Peterborough Distribution Inc. (PDI)

Conservation and Demand Management

2013 Annual Report

Submitted to:

Ontario Energy Board

Submitted on September 30, 2014

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Executive Summary

This annual report is submitted by PDI in accordance with the filing requirements set out in the CDM Code (Board File No. EB-2010-0215), specifically Appendix C Annual Report Template, as a progress report and modification to PDI Strategy. Accordingly, this report outlines PDI's CDM activities for the period of January 1, 2013 to December 31, 2013. It includes net peak demand and net energy savings achieved from 2011, 2012 and 2013, with discussion of the current/future CDM framework, CDM program activities, successes and challenges, as well as forecasted savings to the end of 2014.

PDI did not apply for any Board-Approved CDM Programs during 2013; however, as noted in the CDM guidelines, released April 26, 2012, the Ontario Energy Board (OEB) has deemed Time-of-Use (TOU) pricing a Province-wide Board-Approved CDM Program. The Ontario Power Authority (OPA) is to provide measurement and verification on TOU. At the time of this report the OPA has not released any verified results of TOU savings to PDI.

In 2011, PDI contracted with the Ontario Power Authority (OPA) to deliver a portfolio of OPA-Contracted Province-Wide CDM Programs to all customer segments including residential, commercial, institutional, industrial and low income. 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 staffing, procurement, and program delivery.

Affirmation of ***peaksaver*** PLUS contracts for water heater controlled customers were made in 2012, however, the OPA placed a hold on the enrollment file as all departments of the OPA were not informed of our agreement and agreed process. As a result of placing this file on hold, it prevented any additional file uploads to proceed for any 2012 ***peaksaver*** PLUS enrollments. Significant demand reductions realized in 2012 were not recognized by the OPA in our annual report.

The OPA is well aware of their reporting delay, but after months of enquiry by PDI to resolve this issue for 2012, the OPA was unable to provide a response and therefore, none of our ***peaksaver*** PLUS participants are reflected in the 2012 results as expected. This represents a significant portion of summertime peak demand reduction for PDI and therefore, our overall 2012 peak demand reductions are misrepresented. This continued into 2013 with the same ongoing issue. At the time of this report, our ***peaksaver*** PLUS participation and therefore, attributed achievement towards our MW target, is vastly understated.

The remaining programs for 2012 produced adequate results. Unlike 2011, all the programs in 2012 were in full flight and building momentum. It should be noted that PDI along with other LDC's that offered Power Savings Blitz (PSB) in previous years, continue to find it ever challenging to find new participants.

Additionally, one large use customer that had commenced work on multiple, significant projects, placed all programs on hold after it was determined that their anticipated savings would result in negative impact to their Global Adjustment (GA) charges. The Ministry of Energy was informed of this situation by PDI, and Ministry staff through their investigation, passed a Bill in order to protect all customers from negative impact to GA reclassification from participation in conservation programs.

In 2013, with the changes to the GA, our Large Use customer and Embedded Energy Manager were able to proceed with their plans for the multiple projects that were on hold in 2012. Due to the complexity of the projects, and the expansion of the scope of work being completed, work continued in 2013 and significant gains were made. However, many of the projects have not yet been finalized and will be recognized in our 2014 results as completed and attributable savings towards our targets.

The increase in incentives for PSB in 2013 did not seem to make a significant difference in participation. We continue to maximize all opportunities to engage eligible businesses that have not yet participated.

As detailed below, ongoing challenges and continued delay in the OPA's reporting of PDI's true demand reduction for 2012 and now 2013, cause an inaccurate reflection of PDI's achievement towards the MW target.

To date OPA reports that PDI has achieved 1.5 MW of net incremental peak demand savings and 3.1 GWh of net incremental energy savings in 2013. A summary of the achievements currently reflected towards the CDM targets is shown below:

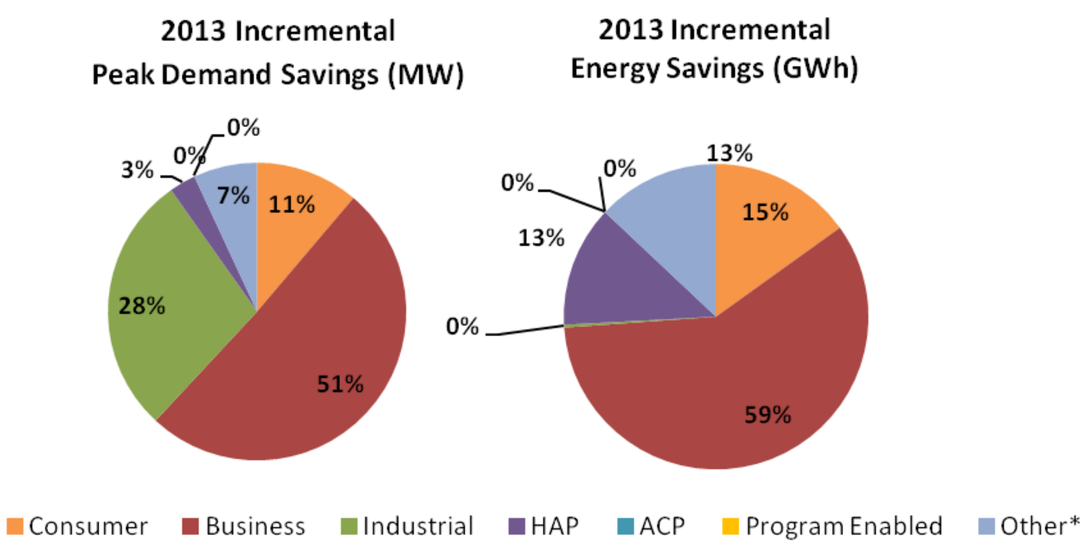
OPA-Contracted Province-Wide CDM Programs Final Verified 2013 Results

LDC: Peterborough Distribution Incorporated

FINAL 2013 Progress to Targets	2013 Incremental	Program-to-Date Progress to Target (Scenario 1)	Scenario 1: % of Target Achieved	Scenario 2: % of Target Achieved
Net Annual Peak Demand Savings (MW)	1.5	2.2	**24.7%**	**33.8%**
Net Energy Savings (GWh)	3.1	28.7	**74.7%**	**74.7%**

Scenario 1 = Assumes that demand response resources have a persistence of 1 year
Scenario 2 = Assumes that demand response resources remain in the LDC service territory until 2014

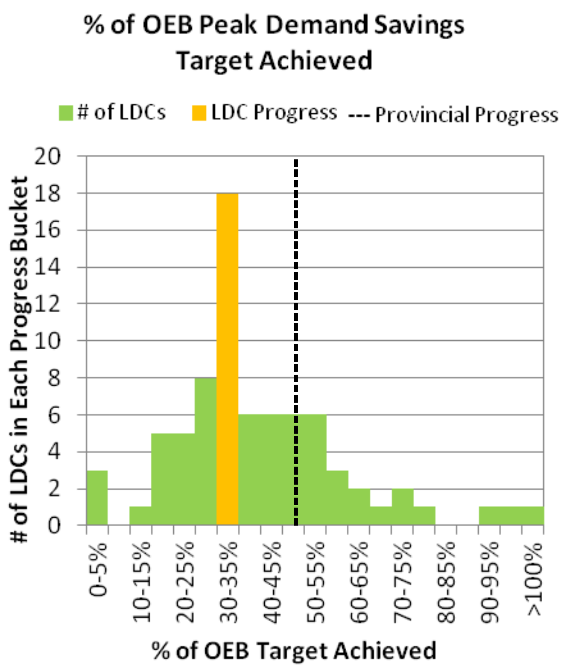
Achievement by Sector

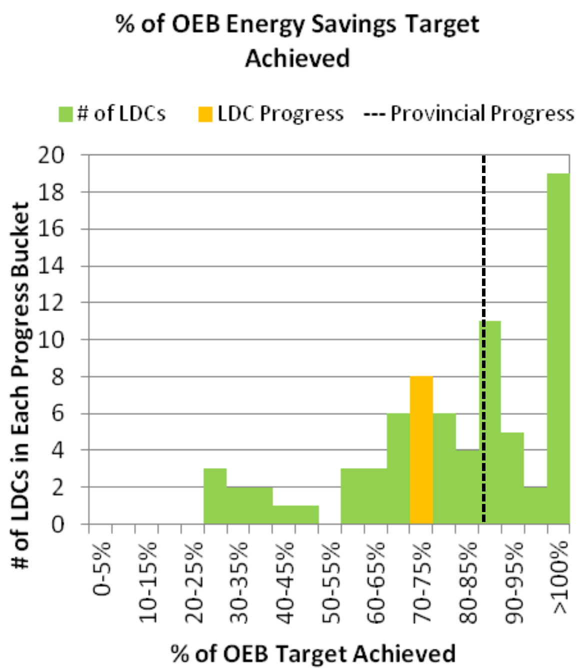


**Other includes adjustments to previous years' results and savings from pre-2011 initiatives*

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

The following graphs assume that demand response resources remain in the LDC service territory until 2014





The updated forecast prepared for this report shows that there will be a shortfall of approximately 7.2 MW versus PDI's 2014 peak demand reduction target. Although, the peak demand savings are below target, PDI expects to achieve the 2014 electricity energy savings target. Given the expected shortfall, PDI continues to work actively on participant engagement. In addition PDI has partnered with other LDCs, and has been working with the Ontario Power Authority (OPA) and the Electrical Distribution Association (EDA) to improve program effectiveness, however it is PDI's position, that this in itself will not fully overcome the forecasted peak demand savings shortfall.

As detailed in the Residential Section 2.2.1.8, ongoing challenges and continued delay in the OPA's reporting of PDI's achieved demand reduction for 2012 and now 2013, cause an inaccurate reflection of PDI's achievement towards their MW target. PDI estimates that if all completed installations had been reported, the demand reduction achieved would be closer 65% of the MW target at the end of 2013.

