

September 30, 2015

Ontario Energy Board 2300 Young St. 26<sup>th</sup> Floor Toronto, Ontario M4P 1E4

Attention: Ms. Kirsten Walli Board Secretary

RE: <u>2014 Annual Conservation and Demand Management (CDM) Report</u> pursuant to Section 2.2 of the CDM Code for Festival Hydro Inc. (ED 2002-0513)

Dear Ms. Walli,

Pursuant to Section 2.2 of the CDM Code, please find enclosed two copies of the 2014 Annual CDM Report covering the period of January 1, 2014 to December 31, 2014 and due to the Board by September 30, 2015. A copy of this report has been filed today via RESS.

A copy of the 2014 Annual CDM Report is available for public view at Festival Hydro Inc. located at 187 Erie Street, Stratford. Festival Hydro Inc. will also post a copy of this Annual Report on its website by September 30, 2015.

Please contact me at 519-271-4703 ext. 254 if you have any questions regarding the information attached.

Yours truly,

FESTIVAL HYDRO INC.

Patty Mann Energy Conservation Officer

## Festival Hydro Inc.

# **Conservation and Demand Management**

## 2014 Annual Report

Submitted to:

**Ontario Energy Board** 

Submitted on September 30, 2015

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## **Executive Summary**

This annual report is submitted by Festival Hydro Inc. ("FHI") in accordance with the filing requirements set out in the Conservation and Demand Management ("CDM") Code for Electricity Distributors, issued September 16, 2010, Board File No. EB-2010-0215 specifically, the Appendix C Annual Report Template, as a progress report and update to Festival Hydro Inc.'s Updated Version 1 CDM Strategy filed with the Ontario Energy Board ("Board" or "OEB") on May 16, 2011. Accordingly, this report outlines Festival Hydro Inc.'s CDM activities for the period of January 1, 2014 to December 31, 2014. It includes net peak demand and net energy savings achieved from 2011 through to 2014, CDM program activities, successes and challenges.

Festival Hydro Inc. did not apply for any Board-approved CDM programs during 2014; however, as noted in the Guidelines for Electricity Distributors Conservation and Demand Management ("CDM Guidelines"), released April 26, 2012, the Board has deemed Time-of-Use ("TOU") pricing to be a province-wide Board-approved CDM program. The Ontario Power Authority ("OPA"), now Independent Electricity System Operator ("IESO"), is to provide measurement and verification on TOU. The IESO TOU savings allocated to Festival Hydro Inc.'s 2011 -2014 targets are 257 kW.

In 2011, Festival Hydro Inc. 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.

In 2012, Festival Hydro Inc. achieved a net annual peak demand savings of 1.9 MW resulting in a demand short fall of 1.26 MW relative to Festival Hydro Inc.'s CDM Strategy milestones. Although, the peak demand savings were below target, Festival Hydro Inc. exceeded the 2014 electricity energy savings target of 29.25 GWh. At the end of 2012, FHI had achieved a net cumulative energy savings persisting in 2014 of 31.62 GWh. The portion of the full OEB net energy savings target achieved at this time was 108.1%.

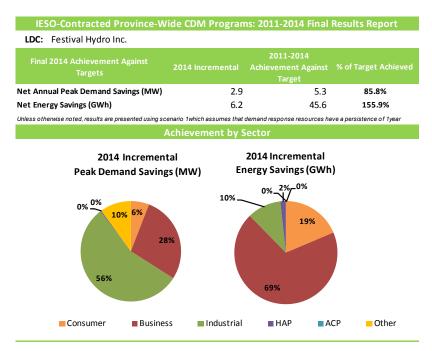
In 2013, Festival Hydro Inc. continued to work actively on participant engagement with significant focus on the Demand Response program. Festival Hydro Inc. achieved a net annual peak demand savings of 2.4 MW resulting in a demand short fall of 1.0 MW relative to Festival Hydro Inc.'s CDM Strategy milestones and 2.67 MW demand short fall program to date. This represented an overall variance to Festival Hydro Inc. Strategy of -42.7%. Although the peak demand savings were below target, Festival Hydro Inc. continued to exceed the 2014 electricity energy savings target of 29.25 GWh. At the end of 2013, Festival Hydro Inc. achieved a net cumulative energy savings persisting in 2014 of 37.2 GWh with the OEB net energy savings target achieved at this time being 127.3%.

In 2014, Festival Hydro Inc. continued to work actively on Demand Response participant engagement; however, due to the Ministry of Energy directive dated March 31, 2014, the OPA was unable to enroll new Demand Response 3 load effectively leaving the program at a standstill. This directive resulted in significant losses of 2013 and 2014 demand savings as Festival Hydro Inc. had a number of customers in the process of enrollment that were unable to enter the market.

To date Festival Hydro Inc. has achieved 5.3 MW of net incremental peak demand savings and 45.6 GWh of net incremental energy savings in 2014. A summary of the achievements towards the CDM targets is shown below:

#### Table 1: FHI Summary of Achievements Toward CDM Targets

Taken from the IESO Contracted Province Wide CDM Programs 2011-2014 Final Results Report for FHI

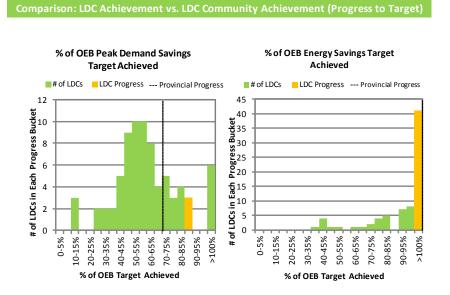


From the above table, Festival Hydro Inc. has achieved 5.3 MW or 85.8 % and 45.6 GWh or 155.9 % towards Festival Hydro Inc.'s 2014 peak demand reduction target and energy consumption reduction targets respectively. The shortfall of peak demand targets were due to late start of programs, cancellation of planned province wide programs including Direct Space Cooling, and in particular for Festival Hydro Inc., cancellation of the Demand Response program in March 2014.

Below is a comparison of FHI's achievement in yellow versus the LDC community's progress to target. For both demand and energy savings, FHI is above provincial progress:

 Table 2: LDC Achievement vs. LDC Community Achievement

 Taken from the IESO Contracted Province Wide CDM Programs 2011-2014 Final Results Report for FHI



In 2015, the Conservation First Framework (CFF) for the period 2015 -2020 will be implemented pending approval of our CDM Plan submitted to the IESO on May 1, 2015. To ensure a smooth transition, most 2011- 2014 Programs and Rules were extended into 2015 until the effective implementation start date of January 1, 2016 under the Conservation First Framework.

## Background

On March 31, 2010, the Minister of Energy and Infrastructure of Ontario, under the guidance of sections 27.1 and 27.2 of the *Ontario Energy Board Act, 1998*, directed the OEB to establish Conservation and Demand Management ("CDM") targets to be met by electricity distributors. Accordingly, on November 12, 2010, the OEB amended the distribution license of Festival Hydro Inc. to require Festival Hydro Inc., as a condition of its license, to achieve 29.250 GWh of energy savings and 6.230 MW of summer peak demand savings, over the period beginning January 1, 2011 through to 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, Festival Hydro Inc. submitted its CDM Strategy on May 16, 2011 which provided a high level of description of how Festival Hydro Inc. intended to achieve its CDM targets.

The Code also requires a distributor to file annual reports with the Board. This is the fourth Annual Report by Festival Hydro Inc. and has been prepared in accordance with the Code requirements and covers the period from January 1, 2014 to December 31, 2014.

Festival Hydro Inc. submitted its 2011 Annual Report on September 28, 2012 which summarized the CDM activities, successes and challenges experienced by Festival Hydro Inc. 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 IESO, and the absence of some programs negatively impacted the final 2011 results for LDCs. This issue was also highlighted in Volumes I and II of the Environmental Commissioner's Report on Ontario's Annual Energy Conservation Progress.

On December 21, 2012, the Minister of Energy directed the IESO to fund CDM programs which meet the definition and criteria for IESO-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 remained the achievement of CDM targets by December 31, 2014.

Festival Hydro Inc. submitted its 2013 Annual Report on September 26, 2014 which summarized the CDM activities undertaken by Festival Hydro Inc. for the January 1, 2013 to December 31, 2013 period. The OEB's 2013 CDM Results report identified that the majority of LDCs achieved close to 50% of their net peak demand (MW) target from their 2013 results; however, LDCs generally advised the Board that meeting their peak demand (MW) target is not likely and that a shortfall was expected.

In 2014, LDCs collectively achieved approximately 23.6% of the energy savings (GWh) target, adding to the overall cumulative result of approximately 109.2% of the net energy target of 6,000 GWh.

The report identifies that although there have been improvements to programs there still remains shortcomings 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 under the new framework.

## 1. Conservation Framework

## 1.1 2011-2014 Framework

Ontario's current CDM framework is a key step towards creating a culture of conservation in the Province. The Ontario Government ("Government") Directive to the OEB to establish CDM targets that would be met by electricity distributors recognizes the importance of CDM for both electricity customers and the electricity system. CDM helps customers manage rising energy costs, supports the provincial integrated supply plan, and addresses local distribution and transmission supply constraints. The past framework was intended to enable customers to benefit from a suite of both Board-approved and IESO province-wide programs and provide a portfolio that would meet both broad and specific customer needs.

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

Challenges faced by LDCs in the 2011-2014 framework, such as overbuilt governance, unnecessarily excessive legal requirements and misalignment of control and risks, have been addressed by the new directive. In addition, there are still many challenges to overcome which the new CDM framework should address while at the same time building on the current framework's strengths.

## **1.2 Conservation First Framework**

LDCs are supportive of the Government's renewed commitment for CDM in Ontario and LDCs are committed to working with the Government, IESO, Natural Gas Utilities and other stakeholders to develop programs for the new framework for CDM in the Province.

Long-term commitment for CDM funding and confirmation of the role of LDCs have been provided in the Minister's directive dated March 31, 2014, allowing LDCs to maintain current program infrastructure, including LDC staff and third party contracts as required.

The commitment also provided LDCs the program extensions required for continuity into the Conservation First Framework which was critical for all customers.

#### **Board-Approved CDM Programs**

## 1.3 Introduction

In its Decision and Order dated November 12, 2010 in EB-2010-0215 and EB-2010-0216, the OEB ordered that, to meet its mandatory CDM targets, "Each licensed electricity distributor must, as a condition of its licence, deliver Board-approved CDM programs, IESO-contracted province-wide CDM programs, or a combination of the two".

At this time, the implementation of TOU pricing is the only Board-approved CDM program that is being offered by Festival Hydro Inc.

## 1.4 TOU Pricing

#### 1.4.1 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 the Ministry directive dated March 31, 2010 by the Minister of Energy and Infrastructure, the OEB is of the view that any evaluation of savings from TOU pricing should be conducted by the IESO for the Province, and then allocated to distributors. Festival Hydro Inc. will report these results upon receipt from the IESO.

In 2013, IESO had retained the Brattle Group as the evaluation contractor and has been working with an expert panel convened to provide advice on methodology, data collection, models, savings allocation, etc. The initial evaluations were conducted in 2013 with five LDCs – Hydro One Networks Inc., Toronto Hydro-Electric System Limited, Hydro Ottawa Limited, Thunder Bay Hydro Electricity Distribution Inc. and Newmarket-Tay Power Distribution Ltd. 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 IESO website. Preliminary results demonstrated load shifting behaviours from the residential customer class.

Three additional LDCs were added to the study in 2014 – Cambridge-North Dumphries, PowerStream and Sudbury. The IESO advised that the TOU study would be completed in the summer of 2015 and final verified savings were made available for LDCs to include in the 2014 Annual Report.

#### 2.2.2 TOU PROGRAM DESCRIPTION

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

#### Initiative Frequency: Year-round

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

**Description**: In August of 2010, the OEB issued a final determination to mandate TOU pricing for Regulated Price Plan ("RPP") customers by June 2011, in order to support the Government's expectation for 3.6 million RPP consumers to be on

TOU pricing by June 2011, and to ensure that smart meters funded at ratepayer expense are being used for their intended purpose.

The RPP TOU price is adjusted twice annually by the OEB. A summary of the RPP TOU pricing is provided **Error!** Reference source not found.

#### Table 3: RPP TOU Pricing Summary

		Prices (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						
November 1, 2014	14.0	11.4	7.7						

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

#### 2.2.3 TOU Initiative Activities/Progress

Festival Hydro Inc. began transitioning its RPP customers to TOU billing on May 1, 2012. At December 31<sup>st</sup>, 2014, 100% RPP customers were on TOU billing.

