary
Ontario Energy Board
Suite 2700, 2300 Yonge Street
P.O. Box 2319
Toronto, ON.
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Dear Ms. Walli:

Hydro One Networks Inc. Conservation and Demand Management 2012 Annual Report

As per Section 2.2 of the Conservation and Demand Management Code for Electricity Distributors, please find enclosed a paper copy of Hydro One Networks Inc.'s 2012 Conservation and Demand Management Annual Report. This report provides a review of the activities undertaken by Hydro One Networks Inc. from January 1, 2012 to December 31, 2012 in order to achieve its Conservation and Demand Management Targets.

An electronic version of this report has been filed through the Board's Regulatory Electronic Submission System ("RESS").

For more information please contact Jamie Waller at 416-345-6948

Sincerely,

ORIGINAL SIGNED BY SUSAN FRANK

Susan Frank

Attach.

Hydro One Networks Inc.

Conservation and Demand Management 2012 Annual Report

**Submitted to:
Ontario Energy Board**

Submitted on September 30, 2013

Hydro One 2012 CDM Annual Report

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Executive Summary

Background

This annual report is submitted by Hydro One Networks Inc. (“Hydro One”) in accordance with the filing requirements set out in the Conservation and Demand Management Code (Ontario Energy Board File No. EB-2010-0215), specifically Appendix C Annual Report Template, as a progress report and modification to Hydro One’s Strategy. Accordingly, this report outlines Hydro One’s Conservation and Demand Management (“CDM”) activities for the period of January 1, 2012 to December 31, 2012. It includes net peak demand and net energy savings achieved from 2011 and 2012, discussion of the current/future CDM framework, CDM program activities, successes and challenges, as well as forecasted savings to the end of 2014.

As noted in the CDM guidelines, released April 26, 2012, the Ontario Energy Board (“OEB” or “Board”) 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. At the time of this report the OPA has not released any verified results of TOU savings to Hydro One. Hydro One did not apply for any other Board-Approved CDM Programs during 2012.

In 2011, Hydro One contracted with the OPA to deliver a portfolio of OPA-Contracted Province-Wide CDM Programs (“OPA 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 centered on building a foundation for full program execution over the next three years of the program term, including procurement, staffing, and program delivery.

2012 Activities and Achievements

In 2012 Hydro One continued to deliver all available OPA CDM programs to its residential, business, and industrial customers. Residential programs were heavily promoted through a variety of marketing initiatives, including bill inserts, newsletters, e-Blasts, radio and television advertising, as well as various retail and community events. While some initiatives, such as Appliance Exchange experienced diminishing results due to market saturation, others like the *peaksaver* PLUS® initiative generated significant uptake. The Home Assistance program also began to build momentum in 2012. In total, the Residential and Low Income Programs generated 10.4 MW of incremental peak demand savings and 18.8 GWh of incremental energy savings in 2012.

The commercial portfolio of Initiatives benefited from considerable momentum. In 2012, Hydro One procured Union Gas to act as Commercial Key Account Managers in delivering commercial programs, in particular the Retrofit program, to Hydro One customers. This allowed Hydro One to bundle its delivery of several programs through one vendor which helped increase program uptake. Overall, Hydro One experienced increased Commercial Program results as compared with 2011, delivering 9.4 MW of incremental peak demand savings and 37.0 GWh of incremental energy savings in 2012.

As with the commercial portfolio, Hydro One also procured 2 Key Account Managers (“KAMs”) from Union Gas to deliver industrial programs to our large customers. By the end of the year, 20% of our customers larger than 5 MW received an energy assessment report identifying over 50 potential conservation projects. In addition, an embedded energy manager was hired by one of our industrial customers with more expected in 2013. Hydro One also formed a marketing partnership with Demand Response Providers which generated significant uptake of the DR3 program with momentum continuing to grow heading into 2013. The industrial programs delivered 22.4 MW of incremental peak demand savings and 0.8 GWh of incremental energy savings in 2012. Increased results, especially energy, are expected in 2013 and 2014 as Program and System Upgrade Initiative (“PSUI”) projects are completed.

Hydro One achieved 42.5 MW of net incremental peak demand savings and 60.0 GWh of net incremental energy savings in 2012. Including incremental results from 2011, Hydro One has achieved 64.3 MW of peak demand savings and 513.8 GWh of cumulative energy savings towards its 2014 targets. This is approximately 30.0% and 45.5% of the 214 MW peak demand and 1,130 GWh energy targets, respectively.

Progress towards the 2014 CDM Targets

Based on Hydro One’s results to date, we expect to achieve our peak demand target by the end of 2014. Achieving our peak demand target will depend upon a few large PSUI projects receiving timely OPA approval, and expected TOU savings determined by the OPA. Hydro One will likely achieve 80% of the energy target. There are several reasons for this:

2011 was a transitional year. Not all OPA CDM programs were available throughout the year, while others had less than expected uptake. Moreover, in 2010, Hydro One designed and proposed six Board-approved CDM programs through an application to the OEB. These programs were expected to account for about 20% of Hydro One’s targets. As discussed in the 2011 Annual Report to the OEB, Hydro One withdrew its application for Board-Approved Programs due to timing concerns to fulfill the OEB’s request regarding evaluation plans and clarity about program non-duplication. Subsequently most of these programs (4 out of 6) have been transferred to the OPA to make them available provincially; the remaining two were no longer suitable as discussed in Section 2.3. In 2013, these programs are now at different stages of provincial roll-out. However, since energy targets are based on the cumulative effect of annual savings, it is difficult to make up for the lack of these programs in 2011 and 2012.

Hydro One will continue its efforts to achieve the 1,130 GWh energy target and we are taking the following actions to fill the potential gap (i.e. about 20% of our energy target):

- Work with the OPA to enhance results from OPA CDM programs through improved program measures and expanding customer eligibility for programs;
- Continue to work with the OPA and other LDCs to improve the effectiveness of current OPA CDM programs;
- Work with the OPA to enable cogeneration projects under PSUI for large industrial customers;
- Adopt counting for results from large projects started before 2014 (but completed after that date) towards targets as recommended by the Environmental Commissioner of Ontario;
- Work with the OPA to extend the Social Benchmarking Pilot Program to more customers; and
- Apply customer segmentation to generate more customer participation and results.

Although at the time of this report the OPA has not released any verified results of TOU savings to Hydro One, potential energy savings from TOU pricing could also help achieve our 1,130 GWh energy target. Finally, Hydro One may also choose to apply for a Board-Approved CDM program(s) if it is determined that meaningful results could be achieved before the end of 2014. Hydro One will continue to update and revise its CDM savings forecast as the CDM landscape evolves.

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 OEB to establish CDM targets to be met by electricity distributors. Accordingly, on November 12, 2010, the OEB amended the distribution license of Hydro One to require it, as a condition of its license, to achieve 1,130.21 GWh of energy savings and 213.66 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 ("CDM Code") on September 16, 2010. The CDM Code sets out the obligations and requirements with which electricity distributors must comply in relation to the CDM targets set out in their licenses. To comply with the CDM Code requirements, Hydro One submitted its CDM Strategy on November 1, 2010 which provided a high level description of how Hydro One planned to achieve its CDM targets.

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

Hydro One submitted its 2011 Annual Report on September 28, 2012, which summarized the CDM activities, successes and challenges experienced by Hydro One for the January 1, 2011 to December 31, 2011 period. In our 2011 Annual Report to the OEB, Hydro One identified that the delayed roll out of the full suite of OPA CDM Programs, and the absence of some programs negatively impacted the final 2011 results for the distributors as well as the 2014 cumulative results. 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 OPA to fund CDM programs which meet the definition and criteria for OPA-Contracted Province-Wide CDM Programs for an additional one-year period from January 1, 2015 to December 31, 2015.

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

1 Conservation Framework

1.1 Current Framework

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

1.2 Future Framework

Hydro One is supportive of the Ontario Government's renewed commitment for conservation and demand management. Hydro one will work with the government and other stakeholders to develop the Province's next CDM framework.

Long-term commitment for CDM funding and a confirmation of the role of the Local Distribution Companies ("LDCs") are needed. This will allow LDCs to maintain current program infrastructure including LDC staff and third party contracts into 2015 and beyond.

Providing clarity and continuity into the next framework is critical for all customers. To ensure a seamless and smooth transition that maintains and builds upon CDM momentum beyond 2014, a new CDM framework should be in place well before the expiry of the current one. A successful transition to the next CDM framework requires input from all key parties including LDCs, the Ontario Government, customer and industry groups, central agencies and the OEB. With a new CDM framework developed in early 2014, the remainder of the year (2014) could be utilized for program development and design, economic analysis, procurement and launching of new CDM program initiatives.