Background

On March 31, 2010, the Minister of Energy and Infrastructure of Ontario, under the guidance of sections 27.1 and 27.2 of the *Ontario Energy Board Act, 1998*, directed the Ontario Energy Board (OEB) to establish Conservation and Demand Management (CDM) targets to be met by electricity distributors. Accordingly, on November 12, 2010, the OEB amended the distribution license of PDI to require PDI, as a condition of its license, to achieve 38.45 GWh of energy savings and 8.72 MW of summer peak demand savings, over the period beginning January 1, 2011 through December 31, 2014.

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

The Code also requires a distributor to file annual reports with the Board. This is the third Annual Report by PDI and has been prepared in accordance with the Code requirement and covers the period from January 1, 2013 to December 31, 2013.

PDI submitted its 2011 Annual Report on September 28, 2012 which summarized the CDM activities, successes and challenges experienced by PDI for the January 1, 2011 to December 31, 2011 period. The OEB's 2011 CDM Results report identified that the delay in the full suite of CDM Programs being made available by the OPA, and the absence of some programs negatively impacted the final 2011 results for the LDCs. This issue was also highlighted in Volumes I & II of the Environmental Commissioner's Report on Ontario's Annual Energy Conservation Progress.

On December 21, 2012, the Minister of Energy directed the Ontario Power Authority (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 amend the timelines for LDCs to achieve their energy savings and demand savings targets. Therefore, the main focus of the LDCs remains the achievement of CDM targets by December 31, 2014.

PDI submitted its 2012 Annual Report on September 30, 2013 which summarized the CDM activities undertaken by PDI for the January 1, 2012 to December 31, 2012 period. The OEB's 2012 CDM Results report identified that the majority of LDCs achieved close to 20% of their net peak demand (MW) target from their 2012 results. However, LDCs generally advised the Board that meeting their peak demand (MW) target is not likely and that a shortfall is expected.

LDCs collectively achieved approximately 8% of the energy savings (GWh) target, which is slightly below the 10% incremental annual savings needed each year to achieve the energy savings target. Overall the cumulative results represent approximately 65% of the net energy target of 6,000 GWh.

The report identified that although there have been improvements to programs there still remains some shortcoming to the design and delivery of certain initiatives that have resulted in a negative impact to some programs. In particular, the change management process still requires improvements to expedite enhancements to initiatives. The report also noted that certain initiatives may be reaching the point of market saturation and that new initiatives may need to be developed in order to take the place of the existing initiatives.

1 Board-Approved CDM Program

1.1 Introduction

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

At this time, the implementation of Time-of-Use ("TOU") Pricing has been deemed as a Board-Approved Conservation and Demand Management ("CDM") program that is being offered in PDI's service area.

1.2 TOU Pricing

1.2.1 Background

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

In accordance with a Directive dated March 31, 2010 by the Minister of Energy and Infrastructure, the OEB is of the view that any evaluations of savings from TOU pricing should be conducted by the OPA for the province, and then allocated to distributors. PDI will report these results upon receipt from the OPA. The OPA had retained The Brattle Group as the evaluation contractor and has been working with an expert panel convened to provide ongoing advice on methodology, data collection, models, savings allocation, etc. The initial evaluations were conducted in 2013 with five LDCs – Hydro One, THESL, Ottawa Hydro, Thunder Bay and Newmarket. Preliminary results from these five LDCs were issued to the five LDCs involved in the study in August 2013 and are now publically available on the OPA website. Preliminary results demonstrated load shifting behaviors from the residential customer class. Three additional LDCs were added to the study in 2014 – Cambridge-North Dumphries, Powerstream and Sudbury. Preliminary results from this study are planned to be issued to the eight LDCs in September 2014. The OPA advised that the TOU study will be complete in the summer of 2015 and final verified savings will be available for LDCs to include in the 2014 Annual Report. As of September 30, 2014, the OPA has not released any verified results of TOU savings to PDI. Therefore PDI is not able to provide any verified savings related to our TOU program at this time.

1.2.2 TOU PROGRAM DESCRIPTION

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

Initiative Frequency: Year-Round

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

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

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

RPP TOU		Rates (cents/kWh)	
Effective Date	On Peak	Mid Peak	Off Peak
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
November 1, 2013	12.9	10.9	7.2
May 1, 2014	13.5	11.2	7.5

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

Initiative Activities/Progress:

PDI began transitioning its RPP customers to TOU billing on May 1, 2010. At December 31st, 2013, all RPP customers were on TOU billing.

1.3 PDI's Application with the OEB

PDI did not submit a CDM program application to the OEB in 2013

1.4 PDI's Application with the OPA's Conservation Fund

In 2013, the OPA introduced the Conservation Fund to help meet LDC's interest in the development and launch of new local, regional and province-wide initiatives.

The Conservation Fund's LDC Program Innovation Stream fast-tracks LDC-led program design and the launch of successfully piloted initiatives prior to full scale deployment. By driving program innovation through the Conservation Fund, LDCs have the opportunity to both realize additional savings through the piloting and implementation of initiatives not currently addressed by the OPA portfolio and the means to test concepts for future local or province wide programs post 2014. As per the OPA, as of March 2014, three pilots have been contracted and are underway with Toronto Hydro and Niagara Peninsula Energy and ten others are in various stages of the contracting and development process.

In addition, building on LDC interest in social benchmarking services for the residential sector, in 2013 the Conservation Fund in collaboration with Hydro One, Milton Hydro and Horizon Utilities completed the procurement of three social benchmarking pilot projects. Beginning in 2014 these services will be offered to more than 100,000 customers for a one year period, with evaluation reports published shortly thereafter.

PDI did not submit a CDM program application to the OPA's Conservation Fund in 2013. The experience of many of the LDC's who have made application to the Conservation Fund found that the fast track process was onerous. Permission to conduct pilots or customer programs that were submitted in 2013 have only now been approved for deployment. Since this fund is continuing into 2015-2020 programs, and is a mechanism for LDC's to pilot new conservation concepts, the review EM&V and final approval process must be shortened in order for this to be beneficial.

2 OPA-Contracted Province-Wide CDM Programs

2.1 Introduction

Effective February 3, 2011, PDI 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	PDI in Market Date
Residential Programs			
Appliance Retirement	Schedule B-1, Exhibit D	*Jan 26,2011*	*June, 2011*
Appliance Exchange	Schedule B-1, Exhibit E	*Jan 26, 2011*	*June, 2011*
HVAC Incentives	Schedule B-1, Exhibit B	*Jan 26, 2011*	*June, 2011*
Conservation Instant Coupon Booklet	Schedule B-1, Exhibit A	*Jan 26, 2011*	*June, 2011*
Bi-Annual Retailer Event	Schedule B-1, Exhibit C	*Jan 26, 2011*	*August, 2012*
Retailer Co-op	n/a	*n/a*	*Not in Market*
Residential Demand Response	Schedule B-3	*Aug 22, 2011*	*June, 2012*
New Construction Program	Schedule B-2	*Jan 26, 2011*	*September, 2011*
Home Assistance Program	Schedule E-1	*May 9, 2011*	*June, 2012*
Commercial & Institutional Programs			
Efficiency: Equipment Replacement	Schedule C-2	*Jan 26, 2011*	*June, 2011*
Direct Install Lighting • *General Service <50 kW*	Schedule C-3	*Jan 26, 2011*	*June, 2011*
Existing Building Commissioning Incentive	Schedule C-6	*Feb, 2011*	*June, 2011*
New Construction and Major Renovation Initiative	Schedule C-4	*Feb, 2011*	*June, 2011*
Energy Audit	Schedule C-1	*Jan 26, 2011*	*June, 2011*
Commercial Demand Response • *General Service <50 kW*	Schedule B-3	*Jan 26, 2011*	*June, 2011*
Industrial Programs - General Service 50 kW & above			
Process & System Upgrades	Schedule D-1	*May 31, 2011*	*June, 2011*
Monitoring & Targeting	Schedule D-2	*May 31, 2011*	*June, 2011*
Energy Manager	Schedule D-3	*May 31, 2011*	*May, 2012*
Key Account Manager ("KAM")	Schedule D-4	*May 31,2011*	*Not in Market*
Efficiency Equipment Replacement Incentive • (part of the C&I program schedule)	Schedule C-2	*May 31, 2011*	*June, 2011*
Demand Response 3	Schedule D-6	*May 31, 2011*	*June, 2011*

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

- Electricity Retrofit Incentive Program
- High Performance New Construction

As per the table below, several program initiatives are no longer available to customer or have not been launched in 2013.

Not in Market	Objective	Status
Residential Program		
Midstream Electronics	Encourages retailers to promote and sell high efficency televisions, and for distributors to distribute high efficiency set top boxes.	Did not launch and removed from Schedule in Q2, 2013.
Midstream Pool Equipment	Encourage pool installers to sell and install efficient pool pump equipment in residential in-ground pools.	Did not launch and removed from Schedule in Q2, 2013.
Home Energy Audit Tool	This is a provincial online audit tool to engage customers in conservation and help drive customer participation to CDM programs.	Did not launch and removed from Schedule in Q2, 2013.
Commercial & Institutional Program		
Direct Service Space Cooling	Offers free servicing of air conditioning systems and refrigeration units for the purpose of achieving energy savings and demand reduction.	Did not launch in 2011, 2012 or 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.

2.2 Program Descriptions

Full OPA-Contracted Province-Wide CDM Program descriptions are available on the OPA’s website at http://www.powerauthority.on.ca/ldc-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.

2.2.1 RESIDENTIAL PROGRAM

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 July 2013 addition of LED measures to the Bi-Annual Retailer Event and Annual Coupon initiative has had a positive impact on customer participation. There was the added benefit of three LDC custom coded coupon options for LDCs to utilize in 2013. The Residential Demand Response program continues to be the largest contributor to demand savings for Residential Customers and has been generally well received by consumers. Unfortunately, there were no savings associated with the Energy Display attributed to LDCs in the OPA's 2012 or 2013 verified results. However, PDI has additional comments on this decision as outlined below in 2.2.1.8 Residential Demand Response Program (Schedule B-3).