## 1.5 Festival Hydro Inc.'s Application with the OEB

Festival Hydro Inc. did not submit a CDM program application to the OEB in 2014.

## 1.6 Festival Hydro Inc.'s Application with the IESO's Conservation Fund

In 2013, the IESO introduced the Conservation Fund's Program Innovation stream 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. As per the IESO, 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.

Festival Hydro Inc. did not submit a CDM program application to the IESO's Conservation Fund in 2014.

## 2 IESO-Contracted Province-Wide CDM Programs

## 3.1 Introduction

Effective March 2, 2011, Festival Hydro Inc. entered into an agreement with the IESO to deliver CDM programs extending from January 1, 2011 to December 31, 2014. The programs included under this agreement are listed in Table below. Further program details are included in Appendix A. In addition, results include projects started pre 2011 which were completed in or after 2011:

La la la calcula	Schedule	Date schedule	Festival Hydro Inc.
Initiative		posted	in Market Date
Residential Programs			
Appliance Retirement	Schedule B-1, Exhibit D	Jan 26,2011	Jan 2011
Appliance Exchange	Schedule B-1, Exhibit E	Jan 26, 2011	All residential rate classes Mar 2011 All residential rate classes
HVAC Incentives	Schedule B-1, Exhibit B	Jan 26, 2011	Apr 2011 All residential rate classes
Conservation Instant Coupon Booklet	Schedule B-1, Exhibit A	Jan 26, 2011	Feb 2011 All residential rate classes
Bi-Annual Retailer Event	Schedule B-1, Exhibit C	Jan 26, 2011	Mar 2011 All residential rate classes
Retailer Co-op	n/a	n/a	n/a All residential rate classes
Residential Demand Response	Schedule B-3	Aug 22, 2011	peaksaver ™ Extension Mar 2011-Aug 2011 peaksaverPLUS ™ not in market All residential rate classes
New Construction Program	Schedule B-2	Jan 26, 2011	Jun 2011 All residential rate classes
Home Assistance Program	Schedule E-1	May 9, 2011	Feb 2012 All residential rate classes
Commercial & Institutional Programs			
Efficiency: Equipment Replacement	Schedule C-2	Jan 26, 2011	Mar 2011 All general service classes
Direct Install Lighting	Schedule C-3	Jan 26, 2011	Jun 2011 General Service < 50 kW
Existing Building Commissioning Incentive	Schedule C-6	Feb 2011	Jun 2011 All general service classes
New Construction and Major Renovation Initiative	Schedule C-4	Feb 2011	Aug 2011 All general service classes
Energy Audit	Schedule C-1	Jan 26, 2011	Jun 2011 All general service classes
Commercial Demand Response	Schedule B-3	Jan 26, 2011	Angelictal service classes         peaksaver         Extension Mar 2011-Aug 2011         peaksaverPLUS ™         not in market         General Service < 50 kW
Industrial Programs		·	·
Process & System Upgrades	Schedule D-1	May 31, 2011	Nov 2011 General Service 50 kW & above
Monitoring & Targeting	Schedule D-2	May 31, 2011	Nov 2011 General Service 50 kW & above

#### Table 4: IESO-Contracted Province-Wide CDM Program Initiatives

Festival Hydro Inc. 2014 CDM Annual Report

Energy Manager	Schedule D-3	May 31, 2011	Jun 2011 General Service 50 kW & above
Key Account Manager ("KAM")	Schedule D-4	May 31,2011	Aug 2011 General Service 50 kW & above
Demand Response 3	Schedule D-6	May 31, 2011	Jan 2011 General Service 50 kW & above

In addition, results were realized towards Festival Hydro Inc.'s 2011-2014 targets through the following pre-2011 programs:

- Electricity Retrofit Incentive Program
- High Performance New Construction

As shown below, several program initiatives are no longer available to customers or have not been launched as indicated by the contents of Table 5.

#### Table 5: Pre-2011 IESO Programs

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 P	rogram				
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.			
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 between LDC and the IESO includes a program change management provision in Article 3. Collaboration between the IESO and LDC commenced in 2011, and continued in 2012, 2013 and 2014, as the change management process was implemented to enhance the saveONenergy program suite. The change management process allows for modifications to the Master CDM Program Agreement and initiative Schedules. The program enhancements give LDCs additional tools and greater flexibility to deliver programs in a way that meets the needs of customers and further drives participation in the Initiatives.

## 3.2 **Program Descriptions**

Full descriptions of IESO-contracted province-wide CDM programs are available on the IESO's intranet LDC and additional initiative information can be found on the saveONenergy website at <a href="https://saveonenergy.ca">https://saveonenergy.ca</a>. The targeted customer types, objectives, and individual descriptions for each program initiative are detailed in Appendix A. Discussion of LDC's experience with these programs is provided below.

#### 3.2.1 RESIDENTIAL PROGRAM

**Description:** Provides residential customers with programs and tools to help them understand and manage the amount of energy they use in their 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 addition of Light Emitting Diode ("LED") technology into the bi-annual retailer events in 2012 and the annual coupons in 2013, as well as LDC custom coded coupons, has had a positive effect on consumer engagement and provided LDCs with opportunities to achieve additional savings in their service territory. The Residential Demand Response program was intended to be the main residential initiative to drive savings for LDCs. Unfortunately, there were no savings associated with the Energy Display attributed to LDCs in the IESO's verified results to date. LDCs are anxiously waiting to see what results will be attributed in the 2014 verified results.

The Heating and Cooling incentives program continues to be one of the strongest performer in the residential suite of programs. This program is mainly driven by contractors participating in the program but they may not always deliver results in the required manner (e.g. allowing customers to apply for their own incentives and tardy reporting).

The Residential Program Portfolio is predominately a carryover of initiatives from previous programs. Three new initiatives were never launched and subsequently removed from the schedule in 2013 with no new additions. Delays in communication with regards to initiative offerings and results reporting have hampered LDCs' abilities to engage customers and promote participation. Province-wide advertising has provided value in all residential programs except for *peaksaver* **PLUS**<sup>®</sup> due to technological inconsistency across LDCs.

Work to revitalize and increase the effectiveness and breadth of the initiatives through the residential program needs to be a high priority. There are opportunities within the residential marketplace that need to be addressed, program developed and offered to customers. The Version 5 schedules changes under the Master Agreement implemented in Q1/Q2 2014 have increased the number of LDC-coded coupons available and made new installations of central heating and cooling systems eligible for the Heating and Cooling Incentive.

#### 3.2.1.1 Appliance Retirement Initiative (Exhibit D)

#### Initiative Activities/Progress:

Festival Hydro Inc. promoted the Appliance Retirement program using the following activities:

•	Newspaper Advertisements Billing Inserts	1 ad placed throughout the year Customer base received inserts with bills in both the spring and fall of 2014. Billing inserts totaled 44,000.
•	Bill Message	Customer base received program information on six different bills throughout 2014. (132,000 total)
•	Envelope Message	Two separate campaigns to all customers in 2014, totaling 44,000.
•	SaveONenergy Events	3 day Home and Garden Show, Communities in Bloom, Energy Conservation Green Week Mall Displays, LINC Family Festival

- Due to the duration of the program, and the revised appliance eligibility requirements to a minimum age of 20 years old, this initiative appears to have reached market saturation and has been under consideration for removal from the portfolio.
- As results are very responsive to province-wide advertising, IESO provincial marketing should continue to play a key role.
- 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, prior to the conclusion of this program by December 31, 2014.
- Due to the announcement by the IESO that the Appliance Retirement program was going to cease at the end of 2014, many LDCs lowered (or removed) their marketing support for the program.

#### 3.2.1.2 Appliance Exchange Initiative (Exhibit E)

#### Initiative Activities/Progress:

Due to limited number of retailers in Festival Hydro Inc.'s service territory who participate in this program, Festival Hydro Inc. could not support this in 2014.

#### 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 IESO 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 promotion of other programs in the portfolio
- This initiative, eligible measures and incentive amounts are influenced by the retail partner with very limited involvement from the LDCs. The restrictive, limited and sometimes non-participation of local stores can diminish the savings potential for this initiative.
- To date there has only been one retailer participant in the Appliance Exchange Initiative.
- Evaluation, Measurement, and Verification ("EM&V") results indicated that the value of savings for retired room air conditioners ("AC") has dropped resulting in the retail participant not accepting window ACs during the Spring 2013 event.
- 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 the IESO's contractor for appliance removal.
- The initiative appears to require more promotion from retailers and LDCs.

#### 3.2.1.3 HVAC Incentives Initiative (Exhibit B)

#### Initiative Activities/Progress:

Festival Hydro Inc. promoted the HVAC Incentives Initiative program using the following activities:

- Newspaper Advertising 4 ads placed throughout the year
- Billing Inserts Customer base received billing inserts in the spring of 2014. Inserts totaled 22,000.

#### Festival Hydro Inc. 2014 CDM Annual Report

 SaveONenergy Events 3 day Home and Garden Show, Communities in Bloom, Energy Conservation – Green Week Mall Displays, LINC Family Festival

#### Additional Comments:

- Incentive levels appear to be insufficient to prompt participants 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 central air conditioner sales to eligible units.
- There are cases where non-participating contractors are offering their own incentives (by discounting their installations to match the value of the IESO incentive) to make the sale. As this occurs outside of the initiative, savings are not credited to LDCs. IESO should consider this in future program impact evaluation studies.
- Changes to the schedules in 2014 to allow for incentives for new installations, rather than strictly replacement units, may prove to be effective in providing greater results, increasing provincial participation by 20% over 2013.

#### 3.2.1.4 Conservation Instant Coupon Initiative (Exhibit A)

#### Initiative Activities/Progress:

٠	SaveONenergy Events	3 Day Home and Garden Show, Communities in Bloom, Energy
		Conservation – Green Week Mall Display, LINC Family Festival

Coupon Events Stratford Home & Garden Show

- The timeframe for retailer submission of redeemed coupons vary from retailer to retailer, and in some cases has been lengthy. The delays and incomplete results reporting limits the ability to react and respond to initiative performance or changes in consumer behaviour.
- 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.

- All coupons have been provided with LDC custom coding in 2014 which allows LDCs to promote coupons based on local preferences. However, LDCs were not provided with customer coded coupon results until early 2015 and thus, had no indication of their redemption rates.
- 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 the list.
- The saveONenergy programs would benefit from specific end cap displays, aisle product stands and product-specific areas.

#### 3.2.1.5 Bi-Annual Retailer Event Initiative (Exhibit C)

#### **Initiative Activities/Progress:**

SaveONenergy Events: 3 Day Home and Garden Show, Communities in Bloom, Energy Conservation – Green Week mall displays

- 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 resources.
- The product list has had minimal changes over the past four years.
- Limited engagement of local retailers can restrict the savings potential for this initiative.
- Program evolution, including new products and review of incentive pricing for the coupon initiatives, must be a regular activity to ensure continued consumer interest.
- The product list could be distinctive from the Conservation Instant Coupon Initiative in order to gain more consumer interest and uptake.
- A review conducted by the EDA Residential Working Group in 2011 identified three areas of need for initiative evolution: 1) introduction of product focused marketing; 2) enhanced product selection; and 3) improved training for retailers as retail staff tend not to be knowledgeable regarding the products or promotion.
- 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.

#### 3.2.1.6 Retailer Co-op

#### Initiative Activities/Progress:

SaveONenergy Events: 3 Day Home and Garden Show, Communities in Bloom, Energy Conservation – Green Week mall displays

#### Additional Comments:

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

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

#### Initiative Activities/Progress:

Festival Hydro Inc. did not receive any completed applications for this program in 2014.

- This initiative provides incentives to home builders for incorporating energy efficiency into their buildings. To support this, LDCs need to provide education to consumers regarding the importance of choosing the energy efficient builder upgrade options without an immediate benefit to the consumer.
- In 2012 the application process was streamlined; however, this process continues to be too cumbersome for builders. This, combined with limited return, has resulted in this initiative continuing to under-achieve.
- Administrative requirements, particularly with individual home modeling, must align with perceived stakeholder payback.
- 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 the natural gas utilities.

#### 3.2.1.8 Residential Demand Response Program (Schedule B-3)

#### Initiative Activities/Progress:

In 2013, Festival Hydro Inc. continued to meet with Trilliant and In Home Display (IHD) vendors to obtain an integrated IHD solution. A solution was presented in late 2013 with estimated shipment of these devices arriving in the first or second quarter of 2014. With minimum order quantities in the 500-1,000 unit range and an estimated cost of \$50,000-\$100,000, it was Festival Hydro Inc.'s assessment that the program could not be ramped up quickly enough. As a result, it was decided that this was not a prudent spend and the program remains in the pilot stage.