Further enhancements in the following areas to the current framework could result in additional benefits to customers and CDM savings:

- Ensure that programs are clear and administratively friendly to encourage enrollment while maintaining proper scrutiny and prudence;
- A balance is also needed between LDC control and accountability of programs and target delivery;
- Establishing a long term commitment to CDM and the role of LDCs in CDM;
- Simplify participant agreements for some programs to be more customer-centric;
- Enable innovation including new measures or technologies, improvements to program design, and delivery to achieve maximum cost effectiveness;

- Synchronizing the timeline of key components of the CDM framework (e.g. target timeframe and funding timeframe) to boost industry/customer confidence and discourage a “stop and start” process; and
- CDM continuity and sustainability - conservation programs are important drivers of both skilled jobs and economic efficiency. However, these skills and capabilities have in the past eroded rapidly as conservation efforts were started and stopped. Development of skills requires a stable long-term commitment to conservation, which will help establish conservation as a part of a more efficient economy.

2 Board-Approved CDM Programs

2.1 Introduction

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

The implementation of TOU Pricing has been deemed as a Board-Approved CDM program and is being offered in Hydro One’s service area.

2.2 TOU Pricing

2.2.1 BACKGROUND

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

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

At the time of preparation of this report the OPA had retained the Brattle Group as the evaluation contractor and will be working with an expert panel convened to provide advice on methodology, data collection, models, etc. The initial evaluations were conducted with 5 LDCs – Hydro One, Toronto Hydro, Hydro Ottawa, Thunder Bay Hydro and Newmarket Hydro.

In April 2010, the OPA’s preliminary estimates suggested that 49 MW of demand would be attributed to Hydro One from TOU. The OPA subsequently indicated that TOU estimates would be revised downward which would potentially lower Hydro One’s expected share of TOU demand results. While an estimate of the energy savings was not released, it is expected that there would also be some energy savings associated with TOU.

As of September 30, 2013, the OPA has not released any verified results of TOU savings to Hydro One. Therefore, Hydro One is not able to provide any verified savings related to its TOU program at this time.

2.2.2. TOU PROGRAM DESCRIPTION

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

Initiative Frequency: Year-Round

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

Description: In August of 2010, the OEB issued a final determination to mandate TOU pricing for Regulated Price Plan (“RPP”) customers by June 2011. The RPP TOU price is adjusted twice annually by the OEB. A summary of the RPP TOU pricing is provided below:

RPP TOU	Rates (cents/kWh)			
	Effective Date	On Peak	Mid Peak	Off Peak
	November 1, 2010	9.9	8.1	5.1
	May 1, 2011	10.7	8.9	5.9
	November 1, 2011	10.8	9.2	6.2
	May 1, 2012	11.7	10.0	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 One began transitioning its RPP customers to TOU billing in 2010. As of December 31st, 2012, about 1,086,000 RPP customers were on TOU billing.

2.3 Hydro One's Application with the OEB

Hydro One did not submit any applications for Board-Approved Programs in 2012. In 2010, Hydro One designed and proposed six Board-approved CDM programs¹. These programs were expected to account for about 20% of Hydro One's targets. Hydro One, subsequently withdrew its application for Board-Approved Programs due to timing concerns to fulfill the OEB's request regarding evaluation plans and clarity about program non-duplication. Most of these programs (4 out of 6) have been transferred to the OPA to make them available provincially. These four programs are now (in 2013) at different stages of provincial roll-out. However, the four programs were not introduced in time for Hydro One to fully benefit from the cumulative effect for accounting for energy savings results. Specifically:

- Social Benchmarking Pilot was not launched in 2012. It is expected to be in the market in 2014.
- M&T was introduced as a measure for ERII and PSUI in the fourth quarter of 2012.
- Community Education was not introduced as a CDM Program but the OPA allowed LDCs to include Community Education expenses as part of its Program Administration Budget.
- Small Commercial DR was not introduced in 2012 but was subsequently introduced in early 2013.
- Municipal and Hospital Energy Efficiency Performance Program ("MHEEP") could not be introduced in a timely manner due to the introduction of new provincial regulations introduced in July 2013.
- Double Return Plus Program was not reintroduced as it mainly enhanced demand but not energy savings.

¹ For details of Hydro One's 2011 application for Board-Approved Programs, please refer to Hydro One's 2011 Annual Report.

3. OPA-Contracted Province-Wide CDM Programs

3.1 Introduction

Effective January 1, 2011, Hydro One 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
Residential Program			
Appliance Retirement	Schedule B-1, Exhibit D	Jan 26, 2011	All residential rate classes
Appliance Exchange	Schedule B-1, Exhibit E	Jan 26, 2011	All residential rate classes
HVAC Incentives	Schedule B-1, Exhibit B	Jan 26, 2011	All residential rate classes
Conservation Instant Coupon Booklet	Schedule B-1, Exhibit A	Jan 26, 2011	All residential rate classes
Bi-Annual Retailer Event	Schedule B-1, Exhibit C	Jan 26, 2011	All residential rate classes
Retailer Co-op	n/a	n/a	All residential rate classes
Residential Demand Response	Schedule B-3	Aug 22, 2011	All residential rate classes
New Construction Program	Schedule B-2	Jan 26, 2011	All residential rate classes
Commercial & Institutional Program			
Efficiency: Equipment Replacement	Schedule C-2	Jan 26, 2011	All general service classes
Direct Install Lighting	Schedule C-3	Jan 26, 2011	General Service < 50 kW
Existing Building Commissioning Incentive	Schedule C-6	Feb 2011	All general service classes
New Construction and Major Renovation Initiative	Schedule C-4	Feb 2011	All general service classes
Energy Audit	Schedule C-1	Jan 26, 2011	All general service classes
Commercial Demand Response (part of the Residential program schedule)	Schedule B-3	Aug 22, 2011	All general service classes
Demand Response 3 (part of the Industrial program schedule)	Schedule D-6	May 31, 2011	General Service 50 kW & above

Industrial Program			
Process & System Upgrades	Schedule D-1	May 31, 2011	General Service 50 kW & above
Monitoring & Targeting	Schedule D-2	May 31, 2011	General Service 50 kW & above
Energy Manager	Schedule D-3	May 31, 2011	General Service 50 kW & above
Key Account Manager (“KAM”)	Schedule D-4	May 31, 2011	General Service 50 kW & above
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	Schedule C-2	May 31, 2011	General Service 50 kW & above
Demand Response 3	Schedule D-6	May 31, 2011	General Service 50 kW & above
Home Assistance Program			
Home Assistance Program	Schedule E-1	May 9, 2011	All residential rate classes

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 customer or have not been launched in 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 LDCs 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 other 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 are 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 provision in Article 3. Collaboration between the OPA and the Local Distribution Companies (LDCs) commenced in 2011, and continued in 2012, as the change management process was implemented to enhance the saveONenergy program suite. The change management process allows for modifications to the Master Service Agreement and initiative Schedules. The program enhancements give LDCs additional tools and greater flexibility to deliver programs in a way that meets the needs of customers and further drives participation in the Initiatives.

3.2 Program Descriptions

Full OPA-Contracted Province-Wide CDM Program descriptions are available on the OPA's website at <http://www.powerauthority.on.ca/lcd-province-wide-program-documents> 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.

The Heating and Cooling Incentive has provided strong results although the relationship with this channel is not closely linked to the LDCs, and is instead managed centrally by OPA.

The Residential Program Portfolio is predominately a carryover of Initiatives from previous programs. 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:

In spite of Hydro One's efforts, the total number of appliances retired decreased from 17,394 in 2011 to 10,137 in 2012. Hydro One provided strong multi-media marketing support to this initiative through:

- Bill inserts – 3.1 million fridge pickup specific inserts and 900,000 all-program inserts.
- Promotion on billing envelope – 4.2 million
- Promotion in customer newsletter – 2 million
- E-mail blasts – 110,000 customers
- Free standing inserts and teaser ads in 88 newspapers to about 700,000 customers
- Radio ads – on 25 radio stations over a 4 week campaign
- Online advertising – 4 week campaign
- Television advertising – 15 second ads, co-branded with 6 Hamilton area LDCs.
- Retail events – promoted at 102 events (spring & fall coupon events & appliance exchange events)
- Community events – promoted at 50 community events across Ontario
- Website promotion

Additional Comments:

- With the increase in appliance age to 20 years in 2013, many LDCs increased marketing and outreach throughout 2012 in an effort to increase uptake and achieve savings.
- Due to the duration of the program, 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 can continue working to establish partnerships with Independent retailers and municipalities.

3.2.1.2 Appliance Exchange Initiative (Exhibit E)

Initiative Activities/Progress:

In 2012, 1,039 appliances were exchanged, up from 939 in 2011. Hydro One provided marketing support to this initiative through:

- Free-standing insert and teaser ad – 31 newspapers – 426,000 distributed
- Radio ads – 16 radio stations – 1 week campaign
- In-store events – 20 stores
- Website promotion

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 budgeted by the LDCs have not materialized.
- 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 requires more promotion from retailers and LDCs and/or an enhanced offer/incentive from the OPA.