The Residential Program Portfolio is predominately a carryover of Initiatives from previous programs. It is mostly driven by retailers and contractors who many not have fully delivered what was anticipated. Three new initiatives (Midstream Electronics, Midstream Pool Equipment and Home Energy Audit Tool) were not launched and subsequently removed from the schedule in 2013 with no new additions. Delays in communication with regards to Initiative offerings and delays in results reporting from the OPA, have hampered LDCs abilities to engage customers and promote participation.

Although the Residential Working Group has successfully put forth many changes that have been adopted, the mechanism to make these changes is burdensome and lengthy. Most of the working group recommendations have been adopted however, the systemic bureaucracy in order to make changes to program rules has hindered the advancement of further improvements.

Province-wide advertising was re-introduced in Q3 2013. This provided limited value due to the late market entry, especially for *peaksaver* PLUS.

Work to revitalize and increase the effectiveness and breadth of the Initiatives through the Residential Program continue to be a high priority. Opportunities within the Residential marketplace need to be identified, developed and offered to customers. The Version 5 Schedule changes implemented in Q1/Q2 2014 have increased the number of LDC coded coupons available and added new installations to the Heating and Cooling Incentive.

The iCON system continues to be plagued with ongoing functionality issues that affect LDC's ability to efficiently and accurately upload and process applications and payment, ultimately affecting customer experience and satisfaction.

2.2.1.1 Appliance Retirement Initiative (Exhibit D)

Initiative Activities/Progress: PDI continues to market this initiative in hopes of obtaining the last remaining eligible appliances. The initiative continues to be promoted in our quarterly 'Connections' newsletter circulated to all customers, as well as on our saveONenergy micro site, at local Green Expo and Home Show events and email.

Additional Comments:

- 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.
- As participation is very responsive to province wide advertising, OPA province-wide advertising should continue to play a key role if the initiative continues.
- Better relationships with retailers may play a role in increasing participation in this Initiative. Retailers can provide opportunities to capture replacement appliances and have them decommissioned after a sale has been committed.
- In an effort to capture additional savings in the perceived last year of the Initiative, the eligibility requirement for refrigerators was revised from 20 years old to 15 years old in Q2 2014.

2.2.1.2 Appliance Exchange Initiative (Exhibit E)

Initiative Activities/Progress: Due to limited opportunities presented by retailers, PDI has not directly participated in appliance exchange events other than in its promotion through social media.

Additional Comments:

- The design of the Initiatives, including eligible measures and incentives amounts are developed through the Residential Working Group. Retail Partner(s) are contracted by the OPA to deliver the initiatives province-wide. Individual LDCs have the opportunity to stage in-store events to drive the distribution of LDC coded coupons and promote other programs in the portfolio.
- 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.

- In 2012 there was a decrease in the number of window air conditioners being received through the program. A review of eligible measures in the Appliance Exchange program was conducted, and as these units are not cost effective on their own it was determined that they be removed from the program in order to improve the overall cost effectiveness of the Initiative

- Notification to LDCs regarding retailer participation and eligible measures continues to be delayed. Improved communications will aid in appropriate resource allocation and marketing of the Initiative.

- This Initiative may benefit from the disengagement of the retailer and allowing LDCs to conduct these events, possibly as part of a larger community engagement effort, with the backing of ARCA for appliance removal.

- The initiative appears to require more promotion from retailers and LDCs.

2.2.1.3 HVAC Incentives Initiative (Exhibit B)

Initiative Activities/Progress: PDI continues to market this program and benefits from continued participation outside the challenges that surround this initiative as mentioned below. This program was represented in our quarterly 'Connections' newsletter circulated to all customers, as well as on our saveONenergy micro site and local Green Expo and Home Show events. We have anecdotal information based on results and customer feedback that local HVAC contractors are promoting this program. However, we also do feel that some contractors are providing incentive discounts directly to customers and not through the OPA.

Additional Comments:

- Incentive levels appear to be insufficient to prompt customers to upgrade HVAC equipment prior to end of useful life. An Air Miles incentive was introduced in 2013 to try and encourage early replacement.

- 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.

- In an effort to build capability, 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 in 2013, only a total of 1,587 contractors completed the mandatory HVAC training and can participate in the program.

- There are cases where non-participating contractors are offering their own incentives (by discounting their installations to match value of the OPA incentive). As this occurs outside of the Initiative, savings are not credited to LDCs. OPA should consider this in future program impact evaluation studies.

- Changes to the Schedule in 2014 to allow for incentives for new installations, rather than strictly replacement units, may provide greater Initiative results.

- Since the HVAC initiative is continuing through 2015 and beyond, it is important that the OPA, in conjunction with LDC's, improve the rebate process for the HVAC contractors so that it is seamless and effortless. This will help to prevent 'rogue offerings' by the contractors. In addition, the time-lines needed to process incentives must be shortened. Consumers are looking to the contractor for their rebate cheque assuming the contractor is ultimately responsible for speed of this process. This is one of the underlying causes of contractor funded rebates.

2.2.1.4 Conservation Instant Coupon Initiative (Exhibit A)

Initiative Activities/Progress: PDI continues to market this initiative through Newspaper advertising, in our quarterly 'Connections' newsletter circulated to all customers, as well as on our saveONenergy micro site, our local Green Expo and Home Show events, and social media. In 2013 we started emailing coupons directly to consumers.

Additional Comments:

- The timeframe for retailer submission of redeemed coupons varies depending on the retailer and in some cases has been lengthy. The delays and incomplete results/reporting, limit the ability to react and respond to Initiative performance or changes in consumer behavior.

- Coupon booklets were not printed and mailed out in 2013 so they were not widely available to consumers without the ability to download and print online coupons. In addition, consumers may not have been aware of the online coupons. The Initiative may benefit from province-wide marketing as a substitute to a mail out campaign.

- 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.

- In 2013, LDCs were provided with 3 custom coded coupons. All coupons have been provided with LDC custom coding in 2014 which allows LDCs to promote coupons based on local preferences.

- Consumer experience varies amongst retailers offering Coupon discounts which can limit redemptions. For example, a particular high volume 'participating retailer' does not accept coupons and have their own procedure. In addition, some retailers have static lists of eligible products and will not discount eligible products unless the product is on that list resulting in products clearly identified as Energy Star compliant, not being recognized as eligible products. There is also inconsistency between same franchises in their acceptance of the coupons.

- A review of the fulfillment contractor and the cost associated with the processing of coupons needs to be undertaken as there are some questions as to whether or not the OPA, and ultimately the consumer, are receiving good value.

- The saveONenergy programs would benefit from specific end cap displays, aisle product stands and product-specific areas. Having products throughout a retail environment weakens the impact.

- Some concern was noted about appropriate proportioning by the OPA of the savings directed to LDC's where LDC specific bar codes were used.

2.2.1.5 Bi-Annual Retailer Event Initiative (Exhibit C)

Initiative Activities/Progress: From past experience, PDI found customer engagement to be limited and some retailer enthusiasm equally discouraging. There clearly appeared to be a lack of communication from management to staff regarding event details, product knowledge and LDC participation. In most cases, PDI staff attending events, were treated as a barrier rather than a benefit to consumer participation by retailers. This initiative has been promoted in our quarterly 'Connections' newsletter circulated to all customers, as well as on our saveONenergy micro site and through social media.

Additional Comments:

- This Initiative is strongly influenced by the retail participants and has no direct involvement from the LDCs.
- LDCs have the opportunity to stage in-store events to drive the distribution of LDC coded Coupons and promotion of other programs in the portfolio however this requires cooperation from the local retailer and LDC staff bandwidth.
- Limited engagement of local retailers can restrict the savings potential for this Initiative. Retailer cooperation and control of success, like poor placement of LDC in store display, lack of knowledge of participation by staff and management to direct consumers appropriately, result in little opportunity to engage with consumers during events.
- The product list has changed very little over the past five years.
- Program evolution, including new products and review of incentive pricing for the coupon Initiatives, must be a regular activity to ensure continued consumer interest.
- The Product list could be distinctive from the Conservation Instant Coupon Initiative in order to gain more consumer interest and uptake.
- A review conducted by the Residential Working Group identified three areas of need for Initiative evolution: 1) introduction of product focused marketing; 2) enhanced product selection and 3) improved training for retailers as retail staff tend not to be knowledgeable regarding the products or promotion.
- 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.
- Independently, the Retailer Co-op and Bi-Annual Retailer Event Initiative may not present a value for the investment of LDC resources to support these events and should be backed by a strong Residential portfolio.
- After participating in the Retailer Event for 2 years, we found the reasons as mentioned above resulted in participation being unproductive and therefore, we elected not to participate in any further in store events.

2.2.1.6 Retailer Co-op

Initiative Activities/Progress: PDI did not engage in this initiative

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.

2.2.1.7 New Construction Program (Schedule B-2)

Initiative Activities/Progress: This program has been under construction and revision for the last 2 years. To the best of our knowledge, Hydro Ottawa has been the only LDC that has attempted to work through the plethora of required documentation in order for a builder to apply to this program. We do believe that there is opportunity with this program and with the changes that have been made in late 2014, we will be well positioned to offer this program in the 2015 extension. PDI is looking to bundle this program along with the ***peaksaver*** Plus initiative.

Additional Comments:

- This Initiative provides incentives to home builders for incorporating energy efficiency into their buildings. To support this, LDCs need to provide education to the consumers regarding the importance of choosing the energy efficient builder upgrade options, even thought the consumer benefit of doing so will not be immediate.
- In 2012 the application process was streamlined, however continues to be too cumbersome for builders. This, combined with limited return, has resulted in this Initiative continuing to under-achieve.
- Administrative requirements, in particular individual home modeling, must align with perceived stakeholder payback.
- Performance applications are expected to increase in 2014 due to some industry players' interest in the Initiative. However, it is anticipated that the performance track will be the primary track used in applications, which provides low savings for the incentive provided. Savings and associated incentives may need to be revised to an appropriate level.
- The addition of LED light fixtures, application process improvement, and moving the incentive from the builder to the home-owner may increase participation.
- This Initiative may benefit from collaboration with Natural Gas utilities. This would be a good opportunity for PDI as we already collaborate with Enbridge Gas for the HPNC program.