Festival Hydro Inc. was unable to launch the program earlier as no flexibility was provided by the IESO to substitute the IHD with another participant incentive. This was particularly frustrating considering preliminary M&V results indicated the majority of the demand savings were associated with the installation of a switch or thermostat and not the In Home Display itself.

#### Additional Comments:

- Energy and demand savings have not been reported for the IHD portion of the program as 2013 EM&V results have
  determined zero savings associated with the IHD. IESO conducted another study in 2014, expanding its study territory
  beyond those included in the 2013 study to provincial rather than regional results. Results from the second study have
  not yet been announced.
- Smart meters installed by most LDCs do not have the capability to communicate directly to an IHD and any mass
  replacement of newly installed meters with communicating abilities is not fiscally responsible. When proposing
  technical initiatives that rely on existing LDC infrastructure or technology there should be an extensive consultative
  process in order to prevent this type of problem in the future.
- 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.
- Given the different LDCs' smart meter environments and needs, each LDC is positioning the initiative with subtle differences. As such, greater program flexibility is required to address unique LDC needs.

#### 3.2.2 COMMERCIAL AND INSTITUTIONAL PROGRAM

**Description:** Provides commercial, institutional, agricultural and industrial organizations with energy-efficiency programs to help reduce their electrical costs while helping Ontario defer the need to build new generation and reduce its environmental footprint. Programs to help fund energy audits, replace energy-wasting equipment or pursue new construction that exceeds 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 2014 the Commercial and Institutional ("C&I") Working Group continued its efforts to enhance the existing C&I programs and rectify identified program and system deficiencies. This has proven to be a challenging undertaking, normally taking months to complete sometimes relatively minor changes due to the current CDM framework. Overbuilt governance, numerous initiative requirements, complex program structure and lengthy change management have restricted growth without providing the anticipated improved measurement and verification results. In addition, Evaluation, Measurement and Verification (EM&V) has not yet achieved transparency. LDCs are held accountable for these results yet are mostly completely removed from the 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 IESO support personnel.

Despite these challenges the C&I Working Group, working in cooperation with the IESO, 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 a mean to accelerate certain program changes. The benefits of expedited change management process were seen in 2013 and carried over into 2014.

Looking ahead there is an opportunity to make valuable changes to the current program suite for the Conservation First Framework, but LDCs and the IESO should look beyond the current initiatives and work to launch new programs, built on the strengths of the 2011-2014 programs, which will meet the needs of the industry and consumers.

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

#### Initiative Activities/Progress:

In 2014, marketing continued to focus on larger industrial, institutional and commercial clients as well as local contractors. Once again, in March Festival Hydro Inc. hosted a recognition event and handed out excellence awards to industrial and commercial incentive recipients of the 2013 saveONenergy programs. A service provider discussed upcoming changes to the web based electrical account history available to Festival Hydro Inc. interval customers and reviewed how this online data solution could deliver energy reports, track peak demand, consumption as well as energy costs in a single user friendly portal. The event was attended by 100 participants representing the industrial, institutional and commercial sectors.

In December, saveONenergy marketing material was mailed to our largest clients. Once again, this was particularly successful in generating interest from businesses not actively participating in the saveONenergy programs. Spring and fall newspaper campaigns targeting the business sector were also completed. Email newsletter campaigns begin in 2014 and continue to target our large and small business customers.

The Retrofit program continues to be Festival Hydro Inc.'s most active CDM program. Of the applications received, approximately half are from industrial customers. Completed energy measures at commercial sites tend to focus primarily on LED lighting and HVAC projects. On the other hand, energy measures at industrial sites continue to be more varied and include variable speed drives, HVAC upgrades, process controls, compressed air upgrades, lighting, cycle time improvements and central system automation. Typically, if a customer site has a positive first experience with the Retrofit program, additional applications can be expected as long as customer engagement is frequent. As a result, Festival Hydro Inc. continues to emphasize relationship building and customer service, to encourage growth of repeat CDM business. Festival Hydro Inc. continues to act as an applicant representative for the Retrofit program as the application process is still considered a challenge for many customers.

- A large proportion of LDC savings are attributed to ERII.
- Capability building programs from industrial programs have had very positive contributions to ERII program.
- A number of customer-facing issues in iCon (the IESO's centralized application system) have been resolved; however, key LDC administrative back office processing issues continue to be a challenge. For example, currently LDCs are unable to record back office information to complete review and approval process using iCon.
- 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 ("KAMs"), 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.
- Lighting is still the most popular measure. Other market sectors are not as engaged yet, specifically the mechanical sector. There continues to be significant barriers to program participation from HVAC (Unitary AC) and compressed air channel partners
- Prescriptive and engineered worksheets provide a much needed simplified application process for customers; however, the eligible measures need to be updated and expanded in both technology and incentive amounts to address changing product costs and evolution of the marketplace.
- A focus on demand incentives has limited some energy project opportunities. In particular, night lighting projects have significant savings potential for customers but tend to have incentives of 10% or less of project cost.
- 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 applications 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 which can be extremely onerous, often requiring a dedicated resource.
- Streamlining of the settlements systems resulted in significant improvement in the payment process in 2013.
- IESO implemented a cut-off date of July 31, 2014 for approval of 2014 social housing adder (SHA) under ERII program. IESO had instructed that any SHA applications that will be submitted to IESO after July 31, 2014 will not be honored for SHA, however, they failed to mention that it is the timeline to submit the funding request to the IESO by the LDCs and not the submission date of the applications to IESO's ICON system by the Applicant (Customer). As a result there were some confusions and some of the applications that were submitted to IESO's iCON by July 31, 2014 but LDCs submitted the funding request to IESO at a later date (once LDCs have completed review of the applications) were not honored for SHA. Additionally, the formal letter confirming that the SHA annual allocation has been exceeded was received by conservation officers on July 15, 2014 leaving them only 15 days to inform the customers and this created a negative customer experience.
- The handling of the exterior lighting incentives was a negative customer experience. In the fall of 2014 a new section was introduced in the prescriptive Lighting worksheet. It offered generous incentives for some exterior lighting projects and many municipal customers took advantage of the available incentives. Within 2 weeks of introducing the incentives, several incentives were suddenly removed for approximately 6 weeks until new incentives were created due to \$/kWh incentive being too high for some of the measures. This caused a negative customer experience in several ways:
  - Some customers were planning on applying for rebates exterior prescriptive lighting measures based on the incentives offered but were suddenly not allowed to apply for prescriptive rebates.
  - The incentives should have been introduced at an appropriate level the first time. While market conditions can change, the incentives offered should have been researched and approved with the expectation that they would be in place for at least 6-12 months.
- Introduction of several new prescriptive measure worksheets including Plug Loads and Refrigeration were introduced in September 2014 allowed for new opportunities, albeit late in the framework.
- The Ministerial Directive provides continuity of the conservation programs for the participant, with clear direction on LDC administrative funding for 2015, which helps to avoid a gap in program delivery.

#### 3.2.2.2 Direct Install Initiative ("DIL") (Schedule C-3)

#### Initiative Activities/Progress:

Festival Hydro Inc. working with a program service provider, continued to maximize the uptake at each customer assessment leveraging the standard incentive of \$1,500. As it became increasingly difficult to identify the next potential participant, the approach was diversified to reach remaining accounts. With the mass contact approach of the call centre being less effective, alternate approaches were incorporated. Our partnership with local contractors remained strong.

Once again, many of the challenges presented in 2014 were related to the significant penetration levels in Festival Hydro Inc.'s service territory. The increase in the base incentive to \$1,500 remains a positive improvement to the program. Unfortunately, with a very limited remaining base of eligible customers, only a small number of Festival Hydro customers will benefit from these positive developments. With few eligible businesses remaining for the DIL program, the ability to increase participant uptake of benefits is the best avenue available for deriving maximum energy conservation results.

#### Additional Comments:

- LED lighting was introduced in 2013 as a new measure and was well received by customers who may not have previously qualified for DIL eligible upgrades. This is an efficient product with a long estimate useful life.
- Successful execution of the previous version of this initiative has resulted in reduced potential for the 2011-2014 initiative in some LDC's territories.
- 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 measures has potential to provide additional energy and demand savings.
- Many customers are not taking advantage of any additional measures, which may present an opportunity to for future savings with a new program offering.

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

#### Initiative Activities/Progress:

Festival Hydro Inc. provided limited local marketing and customer support for this initiative. Neither enquiries nor applications were received.

#### **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 too much of a significant barrier for many channel partners to participate.
- The customer expectation is that the program be expanded to include a broader range of measures for a more holistic approach to building recommissioning and chilled water systems used for other purposes should be made eligible and considered through change management.
- This initiative should be reviewed for incentive alignment with ERII, as currently a participant will not receive an incentive if the overall payback is less than 2 years.

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

#### Initiative Activities/Progress:

Through a third party administrator, Festival Hydro Inc. continued to conduct a market scan of new construction projects, establish relationships with builders and developers in the geographical area, and actively engage prospective applicants seeking program commitments. New building opportunities have been regulated to warehouse type projects and many leads were lost because they were too small, no internal champion existed or the retrofit/renovation didn't meet the strict HPNC criteria for such a project.

Because of the type of new construction observed in Festival Hydro Inc.'s service territory, it would be beneficial if future program offerings included smaller new construction projects with an emphasis on a prescriptive lighting and unitary AC approach.

- With the Ministerial Directive issued December 21, 2012, facilities with a completion date near the end of 2014 with some confidence that they will be compensated for choosing efficiency measures.
- 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.
- 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.

#### 3.2.2.5 Energy Audit Initiative

#### Initiative Activities/Progress:

Festival Hydro Inc. continued to promote the Energy Audit Initiative in 2014 within the industrial and commercial sectors. It was Festival Hydro Inc.'s intent to increase both the quantity of Retrofit applications received and the respective energy savings resulting from completed projects. The Audit program was consistently introduced and recommended during client site visits. The introduction of the new audit component for a single system has been extremely well accepted amongst our larger customers.

- 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.
- LDCs are receiving some savings towards their targets from an audit which is mainly attributable to operational savings.
- Customers look to the LDCs to recommend audit companies. A centralized prequalified list provided by the IESO may be beneficial.
- Participants are limited to one energy audit which restricts 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 a neutral third party regarding the appropriate lighting solution for their facility instead of what a local supplier would like 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 a potential barrier to participation

#### 3.2.3 INDUSTRIAL PROGRAM

**Description:** Owners of 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:**

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

#### Discussion:

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

Due to the size, scope and long lead time of these initiatives and associated projects, the December 2012 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 improved the number of projects and savings achieved within Process and Systems Upgrades Initiation ("PSUI"). Likewise, a decision to precede with applications for natural gas load displacement generation projects also increase uptake, although the limited time to bring new projects into service is a barrier.

#### 3.2.3.1 Process and Systems Upgrades Initiative ("PSUI") (Schedule D-1)

#### Initiative Activities/Progress:

The resources required by the participant, the dependence on the engineering firm completing the study, and the extensive support and advocacy needed from the LDC throughout the application process, continues to be a challenge for industrial customers participating in this program. The complicated capital agreement remains a significant barrier to participation for submitted projects with approved engineering studies, particularly in the case of micro-projects. In 2014, engineering studies were the main activity within our service territory.

#### **Additional Comments:**

• Numerous energy studies have been submitted and completed. This is a strong indication that there is potential for large projects with corresponding energy savings. Most of these studies have been initiated through Energy Manager and Key Account Manager ("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 a long project development cycle. As such, limited results are expected to be generated in 2014. The majority of the results are expected in 2015 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.
- Given the size of the projects involved, the contract required for PSUI is a lengthy and complicated document. A key to making PSUI successful is the new agreement for 'small' projects with simplified and less onerous conditions for the customer.
- To partially address this, changes were made to the ERII program which allowed smaller projects to be directed to the commercial stream. Most industrial projects to-date has been submitted as ERII projects due to less onerous contract and M&V requirements. Therefore, PSUI engineering studies and LDC's industrial resources (e.g., Energy managers, KAMs) contribute significant savings to other programs such as ERII.
- A business case was submitted by the Industrial Working Group in July 2012 which changed the 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 through change management in September 2013.
- With the considerable customer interest in on-site load displacement (co-generation) projects, the initiative should be reviewed to ensure that these projects may be accepted as part of the PSUI Initiative. The IESO was reviewing waste heat projects only and all other co-generation projects were on hold prior to June 2013, when a decision was made to allow natural gas load displacement generation projects to proceed under PSUI. It is expected that a number of projects may proceed although results may not be counted towards LDC 2011-2014 framework target unless applications are submitted before the end of 2014 and the projects are in service before December 31, 2015.
- The requirement for customer invoice to the LDC and provide proof of payment to consultants for their incentive is very burdensome for the customer and results in a negative customer experience and another barrier to participation.