3.2.1.3 HVAC Incentives Initiative (Exhibit B)

Initiative Activities/Progress:

In 2012, 12,148 pieces of equipment were installed as part of the HVAC Incentives Initiative, down from 14,044 in 2011. Hydro One provided strong multi-media marketing support to this initiative through:

- Bill inserts – 1.8 million HVAC specific inserts (and 900,000 all-program inserts)
- Free-standing insert and teaser ad – 88 newspapers – 700,000 customers
- Promotion in customer newsletter – 2 million
- E-mail blast – 110,000 customers
- Retail events – promotion at 102 events (coupon events and appliance exchange events)
- Community events – promotion at 50 events across Ontario
- Website promotion

Additional Comments:

- The 2012 results reported an adjustment to Hydro One's 2011 results, which lowered the participation numbers by 2,549 units. This adjustment was made retroactively by the OPA to account for HVAC installations that were deemed ineligible about two years after they were installed. This has reduced Hydro One's cumulative energy results by 5.6 GWh.
- 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 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 reports provided to LDCs have been delayed and are not as complete and accurate as are required by LDCs to make 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 restriction 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 their installations to match value of the OPA incentive) to make the sale. As this occurs outside of the Initiative, these installations are not attributed to the appropriate LDCs, but should be.

3.2.1.4 Conservation Instant Coupon Initiative (Exhibit A)

Initiative Activities/Progress:

In 2012, 9,261 coupons were redeemed in Hydro One's service territory, down dramatically from 190,168 in 2011. Hydro One provided marketing support to this initiative through:

- Free-standing insert and teaser ad – 88 newspapers – 700,000 customers
- Online advertising – 4 week campaign
- E-mail blast – 110,000 customers
- Website promotion

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:

In 2012, Hydro One customers redeemed 318,045 items at Bi-Annual Retailer Events, up from 17,394 in 2011. Hydro One provided strong multi-media marketing support to this initiative through:

- Bill inserts – 1.9 million (Spring & Fall)
- Free-standing insert and teaser ad – Fall – 88 newspapers – 700,000 distributed
- Radio ads – Fall – 25 stations – 4 week campaign
- Online ads – Fall – 4 week campaign
- In-store events – held 41 retail events in Spring and 41 in Fall
- E-mail blast – Fall – 110,000 customers
- Website promotion

Additional Comments:

- This Initiative is strongly influenced by the retailer participation 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.
- LDCs should be able to custom code all coupons to provide 100% allocation and push specific coupons based on localized needs.

- OPA 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:

- There were no retailer co-op initiatives offered by OPA in 2012.

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:

- The need to streamline applications was identified by LDCs in 2011, however, OPA did not implement any changes in 2012.
- The New Home Construction program had limited participation as builders found the administrative requirements of the initiative onerous. Steps were taken to simplify the application process. Four participants yielded minimal peak demand savings and about 0.01 GWh of incremental energy savings.
- In an effort to raise awareness with builders, a marketing campaign was launched at the end of the year with the Ontario Home Builder Association (OHBA) and their Ontario Home Builder magazine. The results have been positive, though are likely to be realized in late 2013 and onwards.
- An initiative-specific bill insert was sent to residential customers in 2012 promoting key energy efficiency features that new home buyers should consider in their purchase decision (approximately 900,000 customers)

- The initiative was also promoted in an all-program bill insert sent to about 900,000 residential customers.

Additional Comments:

- Prescriptive incentives are generally not sufficient in order to obtain the attention of the builder community in large numbers.
- 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. As this was not completed until December 2012, savings will likely be reflected in 2013 and 2014.
- 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:

- Hydro One’s marketing campaign (based on customer segmentation study) resulted in effective customer response. The campaign included direct mails, reminder post cards, and bill inserts/targeting new potential participants. A separate campaign was also launched to convert prior residential demand response participants who did not have an active participant agreement into new participants. This campaign resulted in 2,893 prior participants signing the new participant agreement which allowed us to curtail their A/C load when needed. These results are not included in the 2012 results because there were issues uploading them to the OPA’s CRM system.
- Participation in 2012 increased by 13,200 in the residential sector and 25 in the small commercial sector. The cumulative participation for year-end 2012 is 15,156 for the residential sector and 25 for the small commercial sector.
- Incremental demand savings for year-end 2012 was 6,159 kW for residential sector and 16 kW for the commercial sector. The incremental energy savings for year-end 2012 is 44,183 kWh for the residential sector and 91 kWh for the commercial sector.

Additional Comments:

- The schedule for Peaksaver Plus was posted in August 2011, but this did not provide adequate time for product procurement for 2011, and part of 2012. The product procurement process uncovered that the In Home Display (IHD) units that communicate with installed smart meter technology were still in development and not ready for market deployment. Consequently, LDCs could not be in market with the Peaksaver Plus program until 2012, or later which has resulted in delayed energy and demand savings.
- A large percentage of smart meters installed by most LDCs do not have the capability to communicate directly to an IHD. Those smart meters that can communicate directly with the IHD require integration with the smart meter network (AMI network). When proposing Initiatives that involve existing LDC hardware or technology there should be an extensive consultation process to ensure the proposed solution meets everyone's needs.
- Market-ready IHDs which are not integrated with the AMI network cannot be deployed across the province due to the differences in smart meter technology specifications.
- Introduction of new technology, such as IHDs, requires incentives for the development of such technology. Appropriate lead times for LDC analysis and assessment, product procurement, and testing and integration into the smart meter environment are also required. Making seemingly minor changes to provincial technical specifications can create significant issues when all LDCs attempt to implement the solution in their individual environments.
- The variable funding associated with installing a load controllable thermostat is not sufficient unless it is combined with an IHD which might not be possible all the time and when IHDs are optional.
- The option of installing a load controllable switch instead of a load controllable thermostat to bring the cost under the funding level is perceived by customers as being of no value to them when LDCs are unable to install an IHD.
- The IHD is perceived to be of little value to Small Commercial customers as they cannot shift their load to the off-peak period and the IHD has limited range.
- This is the main Initiative within the Residential portfolio that drives peak demand savings for LDCs.
- Given the different LDCs smart meter environments, and needs, each LDC is positioning the Initiative slightly different. As such, greater program flexibility is required to address unique LDC needs.
- Provincial wide marketing needs to be sensitive to the variations of the Initiative and provide solid, consistent messaging.
- There is currently no avenue for participants without the ability to provide demand response capabilities to obtain an IHD and gain energy saving benefits. **I.e., IHDs are not available to customers who do not have central A/C, water heaters or pool pumps.**

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. Programs to help fund energy audits, to replace energy-wasting equipment or to pursue new construction that exceed 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 taking months to complete sometimes relatively minor changes due to the current CDM framework. Overbuilt governance, numerous initiative requirements, complex program structure and lengthy change management have restricted growth without providing the anticipated improved Measurement and Verification results. In addition, Evaluation, Measurement and Verification (EM&V) has not yet achieved transparency. LDCs are held accountable for these results yet are mostly completely removed from the evaluation process.

LDC program management has been hampered by varying rule interpretation, limited marketing ability, a somewhat inflexible online system of checks and balances and revolving OPA support personnel.

Despite these challenges the C&I Working Group, working in cooperation with the OPA, have managed to address many of the issues which could be rectified. In particular, an accomplishment of 2012 was the advent of the expedited change management as 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 reflected in LDC 2014 results. LDCs and the OPA should look beyond the current Initiatives and work to launch new programs, built on the strengths of the 2011-2014 programs, which will meet the needs of the industry and consumers.

In 2012, the commercial portfolio of Initiatives benefited from considerable momentum and success that had been developed in previous years. The results were better than average but HONI was still in the process of procuring resources required to deliver the OEB mandated energy savings targets. To ensure that targets are achieved required a more strategic approach to CDM delivery such as bundling of similar services across various initiatives for delivery by a single vendor. This strategy also created cost

efficiencies and a one-stop shop for customers. Another success in 2012 was expanding the eligibility to an additional 60,000 farm customers in the commercial initiatives. This was achieved through collaboration with LDCs and the OPA. Another aspect of the overall strategy involved engaging the gas companies as they were already working with many of our customers and with similar initiatives or services. The detailed assessment of the CDM services required for each initiative resulted in RFPs being released dedicated to Commercial and Institutional (“C&I”): Commercial Account Management, Evaluation Services. The RFPs did not close until Q3 /Q4 of 2011, with many of the services not being fully in market until Q2/Q3 2012. Hydro One’s Commercial and Institutional Program results in 2012 were 37.0 GWh and 9.4 MW saved.