- We are also exploring the benefit to builders of including ***peaksaver*** PLUS opportunities as new installations to their HVAC systems. By proactively installing these thermostats rather than replacing shortly thereafter, it will provide additional savings to HVAC contractors in supplying initial thermostats, truck roll costs associated with later replacing a thermostat, as well as a selling feature to new homeowner of benefit of smart thermostat. This will drive an increased enrollment in the ***peaksaver*** PLUS program in conjunction while supporting the new Whole Home Energy Efficiency model.

2.2.1.8 Residential Demand Response Program (Schedule B-3)

Initiative Activities/Progress: PDI continued to replace remaining faulty Comverge thermostats into 2013 with the new Energate two-way technology. We informed customers that had not yet responded to multiple prior notifications that Liability of the Comverge Thermostat now resides with the consumer.

Upon agreement from the OPA on our reaffirmation process of prior participants and deployment of In Home Display's (IHD's) to these prior ***peaksaver*** participants, we commenced the distribution of the Aztech IHD's to our Electric Water Heater Controlled participants. The IHD's were pre-provisioned specifically for each individual consumer, broadcast messaging was engaged remotely through the AMI network therefore allowing PDI to simply mail the IHD's to the consumer and allowing participants the simplicity of plugging in the device to have it connect directly and automatically to their meter. This has proven to be a cost effective and logistically successful method of deployment. In addition, the devices deployed require no batteries, enable automatic rate updates, time change, TOU rate indicated light functionality and over the air firmware updates through the AMI system. To our knowledge, this is the largest deployment of AMI integrated IHD's in North America

After full deployment of the IHD's to approximately 8,000 participants, and six months after the original upload file to the OPA CRM for payment and installation acknowledgment towards targets, we were informed that the OPA would not honour the previously agreed upon arrangements for reaffirmation of the Water Heater Control devices. After months of negotiations, our upload file remained on hold which at the time surpassed 10 months (to March 2014). Since PDI had already deployed and paid for the devices (in excess of $2,000,000 in funding) we had to limit financial risk and felt we had little choice but to relinquish terms of our prior agreement in favor of receiving funding from the OPA. In order to receive the funds owed to PDI under the prior agreement, we were forced to agree to new terms and conditions which included reaffirming prior peaksaver water heater controlled customers, a second time. Although customers already had the opportunity to decline participation in the program, we are now required to contact each customer to once again reaffirm their agreement of the T&C. This has caused a significant pull on resources, time, effort and money in order to comply with the OPA's revised requirement. From the customers perspective it causes confusion, uncertainty and unnecessary inconvenience. In order to retain funding we've been required to upgrade our AMI network in order to enable two-way messaging to the IHD. One positive note is that this upgrade will further enhance the benefits of the in home display and its ability to assist the consumer in load shifting and load reduction

The result of these ongoing challenges has resulted in a continual delay in the reporting of PDI's achieved demand reduction for 2012 and now 2013. PDI estimates that if all completed installations had been reported, the demand reduction achieved would be closer to 65% of the MW target and not the 24.7% currently indicated.

Marketing initiatives have included local Newspaper and Digital Advertising, promotional handouts at local events and parades, regular inclusion in our quarterly 'Connections' newsletter circulated to all customers, as well as on our saveONenergy micro site, radio, at our local Green Expo event, Direct Mail to past participants and information updates about online portal opportunities to engage customers in 2 way opportunities including messages sent directly to customer thermostats with conservation messaging. And plans to further engage our CSR's to enroll new participants while speaking to customers calling in.

Additional Comments:

- Although the comments provided by the EDA CDM Reporting and Evaluation Working Group suggests IHD's are not commercially viable and are in the development phase, this has not been the experience of PDI.

- Limitations in the smart meters deployed in Ontario, in addition to the Smart Meter Entity (SME) failure to augment the specifications of allowable smart meters in the Ontario market has limited the options for LDC's integration of in-home energy displays However, LDC's have found and deployed solutions using proprietary broadcast signaling inherent to the AMI system which provides the consumer with an in home display that remains up to date with rates, TOU buckets and data as the information is pushed through the AMI system.

- These products are commercially available and have been deployed by LDC's and many other utilities in North America. LDC's have also developed the ability to transfer meter data in its raw form into WIFI and cloud based formats thus providing the consumer with real time information that circumvents the need for a tab le top in home display that is prone to be out of date and therefore not used by the consumer.

- There are limited numbers of Smart Meters installed by LDCs that do not have the capability to communicate directly to an In Home Display. LDC's have developed mechanisms to import real time meter data without the need to replace existing meters.

- Introduction of new technology requires incentives for the development of such technology. Appropriate lead times for LDC analysis and assessment, product procurement, and testing and integration into the Smart Meter environment are also required. Making seemingly minor changes to provincial technical specifications can create significant issues when all LDCs attempt to implement the solution in their individual environments.

- The variable funding associated with installing a load controllable thermostat is not sufficient unless it is combined with an In Home Display which might not be possible all the time and when the IHD is optional.

- Given the different LDC environments and needs, each LDC is positioning the Initiative slightly differently. Comments are made that while a Thermostat has high marketability, it also carries a higher maintenance liability due to no-heat and no-AC calls but this has not been the experience of PDI. As an alternative to a thermostat, a control switch with an independent IHD is seen as a lower liability option but also has a much lower marketability.

- This is the main Initiative within the Residential portfolio that was to drive savings for LDC's; however the 2012 evaluation indicated savings realized from the IHD were not statistically significant. LDCs were advised that the evaluation of the IHDs would continue with 2013 data. The methodology used by the OPA to ascertain attributed savings to the IHD was flawed. The data used from Toronto Hydro was based on a delivery method where the IHD was delivered to the consumer and relied on the consumer to install and configure their own device. This model was not adopted by the vast majority of LDC's who, while installing the peaksaver device, also installed the IHD for the customer thereby ensuring that the device was installed, configured and functioning correctly. We suggest that the OPA examine other LDC's that utilized a different delivery model for the purposes of recognizing calculated savings.

- The initial pilot and testing of the IHD's done with H1 in conjunction with Dr. Dean mountain of McMaster University confirmed attributable savings from the IHD. H1 method of delivery was to install the IHD at the customers' home rather than leaving it the consumer to install and configure. The results from this pilot confirmed approximate savings of up to 5%. In addition, other IHD deployments in Canada and North America have realized savings from 5% to as high as 17%. We are not in agreement with the methodology used by the OPA and hope this will be revisited. PDI has been requested to be a part of an additional independent study to further analyze and quantify the benefits and true savings of IHD use. This is also being facilitated by Dr. Dean Mountain.

- Verified demand savings in 2012 from the load control devices were less than originally anticipated. This prompted an increase to the load cycling strategy in 2013 in order to increase savings closer to the original business case. This change in strategy was not widely communicated to the LDC's and only came to light during a DR event. Due to the increased load cycling, there was a marked increase in customer dissatisfaction.

2.2.2 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 exceeds our existing codes and standards. Businesses can also pursue incentives for controlling and reducing their electricity demand at specific times.

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

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

Discussion:

Throughout 2011 to 2013 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. 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 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 iron out 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. 2013 saw the benefits of expedited change management process and continues to enable improvements into 2014.

Although changes are still taking place, there is minimal opportunity with the short time left, to make the significant changes to the current program suite required to enable further benefit to LDC 2014 results. LDCs and the OPA should look beyond the current Initiatives and work to launch new programs, building on the strengths of the 2011-2014 programs, which will meet the needs of the industry and consumers.

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

Initiative Activities/Progress: PDI continues to see good results from this program. As in past years, the vast majority of projects are lighting based. PDI has been working with a large user since 2012 to assist them in a large scale project which was anticipated to be completed in 2013. Through this process it was discovered that should they continue with their planned conservation related load reduction, they would be penalized as they would no longer be recognized as a Class A consumer by the IESO for the Global adjustment rate calculation. The significance of this change was enough to dissuade them from proceeding with any additional conservation measures until repercussions were clarified. PDI informed the ministry of Energy of this conflict and ramifications of conservation efforts to their Global adjustment calculations. As a result, the Ministry took it under advisement and introduced revised qualifications to those customers who participated in specific energy conservation programs. The review process required to make these changes took close to five months before final reading and passing as law. This resulted in lost opportunities for 2013 as the projects were placed on hold pending the outcome. These will now be recognized in 2014. The changes to the Global Adjustment translate across all C&I and Industrial saveONenergy Conservation programs for all LDC's.

We continue to market this program through local community business groups, local Green Expo event, our Conservation micro site and Durham Symposium

Additional Comments:

- A large proportion of LDC savings are attributed to ERII.
- 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.

- 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.

- A focus on demand incentives has limited some kWh project opportunities. In particular, night lighting projects have significant savings potential for customers but tend to have incentives of 10% of project cost or less.

- The requirement to have a customer invoice the LDC for their incentive is very burdensome for the customer and results in a negative customer experience and another barrier to participation.

- There is redundancy in the application process as customers may need to complete a worksheet and then enter most of that information over to the online application form. This can be cumbersome.

- Processing Head Office application became much easier for the Lead LDC after Schedule changes came into effect in August 2013. The changes implemented allowed the Lead LDC to review and approve all facilities in a Head Office application on behalf of all satellite LDCs under certain circumstances.

- The application process for Head Office projects remains a significant barrier. Applicants need to manually enter one application per facility associated with the project can be extremely onerous, often requiring a dedicated resource.

- Streamlining of the settlements systems resulted in significant improvement in the payment process in 2013.

2.2.2.2 Direct Install Initiative (DIL) (Schedule C-3)

Initiative Activities/Progress: PDI continues to directly contact and follow up with those qualifying customers who have not yet participated in DIL. Advertising and circulation of case studies confirming the no cost benefits of this initiative seem not to entice those not yet convinced.