#### 3.2.3.2 Monitoring and Targeting ("M&T") Initiative (Schedule D-2)

#### Initiative Activities/Progress:

No applications were received in 2014 and because of the size of our industrial and commercial sites, applications were not expected.

#### 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, only five applications has been completed in 2014, province wide.
- The savings target required for this initiative can present a significant challenge for smaller customers.
- Through the change management process in 2013, changes were made to ERII to allow smaller facilities to employ M&T systems.

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

#### Initiative Activities/Progress:

Festival Hydro Inc. ramped down the promotion of the Embedded Energy Manager Initiative in 2014 within the industrial and institutional sectors as the life of this Initiative was undetermined beyond the current CDM framework. No applications were received within 2014.

- The Embedded Energy Managers ("EEMs") have proven to be a popular and useful resource for larger customers. There are approximately 50 EEMs and 22 Roving Energy Managers ("REMs") being utilized by customers across the province.
- LDCs that are too small to qualify for their own REM are teaming up with other utilities to hire a REM to be shared by the group of utilities.
- At the beginning, it took longer than expected to set up the energy manager application process and unclear communication resulted in marketing and implementation challenges for many LDCs.
- Some LDCs and customers are reporting difficulties in hiring capable REMs and EEMs, in some instances taking up to several months to have a resource in place.
- There have been a number of studies identified by energy managers and they have been able to build capacity and deliver energy savings projects within their respective large commercial/industrial facilities.
- The requirement that 30% of targets must come from non-incented projects is identified as an issue for most EEMs/REMs. The EDA Industrial Working Group has proposed to remove this requirement for REMs only as they are not resident full time at a customer facility to find the non-incented savings.

#### 3.2.3.4 Key Account Manager (Schedule D-4)

#### Initiative Activities/Progress:

Festival Hydro Inc. did not participate in the KAM program as industrial clients within our service territory are being addressed with existing CDM staff. As the KAM program is limited within the current CDM cycle, it was decided that a longer term CDM relationship needed to be established between Festival Hydro Inc. and clients within this sector.

#### **Additional Comments**

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

#### 3.2.3.5 Demand Response 3 ("DR3") (D-6)

#### Initiative Activities/Progress:

Festival Hydro Inc. began providing local marketing and support for this initiative; however, based on lagging demand results in 2012, it was determined that direct sales needed to focus primarily on the Demand Response 3 program in 2013.

Festival Hydro Inc.'s service territory contains a large number of industrial and commercial customers which is reflected in our customer breakout as follows: industrial 53%; commercial 21%; and residential 26%. Working with an active Aggregator within the Festival Hydro Inc. service territory, industrial sites were identified as having low, medium or high demand response potential. Contact was made with high/medium potential sites using Festival Hydro Inc. staff and demand response meetings were scheduled at the customer site with both the LDC and aggregator in attendance. Because of established customer relationships built through participation in the Retrofit program, Festival Hydro Inc. was extremely successful scheduling Demand Response 3 discussions with clients.

A large portion of Festival Hydro Inc.'s system load is just in time manufacturing facilities. These sites require significant resources and lead time to create and test a curtailment plan successfully. In certain cases, substantial capital investment is also needed. Because Festival Hydro Inc.'s service territory is within a Demand Response 3 discounted incentive zone, this effectively doubles the payback period presenting a barrier to participation as the incentives are not enough to meet customer's internal acceptance criteria.

#### 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 confirm savings.
- The Industrial Working Group had a discussion with the IESO and representatives of the Ministry on proposed changes for the DR3 program. 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 are able to enter into contracts beyond 2014. This has allowed them to offer a more competitive contract price (five years) than the previously limited one- to two-year contracts. However on March 31, 2014 the Minister of Energy issued a directive entitled "Continuance of the IESO's Demand Response Program under IESO management" which restricts the IESO from granting any more contract schedules to aggregators, as the program is being transitioned from the IESO to the IESO. This decision will prevent the DR3 program from continuing to grow until the IESO is ready to assign DR3 capacity through a new auction process.
- Metering and settlement requirements are complicated and can reduce customer compensation amounts, and present a barrier to some customers.
- Compensation amounts have been reduced from the previous version of this program and subsequently there has been a corresponding decrease in renewal rates.

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

#### **Initiative Activities/Progress:**

Festival Hydro Inc. promoted the Home Assistance Program using the following activities:

•	Newspaper Advertising	Advertisement placed in local newspaper to inform customers of potential savings to eligible customers. (April, 2014)
•	Direct Mail	To select Festival Hydro Inc. customers who are Low Income Eligible.

• SaveONenergy Events 3 Day Home and Garden Show, Communities in Bloom, Energy Conservation -Green Week Mall Display, LINC Family Festival.

- The process for enrolling in social housing was complicated and time consuming. This was addressed in late 2012 and showed benefits since 2013.
- The financial scope, complexity, and customer privacy requirements of this initiative are challenging for LDCs and most have contracted this program out. This initiative may benefit from an IESO contracted centralized delivery agent.

#### 3.2.5 PRE-2011 PROGRAMS

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

## 4 2014 Festival Hydro Inc. CDM Results

## 4.1 Participation and Savings

The incremental net savings for 2011, 2012, 2013 and 2014 combined was 5,985 kW of incremental peak demand savings and 17,735 MWh of incremental energy savings. After Total OPA Adjustments, the program to date net annual peak demand savings was 5,346 kW and the program to date net cumulative energy savings was 45,606 MWh. The Total OPA Adjustments remain difficult to mitigate at the LDC level. To improve these figures, Festival Hydro Inc. continues to rely on the IESO to review and implement recommended changes related to the IESO Contracted Province Wide Programs.

The following tables provide specific results as taken from the IESO Contracted Province Wide CDM Programs 2011-2014 Final Results Report for Festival Hydro Inc.; the entire report can be found in Appendix C.