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

Initiative Activities/Progress:

- *Success:* In 2012 HONI deployed a multi-tiered marketing strategy that built on the existing momentum of the ERII initiative, resulting in record engagement of customers and overall interest in the ERII program. A total of 958 project applications were received and processed in 2012, which represents a 44% increase over the 665 customer applications received in 2011. This record intake of applications in 2012 provided excellent potential for project completions during the year as well as later in 2013.
- A total of 585 ERII retrofit projects were completed by year end. The 2012 ERII results were buoyed from significant customer application volume to the program in 2011 that ultimately resulted in completed projects in 2012.
- Application volumes increased steadily as some of the initial iCON issues were being resolved throughout 2012, and as Retrofit applicants were becoming more familiar with the online system.
- Hydro One continued to employ a multifaceted marketing approach utilizing customer direct mailings, e-Blasts, trade shows, workshops, and our Commercial Key account Managers (CKAMS) provided over 4,500 direct points of contact to our customers, directly impacting our results. Throughout the year, Hydro One also worked directly with many of its large customers. A focus on large accounts yielded large retrofit projects with Loblaw, Husky, and Honda Canada to name a few.
- HONI was also a key contributor to the efficient launch of the OPA’s Energy Efficiency Service Providers (EESPs) program to the Association of Municipalities of Ontario (AMO). The program was developed to assist municipalities in developing energy usage reports, energy efficiency plans and energy savings retrofits, as per Reg. 397/11 under the Green Energy Act. Before the EESPs entered the municipal market, a plan was developed between our conservation account managers and the EESPs to efficiently cover the greatest number of municipalities in HONI’s territory. However, delays in the launch of the program caused us to miss a municipal budget cycle.
- *Marketing Strategy:* In 2012, Hydro One continued to expand its key marketing strategy which resulted in record results in 2012. Key elements of this strategy are:

- *Top Down – Bottom Up Marketing:* The ERII Initiative is marketed to Hydro One customers by engaging them directly through a tailored Account Management process or a mass market approach (Top Down). Hydro One also leveraged specific trade allies and vendor channels in order to work with our customers during the CDM project sales cycle (Bottom Up).
- *Customer Segmentation:* Identifying and marketing to key segments such as municipalities, school boards, and farm customers with direct mail and e-Blast campaigns (over 2,500 sent).
- *Mid-Market Alliances:* Working with trade allies such as electrical wholesalers, consultants and CDM service providers and leveraging their client relationships is a cornerstone of the ERII marketing strategy. Key aspects are the provision of training and upsell opportunities available through the participation of Hydro One in 15 wholesale trade shows (over 1,500 attendees).
- *Increasing Awareness:* Creating heightened awareness through advertising, customer workshops and shows. In 2012, we had 12 customer events with over 13,000 attendees. Various marketing pieces were also developed through the year to inform and engage our customers; actual customer case studies were our main focus. Hydro One also developed a recognition program which provided customers with certificates of recognition for participation in the program.
- *Leverage and Bundle:* Cross promotion and initiative integration wherever possible to create increased awareness and cost efficiencies.
- *Face to Face Customer Engagement:* Due to Hydro One’s large geographic area and low customer density, a cost effective strategy was devised that would engage customers between 200 kW and 5 MW in size. Union Gas was hired as Hydro One’s Commercial Key Account Managers (“CKAM”s) with the responsibility for calling upon Hydro One customers in specific geographic regions. They provide personal visits to promote CDM projects within the customer’s facilities and assist with the initiative application process. In spite of our CKAM’s late start in the program year (July 2012) they were able to conduct over 300 customer visits.

- *Resourcing:* In order to execute our marketing strategy, several key resources needed to be put in place. For example, contracting marketing services, CKAMS, and outsourcing all aspects of ERII project evaluation to address the growing uptake of the Retrofit program in recent years. The increasing success of this initiative resulted in over 900 applications being received by Hydro One. Willis Energy Services was awarded the service contract in March 2012 for the evaluation of ERII project applications.
- *Change Management:* The Initiative Schedule contained known operational issues that were to be addressed through the Change Management process in 2012. A significant portion of internal staff

resources were spent on Change Management and working with the OPA on remedies with the iCON application system.

Additional Comments:

- A large portion of the marketplace still does not fully understand the program even though a large proportion of LDC savings are attributed to ERII. Due to this, HONI spent a great deal of time training and educating the market on available incentive programs. Training events were held across the province and focused on specific technologies (compressors, LED lighting, etc.) while also educating customers on the save-on-energy program in general.
- The centralized process review used for 2012 project payment has been streamlined by the OPA and payments for projects were greatly improved – faster and more consistent compared to 2011.
- Capability building programs from Industrial programs have had very positive contributions to ERII program.
- 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 prevalent measure. Market sectors providing other energy efficient technologies are not yet engaged, particularly manufacturers and suppliers of HVAC equipment.
- 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.
- The head office model utilized for multi-site customers is ineffective and does not serve customers well. Hydro One worked with other LDCs to develop a proposal to streamline the process. At this time, the new proposal has still not been implemented by the OPA.
- 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.
- While the Ministerial Directive provides continuity of the conservation programs for the participant, unclear direction on LDC administrative funding could result in many LDCs ‘ramping down’ programs in 2015. The establishment of defined administrative funding for 2015 is required to avoid a “stop and start” process.
- There continues to be significant barriers to program participation from HVAC (Unitary AC) and compressed air channel partners; because of this, the C&I working group worked with the OPA to develop a new application procedure that was specifically designed for the HVAC industry. The working group worked directly with industry to develop an application process that effectively suited their business requirements. Once again, delays in the implementation of this program have pushed the launch of the program into 2013. Depending on the start date, these changes should significantly increase program participation from the HVAC sector.

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

Initiative Activities/Progress:

- Since program launch in 2008 through to 2011 year-end, Hydro One’s program delivery partners were able to complete just over 22,100 installations. Due to such high penetration rates and increased market saturation from past years, Hydro One advocated for several program enhancements including expanding eligibility to agricultural customers, as well as increasing the program incentive from \$1,000 to \$1,500 late in 2012. In addition to this, Hydro One has executed a multi-tiered marketing strategy. It is anticipated that this will result in sustainable participation rates through December 2014.
- Hydro One’s initiative to create a broadened definition of Agricultural customers provided program eligibility to an additional 62,000 Hydro One customers. This change came into effect in October 2012.
- *Multiple Marketing Pieces:* Hydro One continued to inform its customers in 2012 through delivering 15,000 direct mail pieces, 13,800 inserts distributed in an Owen Sound local newspaper as part of a local blitzing strategy, and 7,600 collateral pieces distributed throughout 60 community events.
- *Welcoming Agricultural Customers through Targeted Marketing:* Direct mail, magazine inserts and collateral material were developed and designed specifically for agricultural customers after this group was deemed eligible.

- 143,000 direct mail pieces were sent in two separate waves to all Hydro One farm customers.
- 6,000 collateral pieces were distributed throughout some of Ontario's largest agricultural fairs
- 38,000 inserts were distributed in an issue of *Better Farming* magazine.

- *Phone Calls:* There was a strong outreach program in place via Hydro One's contracted outbound call centre. In 2012, there were 22,970 calls placed to Hydro One's business customers resulting in contact with approximately 11,770 customers. There were roughly 4,280 customer assessments booked via the call centre.
- *Door to Door Campaign:* Hydro One assessors visited nearly 2,190 customers to offer a no obligation assessment (audit) of their lighting system. Nearly 1,580 assessments were carried out during the door to door campaign.
- 6,400 total customer assessments were carried out in 2012.
- Hydro One's turnkey vendor created formal alliances within local communities with 150 electrical contracting companies that completed nearly 3,500 installations in 2012.
- At the end of 2012, just over 25,600 of Hydro One's eligible small business customers (GS<50 kW) have participated in the program and received \$1,000 or \$1,500 in free energy-efficient lighting upgrades.
- As program enhancements of including agricultural customers and increasing the incentive value to \$1,500 were added during the second half of 2012, Hydro One anticipates seeing continual growth in participation rates into and throughout 2013 as a result of these changes.

Additional Comments:

- Successful execution of the previous rendition of this Initiative has resulted in diminished potential for the 2011-2014 Initiative in some LDC's territories.
- Electrical contractor's margins have been reduced due to no labour rate increase, increase cost of materials, greater distances between retrofits, more door knocking required before a successful sale and no funding for lifts. This has led to a reduction in vendor channel participation in some regions. At the time of writing, the Eligible Measure Price List had been updated with new pricing and was scheduled to be in market effective September 1, 2013.
- The continuing market transformation of many lighting applications to LED provided a great opportunity for the Small Business Lighting Program to adopt this highly efficient technology and provide it as a standard offering. First proposed by the Commercial Institutional Working Group in 2011, implementation was slow to occur. As noted above, the new LED Measures were included in the updated Eligible Measures Price List effective September 1, 2013.

- Ambiguity with regard to eligibility resulted in large lists of customers rejected following installation due to perceived ineligibility. Due to this, some LDCs were forced to carry considerable financial burden while this was worked through.
- The eligibility requirements have now been revamped and expanded however there has been limited communication and documentation of this to the marketplace.
- 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.
- A 40% drop in Peak Demand Realization Rates was reported by the OPA for 2012. The OPA stated that this was the result of the participation mix of business which does not necessarily operate during peak times, such as schools, churches, and social organizations. This drop was allocated to all LDCs regardless of the particular business mix which participated in their territory. Also per the OPA, this could be an indicator of program saturation.

This result does not match HONI's internal review of the DIL project mix for 2012. Hydro One tracks actual data (Pre-Retrofit-Post Retrofit) of each installation, and therefore results are not based on assumptions. The 2012 Hydro One actual demand average per Participant is 1.21 kW – not the 0.88 as reported by the OPA.