To date, we have promoted DIL through speaking engagements at our local Chamber of Commerce, a television interview, along with numerous case studies and promotional ads in newspapers, magazines, press releases and direct mail. It has been promoted through a conservation segment of our local television news program. Also, in addition to our saveONenergy micro site and through social media, online advertising through local newspaper web banners and a direct mailing to local contractors was conducted. Email communication has been added for 2013 with notable uptake.

Additional Comments:

- LED lighting was introduced in 2013 as a new measure and has been well received by customers who may not have previously qualified for DIL eligible upgrades. This is an efficient product with a long estimated useful life.

- The increase in incentives for PSB in 2013 did not seem to make a significant difference in participation. We continue to maximize all opportunities to engage eligible businesses that have not yet participated.

- Cold start high output lighting was removed from the program. This particularly affected the farming customers who now have limited options within the program to utilize.

- The inclusion of a standard incentive for additional measures increased project size and drove higher energy and demand savings results in some situations. However, 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 upgrades has potential to provide additional energy and demand savings

- Many customers are not taking advantage of any additional measures. This may present an opportunity for future savings with a new program offering.

- Electrical contractor's margins have been reduced due to no labour rate increase and increase cost of materials. Additional effort for new participation is required as achievable potential continues to be reduced with each completed project. We continue to have customers who have engaged in the initial audit but have failed to sign the final agreement to proceed with the work.

- Measure incentives and additional funding for scissor lifts were introduced in September 2013 and were well received by installers. However, adjustments like these require longer lead times. As such, many customers were not able to benefit from this change in late 2013. Consideration should be given to providing advanced notification to LDCs and contractors of the upcoming changes to allow for planning.

- Feedback from Contractors regarding prescriptive measures is that the base case of T12's is no longer adequate as T8's are now the base line measure for all new installs. Therefore, the measures list should have been brought to more current standards. i.e. T5 being the new starting point with the now standard installation of LED's.

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

Initiative Activities/Progress: This program was promoted as a package with other C&I programs to Commercial Customers but targeted market was difficult to discern and interest was lacking. We have promoted this program through the Durham Industrial Customer Symposium Event in addition to our saveONenergy micro site.

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 significant challenge 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. 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.

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

Initiative Activities/Progress: In 2013, PDI continued its partnership with Enbridge Gas who is running a concurrent program in our distribution area. We benefited from their expertise and potential leads however, participation requires very long timelines and that contact be made well in advance of design and construction. PDI and Enbridge continue to work with several potential prospects currently in their pipeline.

In addition to Enbridge promotional activities and lead funnel system, this program was promoted by PDI as a package with other C&I programs to Commercial Customers and through the Durham Symposium in addition to our saveONenergy micro site. We also now receive permit information from the City of Peterborough to access new building leads as far ahead of work being done as possible. This will better provide customers with incentive opportunities available to them.

We have signed an extension with Enbridge Gas to allow them to enroll additional participants in 2014 for which project completion will not take place until 2015. This should avoid the stop/start gap that occurs during program term transitions. Our current partnership with Enbridge does however, still end in December 2014. Any outstanding projects will be passed back to PDI for completion, transfer to another channel partner or through another agreement with Enbridge Gas.

Additional Comments

- With the Ministerial Directive issued December 21, 2012, facilities with a completion date near the end of 2014 currently have some security that they will be compensated for choosing efficient measures. However, buildings that are in the planning phase with completion dates post 2015 may not participate due to funding uncertainty.
- Participants estimated completion dates tend to be inaccurate and are usually six 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. The effort required to participate through the custom stream exceeds the value of the incentive for many customers.
- There are no custom measure options for items that do not qualify under the prescriptive or engineered track as the custom path does not allow for individual measures, only whole building modeling.
- This Initiative has a very low net-to-gross ratio, which results in half the proposed target savings being 'lost'.
- The requirement to have a customer invoice the LDC for their incentive is very burdensome for the customer and results in a negative customer experience and a potential barrier to participation.

2.2.2.5 Energy Audit Initiative

Initiative Activities/Progress: Again, due to the 2012 delays in proceeding with any initiatives as a result of the detrimental affect to larger customers Global Adjustment rate, we did see the completion of projects in 2013. Savings resulting from Energy Audits conducted will be reflected in the projects resulting in 2014.

This program was promoted as a package with other C&I programs to Commercial Customers and our Embedded Energy Manager. We have promoted this program through a Durham Industrial Symposium in addition to our saveONenergy micro site. Qualified participants are limited in our distribution area.

- The introduction of the new audit component for one system (i.e. compressed air), has increased customer participation.
- The energy audit Initiative is considered an 'enabling' Initiative and 'feeds into' other saveONenergy Initiatives.
- Evaluators in 2012 and 2013 recognized savings towards LDCs targets as a result of customers implementing low/no cost recommendations from their energy audits.
- 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.
- Participation has been limited to one energy audit per customer which has restricted enabling and direction to the other Initiatives. This has been revised in 2014 and LDCs are now able to consider additional customer participation when presented with a new scope of work.
- Consideration should be given to allowing a building owner to undertake an audit limited to their lighting system. This way they may receive valuable information from neutral third party regarding the appropriate lighting solution for their facility instead of what a local supplier wants to sell.
- The requirement to have a customer invoice the LDC for their incentive is very burdensome for the customer and results in a negative customer experience and another barrier to participation.

2.2.3 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 significant incentives and valuable resources to large facilities to help them with energy efficiency upgrades and process system improvements. The Engineering Studies in particular as well as the Monitoring and Targeting initiative provide a unique opportunity for a customer to complete a comprehensive analysis of an energy intensive process that they otherwise may not undertake. The Energy Manager Initiative provides 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 participant; however the subsequent savings would not be attributed to an LDC's current target for projects that go into service after 2014.

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 the change to the threshold for small capital projects and the new small capital project agreement are expected to improve the number of projects and savings achieved within PSUI. Likewise, a decision to proceed with 2012 natural gas load displacement generation projects applications will also increase uptake although the limited time to bring new projects into service is a barrier.

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

Initiative Activities/Progress: We did have increased participation in 2013 for energy studies through our Embedded Energy Manager at our Large Use customer facility.

This program was promoted at the participant Durham symposium, Chamber of Commerce events, Downtown Business Improvement Association (DBIA) in addition to our saveONenergy micro site. Qualified participants are limited in our distribution area.

Additional Comments:

- Several energy studies have now been submitted and completed. 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 2013. The majority of the results are expected in 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 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 small capital project agreement was finalized in August 2013.

- While there is considerable customer interest in on-site Load Displacement (Co-Generation) projects, in 2012 the OPA was accepting waste heat/waste fuel projects only. Natural gas generation projects were on hold awaiting a decision on whether PSUI will fund these types of projects. In June 2013, a decision was made to allow natural gas load displacement generation projects to proceed under PSUI. It is expected that a number of projects will proceed although results may not be counted towards LDC targets due to in-service dates beyond 2014.

- The requirement to have a customer invoice the LDC for their incentive is very burdensome for the customer and results in a negative customer experience and another barrier to participation.

2.2.3.2 Monitoring & Targeting Initiative (Schedule D-2)

Initiative Activities/Progress: PDI has not received any applications for 2013, the opportunities we anticipated from the Embedded Energy have currently taken a different initiative direction

This program was promoted at the Durham Symposium and seminar in addition to our saveONenergy micro site. Qualified participants are limited in our distribution area.

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.

- Changes were made to ERII in 2013 to allow smaller facilities to employ M&T systems.

2.2.3.3 Energy Manager Initiative (Schedule D-3)

Initiative Activities/Progress: PDI continues their partnership with Cambridge North Dumfries in sharing an EEM resource with one of our mutual Large User facilities. With the June, 2013 issuance of Ontario Regulation 203/13 amending O.Reg 429/04 under the Electricity Act, the customer and EEM were assured they would not be financially harmed by reducing their peak demand and losing their Class A designation. The EEM contract has now been renewed for 2014 and in 2013, we started to see the fruits of their labour in both incentivized and non incentive savings. Additional savings will continue in 2014 based on the preliminary work previously completed, and additional reporting required for non incentivized savings will be submitted in order for our efforts to be recognized and attributed to our confirmed final target achievement.

Additional Comments:

- The Energy Managers have proven to be a popular and useful resource for larger customers.
- 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.
- 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 in 2012 but few projects were implemented until 2013.

2.2.3.4 Key Account Manager (Schedule D-4)

Initiative Activities/Progress: The timelines presented to acquire a KAM and with limited large industrial potential within our distribution area (EEM already in place with one of our two large users), PDI could not find the resources or potential to share a KAM with another LDC. As of the date of this submission, and with the changes to funding model pending, the remaining time available to 2014 does not allow PDI to explore this avenue. We do see the value and with additional collaboration opportunities forming as a result of the new Framework, we will have a much better opportunity to benefit from this type of resource.

Additional Comments

- Customers appreciate dealing with a single contact to interface with an LDC, a resource that has both the technical and business background who can communicate easily with the customer and the LDC.
- Finding this type of skill set has been difficult. In addition, the short-term contract discourages some skilled applicants resulting in longer lead times to acquire the right resource.

2.2.3.5 Demand Response 3 (D-6)

Initiative Activities/Progress: Initially, we worked with closely with our Channel Partner Rodan, to uncover potential leads. As the requirements for this program are very specific and exclusive to a select number of customers, we have quickly exhausted all potential within our distribution area.

We continue to promote this program was promoted in conjunction with other Industrial and C&I initiatives in the event that a new opportunity arises.

Additional Comments:

- Until early 2013 customer data was not provided on an individual customer basis due to contractual requirements with the aggregators. This limited LDCs' ability to effectively market to prospective participants and verify savings.
- No program improvements were made in 2013 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 were able to enter into contracts beyond 2014 which 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.