#### Table 6: FHI Initiative & Program Level Net Savings by Year

#### Taken from the IESO Contracted Province Wide CDM Programs 2011-2014 Final Results Report for FHI

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Oright of the stateName <th< td=""><td>Consumer Program Total</td><td></td><td></td><td></td><td></td><td></td><td>237</td><td>99</td><td>104</td><td>151</td><td>570,702</td><td>348,547</td><td>338,363</td><td>787,002</td><td>520</td><td>4,788,111</td></th<>	Consumer Program Total						237	99	104	151	570,702	348,547	338,363	787,002	520	4,788,111
nomeregiste	Business Program			1						-		1	1			
handle consistenci main becomessionuning </td <td></td>																
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Dama fragone 3 Basines Portalfacility1110686869502.669759270504.578Basines Portal Portal Roces & System Urge Ac Non-String & Traging Renge Mange Renge Mange		Devices														
Basing Program (Finder Morgan (Finder Morgan<			-				-						-			-
Description         Description <thdescription< th=""> <thdescription< th=""></thdescription<></thdescription<>	Demand Response 3	Facilities	1	1	1	1										
instructory is Tragening         Projects         0 <t< td=""><td>Business Program Total</td><td></td><td></td><td></td><td></td><td></td><td>248</td><td>586</td><td>447</td><td>719</td><td>530,281</td><td>2,648,223</td><td>2,268,471</td><td>2,915,471</td><td>1,766</td><td>17,419,593</td></t<>	Business Program Total						248	586	447	719	530,281	2,648,223	2,268,471	2,915,471	1,766	17,419,593
instructory is Tragening         Projects         0 <t< td=""><td>Industrial Program</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Industrial Program															
tendy fundam         projects         0         0         1         0        0			-		-	-	-						-	7		
introd         registing         8         0	Monitoring & Targeting	Projects	0		0	0	0		0	0	0	0	0	0	0	0
permed Response 3         recilities         0         0         2         4         0         0         334         1,372         7,597         1,372         7,597           industrial Program Total         itome A isolance Program         itome A isolance Program         itome A isolance Program         0         0         2,347         1,372         7,597         1,372         7,597           Home A isolance Program Total         itome A isolance Program Total         0         0         0         2,11         9         0         4,383         189,557         7,548         30         465,114           Home A isolance Program Total         Itome A isolance Pro																
Industrial Program Total         Image:	Retrofit	Projects	8			0	66			0	427,748			0		
Image         Homes         Number         Number <td></td> <td>Facilities</td> <td>0</td> <td>0</td> <td>2</td> <td>4</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		Facilities	0	0	2	4	-									
nome soltance Program         Homes         0         8         310         92         0         0         21         9         0         4,983         189,557         73,488         30         465,114           Home Assistance Program         Homes         0         0         0         0         21         9         0         4,983         189,557         73,488         30         465,114           Home Assistance Program         Homes         0 <t< td=""><td>Industrial Program Total</td><td></td><td></td><td></td><td></td><td></td><td>66</td><td>0</td><td>334</td><td>1,423</td><td>427,748</td><td>0</td><td>7,597</td><td>447,640</td><td>1,488</td><td>2,166,230</td></t<>	Industrial Program Total						66	0	334	1,423	427,748	0	7,597	447,640	1,488	2,166,230
None Asistance Program Total         Image         Image <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>																
Abortom Program         Homes         O	Home Assistance Program	Homes	0	8	310	92										
Direct Install Lighting       Projects       0	Home Assistance Program Total						0	0	21	9	0	4,983	189,557	73,548	30	465,114
Direct Install Lighting       Projects       0	Aboriginal Program															
Aboriginal Program Total       Image: Construction of the construc	Home Assistance Program	Homes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Prezioni Program completed is 2011         Image: completed is 2011         <	Direct Install Lighting	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
High Performance New Construction       Projects       0 <td>Aboriginal Program Total</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td>	Aboriginal Program Total						0	0	0	0	0	0	0	0	0	0
High Performance New Construction       Projects       0 <td>Pre-2011 Programs completed in 2011</td> <td></td>	Pre-2011 Programs completed in 2011															
Toronto Comprehensive         Projects         0	Electricity Retrofit Incentive Program	Projects	23	0	0	0	154	0	0	0	714,841	0	0	0	154	2,859,364
Multifamily Energy Efficiency Rebates         Projects         0 <td>High Performance New Construction</td> <td>Projects</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>1,841</td> <td>383</td> <td>0</td> <td>0</td> <td>1</td> <td>8,514</td>	High Performance New Construction	Projects	0	0	0	0	0	0	0	0	1,841	383	0	0	1	8,514
Multifamily Energy Efficiency Rebates         Projects         0 <td>Toronto Comprehensive</td> <td>Projects</td> <td>0</td>	Toronto Comprehensive	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDC Custom Programs       Projects       0			0			0	0				0		0			
Pre-2011 Programs completed in 2011 Total         Image: completed in 2011 Total		-			0	0		<u> </u>	0		0	0	0	-	0	0
Other         Projects         0         0         1         0 <t< td=""><td></td><td></td><td></td><td>· · · ·</td><td>· · ·</td><td></td><td></td><td></td><td></td><td></td><td>716,682</td><td></td><td></td><td></td><td></td><td></td></t<>				· · · ·	· · ·						716,682					
Time-of-Use Savings       Homes       0       0       0       n/a       0       0       0       227       0	Other							· · · · ·								
Time-of-Use Savings       Homes       0       0       0       n/a       0       0       0       227       0	Program Enabled Savings	Projects	0	0	1	0	0	0	0	0	0	0	0	0	0	0
LDC Pilots       Projects       0					-											
Other Total         0         0         0         0         257         0         0         0         0         257         0           Adjustments to 2011 Verified Results         783         0         0         3432,735         0         1,222         783         13,735,828           Adjustments to 2013 Verified Results         1         27         2,908         108,464         29         334,271           Adjustments to 2013 Verified Results         319         1         1,914,503         319         325,084         29         334,271           Energy Efficiency Total         572         617         502         1,132         2,242,749         3,001,141         2,789         27,7694,741           Demand Response Total (Scenario 1)         344         68         403         1,426         2,242,78         3,001,141         2,789         2,789         27,694,741           OPA-Contracted LDC Portfolio Total (inc. Adjustments)         0         783         1         346         0         3,432,715         2,908         1,130         1,246         12,185           OPA-Contracted LDC Portfolio Total (inc. Adjustments)         0         783         1         346         0         3,432,715         2,908,897         5,246 <td></td>																
Adjustments to 2011 Verified Results         783         0         3,432,735         0         1,222         783         13,735,528           Adjustments to 2012 Verified Results         1         27         2,908         108,664         29         334,271           Adjustments to 2013 Verified Results         1         27         2,908         108,664         29         334,271           Adjustments to 2013 Verified Results         1         27         2,908         108,664         29         334,271           Adjustments to 2013 Verified Results         1         1,914,503         319         3,829,084         2,908         1,914,503         319         3,829,084           Energy Efficiency Total         572         617         502         1,132         2,242,749         3,01,141         2,795,665         4,223,661         2,789         27,694,741           Demand Response Total (Scenario 1)         Adjustments to Previous Years' Verified Results Total         0         783         1         346         0         3,432,735         2,908         2,024,189         1,130         17,899,182           OPA-Contracted LDC Portfolio Total (inc. Adjustments)         706         1,468         907         2,904         2,245,414         6,434,871         2,806,897 <td< td=""><td></td><td>Projects</td><td>0</td><td>J U</td><td>0</td><td>I U</td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td></td<>		Projects	0	J U	0	I U						-				
Adjustments to 2012 Verified Results         1         27         2,908         108,464         29         334,271           Adjustments to 2013 Verified Results         1         27         1         27         1,914,503         319         319         3329,084           Energy Efficiency Total         572         617         502         1,132         2,242,749         3,01,141         2,795,465         4,223,661         27,699,741         319         3,829,084           Demand Response Total (Scenario 1)         Adjustments to Previous Years' Verified Results Total         0         783         1         346         0         3,42,715         2,908         2,024,184         1,426         12,185           OPA-Contracted LDC Portfolio Total (inc. Adjustments)         0         783         1         346         0         3,42,715         2,908         2,024,185         1,130         17,899,182           OPA-Contracted LDC Portfolio Total (inc. Adjustments)         706         1,468         907         2,904         2,245,414         6,434,871         2,806,897         6,247,851         5,346         45,606,107           Activity and savings for Demand Response resources for each year represent the savings from all active         *includes adjustments afer final Reports wer isseed         Full OEB Target:         6,2							0									
Adjustments to 2013 Verified Results         Image: Constraint of the subscription of the sub								783				3,432,735	-			
Energy Efficiency Total         572         617         502         1,132         2,242,749         3,001,141         2,795,465         4,223,661         2,789         27,694,741           Demand Response Total (Scenario 1)         134         68         403         1,426         2,665         995         8,524         0         1,426         12,185           Adjustments to Previous Years' Verified Results Total         0         783         1         346         0         3,432,735         2,908         2,024,189         1,130         17,899,182           OPA-Contracted LDC Portfolio Total (inc. Adjustments)         1,468         907         2,904         2,245,414         6,434,871         2,806,997         6,247,851         5,346         45,606,107           Activity and savings for Demand Response resources for each year represent the savings from all active "Includes adjustments after final Reports were issued         Full OBE Target:         6,230         29,250,000									1				2,908			
Demand Response Total (Scenario 1)         134         68         403         1,426         2,665         995         8,524         0         1,426         1,130         1,789,182           Adjustments to Previous Years' Verified Results Total OPA-Contracted LDC Portfolio Total (inc. Adjustments)         0         783         1         346         0         3,432,735         2,908         2,024,189         1,130         17,899,182           OPA-Contracted LDC Portfolio Total (inc. Adjustments)         706         1,488         907         2,904         2,245,414         6,434,871         2,806,997         6,247,851         5,346         45,606,107           Activity and savings for Demand Response resources for each year represent the savings from all active "Includes adjustments after final Reports were issued         *         Full OEB Target:         6,230         29,250,000	Adjustments to 2013 Verified Results									319				1,914,503	319	3,829,084
Demand Response Total (Scenario 1)         134         68         403         1,426         2,665         995         8,524         0         1,426         12,185           Adjustments to Previous Years' Verified Results Total OPA-Contracted LDC Portfolio Total (inc. Adjustments)         0         783         1         346         0         3,432,735         2,908         2,024,189         1,130         17,899,182           OPA-Contracted LDC Portfolio Total (inc. Adjustments)         706         1,468         907         2,904         2,245,414         6,434,871         2,806,997         6,247,851         5,346         45,606,107           Activity and savings for Demand Response resources for each year represent the savings from all active facilities or devices contracted bits exame to the same descent social exerces to the device scanter is defined Reports         Full OEB Target:         Full OEB Target:         6,230         29,250,000	Energy Efficiency Total						572	617	502	1,132	2,242,749	3,001,141	2,795,465	4,223,661	2,789	27,694,741
Adjustments to Previous Years' Verified Results Total         0         783         1         346         0         3,432,735         2,908         2,024,189         1,130         17,899,182           OPA-Contracted LDC Portfolio Total (inc. Adjustments)         1         3,46         907         2,904         2,245,414         6,434,871         2,806,897         6,247,851         5,346         45,606,107           Activity and savings for Demand Response resources for each year represent the savings from all active         "Includes adjustments after final Reports were issued         Full OEB Target:         6,230         29,250,000         29,250,000         29,250,000         20,2							134	68	403	1,426	2,665	995	8,524	0	1,426	12,185
OPA-Contracted LDC Portfolio Total (inc. Adjustments)         Tota         1,468         907         2,904         2,245,414         6,434,871         2,806,897         6,247,851         5,346         45,606,107           Activity and savings for Demand Response resources for each year represent the savings from all active         *Includes adjustments aler final Reports were issued         Full OEB Target:         6,230         29,250,000         29,250,000         29,250,000         29,250,000         20,250,000							0	783	1	346	0	3,432,735	2,908	2,024,189	1,130	17,899,182
Activity and savings for Demand Response resources for each year represent the savings from all active "Includes adjustments after Final Reports were issued facilities or devices contracted since January 1, 2011 (reported cumulatively).							706	1,468	907	2,904	2,245,414					
facilities or devices contracted since January 1, 2011 (reported cumulatively).				*Includes adjust	ments after Final I											
										nonse						
resources have a persistence of 1 year % of Full OEB Target Achieved to Date (Scenario 1): 85.8% 155.9%											% of	Full OEB Target	Achieved to Da	te (Scenario 1):	85.8%	155.9%

Table 1: Festival Hydro Inc. Initiative and Program Level Net Savings by Year

Festival Hydro Inc. 2014 CDM Annual Report

#### Table 7: Adjustments to FHI Net Verified Results Due to Variances

#### Taken from the IESO Contracted Province Wide CDM Programs 2011-2014 Final Results Report for FHI

Initiative	Unit	(new prog	Incremental A gram activity oc recified reportin	ctivity curring within		(new peak der	nental Peak Den nand savings fr ecified reportin	mand Savings ( om activity wit		(new energ		gy Savings (kWh activity within ng period)		Program-to-Date Verif (exclud 2014 Net Annual Peak Demand Savings (kW)	
		2011*	2012*	2013*	2014	2011	2012	2013	2014	2011	2012	2013	2014	2014	2014
Consumer Program															
Appliance Retirement	Appliances	0	0	0		0	0	0		0	0	0		0	0
Appliance Exchange	Appliances	0	0	0		0	0	0		0	0	0		0	0
HVAC Incentives	Equipment	-60	6	10		-18	1	2		-34,906	2,908	3,844		-15	-123,213
Conservation Instant Coupon Booklet	Items	29	0	4		0	0	0		964	0	82		0	4,021
Bi-Annual Retailer Event	Items	286	0	0	1	0	0	0		7,638	0	0		0	30,551
Retailer Co-op	Items	0	0	0	1	0	0	0		0	0	0		0	0
Residential Demand Response	Devices	0	0	0		0	0	0		0	0	0		0	0
Residential Demand Response (IHD)	Devices	0	0	0		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						-18	1	2		-26,304	2,908	3,926		-14	-88,641
Business Program															
Retrofit	Projects	1	4	24		2	25	156		1,168	101,453	661,801		183	1,632,631
Direct Install Lighting	Projects	6	0	0		5	0	0		11,580	0	0		5	46,320
Building Commissioning	Buildings	0	0	0		0	0	0		0	0	0		0	0
New Construction	Buildings	2	0	1		788	0	34		3,421,115	0	83,715		822	13,851,892
Energy Audit	Audits	1	0	0		5	0	0		26,398	1,708	64		6	110,846
Small Commercial Demand Response	Devices	0	0	0		0	0	0		0	0	0		0	0
Small Commercial Demand Response (IHD)	Devices	0	0	0	1	0	0	0		0	0	0		0	0
Demand Response 3	Facilities	0	0	0		0	0	0		0	0	0		0	0
Business Program Total						801	26	190		3,460,261	103,161	745,580		1,016	15,641,689
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	1	<u> </u>	0	0	0		0	0	10,468	-	0	20,935
Retrofit	Projects	0	0	0		0	0	0		0	0	0		0	0
Demand Response 3	Facilities	0	0	0		0	0	0		0	0	0		0	0
Industrial Program Total		-	-			0	0	0		0	0	10,468		0	20,935
Home Assistance Program									<u> </u>		-		-		
Home Assistance Program	Homes	0	2	11		0	1	2	1	0	5,380	12,157		3	40,300
Home Assistance Program Total			1			0	1	2		0	5,380	12,157		3	40,300
Aboriginal Program											.,				
Home Assistance Program	Homes	0	0	0		0	0	0	1	0	0	0		0	0
Direct Install Lighting	Projects	0	0	0		0	0	0		0	0	0		0	0
Aboriginal Program Total	riojecta		0	0		0	0	0		0	0	0		0	0
Aboliginal Program Total							Ū	v			U	Ū		, , , , , , , , , , , , , , , , , , ,	U
Pre-2011 Programs completed in 2011	Designts	0	0	0		0	0	0		0	0	0		0	0
Electricity Retrofit Incentive Program	Projects	0	0	0		0	0	0		0	0	0		0	0
High Performance New Construction	Projects	0	0	0		0	0	0		0	0	0		0	0
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						0	0	0		0	0	0		0	0
Other															
Program Enabled Savings	Projects	0	0	1		0	0	125		0	0	1,142,450		125	2,284,899
Time-of-Use Savings	Homes	0	0	0		0	0	0		0	0	0		0	0
LDC Pilots	Projects	0	0	0		0	0	0		0	0	0		0	0
Other Total	,					0	0	125		0	0	1,142,450		125	2,284,899
Adjustments to 2011 Verified Results						783		_		3,433,957				783	13,735,828
Adjustments to 2011 Verified Results							29			5,455,557	111,449			29	334,271
Adjustments to 2012 Verified Results								319			,	1,914,580		319	3.829.084
Total Adjustments to Previous Years' Verified R	Results					783	29	319		3,433,957	111,449	1,914,580		1,130	17,899,182
Activity and savings for Demand Response resources		Adjustments to	a providence us a m	Lenguite alt au	n in th's				Table 1				todio	1,100	1,000,101
represent the savings for Demand Response resources represent the savings from all active facilities or dev since January 1, 2011 (reported cumulatively).						table will not a flect persisted :						ioove is preser	iteu m		

Table 2: Adjustments to Festival Hydro Inc. Net Verified Results due to Variances

Festival Hydro Inc. 2014 CDM Annual Report

## 4.2 Evaluation, Measurement and Verification ("EM&V") Findings

The following table provides a summary of the 2014 EM&V findings for the evaluated saveONenergy program initiatives. These key evaluation findings are derived from the 2014 evaluations of the saveONenergy programs and issued by the IESO.

Table 8: Evaluation Findings as Taken from the IESO 2014 Key Evaluation Findings

## CONSUMER PROGRAM

## Appliance Retirement Initiative

- Participation increased slightly to 22,563 (7.7%) in 2014 compared with 20,952 in 2013.
- Since 2011 overall Initiative participation has decreased nearly 60%.
- The greatest decrease was seen in the number of refrigerators collected year-over-year
- Of appliances collected, refrigerators and freezers remain the most dominate measures accounting for 90%. However, window AC units and dehumidifiers saw a marked increase of 29.6% and 27% respectively in 2014.
- Net to gross ratio (NTG) increased slightly to 47% compared to 43% as reported for 2013 and 2012 program years.