As to the OPA comments noted above, Hydro One does not see the program at saturation point and have approximately 59,000 eligible farm accounts as well as 25,000 remaining commercial accounts that we are targeting. Hydro One is very selective in the Participants it enrolls: We do not enroll schools, seldom enroll churches. A scan of churches actually shows a drop from 4.5% to about 3% of participants in 2012 compared to 2011. Hydro One's business practices pertaining to selection of Participants has not changed. Should there be a minor shift in the makeup of Participants, then it is not mathematically possible to affect a change of 40% in the entire Participant population.

The OPA has agreed that the 2012 EM&V may not have included sufficient Hydro One projects in its sample, and therefore the Hydro One net results have been skewed to the Province-wide averages. The OPA has stated that the sample selection process for EM&V in the remaining years of the program will take into account the higher activity levels of the more active LDCs. The results from that study is expected to correct the lower net results and a correction of approximately 3.5 MW and 2.5 GWh (7.5 GWh cumulative) for peak demand and energy efficiency savings respectively.

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

Initiative Activities/Progress:

- This initiative was promoted during all of Hydro One's outreach events.

- Chilled water systems for space cooling are not prevalent in Hydro One's service territory. Such systems are typically found in large office or multi-family residential buildings located in large urban centres. This is not typical of Hydro One's customer base.
- Uptake has been affected due to the limited size of facilities in Hydro One's territory. There is also limited potential for savings with this initiative. We estimate that there are approximately 200 Hydro One customers who may benefit from this initiative.

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 recommissioning and chilled water systems used for other purposes should be made eligible and considered through Change Management.
- This initiative should be reviewed for incentive alignment with ERII, as currently a participant will not receive an incentive if the overall payback is less than 2 years.

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

Initiative Activities/Progress:

- Hydro One continues to process 2011 HPNC applications to ensure completion in 2012.
- Our delivery partner, Enbridge Gas Distribution (Enbridge), continued to work with the building design community, leveraging existing relationships. Enbridge is well positioned to provide a one stop shop for customers and builders as it simultaneously integrates and offers both Hydro One incentives as well as Enbridge incentives during the construction project design phase.
- Hydro One partnered with other LDCs and Union Gas to deliver two workshops to the building design community.
- Hydro One was a key sponsor of the Green Building festival.
- Hydro One distributed approximately 500 copies of its HPNC case study at various municipal conferences.

- In 2012, Hydro One completed 43 HPNC projects.

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. However, at the time of writing, the Participant Agreements have not been updated to allow these longer term projects to participate in the HPNC initiative.
- Participants estimated completion dates tend to be inaccurate and are usually 6 months longer. This could result in diminished savings towards target when facilities are not substantially completed by December 31, 2014.
- The custom application process requires considerable customer support and skilled LDC staff. As there has been no defined administrative funding beyond 2014, many LDCs are unsure how these project applications will be finalized.
- The effort required to participate through the custom stream exceeds the value of the incentive for many customers.
- This Initiative has a very low Net-to-Gross ratio, which results in half the proposed target savings being 'lost'.
- A review of customer incentive levels is overdue. Some technologies have incentive levels that are too low to attract customer uptake.
- Hydro One had expected upwards of 50 projects added to this initiative during 2012, according to results provided to us by Enbridge, and stated in the Draft Verified results one month prior to the Verified Final results were posted. The Final results now show 15 projects, an adjustment to the 2011 results for 10 additional projects, resulting in a net decrease of 25 projects with a reduction of 0.732 MW of Demand and 4.9 GWh Energy Savings (cumulative approximately 15 GWh).
- The OPA has informed us that many of the 50 projects that we expected, had original completion dates in 2010. As this was an unexpected change to our results, we have had little opportunity to review the projects with Enbridge, nor review these with the OPA to understand why these results are being reported as active projects to Hydro One in 2012 – but would not be part of the Hydro One results for the 2011-2014 period. Hydro One is continuing to investigate these projects at this time.

3.2.2.5 *Energy Audit Initiative*

Initiative Activities/Progress:

- This initiative was promoted at all customer outreach events.
- Hydro One processed 14 audit applications, an increase from 3 in 2011.
- A direct mail piece was sent to 400 municipal customers in Q4 of 2012 to increase awareness of this Initiative and its usefulness in meeting some of the requirements of Ontario Regulation 397/11.

Additional Comments

- Customer uptake was limited in 2011, however improved throughout 2012 especially with the new audit component for one system (i.e. compressed air). Uptake in 2012 was still relatively slow but should increase as municipalities utilize the Energy Audit program to meet their reporting requirements in regulation 397/11.
- 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.
- Customers expect a greater connection with other CDM initiatives as a result of completing the Energy Audit. The initiative should be reviewed under Change Management for the means to readily incent participants with audits in hand to implement other electricity savings initiatives.

3.2.3 **INDUSTRIAL PROGRAM**

Description: Large facilities are discovering the benefits of energy efficiency through the Industrial Programs which are designed to help identify and promote energy saving opportunities. It includes financial incentives and technical expertise to help organizations modernize systems for enhanced productivity and product quality, as well as provide a substantial boost to energy productivity. This

allows facilities to take control of their energy so they can create long-term competitive energy advantages which reach across the organization.

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

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

Discussion:

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

Due to the size, scope and long lead time of these Initiatives and associated projects, the Ministerial Directive provides some security for the continuation of the conservation programs and associated compensation for the customer; 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:

Hydro One undertook outreach initiatives in 2012 to improve participation in PSUI.

- Hydro One held 5 separate industrial workshops for customers with an average demand of 1MW or greater. These were held across the province to educate customers on what technical projects would qualify for PSUI and other saveONenergy incentive programs. We had 42 participants and generated 24 potential PSUI projects.

- Hydro One also began a telephone marketing initiative where we would attempt to contact key customer personnel about Hydro One's conservation programs. Only customers with an average demand of 1 MW or greater were targeted. The goal was to generate customer site meetings with financial and facility staff and educate them on the benefits and uses of our conservation programs as well as offer an energy assessment. By the end of 2012 we have visited 25% of our target customers and generated 17 potential PSUI projects.
- Our efforts towards direct marketing and customer outreach through workshops and energy assessments resulted in increased participation of large-scale projects. For example, Hydro One received applications for: 1 Preliminary Engineering Study, 6 Detailed Engineering Studies, 1 Project Incentive, and 2 Energy Managers. If all projects are implemented within the program year, Hydro One will realize significant savings in both energy and demand by 2014.

Additional Comments:

- Approximately 100 engineering study applications have been submitted province-wide. 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. This change is being put in place in 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.
- Hydro One expected to achieve significant savings from industrial co-generation projects. While the OPA issued guidelines for such projects at the beginning of 2012, the review and approval of all natural gas fired co-generation projects were put on-hold in May, 2012. On July 11, 2013, the OPA sent a notice to all LDCs that they would begin to review these projects again, although with incentives reduced from 70% of the project costs to 40%. While there is still strong potential for these projects in Hydro One's service area, the yearlong hold on these projects makes it unlikely that they would be in service before the end of 2014.

3.2.3.2 Monitoring & Targeting Initiative (Schedule D-2)

Initiative Activities/Progress: Monitoring & Targeting ("M&T") was promoted along with all PSUI outreach activities. As such, M&T benefited from the activities referenced in Section 3.2.3.1.

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 One had two customers hire an Embedded Energy Manager (EEM) in 2012. Most EEMs were engaged in start-up activities in 2012, limiting results to 0.255 GWh. However, increased results are expected in 2013 and 2014 as they implement more and longer-term projects.

We expect to have greater participation in this program in 2013 due to the outreach efforts described in the PSUI section.

The Energy Manager Initiative was promoted along with all PSUI outreach activities. As such, this program benefited from the activities referenced in Section 3.2.3.1.

Additional Comments:

- The Energy Managers have proven to be a popular and useful resource for larger customers. There are approximately 70 Embedded Energy Managers (EEMs) and 25 Roving Energy Managers (REMs) being utilized by customers across the province.
- LDCs that are too small to qualify for their own REM are teaming up with other utilities to hire an REM to be shared by the group of utilities.
- At the beginning, it took longer than expected to set up the energy manager application process and unclear communication resulted in marketing and implementation challenges for many LDCs.
- Some LDCs and Customers are reporting difficulties in hiring capable Roving and Embedded Energy Managers (REM/EEM), in some instances taking up to 7 months to have a resource in place.
- New energy managers require training, time to familiarize with facilities and staff and require time to establish “credibility”. Energy Managers started filling their pipeline with projects but few projects were implemented in 2012.
- Delays with processing EEM payments causing LDCs to delay payments to Participants beyond contract requirements.
- There have been a number of studies identified by Energy Managers and they have been able to build capacity and deliver 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 for most REMs, although final targets not due to 2013. Working group has proposed to remove this requirement for REM’s only as they are not resident full time at a customer facility to find the non-incented savings.
- A decision on extending funding for EM’s 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.