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

Initiative Activities/Progress: PDI continues to collaborate on the Low Income Program by utilizing the same delivery agent as the comparable Low Income Program offered by Enbridge Gas. We continue to realize the benefits of eliminating program duplication while increasing customer benefit and satisfaction. Through this model the delivery agent is able to service all customers regardless of their heating source with a single customer audit. The program continues to run more successfully and efficiently as time goes by. We continue to source new leads through social agencies and low income housing providers. Low income customers continue to be referred through LEAP, and the Housing Resource Center has attracted customers that do not qualify through normal channels. We will be refocusing our efforts to senior citizens, First Nation's and students. Our marketing has improved and become more focused on appropriate target market. Familiarity within our Distribution area has also been elevated and the clear demonstration of benefits has increased Landlord acceptance of the program.

Additional Comments:

- The process for enrolling in social housing was complicated and time consuming. This was addressed in late 2012 and showed some benefits in 2013.

- The ongoing changes to the FAST tool and CRM functionality issues have continued to be challenging.
- The issue of qualifying small refrigerators was not resolved in the 2013 program year. The calculation for energy efficiency did not take the physical size of the appliance into consideration. Therefore, many appliances that were grossly inefficient could not be considered for replacement to the detriment of the low income consumer and energy savings.
- This Initiative may benefit from centralized procurement for eligible replacement products.

2.2.5 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

3 2013 LDC CDM Results

3.1 Participation and Savings

Table 1: Peterborough Distribution Incorporated Initiative and Program Level Net 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)	
														2014 Net Annual Peak Demand Savings (kW)	2011-2014 Net Cumulative Energy Savings (kWh)
		2011*	2012*	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2014	2014
Consumer Program															
Appliance Retirement	Appliances	270	207	122		15	12	8		106,597	83,226	52,368		35	780,700
Appliance Exchange	Appliances	39	22	48		4	3	10		4,184	5,724	17,733		14	66,919
HVAC Incentives	Equipment	540	515	526		192	115	120		368,523	203,798	219,437		428	2,524,359
Conservation Instant Coupon Booklet	Items	3,603	220	2,474		8	2	4		132,571	9,972	54,973		14	670,149
Bi-Annual Retailer Event	Items	6,791	7,567	6,738		12	11	8		209,601	191,016	122,532		31	1,656,518
Retailer Co-op	Items	0	0	0		0	0	0		0	0	0		0	0
Residential Demand Response	Devices	14	0	28		8	0	15		0	0	32		0	32
Residential Demand Response (IHD)	Devices	0	4	22		0	0	0		0	0	0		0	0
Residential New Construction	Homes	0	0	0		0	0	0		0	0	0		0	0
Consumer Program Total						**239**	**143**	**166**		**821,476**	**493,736**	**467,075**		**521**	**5,698,677**
Business Program															
Retrofit	Projects	15	43	58		66	716	243		413,045	2,966,599	1,291,840		944	12,696,431
Direct Install Lighting	Projects	42	167	172		41	157	152		91,318	527,343	519,098		337	2,948,155
Building Commissioning	Buildings	0	0	0		0	0	0		0	0	0		0	0
New Construction	Buildings	0	0	1		0	0	1		0	0	1,298		1	2,596
Energy Audit	Audits	0	3	0		0	0	0		0	0	0		0	0
Small Commercial Demand Response	Devices	0	7	10		0	4	6		0	25	9		0	35
Small Commercial Demand Response (IHD	Devices	0	0	6		0	0	0		0	0	0		0	0
Demand Response 3	Facilities	0	0	1		0	0	347		0	0	4,636		0	4,636
Business Program Total						**108**	**878**	**749**		**504,363**	**3,493,967**	**1,816,881**		**1,282**	**15,651,852**
Industrial Program															
Process & System Upgrades	Projects	0	0	0		0	0	0		0	0	0		0	0
Monitoring & Targeting	Projects	0	0	0		0	0	0		0	0	0		0	0
Energy Manager	Projects	0	0	0		0	0	0		0	0	0		0	0
Retrofit	Projects	2	0	0		132	0	0		824,402	0	0		132	3,297,609
Demand Response 3	Facilities	0	1	1		0	0	417		0	0	9,487		0	9,487
Industrial Program Total						**132**	**0**	**417**		**824,402**	**0**	**9,487**		**132**	**3,307,096**
Home Assistance Program															
Home Assistance Program	Homes	0	175	539		0	16	43		0	157,580	396,853		58	1,257,765
Home Assistance Program Total						**0**	**16**	**43**		**0**	**157,580**	**396,853**		**58**	**1,257,765**
Aboriginal Program															
Home Assistance Program	Homes	0	0	0		0	0	0		0	0	0		0	0
Direct Install Lighting	Projects	0	0	0		0	0	0		0	0	0		0	0
Aboriginal Program Total						**0**	**0**	**0**		**0**	**0**	**0**		**0**	**0**
Pre-2011 Programs completed in 2011															
Electricity Retrofit Incentive Program	Projects	11	0	0		67	0	0		321,610	0	0		67	1,286,442
High Performance New Construction	Projects	1	0	0		21	1	0		105,956	781	0		21	426,165
Toronto Comprehensive	Projects	0	0	0		0	0	0		0	0	0		0	0
Multifamily Energy Efficiency Rebates	Projects	0	0	0		0	0	0		0	0	0		0	0
LDC Custom Programs	Projects	0	0	0		0	0	0		0	0	0		0	0
Pre-2011 Programs completed in 2011 Total						**87**	**1**	**0**		**427,566**	**781**	**0**		**88**	**1,712,607**

Other															
Program Enabled Savings	Projects	0	0	0		0	0	0		0	0	0		0	0
Time-of-Use Savings	Homes	0	0	0		0	0	0		0	0	0		0	0
Other Total						0	0	0		0	0	0		0	0
Adjustments to 2011 Verified Results							-25	0			-30,586	0		-25	-124,497
Adjustments to 2012 Verified Results								102				402,116		102	1,204,684
Energy Efficiency Total						558	1,033	588		2,577,808	4,146,039	2,676,132		2,081	27,613,807
Demand Response Total (Scenario 1)						8	4	785		0	25	14,164		0	14,189
Adjustments to Previous Years' Verified Results Total						0	-25	102		0	-30,586	402,116		77	1,080,187
OPA-Contracted LDC Portfolio Total (inc. Adjustments)						566	1,013	1,476		2,577,808	4,115,478	3,092,412		2,158	28,708,184
Activity and savings for Demand Response resources for each year represent the savings from all active facilities or devices contracted since January 1, 2011 (reported		The IHD line item on the 2013 annual report has been left blank pending a results update from evaluations; results will be updated once sufficient information is made available.								Full OEB Target:				8,720	38,450,000
										% of Full OEB Target Achieved to Date (Scenario 1):				24.7%	74.7%
*Includes adjustments after Final Reports were issued		Energy Manager, Aboriginal Program and Program Enabled Savings were not independently evaluated													

As detailed throughout this report, ongoing challenges and continued delay in the OPA's reporting of PDI's achieved demand reduction for 2012 and now 2013, cause an inaccurate reflection of PDI's achievement towards the MW target. PDI estimates that if all completed installations had been reported, the demand reduction achieved would be closer to 65% of our target.

Table 1: Summarized Program Results

Program	Gross Savings		Net Savings		Contribution to Targets	
	Incremental Peak Demand Savings (MW)	Incremental Energy Savings (GWh)	Incremental Peak Demand Savings (MW)	Incremental Energy Savings (GWh)	Program-to-Date: Net Annual Peak Demand Savings (MW) in 2014	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (GWh)
Consumer Program Total	.96	2.66	.55	1.78	.52	5.70
Business Program Total	2	6.8	1.73	5.82	1.28	15.65
Industrial Program Total	.59	1.09	.55	.83	.13	3.31
Home Assistance Program Total	.08	.57	.06	.55	.06	1.26
Pre-2011 Programs completed in 2011 Total	.17	.83	.09	.43	.09	1.71
Other Adjustments	.12	.59	.08	.37	.08	1.08
Total OPA Contracted Province-Wide CDM Programs *	**3.92**	**12.54**	**3.07**	**9.78**	**2.16**	**28.71**

**The OPA has not yet provided attributable savings for TOU.*

3.2 Evaluation

METHODOLOGY
All results are at the end-user level (not including transmission and distribution losses)

EQUATIONS	
Prescriptive Measures and Projects	**Gross Savings = Activity * Per Unit Assumption** **Net Savings = Gross Savings * Net-to-Gross Ratio** **All savings are annualized (i.e. the savings are the same regardless of time of year a project was completed or measure installed)**
Engineered and Custom Projects	**Gross Savings = Reported Savings * Realization Rate** **Net Savings = Gross Savings * Net-to-Gross Ratio** **All savings are annualized (i.e. the savings are the same regardless of time of year a project was completed or measure installed)**
Demand Response	**Peak Demand: Gross Savings = Net Savings = contracted MW at contributor level * Provincial contracted to ex ante ratio** **Energy: Gross Savings = Net Savings = provincial ex post energy savings * LDC proportion of total provincial contracted MW** **All savings are annualized (i.e. the savings are the same regardless of the time of year a participant began offering DR)**
Adjustments to Previous Years' Verified Results	All variances from the Final Annual Results Reports from prior years will be adjusted within this report. Any variances with regards to projects counts, data lag, and calculations etc., will be made within this report. Considers the cumulative effect of energy savings.

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Consumer Program			
Appliance Retirement	Includes both retail and home pickup stream; Retail stream allocated based on average of 2008 & 2009 residential throughput; Home pickup stream directly attributed by postal code or customer selection.	Savings are considered to begin in the year the appliance is picked up.	Peak demand and energy savings are determined using the verified measure level per unit assumption multiplied by the uptake in the market (gross) taking into account net-to-gross factors such as free-ridership and spillover (net) at the measure level.
Appliance Exchange	When postal code information is provided by customer, results are directly attributed to the LDC. When postal code is not available, results allocated based on average of 2008 & 2009 residential throughput.	Savings are considered to begin in the year that the exchange event occurred.	