## Appliance Exchange Initiative

- Participation in 2014 increased by 6.5% to 5,685 appliances from 5,337 compared to 2013
- Per-unit savings has increased by 36.6% as ENERGY STAR criteria increases and more participants purchase ENERGY STAR replacements appliances. This resulted in a 6.5% increase in Net Energy & Demand savings.
- Net to Gross ratio (NTG) remained unchanged from 2013 at 52.6%

## Heating and Cooling Initiative

- In 2014 net savings increased by 20% from 2013 and overall participation increased by 17% to 113,002 compared to 2013
- The ECM measure has remained the dominant source of savings since 2011
- Per unit furnace savings increased 12.7% due to a shift in the number of participants who use their furnace fan continuously both before and after the retrofit.
- Per unit energy and demand savings assumptions for central air conditioners decreased by 56% due to reduced run hours
- Net to Gross ratio (NTG) remained unchanged from 2013 at 48%

## **Annual Coupons**

- Customers redeemed more than five times as many annual coupons in 2014 as in 2013. In total, approximately 500, 000 Annual Coupons were redeemed in 2014 with 110,000 being LDC Coded Coupons.
- There was a further reduction in savings for lighting measures from changes in the baseline due to the phase out of 72W and 100W incandescent bulbs.
- Despite the significant per unit savings reductions for lighting measure, the Net Annual Savings from Annual Coupons in 2014 was more than six times that in 2013. This is primarily because of higher participation and the inclusion of LED coupons and full year availability of all coupons.
- Measured NTG ratios grew significantly in 2014. The NTG ratio is 53% higher in 2014 than in 2013 due to the inclusion of participant spillover, i.e., purchase of additional coupon initiative measures and general energy efficient measures without the use of a coupon but influenced by the coupon program.

## **Bi-Annual Coupon Events**

- Over 2.5 million coupons were redeemed in 2014 compared with 2013 redemptions
- The Bi-Annual Coupon Event saw a substantial increase in the number of coupons redeemed during the Spring and Fall Events in 2014 compared to 2013. The increase can be linked to a substantial increase in LED purchases with event coupons accounting for 84% of all Bi-Annual Coupons redeemed.
- Reductions in per unit savings were overshadowed by the increase in coupon redemptions. Overall savings increased by approximately 85% in 2014 compared with 2013 Demand and Energy Savings.
- Similar to the Annual Coupon Event measured NTG ratios rose by 53% compared to 2013 NTG ratios. The rise is due to the inclusion of

participant spillover, i.e., purchase of additional coupon initiative and general energy efficient measures without the use of a coupon but influenced by the Bi-Annual Coupon event.

## *peaksaver*PLUS

- There were an additional 55,000 CAC load control devices enrolled in the program in 2014 relative to 2013, which increased the capacity of the residential segment of the program from 129 MW in 2013 to 143 MW in 2014.
- Ex-ante impacts on a per device basis were lower than 2013 average.
- There were no energy savings in 2014 because there were no system-wide events were called.
- Load impact estimates for the average small and medium business and for electric water heaters among residential customers remain consistent with prior year's analysis
- IHD's yielded no statistically significant energy savings.

## **Residential New Construction**

- The most significant growth in the initiative has been participation in the prescriptive track. MW savings in the prescriptive track increased from zero summer peak MW savings in 2011 to 352 summer peak kW savings in 2014.
- The custom track saw participation for the first time in 2014. One custom project of 55 homes contributed 37 kW demand savings and 0.5 GWh of energy savings.
- New deemed savings for performance track homes were developed and implemented, resulting more consistent realization rates for 2014.
- ENERGY STAR New Homes was introduced as an eligible measure within the performance track in 2014. As a result, these ENERGY STAR New Homes provided 1% of peak kW savings and 4% of kWh savings.

## HOME ASSISTANCE PROGRAM

## Home Assistance Program

• Participation decreased by 5 % to 25,424 participants compared with 2013 (26,756). The decrease was due to six LDCs not participating in the Home Assistance Program in 2014.

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- Realization rates for demand doubled in 2014 to 56% compared with 2013 (26%). However, energy realization rates decreased by 10% to 77% compared with 2013 results.
- Realization rate for demand savings increased due to the adoption of the new FAST Tool which incorporated updated kW savings for weatherization measures in particular insulation measures.

## **BUSINESS PROGRAM**

## Retrofit

- The number of prescriptive projects increased slightly (1.2%) in 2014 to a total of 4,812. However, total net verified savings and peak demand savings dropped significantly (19% and 30% respectively). This is due to a 19% drop in per-project net verified savings, which can be attributed to lower track level realization rate and net-to-gross ratio and is related to smaller average project sizes.
- The quantity of engineered projects increased 22% to a total of 3,906 in 2014, combined with a net verified savings per project increase of 17% the track saw a dramatic 47% increase in net energy savings.
- Lower demand realization rates across the program as a whole were tied to equipment differences between reported and calculated values. For lighting projects the difference was most often seen in baseline and retrofit lamp wattages and ballast factors. Non-lighting tracks exhibited lower demand realization rates due to the following factors:
  - Variations in load profiles where the evaluation team found equipment that operated fewer hours or at a lower capacity than expected from the project documentation.
  - Inconsistencies in equipment nameplate data (typically efficiency or capacity) between project documentation and equipment installed on-site.
  - Weather dependent control systems leading to shifts in how often the equipment operated.

## Small Business Lighting

- 23,784 projects were completed in 2014 (34% increase from 2013)
- The category of 'Other' business type projects increased 71% when compared to 2013. Agribusinesses make up 74% of the 'Other' business type category. While growth in the number of projects is good, agribusinesses projects, in particular, have a realization rate of

only 58.5%. This is primarily due to the verified annual operating hours being approximately 45% less than the assumed annual operating hours.

- In 2014 LED measures provide the most net savings of any other SBL measure making up 59% of net energy savings in 2014. Their long effective useful life and retention of a larger amount of savings after the baseline adjustment allow LED measures to also contribute substantially more lifetime savings than CFLs and linear fluorescents.
- Overall energy and demand realization rates decreased by 1.8 and 3.1 %, respectively, from 2013.
  - Sampled rural projects have lower energy realization rather than urban projects (63.8% compared to 83.5%) across the 2011 2014 sample
  - Sampled rural projects have even lower demand realization rather than urban projects (49.7% compared to 74.1%) across the 2011 2014 sample
  - The annual proportion of net energy savings from rural projects has increased from 30% in 2011 to 41% in 2014

## Audit Funding

- The number of audits carried out in 2014 decreased by 20% when compared to 2013.
- The average per audit net energy savings attributable to the Audit Funding Initiative was estimated to be 65 MWh and 13 kW of summer peak demands savings.
- Time series analysis quantified additional savings from measures implemented after initial program year. It was found that an additional 7.2%, 5.0% and 0.1% can be added to all previously reported projects in 2011, 2012 and 2013 projects, respectively.

## Existing Building Commissioning

- 5 projects completed the Hand-off stage in 2014.
- Energy realization rate was estimated at 116% and demand realization rate at 202%.
- About 31 participants are still in the scoping stage or implementation stage.

## **High Performance New Construction**

• Savings have increased every year of the initiative with an increased participation of 50% from 2013

- In 2014, most savings came from the custom track providing 71% of demand savings.
- Participation from HVAC measures occurred for the first time in 2014 (providing 14% of summer peak kW savings and 5% of kWh savings).
- The measures with the greatest impact on low realization rates for prescriptive measures were high volume low speed (HVLS) fans and variable frequency drives (VFDs).
- Province-wide realization rates declined slightly for 2014, as a result of the wider variety of measures being implemented.
- Key drivers for participation are: initial project cost, followed by electricity costs and expected energy savings are the key drivers to participation.

## INDUSTRIAL PROGRAM

## Process and Systems – Capital Incentive Initiative

- 10 PSUI Capital Incentive projects implemented in 2014, compared to 5 in2013.
  - o 4 projects are Behind the Meter Generation (BMG) projects.
  - The remaining projects were energy efficiency improvements in pumping, cooling, compressed air systems and industrial processes.
- Each project received its own Net to Gross (NTG) value. NTG ratios ranged from 62% to 100% for the 10 projects
- Realization rates remained high in 2014, ranging from 90 to over 100%.

## **Process and Systems Energy Managers Initiative – Non incented savings**

- 379 Energy Manager projects were completed in 2014 compared to 306 in 2013
- Energy Managers are important drivers of non incented savings projects.
- In 2014, the Energy Mangers initiative has contributed to 35% of energy savings for Industrial Programs
- •

## **Process and Systems Monitoring and Targeting Initiative – Non incented savings**

- 5 projects were completed in 2014, compared to 3 in 2013.
- Low realization rates (36% for energy savings and 59% for demand savings) are attributed to reported savings based on total potential savings rather than non-incentivized realized savings, while the verified savings only include non-incentivized savings).

## **Demand Response - DR-3**

- The largest 25 contributors account for 60% of the contractual demand reduction that is, less than 4% of contributors account for the majority of the load reductions.
- A multi-year analysis indicates 2012 was the best year for program performance. After 2012, a single large contributor left the program, resulting in a decrease in overall performance in 2013 and 2014. This highlights the risk having a highly concentrated program with a few large contributors representing a large share of the program capacity.
- There were no events called in 2014 and the contracted capacity was similar to 2013.

Note:

The Key Evaluation findings are derived from the 2014 evaluations of the saveONenergy programs. These findings were developed by 3<sup>rd</sup> party evaluation contractors. Complete findings are detailed in the contractors' full evaluation reports, which will be available publicly in Q4 2015.

## 4.3 **Evaluation**

#### Table 9: FHI Realization Rate and Net-to-Gross Ratios

Taken from the IESO Contracted Province Wide CDM Programs 2011-2014 Final Results Report for FHI

Table 3: Festival Hydro Inc. Realization Rate & NTG																
			P	eak Dema	and Saving	s						Energy	Savings			
Initiative		Realizatio	n Rate		r	Net-to-Gro	ss Ratio			Realizatio	n Rate			Net-to-Gro	oss Ratio	
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Consumer Program																
Appliance Retirement	1.00	1.00	n/a	n/a	0.50	0.46	0.42	0.42	1.00	1.00	n/a	n/a	0.52	0.47	0.44	0.44
Appliance Exchange	1.00	1.00	1.00	1.00	0.52	0.52	0.53	0.53	1.00	1.00	1.00	1.00	0.52	0.52	0.53	0.53
HVAC Incentives	1.00	1.00	n/a	1.00	0.60	0.49	0.48	0.51	1.00	1.00	n/a	1.00	0.60	0.49	0.48	0.51
Conservation Instant Coupon Booklet	1.00	1.00	1.00	1.00	1.14	1.00	1.11	1.69	1.00	1.00	1.00	1.00	1.11	1.05	1.13	1.73
Bi-Annual Retailer Event	1.00	1.00	1.00	1.00	1.13	0.91	1.04	1.74	1.00	1.00	1.00	1.00	1.10	0.92	1.04	1.75
Retailer Co-op	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Residential Demand Response	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Residential Demand Response (IHD)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Residential New Construction	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Business Program																
Retrofit	0.95	0.97	0.91	0.95	0.73	0.75	0.71	0.72	1.23	1.07	0.99	1.01	0.74	0.75	0.71	0.72
Direct Install Lighting	1.08	0.68	0.81	0.78	0.93	0.94	0.94	0.94	0.90	0.85	0.84	0.83	0.93	0.94	0.94	0.94
Building Commissioning	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
New Construction	n/a	0.70	n/a	0.37	n/a	0.49	n/a	0.54	n/a	0.61	n/a	0.52	n/a	0.49	n/a	0.54
Energy Audit	n/a	n/a	1.02	0.96	n/a	n/a	0.66	0.68	n/a	n/a	0.97	1.00	n/a	n/a	0.66	0.67
Small Commercial Demand Response	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Small Commercial Demand Response (IHD)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Demand Response 3	0.76	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Industrial Program																
Process & System Upgrades	n/a	n/a	n/a	1.00	n/a	n/a	n/a	0.62	n/a	n/a	n/a	1.00	n/a	n/a	n/a	0.62
Monitoring & Targeting	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Energy Manager	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Retrofit												1				
Demand Response 3	0.84	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Home Assistance Program																
Home Assistance Program	n/a	1.34	0.14	0.93	n/a	1.00	1.00	1.00	n/a	1.00	0.91	0.80	n/a	1.00	1.00	1.00
Aboriginal Program																
Home Assistance Program	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Direct Install Lighting	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pre-2011 Programs completed in 2011																
Electricity Retrofit Incentive Program	0.77	n/a	n/a	n/a	0.52	n/a	n/a	n/a	0.77	n/a	n/a	n/a	0.52	n/a	n/a	n/a
High Performance New Construction	1.00	1.00	1.00	1.00	0.50	0.50	0.50	0.50	1.00	1.00	1.00	1.00	0.50	0.50	0.50	0.50
Toronto Comprehensive	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Multifamily Energy Efficiency Rebates	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LDC Custom Programs	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Other																
Program Enabled Savings	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Time-of-Use Savings	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LDC Pilots	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

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## 4.4 Spending

Table 10 summarizes the total spending by initiative that (Festival Hydro Inc.) has incurred in 2014 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).