3.2.3.4 Key Account Manager (Schedule D-4)

Initiative Activities/Progress:

- In July 2012 Hydro One hired 2 Key Account Managers. They were instructed to target customers with an average demand of 5MW or more. Their task was to contact these customers, educate them

on the conservation programs and provide them with a targeted energy assessment of the customer's facility. In 2012 20% of the 45 target customers had received an energy assessment. This identified over 50 potential conservation projects. We expect similar good results in 2013 as more customers receive the energy assessments.

Additional Comments

- Customers appreciate dealing with a single contact to interface with an LDC, a resource that has both the technical and business background who can communicate easily with the customer and the LDC.
- Finding this type of skill set has been difficult. In addition, the short-term contract and associated energy targets discourage some skilled applicants resulting in longer lead times to acquire the right resource.
- This resource has been found by some LDCs to be of limited value due to the part-time nature of the position and limited funding. In addition, the position role has been too narrow in scope to provide assistance to the wider variety of projects LDCs may be struggling with.
- A decision on extending funding for KAM's 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:

- In 2012 Hydro One formed a marketing partnership with the Demand Response Aggregators. The purpose was to identify ideal customers for participation in Demand Response 3 and educate those customers on the benefits of the program to encourage participation. The number of customers participating in demand response increased from 35 in 2011 to 72 in 2012. We expect to see excellent participation numbers continue in 2013.

Additional Comments:

- The DR3 program is delivered by Aggregators to LDC's large industrial and commercial consumers to help them reduce their peak demand. Although varying contract terms of one-to-five years are offered, consumer participation is almost exclusively for a 5 year term, due to the higher financial incentives available for longer contracts.
- Until early 2013, the OPA did not provide customer data 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.
- As of 2013, Aggregators are able to enter into contracts beyond 2014. This has allowed them to offer a more competitive contract price (5 year) than if limited to 1 or 2 year contracts.
- Metering and settlement requirements are expensive and complicated and can reduce customer compensation amounts, and present a barrier to smaller customers.
- Compensation amounts for new contracts and renewals have been reduced from the initial launch of this program (premium zones and 200 hour option have been discontinued) and subsequently there has been a corresponding decrease in renewal revenue.
- The limit of 500MW procurement authority for DR has been exhausted, limiting the ability of LDCs to meet their conservation target in 2014. The OPA has advised that there is limited capacity left for new DR3 customers which will effectively end new customer enrollments by the end of 2013 and significantly impact the ability for LDC's to increase their demand savings to reach their targets.

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

Initiative Activities/Progress:

- The Home Assistance Program (HAP) for low-income customers delivered 650 home audits in 2012. The program endured delays most notably pertaining to social housing guidelines. Since the issues have been addressed, the results in 2013 have showed significant progress with the potential to exceed year-end targets. Activities initiated to bolster the awareness of the program include leveraging the LEAP recipients pool, direct mail inserts through Ontario Works and other social benefit programs, and engaging various social housing providers.

Additional Comments:

- Awareness of the program amongst social agencies took time to develop. Benefits started to become evident in late 2012.
- Centralized payment processes were not developed in 2011. The payment process was established in 2012.
- The process for enrolling in social housing was complicated and time consuming. This was addressed in late 2012 and is showing benefits in 2013.
- The financial scope, complexity, and customer privacy requirements of this Initiative are challenging for LDCs and most have contracted this program out.

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 One Networks Inc. 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)
														2014	2014
Consumer Program															
Appliance Retirement	Appliances	17,394	10,137			1,045	582			7,306,925	4,037,503			1,589	41,306,456
Appliance Exchange	Appliances	939	1,039			95	150			116,777	263,601			186	1,204,820
HVAC Incentives	Equipment	14,044	12,148			4,255	2,935			8,101,055	5,274,119			7,190	48,226,576
Conservation Instant Coupon Booklet	Items	190,168	9,261			497	69			7,415,670	419,164			566	30,920,172
Bi-Annual Retailer Event	Items	260,915	310,045			504	444			8,810,008	8,028,823			948	59,326,501
Retailer Co-op	Items	0	0			0	0			0	0			0	0
Residential Demand Response (switch/pstat)	Devices	1,956	13,200			1,095	6,159			2,836	44,183			0	47,019
Residential Demand Response (IHD)	Devices	0	0			0				0					
Residential New Construction	Homes	0	4			0	1			0	10,212			1	30,635
Consumer Program Total						7,491	10,340			31,753,271	18,077,604			10,480	181,062,178
Business Program															
Retrofit	Projects	294	586			2,346	5,081			13,286,676	24,422,018			7,333	125,750,950
Direct Install Lighting	Projects	4,291	3,388			5,296	2,997			13,630,141	11,201,013			6,353	82,701,816
Building Commissioning	Buildings	0	0			0	0			0	0			0	0
New Construction	Buildings	6	28			87	354			252,008	1,054,580			441	4,171,770
Energy Audit	Audits	3	14			0	72			0	352,468			72	1,057,403
Small Commercial Demand Response	Devices	0	25			0	16			0	91			0	91
Small Commercial Demand Response (IHD)	Devices	0	0			0				0				0	0
Demand Response 3	Facilities	15	15			924	880			36,069	12,793			0	48,862
Business Program Total						8,653	9,400			27,204,894	37,042,963			14,199	213,730,891
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	3			0	0			0	254,894			0	764,683
Retrofit	Projects	55				453				3,097,420				453	12,389,680
Demand Response 3	Facilities	21	53			13,590	22,391			797,689	539,613			0	1,337,302
Industrial Program Total						14,042	22,391			3,895,109	794,507			453	14,491,665
Home Assistance Program															
Home Assistance Program	Homes	0	510			0	75			0	711,836			75	2,135,507
Home Assistance Program Total						0	75			0	711,836			75	2,135,507
Pre-2011 Programs completed in 2011															
Electricity Retrofit Incentive Program	Projects	385	0			2,732	0			12,086,358	0			2,732	48,345,431
High Performance New Construction	Projects	53	15			2,087	488			10,719,939	2,118,988			2,575	49,236,719
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						4,819	488			22,806,297	2,118,988			5,307	97,582,151
Other															
Program Enabled Savings	Projects	0	0			0	0			0	0			0	0
Time-of-Use Savings	Homes														
Other Total															
Adjustments to Previous Year's Verified Results							-215				1,211,854			-230	4,794,328
Energy Efficiency Total						19,397	13,248			84,822,977	58,149,218			30,514	507,569,118
Demand Response Total (Scenario 1)						15,609	29,446			836,594	596,680			0	1,433,274
OPA-Contracted LDC Portfolio Total (inc. Adjustments)						35,005	42,479			85,659,571	59,957,751			30,283	513,796,719
Activity & savings for Demand Response resources for each year and quarter represent the savings from all active facilities or devices contracted since January 1, 2011.												Due to the limited timeframe of data, which didn't include the summer months, 2012 IHD results have been deemed inconclusive. The IHD line item on the 2012 annual report will be left blank. Once a full year of data is available (2013 evaluation), and the savings are quantified, 2012 results will be updated to reflect the quantified savings.			
												Full OEB Target:		213,660	1,130,210,000
												% of Full OEB Target Achieved to Date (Scenario 1):		14.2%	45.5%

Table 2: Summarized Program Results

Program	Gross Savings ²		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			10.340	18.078	10.480	181.062
Business Program Total			9.400	37.043	14.199	213.731
Industrial Program Total			22.391	0.795	0.453	14.492
Home Assistance Program Total			0.075	0.712	0.075	2.136
Pre-2011 Programs completed in 2011 Total			0.488	2.119	5.307	97.582
Total OPA Contracted Province-Wide CDM Programs			42.479	59.958	30.283	513.797

² Gross savings results not reported in the Final 2012 OPA Program Results.

4.2 Evaluation

The following section is copied (except where shaded) from the OPA's summary of the 2012 EM&V findings for all of the evaluated saveONenergy initiatives.

Consumer Program

Bi-Annual Coupons

- 15% lower net savings due to a change in the net-to-gross factors (increased free-ridership, less participant behavior spillover, and less non-participant like spillover).
- Majority of participation, energy, & demand savings are from standard CFLs.
- 15% of net savings due to ~73,000 coupons for new LED measures.

Annual Coupons

- The lower number of coupons associated with the redemption of 2012 Annual Coupons was 90% lower than 2011 Instant Coupon Booklet. Key factors for the decrease include:
 - Shorter duration of available coupons (September 2012 – December 2012)
 - In 2012, only online coupons were available
 - 2011 had both online coupons AND coupon mailing booklets.

HVAC

- Small decrease (10%) in per unit savings assumptions for furnace with ECM due to change in 2012 customer mix and furnace fan usage.
- Small increase (10%) in free-ridership related to the furnace with ECM measure.
- Participation remains relatively steady once 2011 true-up values are included.