HVAC Incentives	Results directly attributed to LDC based on customer postal code.	Savings are considered to begin in the year that the installation occurred.	
Conservation Instant Coupon Booklet	LDC-coded coupons directly attributed to LDC; Otherwise results are allocated based on average of 2008 & 2009 residential throughput.	Savings are considered to begin in the year in which the coupon was redeemed.	Peak demand and energy savings are determined using the verified measure level per unit assumption multiplied by the uptake in the market (gross) taking into account net-to-gross factors such as free-ridership and spillover (net) at the measure level.
Bi-Annual Retailer Event	Results are allocated based on average of 2008 & 2009 residential throughput.	Savings are considered to begin in the year in which the event occurs.	
Retailer Co-op	When postal code information is provided by the customer, results are directly attributed. If postal code information is not available, results are allocated based on average of 2008 & 2009 residential throughput.	Savings are considered to begin in the year of the home visit and installation date.	Peak demand and energy savings are determined using the verified measure level per unit assumption multiplied by the uptake in the market (gross) taking into account net-to-gross factors such as free-ridership and spillover (net) at the measure level.
Residential Demand Response	Results are directly attributed to LDC based on data provided to OPA through project completion reports and continuing participant lists.	Savings are considered to begin in the year the device was installed and/or when a customer signed a peaksaver PLUS™ participant agreement.	Peak demand savings are based on an ex ante estimate assuming a 1 in 10 weather year and represents the "insurance value" of the initiative. Energy savings are based on an ex post estimate which reflects the savings that occurred as a result of activations in the year and accounts for any “snapback” in energy consumption experienced after the event. Savings are assumed to persist for only 1 year, reflecting that savings will only occur if the resource is activated.

Residential New Construction	Results are directly attributed to LDC based on LDC identified in application in the saveONenergy CRM system; Initiative was not evaluated in 2011, reported results are presented with forecast assumptions as per the business case.	Savings are considered to begin in the year of the project completion date.	Peak demand and energy savings are determined using the verified measure level per unit assumption multiplied by the uptake in the market (gross) taking into account net-to-gross factors such as free-ridership and spillover (net) at the measure level.
Business Program			
Efficiency: Equipment Replacement	Results are directly attributed to LDC based on LDC identified at the facility level in the saveONenergy CRM; Projects in the Application Status: "Post-Stage Submission" are included (excluding "Payment denied by LDC"); Please see page for Building type to Sector mapping.	Savings are considered to begin in the year of the actual project completion date on the iCON CRM system.	Peak demand and energy savings are determined by the total savings for a given project as reported in the iCON CRM system (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net). Both realization rate and net-to-gross ratios can differ for energy and demand savings and depend on the mix of projects within an LDC territory (i.e. lighting or non-lighting project, engineered/custom/prescriptive track).
	Additional Note: project counts were derived by filtering out invalid statuses (e.g. Post-Project Submission - Payment denied by LDC) and only including projects with an "Actual Project Completion Date" in 2013)		
Direct Installed Lighting	Results are directly attributed to LDC based on the LDC specified on the work order.	Savings are considered to begin in the year of the actual project completion date.	Peak demand and energy savings are determined using the verified measure level per unit assumptions multiplied by the uptake of each measure accounting for the realization rate for both peak demand and energy to reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings take into account net-to-gross factors such as free-ridership and spillover for both peak demand and energy savings at the program level (net).

Existing Building Commissioning Incentive	Results are directly attributed to LDC based on LDC identified in the application; Initiative was not evaluated, no completed projects in 2011 or 2012.	Savings are considered to begin in the year of the actual project completion date.	Peak demand and energy savings are determined by the total savings for a given project as reported (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net).
New Construction and Major Renovation Incentive	Results are directly attributed to LDC based on LDC identified in the application.	Savings are considered to begin in the year of the actual project completion date.	
Energy Audit	Projects are directly attributed to LDC based on LDC identified in the application.	Savings are considered to begin in the year of the audit date.	Peak demand and energy savings are determined by the total savings resulting from an audit as reported (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net).
Commercial Demand Response (part of the Residential program schedule)	Results are directly attributed to LDC based on data provided to OPA through project completion reports and continuing participant lists	Savings are considered to begin in the year the device was installed and/or when a customer signed a peaksaver PLUS™ participant agreement.	Peak demand savings are based on an ex ante estimate assuming a 1 in 10 weather year and represents the "insurance value" of the initiative. Energy savings are based on an ex post estimate which reflects the savings that occurred as a result of activations in the year. Savings are assumed to persist for only 1 year, reflecting that savings will only occur if the resource is activated.

Demand Response 3 (part of the Industrial program schedule)	Results are attributed to LDCs based on the total contracted megawatts at the contributor level as of December 31st, applying the provincial ex ante to contracted ratio (ex ante estimate/contracted megawatts); Ex post energy savings are attributed to the LDC based on their proportion of the total contracted megawatts at the contributor level.	Savings are considered to begin in the year in which the contributor signed up to participate in demand response.	Peak demand savings are ex ante estimates based on the load reduction capability that can be expected for the purposes of planning. The ex ante estimates factor in both scheduled non-performances (i.e. maintenance) and historical performance. Energy savings are based on an ex post estimate which reflects the savings that actually occurred as a results of activations in the year. Savings are assumed to persist for 1 year, reflecting that savings will not occur if the resource is not activated and additional costs are incurred to activate the resource.
Industrial Program			
Process & System Upgrades	Results are directly attributed to LDC based on LDC identified in application.	Savings are considered to begin in the year in which the incentive project was completed.	Peak demand and energy savings are determined by the total savings from a given project as reported (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net).
Monitoring & Targeting	Results are directly attributed to LDC based on LDC identified in the application; Initiative was not evaluated, no completed projects in 2011, 2012 or 2013.	Savings are considered to begin in the year in which the incentive project was completed.	Peak demand and energy savings are determined by the total savings from a given project as reported (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net).

Energy Manager	Results are directly attributed to LDC based on LDC identified in the application.	Savings are considered to begin in the year in which the project was completed by the energy manager. If no date is specified the savings will begin the year of the Quarterly Report submitted by the energy manager.	Peak demand and energy savings are determined by the total savings from a given project as reported (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net).
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	Results are directly attributed to LDC based on LDC identified at the facility level in the saveONenergy CRM; Projects in the Application Status: "Post-Stage Submission" are included (excluding "Payment denied by LDC"); Please see "Reference Tables" tab for Building type to Sector mapping.	Savings are considered to begin in the year of the actual project completion date on the iCON CRM system.	Peak demand and energy savings are determined by the total savings for a given project as reported in the iCON CRM system (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net). Both realization rate and net-to-gross ratios can differ for energy and demand savings and depend on the mix of projects within an LDC territory (i.e. lighting or non-lighting project, engineered/custom/prescriptive track).
Demand Response 3	Results are attributed to LDCs based on the total contracted megawatts at the contributor level as of December 31st, applying the provincial ex ante to contracted ratio (ex ante estimate/contracted megawatts); Ex post energy savings are attributed to the LDC based on their proportion of the total contracted megawatts at the contributor level.	Savings are considered to begin in the year in which the contributor signed up to participate in demand response.	Peak demand savings are ex ante estimates based on the load reduction capability that can be expected for the purposes of planning. The ex ante estimates factor in both scheduled non-performances (i.e. maintenance) and historical performance. Energy savings are based on an ex post estimate which reflects the savings that actually occurred as a results of activations in the year. Savings are assumed to persist for 1 year, reflecting that savings will not occur if the resource is not activated and additional costs are incurred to activate the resource.

Home Assistance Program			
Home Assistance Program	Results are directly attributed to LDC based on LDC identified in the application.	Savings are considered to begin in the year in which the measures were installed.	Peak demand and energy savings are determined using the measure level per unit assumption multiplied by the uptake of each measure (gross), taking into account net-to-gross factors such as free-ridership and spillover (net) at the measure level.
Aboriginal Program			
Aboriginal Program	Results are directly attributed to LDC based on LDC identified in the application.	Savings are considered to begin in the year in which the measures were installed.	Peak demand and energy savings are determined using the measure level per unit assumption multiplied by the uptake of each measure (gross), taking into account net-to-gross factors such as free-ridership and spillover (net) at the measure level.
Pre-2011 Programs completed in 2011			
Electricity Retrofit Incentive Program	Results are directly attributed to LDC based on LDC identified in the application; Initiative was not evaluated in 2011, 2012 or 2013 assumptions as per 2010 evaluation.	Savings are considered to begin in the year in which a project was completed.	Peak demand and energy savings are determined by the total savings from a given project as reported. A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net). If energy savings are not available, an estimate is made based on the kWh to kW ratio in the provincial results from the 2010 evaluated results (http://www.powerauthority.on.ca/evaluation-measurement-and-verification/evaluation-reports).
High Performance New Construction	Results are directly attributed to LDC based on customer data provided to the OPA from Enbridge; Initiative was not evaluated in 2011, 2012 or 2013, assumptions as per 2010 evaluation.	Savings are considered to begin in the year in which a project was completed.	

3.3 Spending

Table 3 and 4 summarize the total spending by initiative that PDI has incurred in 2013 and cumulatively since 2011. It is detailed by the Program Administration Budget (PAB), Participant Based Funding (PBF), Participant Incentives (PI) and Capability Building Funding (CBF).