Expenses such as salaries and overheads were allocated across the various programs based on the estimated time spent on each program initiative. Any costs specific to a program, such as marketing expenditures and third party costs were charged directly to the specific program initiative.

In Festival Hydro Inc.'s 2011 annual report, completed Retrofit projects were grouped according to building type with industrial and business sites reported under the respective program. This occurred for both performance and spending results. In the Final 2012 Result Report provided by the OPA, total Retrofit savings were shown under the Business program only. Following this lead, Festival Hydro Inc. has reported spending associated with the Retrofit program as a total under Business Programs since this point.

Cumulative spending (2011-2014) is summarized in Table 11. The 2011-2014 budget has been spent and represents 94% of the total PAB Budget. In comparison, CDM performance for our program to date was a net cumulative energy savings of 155.9% and a net annual peak demand savings of 89.8%. These results indicate a cost efficiency condition has been met; however, the cost efficiency bonus as defined by the Master CDM Program Agreement did not take program performance into consideration.

## Table 10: 2014 Spending, Festival Hydro Inc.

Initiative	PAB	PBF	PI	CBF	TOTAL
Consumer Program	I		I		
Appliance Retirement	16,419				16,419
Appliance Exchange	8,209				8,209
HVAC Incentives	17,526				17,526
Conservation Instant Coupon Booklet	9,029				9,029
Bi-Annual Retailer Event	8,209				8,209
Retailer Co-op					
Residential Demand Response	18,574	5,160			23,734
New Construction Program					
Business Program	h		ł		
Efficiency: Equipment Replacement	73,894		475,034		548,928
Direct Installed Lighting	6,028	17,820	83,029		106,877
Existing Building Commissioning Incentive					
New Construction and Major Renovation Initiative	58,038		108,375		166,413
Energy Audit	1,910		20,319		22,229
Small Commercial Demand Response (part of the Residential program schedule)					
Demand Response 3 (part of the Industrial program schedule)					
					Industrial Program
Process & System Upgrades					
a) preliminary engineering study	28,568				28,568
<ul><li>b) detailed engineering study</li></ul>	28,568				28,568
c) program incentive	19,045		29,304		48,349
Monitoring & Targeting					
Energy Manager	9,522				9,522
Key Account Manager					
Efficiency Equipment Replacement					
Incentive (part of the C&I program					
schedule)					
Demand Response 3	9,522				9,522
Home Assistance Program					
Home Assistance Program	16,921	51,153	64,798		132,872
TOTAL SPENDING	329,983	74,133	780,858		1,184,974

## Table 11: Cumulative Spending (2011-2014), Festival Hydro Inc.

Initiative	PAB	PBI	PI	CBF	TOTAL
Consumer Program					
Appliance Retirement	79,050				79,050
Appliance Exchange	13,263				13,263
HVAC Incentives	50,965				50,965
Annual Coupons	15,406				15,406
Bi-Annual Retailer Event	14,250				14,250
Retailer Co-op					
Residential Demand Response	95,041	55,470	2,925		153,436
New Construction Program	8,678				8,678
Business Program	<u>.</u>				
Equipment Replacement	297,627		985,996		1,283,623
Direct Installed Lighting	98,655	79,380	319,040		497,075
Existing Building Commissioning Incentive	59,791				59,791
New Construction and Major Renovation Initiative	140,130		524,143		664,273
Energy Audit	38,299		35,544		73,843
Small Commercial Demand	764		55,544		764
Response	546				540
Demand Response	516				516
Durante & Casta en Una en das				11	ndustrial Program
Process & System Upgrades	20 5 6 6				20.500
a) preliminary engineering study	38,566				38,566
b) detailed engineering study	38,129		20.204		38,129
c) program incentive	28,606		29,304		57,910
Monitoring & Targeting	1,671 16,431				1,671 16,431
Energy Manager	763				-
Key Account Manager ("KAM") Equipment Replacement	24,383		45,757		763
Incentive					
Demand Response 3	21,876				21,876
Home Assistance Program					
Home Assistance Program	46,915	82,900	121,900		251,715
Pre 2011 Programs					, , ,
Electricity Retrofit Incentive	17 50 5		0.00 5.10		201.55
Program	17,524		263,543		281,067
High Performance New					
Construction					
Initiatives Not In Market					·
Midstream Electronics					
Midstream Pool Equipment					
Demand Service Space Cooling	4,882				4,882
Demand Response 1					
Home Energy Audit Tool					
Total CDM Program Spending	1,152,181	217,750	2,328,151	0	3,698,082

# **5** Combined CDM Reporting Elements

## 5.1 Progress Towards CDM Targets

### Table 12: Net Peak Demand Savings at the End User Level (MW)

Implementation Period		A	Innual	
implementation Period	2011	2012	2013	2014
2011 - Verified	0.7	0.6	0.6	0.5
2012 - Verified†	0.8	1.5	1.4	1.4
2013 - Verified†	0.0	0.0	0.9	0.5
2014 - Verified†	0.0	0.0	0.3	2.9
Verifie	d Net Annual Peal	C Demand Saving	s Persisting in 2014:	5.3
	Festival Hydro I	nc. 2014 Annual C	DM Capacity Target:	6.2
Verified Portion	of Peak Demand	Savings Target Ac	hieved in 2014 (%):	85.8%

## Table 13: Net Energy Savings at the End-User Level (GWh)

Implementation Period		A	nnual		Cumulative					
Implementation Period	2011	2012	2013	2014	2011-2014					
2011 - Verified	2.2	2.2	2.2	2.2	8.9					
2012 - Verified†	3.4	6.4	6.4	6.4	22.7					
2013 - Verified†	0.0	0.0	2.8	2.8	5.6					
2014 - Verified†	0.0	0.1	2.02	6.2	8.4					
		Verified Ne	t Cumulative Energy	Savings 2011-2014:	45.6					
		Festival Hydro Ind	. 2011-2014 Annual C	DM Energy Target:	29.3					
	Verified Po	rtion of Cumulati	ve Energy Target Ach	ieved in 2014 (%):	155.9%					
Includes adjustments to previous years' verified results										

Results presented using scenario 1 which assumes that demand response resources have a persistence of 1 year

## 5.2 Variance from Strategy

A summary of provincial progress is shown in OPA Tables 9 and 10 below. Comparing Festival Hydro Inc. and provincial CDM targets, for both demand and energy savings, Festival Hydro Inc. is above the provincial progress. The verified portion of energy target achieved provincially at the end of 2014 is 109%; however, the corresponding net demand savings is 70% with demand savings continuing to be a challenge faced across the province.

 Table 14: Summary Provincial Progress Towards CDM Targets

 Taken from the IESO Contracted Province Wide CDM Programs 2011-2014 Final Results Report for FHI

while het P	eak Demand S	Savings at the	End User Leve	el (MW)
	۸۵	nual		
2011	2012	2013	2014	
216.3	136.6	135.8	129.0	
1.4	253.3	109.8	108.2	
0.6	7.0	404.5	122.0	
1.4	10.8	34.2	568.6	
Net Annual F	Peak Demand S	avings in 2014:	927.7	
2014	Annual CDM C	apacity Target:	1,330	
nand Savings	Target Achieve	d in 2014 (%):	69.8%	
ice-Wide Ne	et Energy Savi	-	d-User Level (G	Wh)
2011	2012	2013	2014	2011-2014
<b>2011</b> 606.9			<b>2014</b> 582.3	
	2012	2013		2011-2014
606.9	<b>2012</b> 603.0	<b>2013</b> 601.0	582.3	<b>2011-2014</b> 2,393.1
606.9 18.7	<b>2012</b> 603.0 503.6	<b>2013</b> 601.0 498.4	582.3 492.6	<b>2011-2014</b> 2,393.1 1,513.3
606.9 18.7 1.7 7.3	<b>2012</b> 603.0 503.6 44.4 44.8	<b>2013</b> 601.0 498.4 603.3	582.3 492.6 583.4 1,170.8	<b>2011-2014</b> 2,393.1 1,513.3 1,232.8
r	216.3 1.4 0.6 1.4 Net Annual F 2014 nand Savings	2011         2012           216.3         136.6           1.4         253.3           0.6         7.0           1.4         10.8           Net Annual Peak Demand S         2014 Annual CDM C           nand Savings Target Achieve         1000 C	216.3         136.6         135.8           1.4         253.3         109.8           0.6         7.0         404.5           1.4         10.8         34.2           Net Annual Peak Demand Savings in 2014:           2014 Annual CDM Capacity Target:           nand Savings Target Achieved in 2014 (%):	2011         2012         2013         2014           216.3         136.6         135.8         129.0           1.4         253.3         109.8         108.2           0.6         7.0         404.5         122.0           1.4         10.8         34.2         568.6           Net Annual Peak Demand Savings in 2014:         927.7           2014 Annual CDM Capacity Target:         1,330

Results presented using scenario 1 which assumes that demand response resources have a persistence of 1 year

In response to Festival Hydro Inc.'s demand performance and the success of Demand Response 3 enrollment experienced in 2013, direct sales remained focused on this Initiative. On March 31, 2014 the Minister of Energy issued a directive entitled "Continuance of the OPA's Demand Response Program under IESO Management" which effectively halted new customer enrollments in the DR3 program until the IESO has a program in market. The Demand Response 3 initiative was a critical contributor to helping Festival Hydro Inc. achieve their demands savings target with the program taking time to get traction. Festival Hydro Inc. had multiple industrial customers who found themselves in a position where they had contracted with an Aggregator in 2013 but were unable to participate due to the inability of the Aggregator to receive new contract schedules. This resulted in the current "pipeline" of potential DR3 contributors being stranded. At the time of the Ministry's Demand Response directive, Festival Hydro Inc. also had additional customers in the midst of creating a curtailment plan but had not yet enrolled with an aggregator. These demand opportunities were also stranded as customers did not want to put additional resources into a program that would not be available until 2015. It is the belief of Festival Hydro Inc., had these customers been able to participate, the CDM Capacity Target for demand savings would have been met.

## 6 Conclusion

By the end of 2014, Festival Hydro Inc. has achieved 5.35 MW in peak demand savings and 45.6 GWh in energy savings, representing 85.8% and 155.9% of Festival Hydro Inc.'s 2011-2014 targets, respectively. These results are representative of a considerable effort expended by Festival Hydro Inc., in cooperation with other LDCs, customers, channel partners and stakeholders to overcome many operational and structural issues that limited program effectiveness across all market sectors. This achievement is a success and the relationships built within the 2011-2014 CDM program term will aid results in a subsequent CDM term.

Future reports on Conservation First will be provided by LDCs to the IESO who will report annually to the OEB.

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

## Additional detail is available:

- Schedule B-1, Exhibit D. Available on IESO's extranet;
- saveONenergy website <a href="https://saveonenergy.ca/Consumer/Programs/Appliance-Retirement.aspx">https://saveonenergy.ca/Consumer/Programs/Appliance-Retirement.aspx</a>.

In Market Date: January 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: IESO contracts with participating retailers for collection of eligible units. LDCs provide local marketing.

Additional detail is available:

- Schedule B-1, Exhibit C. Available on IESO's extranet;
- saveONenergy website <u>https://saveonenergy.ca/Consumer.aspx.</u>

#### In Market Date: March 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<sup>®</sup> qualified central air conditioners by approved Heating, Refrigeration, and Air Conditioning Institute (HRAI) qualified contractors.