Appliance Retirement

- Decrease in 2012 participation by 39% compared to 2011.
- In-site metering provided updated per unit assumptions:
 - Small decrease (3.5%) in savings for refrigerators; and
 - Sizeable increase (17.5%) in savings for freezers

Appliance Exchange

- Increase of 30% for exchanged dehumidifiers over 2011, leading to an increase of 4% in overall participation.
- Higher per unit savings for dehumidifiers drove the overall increase in 2012 savings.

peaksaverPLUS

- Province-wide per-unit ex ante estimates for a 1-in-10 August peak day were determined to be 0.50 kW for residential CACs and 0.64 kW for small commercial CACs.
- Evaluation to date has indicated savings from in-home displays (IHDs) are not statistically significant (in and around zero).
 - However, since 2012 evaluation did not include full year analysis (specifically the summer months), these results have been deemed inconclusive.
- The IHD offer had a positive influence on enrollment and re-enrollment with between 20 to 35% of new enrollees said they wouldn't have enrolled without the IHD offer.

Residential New Construction

- All projects are opting for the prescriptive or performance path – there have been no custom project applications to date.

Business Program

Retrofit

- Reported savings for prescriptive lighting projects:
 - Verified wattage reductions were 15% higher than assumed; and
 - Verified operating hours were 11% higher than assumed.
- A lower realization rate in the engineered measure track can be partially explained by overstated lighting operation hour assumptions reported on the application.
- Net-to-gross ratios for the initiatives were above 75% in 2012, which is consistent with 2011.

Small Business Lighting

- Reported hours of usage continue to be inaccurate – only 12% of site visits had verified annual hours of use within +/- 10% of the assumed value.
- The saturation of eligible customers and preferred business types are resulting in participation from building types that may not fully operate during the summer peak period.

- This trend contributes to lower realization rates for demand savings in 2012.
- Due to changing regulations in lighting measures, the assumed baseline technology will eventually be phased out. This regulation impacts the persistence of savings over the lifetime of lighting measures.

Existing Building Commissioning

- There were no applications in 2012.
- Market feedback suggests that Existing Building Commissioning's focus on chilled-water space-cooling systems may be too narrow, and participation could be expanded by incenting a wider range of measures.

New Construction

- Custom projects account for 66% of program savings, with the remainder coming from the prescriptive track.

Audit Funding Program

- Through Audit Funding, 280 projects were completed in 2012 based on recommendations from the auditors, resulting in 1.4 MW and 7 GWh of Program Enabled Savings.
- Office buildings represented the largest portion of applicants for 2012. This is not necessarily representative of Hydro One's service area.

Industrial Programs

Process & Systems Upgrade Initiative

- Energy managers are seen as important drivers of Program Enabled savings projects.
 - 88% of survey respondents indicated that the assistance provided by energy managers was "somewhat" or "very" important to implementing projects.
- Energy Managers indicated that additional support (additional training and guides) may further help influence the adoption of energy efficiency measures by the participants.
- Documentation for Program Enabled Savings projects varied substantially by LDC. More guidance on documentation requirements would be beneficial to all parties.

DR3

- 2012 saw improvements in the performance of DR-3 participants resulting in higher ex ante realization rates, particularly for the industrial participants.

Home Assistance Program

- Participation in the initiative ramped up in 2012, with over 5,000 homes participating in the initiative.
- Majority of energy savings (62%) come from lighting measures, while 21% of energy savings are resulting from refrigerator and freezer replacements.

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	\$ 702,267	0	0	0	\$ 702,267
Appliance Exchange	\$ 259,205	0	0	0	\$ 259,205
HVAC Incentives	\$ 620,736	0	0	0	\$ 620,736
Conservation Instant Coupons	\$ 118,952	0	0	0	\$ 118,952
Bi-Annual Retailer Event	\$ 922,881	0	0	0	\$ 922,881
Retailer Co-op	0	0	0	0	0
Residential Demand Response	\$ 2,836,204		0	0	
New Construction Program	\$ 145,740	0	0	0	\$ 145,740
Business Program					
Efficiency: Equipment Replacement	\$ 1,976,674	0	\$ 4,417,566	0	\$ 6,394,240
Direct Installed Lighting	\$ 688,589		\$ 3,432,593	0	
Existing Building Commissioning Incentive	\$ 323	0	0	0	\$ 323
New Construction and Major Renovation Initiative	\$ 470,647	0	\$ 323,790	0	\$ 794,440

Energy Audit	\$ 57,010	0	\$ 87,406	0	\$ 144,416
Small Commercial Demand Response (part of the Residential program schedule)	0	0	0	0	0
Demand Response 3 (part of the Industrial program schedule)	\$ 27,504	0	0	0	\$ 27,504
Industrial Program					
Process & System Upgrades	\$ 343,916	0	\$ 246,245	0	\$ 590,161
a) preliminary engineering study	0	0	0	0	0
b) detailed engineering study	0	0	0	0	0
c) program incentive	0	0	0	0	0
Monitoring & Targeting	0	0	0	0	0
Energy Manager	0	0	0	\$ 100,000	\$ 100,000
Key Account Manager ("KAM")	0	0	0	\$ 268,315	\$ 268,315
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	\$ 39,274	0	0	0	\$ 39,274
Demand Response 3	\$ 77,457	0	0	0	\$ 47,457
Home Assistance Program					
Home Assistance Program	\$ 382,145		\$ 40,694	0	
Pre 2011 Programs					

Electricity Retrofit Incentive Program	0	0	\$ 804,730	0	\$ 804,730
High Performance New Construction	0	0	0	0	0
Toronto Comprehensive	0	0	0	0	0
Multifamily Energy Efficiency Rebates	0	0	0	0	0
Data Centre Incentive Program	0	0	0	0	0
EnWin Green Suites	0	0	0	0	0
Initiatives Not In Market					
Midstream Electronics	\$ 25,051	0	0	0	\$ 25,051
Midstream Pool Equipment	\$ 24,503	0	0	0	\$ 24,503
Demand Service Space Cooling	0	0	0	0	0
Demand Response 1 (Commercial)	\$ 5,888	0	0	0	\$ 5,888
Demand Response 1 (Industrial)	\$ 27,589	0	0	0	\$ 27,589
Home Energy Audit Tool	0	0	0	0	0
TOTAL Province-wide CDM PROGRAMS	\$ 9,752,555	\$ 3,545,607	\$ 9,353,027	\$ 368,315	\$ 23,019,504

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	\$ 911,364	0	0	0	\$ 911,364
Appliance Exchange	\$ 376,666	0	0	0	\$ 376,666
HVAC Incentives	\$ 810,013	0	0	0	\$ 810,013
Conservation Instant Coupon Booklet	\$ 508,366	0	0	0	\$ 508,366
Bi-Annual Retailer Event	\$ 1,220,585	0	0	0	\$ 1,220,585
Retailer Co-op	0	0	0	0	0
Residential Demand Response	\$ 3,467,287		\$ 48,900	0	
New Construction Program	\$ 267,294	0	0	0	\$ 267,294
Business Program					
Efficiency: Equipment Replacement	\$ 2,741,041	0	\$ 5,061,396	0	\$ 7,802,437
Direct Installed Lighting	\$ 1,143,139		\$ 7,362,484	0	
Existing Building Commissioning Incentive	\$ 933	0	0	0	\$ 933
New Construction and Major Renovation Initiative	\$ 502,404	0	\$ 323,790	0	\$ 826,194
Energy Audit	\$ 71,070	0	\$ 96,576	0	\$ 167,646

Small Commercial Demand Response (part of the Residential program schedule)	0	0	0	0	0
Demand Response 3 (part of the Industrial program schedule)	\$ 34,725	0	0	0	\$ 34,725
Industrial Program					
Process & System Upgrades	\$ 526,461	0	\$ 246,245	0	\$ 772,706
a) preliminary engineering study	0	0	0	0	0
b) detailed engineering study	0	0	0	0	0
c) program incentive	0	0	0	0	0
Monitoring & Targeting	0	0	0	0	0
Energy Manager	0	0	0	\$ 100,000	\$ 100,000
Key Account Manager ("KAM")	0	0	0	\$ 268,315	\$ 268,315
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	\$ 112,214	0	0	0	\$ 112,214
Demand Response 3	\$ 111,144	0	0	0	\$ 111,144
Home Assistance Program					
Home Assistance Program	\$ 477,964		\$ 40,694	0	
Pre 2011 Programs					
Electricity Retrofit Incentive Program	0	0	\$ 3,585,131	0	\$ 3,585,131

High Performance New Construction	0	0	0	0	0
Toronto Comprehensive	0	0	0	0	0
Multifamily Energy Efficiency Rebates	0	0	0	0	0
Data Centre Incentive Program	0	0	0	0	0
EnWin Green Suites	0	0	0	0	0
Initiatives Not In Market					
Midstream Electronics	\$ 48,852	0	0	0	\$ 48,852
Midstream Pool Equipment	\$ 55,631	0	0	0	\$ 55,631
Demand Service Space Cooling	\$ 2,951	0	0	0	\$ 2,951
Demand Response 1 (Commercial)	\$ 26,795	0	0	0	\$ 26,795
Demand Response 1 (Industrial)	\$ 67,876	0	0	0	\$ 67,876
Home Energy Audit Tool	\$ 2,492	0	0	0	\$ 2,492
TOTAL Province-wide CDM PROGRAMS	\$ 13,487,267	\$ 5,499,304	\$ 16,765,216	\$ 368,315	\$ 36,120,102

5 Combined CDM Reporting Elements

5.1 Progress Towards CDM Targets

In Hydro One's CDM Strategy, submitted November 1, 2010, it was projected that by the end of 2012, Hydro One would have contributed 94 MW and 744 GWh towards its peak and energy targets. The results show that Hydro One has achieved 64.3 MW and 513.8 GWh. These amount to 30.0% and 45.5% of the peak demand and energy targets, respectively. This is 13.9% below the 2010 projection for peak demand and 20.3% below the 2010 projection for cumulative energy savings.