Table 3: 2013 Spending

Initiative	PAB	PBF	PI	CBF	TOTAL
Consumer Program					
Appliance Retirement	3,774.00				3,774.00
Appliance Exchange	2,654.00				2,654.00
HVAC Incentives	4,504.00				4,504.00
Annual Coupons	2,407.47				2,407.47
Bi-Annual Retailer Event	2,654.00				2,654.00
Retailer Co-op	-				-
Residential Demand Response	113,799.33	476,357.63			590,156.96
New Construction Program	2,654.00				2,654.00
Business Program					
Equipment Replacement	108,488.62		399,624.74		508,073.36
Direct Installed Lighting	81,017.21	44,700.00	203,183.75		328,900.96
Existing Building Commissioning Incentive	13,695.75				13,695.79
New Construction and Major Renovation Initiative	5,030.76		5,602.00		10,632.76
Energy Audit	24,735.03		21,651.30		46,386.33
Small Commercial Demand Response	-				
Demand Response 3	3,228.36				3,228.36
Industrial Program					
Process & System Upgrades	-				
a) preliminary engineering study	1,705.20				1,705.20
b) detailed engineering study	-				
c) program incentive	-				
Monitoring & Targeting	-				
Energy Manager	-				
Key Account Manager (“KAM”)	-				
Equipment Replacement	-				
Demand Response 3	-				
Home Assistance Program					
TOTAL SPENDING	401,853.74	645,007.63	760,843.32		1,807,704.69

Table 4: Cumulative Spending (2011-2014)

Initiative	PAB	PBI	PI	CBF	TOTAL
Consumer Program					
Appliance Retirement	9,960.67				
Appliance Exchange	8,840.67				
HVAC Incentives	10,870.67				
Annual Coupons	9,074.84				
Bi-Annual Retailer Event	9,415.21				
Retailer Co-op	-				
Residential Demand Response	197,978.91	767,511.63			965,490.54
New Construction Program	25,149.20				
Business Program					
Equipment Replacement	192,103.82		808,577,85		1,000,681.67
Direct Installed Lighting	139,873.08	93,449.99	383,250.01		616,573.08
Existing Building Commissioning Incentive	54,226.75				54,226.75
New Construction and Major Renovation Initiative	48,305.77				48,350.77
Energy Audit	59,910.01				59,910.01
Small Commercial Demand Response					
Demand Response	8,932.37				8,932.37
Industrial Program					
Process & System Upgrades					
a) preliminary engineering study	5,097.82				5,097.82
b) detailed engineering study	686.47				686.47
c) program incentive	686.47				686.47
Monitoring & Targeting	686.47				686.47
Energy Manager	686.47				686.47
Key Account Manager ("KAM")	686.47				686.47
Equipment Replacement Incentive	-				
Demand Response 3	-				
Home Assistance Program					
Home Assistance Program	64,385.39	141,350.00	148,740.54		354,475.93
Pre 2011 Programs					
Electricity Retrofit Incentive Program			107,728.19		107,728.19
Initiatives Not In Market					
Midstream Electronics					
Midstream Pool Equipment					
Demand Service Space Cooling	3,351.14				3,351.14
Demand Response 1	686.47				686.47
Home Energy Audit Tool					
TOTAL SPENDING	851,595.14	1,002,311.62	1,475,549.89		3,329,456.65

3.4 Additional Comments

None

4 Combined CDM Reporting Elements

4.1 Progress Towards CDM Targets

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

Implementation Period	Annual (MW)			
	2011	**2012**	**2013**	**2014**
2011 – Verified by OPA	.6	.6	.6	.5
2012 – Verified by OPA+		1.0	1.0	.9
2013 – Verified by OPA+		1.0	1.5	.7
2014				
Verified Net Annual Peak Demand Savings in 2014:				**2.2**
PDI 2014 Annual CDM Capacity Target:				**8.7**
Verified Portion of Peak Demand Savings Target Achieved (%):				**24.8%**

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	2.6	2.6	2.6	2.5	10.3
2012 – Verified by OPA+		4.1	3.9	3.8	11.9
2013 – Verified by OPA+		.4	3.1	3.1	6.6
2014					
Verified Net Cumulative Energy Savings 2011-2014:					**28.7**
PDI 2011-2014 Cumulative CDM Energy Target:					**38.5**
Verified Portion of Cumulative Energy Target Achieved (%):					**74.7%**

+includes adjustments to previous Years' verified results

4.2 Variance from Strategy

The result of ongoing challenges in obtaining results from the OPA for our deployed Demand Reduction devices through *peaksaver* PLUS, has resulted in a significant and continual delay in accurate reporting of PDI's achieved demand reduction for 2012 and now 2013. PDI estimates if all completed peaksaver PLUS installations had been reported, the demand reduction achieved would be closer to 65% and not the 24.7% currently indicated. As of the date of this report, this situation remains, with no clear resolution in sight in spite of numerous escalations.

It was anticipated that our Municipality would have moved ahead with the conversion of streetlights to LED's. Due to flawed economic calculation by an AMO sanctioned turnkey provider, the Municipality found it was not economically feasible to proceed under that model. Had this project gone ahead as anticipated, it would have provided a significant Demand and Energy reduction. PDI can no longer account for these attributed savings.

The Municipality is looking at other options and results will mostly likely be included in the new framework.

4.3 Outlook to 2014 and Strategy Modifications

On March 31st, 2014 the Minister of Energy issued a directive entitled "Continuance of the OPA's Demand Response Program under IESO management" which effectively halts new customer enrollments in the DR3 program until the IESO has a program in market. This is estimated to be some time in 2015.

The DR3 Initiative is a significant contributor to helping LDCs achieve their demands savings target. The program has taken some time to get traction and LDCs have been diligently working with their customers to encourage participation in the DR3 program. LDC customers are now in a position where many of them have contracted with an Aggregator but will be unable to participate due to the inability of the Aggregator to receive new contract schedules resulting in the current "pipeline" of potential DR contributors being stranded.

In addition, under the proposed new DR3 rules, many customers that may have qualified under 2011-2014 program rules, will not qualify under the new framework and therefore are unlikely to expel the amount of effort and resources necessary for participation.

PDI has made a concerted effort to increase community engagement in order to ensure better recognition of program offerings and our role in supporting customer's conservation efforts.

PDI has deployed a conservation tool to provide consumers with consumption data outside of the CDM suite of programs. This was undertaken by PDI as the process for submitting and gaining approval of custom or piloted program for benchmarking through the OPA has been arduous. We have found that there is high customer satisfaction and engagement in this new tool. In addition to the consumption information provided to the customers, PDI has used this same method to promote, advertise and market the residential conservation initiatives. This demonstrates the speed and the efficiency of a new deployment that can be achieved in absence of OPA involvement. PDI had this customer focused project deployed within six months of its initiation. The OPA benchmarking pilots were in their planning stage for close to 18 months and only now are they in a position to commence deployment. It is our hope that in the future, under the new framework, as promised, the mechanisms for introducing new pilots, concepts and yet untested technologies will be brought to market in an expedient manner.

5 Conclusion

In the OPA's 2013 final report, PDI was credited for 2.2 MW in peak demand savings and 28.7 GWh in energy savings, which represents 24.7% and 74.7% of PDI's 2014 target, respectively. We have yet to be credited for 2012 or 2013 installations of peaksaver PLUS devices. These results, we estimate, would bring our demand savings to 5.7 MW or 65% of our target, much more representative of a considerable effort expended by PDI, 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 our results in the subsequent CDM term.

Despite continuing improvements to existing programs, PDI faces challenges in the remaining year of the current CDM framework. With the current slate of available OPA Programs, and the current forecast of implementation and projected savings, PDI expects to meet its 38.45 GWh consumption target but will struggle to meet its 8.72 MW demand savings target. PDI expects a 1.5 MW shortfall to its target in demand savings by the end of 2014.

Looking ahead there is limited opportunity to make valuable changes to the current program portfolios and have these changes reflected in LDC 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 for the 2015-2020 revised framework.

It is our hope that custom programs developed to meet local needs, along with programs developed collaboratively with other LDC's, receive fair, prompt, equitable and transparent assessment from the OPA.

It is encouraging to see programs that have been extended into the 2015 (and beyond) have had necessary and beneficial rule changes introduced in an expedient and efficient manner. The support required to continue the 2014 programs into 2015 using existing PAB funding, as well as OPA support of continued Participant Incentives and Performance Based Funding is extremely important to the success of LDC's bridging the two frameworks.

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: Schedule B-1, Exhibit D on the OPA extranet and saveONenergy website

In Market Date: June, 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. Window ACs were discontinued from the program in 2013.

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: Schedule B-1, Exhibit C on the OPA extranet and saveONenergy website

In Market Date: June, 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: Schedule B-1, Exhibit B on the OPA extranet and saveONenergy website

In Market Date: June, 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.saveONenergy.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: Schedule B-1, Exhibit A on the OPA extranet and saveONenergy website

In Market Date: June, 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: Schedule B-1, Exhibit C on the OPA extranet and saveONenergy website

In Market Date: August, 2012

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, and Energuide 85 whole homes

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

Additional Detail: Schedule B-1, Exhibit C on the OPA extranet and saveONenergy website

In Market Date: September, 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: Schedule B-1, Exhibit C on the OPA extranet and saveONenergy website

In Market Date: June, 2012

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: Schedule C-2 on the OPA extranet and saveONenergy website

In Market Date: June, 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: Schedule C-3 on the OPA extranet and saveONenergy website

In Market Date: June, 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: Schedule C-6 on the OPA extranet and saveONenergy website Additional detail is available:

In Market Date: June, 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: Schedule C-4 on the OPA extranet and saveONenergy website

In Market Date: June, 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: Schedule C-1 on the OPA extranet Schedule C-1 and saveONenergy website https://saveONenergy.ca/Business/Program-Overviews/Audit-Funding.aspx

In Market Date: June, 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: Schedule D-1 on the OPA extranet and saveONenergy website
https://saveONenergy.ca/Business.aspx

In Market Date: June, 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: Schedule D-2 on the OPA extranet and saveONenergy website
https://saveONenergy.ca/Business.aspx

In Market Date: June, 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: Schedule D-3 on the OPA extranet and saveONenergy website
https://saveONenergy.ca/Business.aspx

In Market Date: May, 2012

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: ScheduleD-4 on the OPA extranet.

In Market Date: Not in Market

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: Schedule D-6 available on the OPA and saveONenergy website
https://saveONenergy.ca/Business.aspx

In Market Date: June, 2011

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

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: Schedule E available on the OPA extranet.

In Market Date: June, 2012

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