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

Implementation Period	Annual (MW)			
	2011	2012	2013	2014
2011 – Verified by OPA	35.0	19.4	19.4	17.4
2012 – Verified by OPA		42.5	13.0	12.9
2013				
2014				
Verified Net Annual Peak Demand Savings in 2014 (MW):				30.3³
Hydro One's 2014 Annual CDM Capacity Target (MW):				213.7
Verified Portion of Peak Demand Savings Target Achieved (%):				14.2%
Hydro One's expected persistence including DR programs (MW):				64.3⁴

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	85.7	84.8	84.8	79.4	334.6
2012 – Verified by OPA		60.0	59.1	58.9	179.2
2013					
2014					

³ 30.3 MW does not include any results from Demand Response programs.

⁴ 64.3 MW represents Hydro One's expected 2014 persistence from all CDM activities ending in 2012. This figure includes expected persistence from Demand Response activities, including those that occurred in 2012, but were not recorded in the Final Results Report. These are expected to be reflected in the 2013 report.

Verified Net Cumulative Energy Savings 2011-2014:	513.8
Hydro One's 2011-2014 Cumulative CDM Energy Target:	1,130.2
Verified Portion of Cumulative Energy Target Achieved (%):	45.5%

5.2 Variance from Strategy

In Hydro One's 2011 Annual CDM report, several strategy modifications were suggested (for more information, please refer to section 3.2 of the 2011 Hydro One CDM Annual Report). The progress on these items in 2012 is discussed below:

- *Introduce new and enhanced OPA-Contracted Province-Wide Program Initiatives or measures for immediate implementation by LDCs – While there have been some enhancements to some existing program initiatives in 2012, the OPA did not introduced any new programs or initiatives. This has impacted the ability to leverage new cumulative energy savings;*
- *Introduce potential new Board-Approved Programs – Hydro One did not submit an application for Board-Approved Program(s) in 2012. As discussed in section 2.3 of this report, Hydro One designed and proposed six Board-approved CDM programs in 2010. Most of these (four out of six) programs have been transferred to the OPA and are now (in 2013) at different stages of provincial roll-out. With the introduction of new provincial regulations and other changes, Hydro One had decided not to reintroduce the remaining two programs (and other potential Board-Approval programs) in 2012;*
- *Assist the OPA to assess and allocate TOU results to LDCs – As discussed in section 2.2.1 of this document, Hydro One is one of the five LDCs that are currently working with the OPA and the Brattle Group on developing an appropriate TOU evaluation methodology;*
- *Broaden the Provincial Air Coverage at the initiative level, or allocate marketing funds to LDCs to manage – Provincial Air coverage was not expanded in 2012. There was less provincial air coverage than in 2011 and additional funds were not allocated to LDCs to enhance their marketing. The OPA, however, has expanded its provincial air coverage in 2013;*
- *Continuous feedback and cooperation on the Change Management recommendations for OPA Contracted programs – Hydro One continued to offer its assistance and recommendations for Change Management throughout 2012;*
- *Consider enhancing the Head Office Model whereby the Lead LDC is rewarded for helping other satellite LDCs reach their targets – No changes were made to the allocation of results when utilizing the Head Office Model. There were no other changes to the Head Office Model in 2012. However, changes have taken place in 2013, whereby the Lead LDC has full control to approve and inspect applications from a Satellite LDC;*

- *Assist the OPA in the launch of their First Nations Program* – This program did not launch in 2012. It is being brought to market in 2013; and
- *Extend the time frame beyond 2014 to meet customers’ needs and business cycles for larger projects* – The December 21, 2012 Ministry directive to extend CDM funding to the end of 2015 has helped maintain continuity in program delivery, especially for High Performance New Construction, Process and Systems Upgrades Initiative, and Retrofit. However, more clarity is soon needed on the next CDM framework to ensure effective delivery of all programs through 2014.

5.3 Outlook to 2014 and Strategy Modifications

Hydro One continues its efforts to achieve its conservation targets of 1,130 GWh and 214 MW by the end of 2014. Based on its results to date, Hydro One is on pace to achieve 100% of its demand target in 2014. Hydro One will likely achieve about 80% of its energy target. Hydro One is taking the following actions to help meet our energy target:

- Work with the OPA to enhance results from OPA CDM programs through improved program measures and expanding customer eligibility for programs;
- Work with the OPA to enable cogeneration projects under Program and System Upgrade Initiative (PSUI) for large industrial customers;
- Adopt counting for results from cogeneration project started before 2014 (but completed after that date) towards targets as recommended by the Environmental Commissioner of Ontario⁵;
- Work with the OPA to extend the Social Benchmarking Pilot Program to more customers;
- Continue to work with the OPA and other LDCs to improve the effectiveness of current OPA CDM programs; and
- Apply customer segmentation to generate more customer participation and results.

Although at the time of this report the OPA has not released any verified results of TOU savings to Hydro One, potential energy savings from TOU pricing could also help fill the gap to our 1,130 GWh energy target. In addition, the potential extension of CDM targets to December 31, 2015 (from December 31,

⁵ Hydro One expected to achieve significant savings from industrial co-generation projects. While the OPA issued guidelines for such projects at the beginning of 2012, the review and approval of all co-generation projects were put on-hold in May, 2012. On July 11, 2013, the OPA sent a notice to all LDCs that they would begin to review these projects again, although with incentives reduced from 70% of the project costs to 40%. While there is still strong potential for these projects in Hydro One’s service area, the yearlong hold on these projects makes it unlikely that they would be in service before the end of 2014.

2014) could also improve our ability to achieve the full energy target. Finally, Hydro One may also choose to apply for a Board-Approved CDM program(s) if it is determined that meaningful results could be achieved before the end of 2014.

Hydro One will continue to update and revise its CDM savings forecast as the CDM landscape evolves.

6.0 Conclusion

Over the course of 2012, Hydro One has achieved 42.5 MW in peak demand savings and 60.0 GWh in energy savings. This brings Hydro One's total cumulative results to 64.3 MW and 513.8 GWh or 30.0% and 45.5% of the 2014 peak demand and energy targets respectively, assuming full persistence of DR program results.

These results are representative of a considerable effort expended by Hydro One, in cooperation with other LDCs, customers, channel partners and stakeholders to overcome many operational and structural issues that limited program effectiveness across all market sectors. This achievement is a success and the relationships built within the 2011-2014 CDM program term will aid results in a subsequent CDM term.

However, despite continuing improvements to existing programs Hydro One faces 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 projected savings, Hydro One expects to meet its 214 MW peak demand target but is likely to only achieve 80% of its 1,130 GWh energy savings target.

Looking ahead there is limited opportunity to make valuable changes to the current program portfolios and have these changes reflected in LDCs' 2014 results. However, LDCs and the OPA can build on the strengths and key successes of the 2011-2014 programs to launch new programs which will meet the needs of the industry and consumers.

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>

In Market Date: January 26, 2011

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>

In Market Date: April 2011

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>

In Market Date: January 26, 2011

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>

In Market Date: January 26, 2011

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 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>

In Market Date: March 2011

In Market Date: April, 2011

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.

In Market Date: Not in market

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 C
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>

In Market Date: January 26, 2011

RESIDENTIAL DEMAND RESPONSE PROGRAM (Schedule B-3)

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

Initiative Frequency: Year round

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

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

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>

In Market Date: January 26, 2011

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>

In Market Date: January 26, 2011

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>

In Market Date: January 26, 2011

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>

In Market Date: February 2011

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>

In Market Date: February 2011

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>

In Market Date: January 26, 2011

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>

In Market Date: May 31, 2011

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>

In Market Date: May 31, 2011

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>

In Market Date: May 31, 2011

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

In Market Date: May 31, 2011

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>

In Market Date: January 2011

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

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>

In Market Date: May 31, 2011

Appendix B: Pre-2011 Programs

ELECTRICITY RETROFIT INCENTIVE PROGRAM

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

Initiative Frequency: Year Round

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

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

Targeted End Uses: Electricity savings measures

Delivery: LDC Delivered

HIGH PERFORMANCE NEW CONSTRUCTION

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

Initiative Frequency: Year round

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

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

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

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

TORONTO COMPREHENSIVE INITIATIVE

Target Customer Type(s): Commercial and Institutional Customers

Initiative Frequency: Year round

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

Initiative Frequency: Year round

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

ENWIN GREEN SUITES

Initiative Frequency: Year round

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