Targeted End Uses: Central air conditioners and furnaces

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

Additional detail is available:

- Schedule B-1, Exhibit B. Available on IESO's extranet;
- saveONenergy website <u>https://saveonenergy.ca/Consumer.aspx.</u>

#### In Market Date: April 2011

CONSERVATION INSTANT COUPON INITIATIVE (Exhibit A)

#### Target Customer Type(s): Residential Customers

#### Initiative Frequency: Year round

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

**Description:** This initiative provides customers with year round coupons. The coupons offer instant rebates towards the purchase of a variety of low cost, easy to install energy efficient measures and can be redeemed at

participating retailers. Booklets were directly mailed to customers and were also available at point-of-purchase. Downloadable coupons were also available at www.saveoneenergy.ca.

**Targeted End Uses:** ENERGY STAR<sup>®</sup> qualified Standard Compact Flourescent Lights ("CFLs"),ENERGY STAR<sup>®</sup> 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 IESO 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 IESO enters into agreements with retailers to honour the coupons.

Additional detail is available:

- Schedule B-1, Exhibit A. Available on IESO's extranet;
- saveONenergy website <u>https://saveonenergy.ca/Consumer.aspx.</u>

In Market Date: February 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 IESO enters into arrangements with participating retailers to promote the discounted products, and to post and honour related coupons. LDCs also refer retailers to the IESO and market this initiative locally.

Additional detail is available:

- Schedule B-1, Exhibit C. Available on IESO's extranet;
- saveONenergy website <u>https://saveonenergy.ca/Consumer.aspx.</u>

In Market Date: March 2011

#### **RETAILER CO-OP**

Target Customer Type(s): Residential Customers

#### Initiative Frequency: Year Round

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

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

### Targeted End Uses: As per the Conservation Instant Coupon Initiative

**Delivery:** Retailers apply to the IESO for co-op funding to run special promotions that promote energy efficiency to customers in their stores. LDCs can refer retailers to the IESO. The IESO 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: n/a

### 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<sup>®</sup> qualified central a/c, lighting control products, lighting fixtures, EnerGuide 83 whole home, EnerGuide 85 whole homes

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

Additional detail is available:

• Schedule B-1, Exhibit C. Available on IESO's extranet;

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

#### In Market Date: June 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<sup>®</sup> participants are eligible to receive a free programmable thermostat or switch, including installation. Participants also receive access to price and real-time consumption information on an In Home Display (IHD).

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

Delivery: LDC's recruit customers and procure technology

Additional detail is available:

- Schedule B-1, Exhibit C. Available on IESO's extranet;
- saveONenergy website <u>https://saveonenergy.ca/Consumer.aspx.</u>

In Market Date: not in market

## C&I Program

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

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

#### Initiative Frequency: Year round

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

**Description:** The Equipment Replacement Incentive Initiative (ERII) offers financial incentives to customers for the upgrade of existing equipment to energy efficient equipment. Upgrade projects can be classified into either: 1) prescriptive projects where prescribed measures replace associated required base case equipment; 2) engineered

projects where energy and demand savings and incentives are calculated for associated measures; or 3) custom projects for other energy efficiency upgrades.

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

**Delivery**: LDC delivered.

Additional detail is available:

- Schedule C-2. Available on IESO's extranet;
- saveONenergy website <u>https://saveonenergy.ca/Business/Program-Overviews/Retrofit-for-Commercial.aspx.</u>

#### In Market Date: March 2011

Lessons Learned:

#### 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 \$1,500 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 \$1,500 at no cost to qualifying small businesses. In addition, standard prescriptive incentives are available for eligible equipment beyond the initial \$1,500 limit.

Target End Uses: Lighting and electric water heating measures

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

Additional detail is available:

- Schedule C-3. Available on IESO's extranet;
- saveONenergy website <u>https://saveonenergy.ca/Business.aspx.</u>

#### 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 is available:

- Schedule C-6. Available on IESO's extranet;
- saveONenergy website <u>https://saveonenergy.ca/Business/Program-Overviews/Existing-Building-Commissioning.aspx.</u>

#### 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 is available:

- Schedule C-4. Available on IESO's extranet;
- saveONenergy website <a href="https://saveonenergy.ca/Business/Program-Overviews/New-Construction.aspx">https://saveonenergy.ca/Business/Program-Overviews/New-Construction.aspx</a>.

In Market Date: August 2011

### ENERGY AUDIT INITIATIVE (Schedule C-1)

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

Initiative Frequency: Year round

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

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

Targeted End Uses: Various

Delivery: LDC delivered.

Additional detail is available:

- Schedule C-1. Available on IESO's extranet;
- saveONenergy website <a href="https://saveonenergy.ca/Business/Program-Overviews/Audit-Funding.aspx">https://saveonenergy.ca/Business/Program-Overviews/Audit-Funding.aspx</a>.

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 cost
- c) A one year pay back

Targeted End Uses: Process and systems

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

Additional detail is available:

- Schedule D-1. Available on IESO's extranet;
- saveONenergy website <u>https://saveonenergy.ca/Business.aspx.</u>

In Market Date: November 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 ("M&T") 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 M&T system to help them understand how their energy consumption might be reduced. A facility energy manager, who regularly oversees energy usage, will now be able to use historical energy consumption performance to analyze and set targets.

Targeted End Uses: Process and systems

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

Additional detail is available:

• Schedule D-2. Available on IESO's extranet;

• saveONenergy website <u>https://saveonenergy.ca/Business.aspx.</u>

### In Market Date: November 2011

### ENERGY MANAGER INITIATIVE (Schedule D-3)

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

#### Initiative Frequency: Year round

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

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

#### Targeted End Uses: Process and systems

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

Additional detail is available:

- Schedule D-3. Available on IESO's extranet;
- saveONenergy website <u>https://saveonenergy.ca/Business.aspx.</u>

#### In Market Date: June 2011

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

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

#### Initiative Frequency: Year round

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

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

#### Targeted End Uses: Process and systems

Delivery: LDC delivered

Additional detail is available:

• ScheduleD-4. Available on IESO's extranet.

In Market Date: August 2011

#### DEMAND RESPONSE 3 (Schedule D-6)

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

#### Initiative Frequency: Year round

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

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

#### Targeted End Uses: Commercial and Industrial Operations

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

Additional detail is available:

- Schedule D-6. Available on IESO's extranet;
- saveONenergy website <a href="https://saveonenergy.ca/Business.aspx">https://saveonenergy.ca/Business.aspx</a>

#### In Market Date: January 2011

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

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., CFL bulbs)

Delivery: LDC delivered.

Additional detail is available:

• Schedule E. Available on IESO's extranet.

In Market Date: February 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

## HIGH PERFORMANCE NEW CONSTRUCTION

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

#### Initiative Frequency: Year round

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

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

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

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

## MULTIFAMILY ENERGY EFFICIENCY REBATES

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

Initiative Frequency: Year round

**Objective:** Improve energy efficiency of Multi-unit building

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

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

Targeted End Uses: Electricity saving measures

**Delivery**: IESO contracted with Greensaver

# Appendix C: IESO Final 2014 Verified Results Report Festival Hydro Inc.



#### Message from the Vice President:

The IESO is pleased to provide the enclosed 2011-2014 Final Results Report. This report is designed to help populate LDC Annual Reports that will be submitted to the Ontario Energy Board (OEB) in September 2015.

#### 2011-2014 Conservation Framework Highlights:

- LDCs have made significant achievements against dual energy and peak demand savings targets. Collectively, the LDCs have achieved 109% of the energy target and 70% of the peak demand target.
- Momentum has built as we transition to the Conservation First Framework. 2014 demonstrated an achievement of
  over 1 TWh of net incremental energy savings, positioning us well for average net incremental energy savings of 1.2
  TWh required in the new framework to meet our 2020 CDM targets.
- Throughout the past framework, program results have become more predictable year over year as noted in the
  increasingly smaller variance between quarterly preliminary results and verified final results.
- Customer engagement continued to increase in both the Consumer and Business Programs. Between 2011 2014 consumers have purchased over 10 million energy efficient products through the saveONenergy COUPONS program. Customers in RETROFIT continue to declare a positive experience participating in the program with 86% likely to recommend.
- saveONenergy has seen a steady and significant increase in unaided brand awareness by 33% from 2011-2014
- Conservation is becoming even more cost-effective as programs become more efficient and effective. 2014 proved
  early investments in long lead time projects will pay off with the high savings now being realized in programs like
  PROCESS & SYSTEMS and RETROFIT. Within 4 cents per kWh, Conservation programs continue to be a valuable and
  cost effective resource for customers across the province.

The 2011-2014 Final Results within this report vary from the Draft 2011-2014 Final Results Report for the following reasons:

- Savings from Time of Use pricing are included in the Final Results Report. Overall the province saved 55 MWs from Time-of-Use pricing in 2014, or 0.73% of residential summer peak demand.
- Between August 4th and August 28th, the IESO and LDCs have worked collaboratively to reconcile projects from 2011-2014 Final Results Report to ensure every eligible project was captured and accurately reported.
- Verified savings from Innovation Fund pilots are also included for participating LDCs.

All results will be considered final for the 2011-2014 Conservation Framework. Any additional program activity not captured in the 2011-2014 Final Results Report will not be included as part of a future adjustment process.

Please continue to monitor saveONenergy E-blasts for future updates and should you have any other questions or comments please contact LDC.Support@ieso.ca.

We appreciate your collaboration and cooperation throughout the reporting and evaluation process and we look forward to the success ahead in the Conservation First Framework.

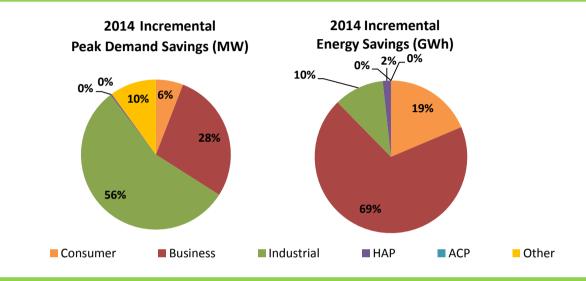
Sincerely,

Terry Young

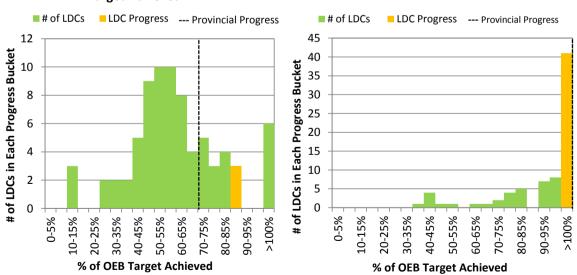
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	Summary	Provides a summary of the LDC specific IESO-Contracted Province-Wide Program performance to date: achievement against target using scenerio 1, sector breakdown and progress to target for the LDC community.	<u>3</u>
		LDC-Specific Performance (LDC Level Results)	
Table 1	LDC Initiative and Program Level Net Savings	Provides LDC-specific initiative-level results (activity, net peak demand and energy savings, and how each initiative contributes to targets).	<u>4</u>
Table 2	LDC Adjustments to Net Verified Results	Provides LDC-specific initiative level adjustments from previous years' (activity, net peak demand and energy savings).	<u>5</u>
Table 3	LDC Realization Rates & NTGs	Provides LDC-specific initiative-level realization rates and net-to-gross ratios.	<u>6</u>
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Table 7	Provincial Adjustments to Net Verified Results	Provides province-wide initiative level adjustments from previous years (activity, net peak demand and energy savings).	<u>9</u>
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-	Reference Tables	Consumer Program allocation methodology.	<u>22 to 23</u>
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IESO-Contracted Province	-Wide CDM Programs	s: 2011-2014 Final Re	sults Report
LDC: Festival Hydro Inc.			
Final 2014 Achievement Against Targets	2014 Incremental	2011-2014 Achievement Against Target	% of Target Achieved
Net Annual Peak Demand Savings (MW)	2.9	5.3	85.8%
Net Energy Savings (GWh)	6.2	45.6	155.9%
Unless otherwise noted, results are presented using scenario 1	which assumes that demand respon	se resources have a persistence of 1 y	vear

Achievement by Sector



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



## % of OEB Peak Demand Savings Target Achieved

## % of OEB Energy Savings Target Achieved

			Incremen	tal Activity	Program Level I	Net Incr	emental Peak I				et Incremental Er			Program-to-Date Verif (exclud	
Initiative	Unit		reportin	curring within t ng period)			demand savings specified repo	rting period)		(new energy sa		iod)		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			0.00		4-7					405.555	440	402	74		
Appliance Retirement	Appliances	329	287	245	173	20	17	16	12	136,087	113,761	103,625	74,733	63	1,166,401
Appliance Exchange	Appliances	52	53	30	49	5	8	6	10	6,763	13,734	11,083	18,103	26	105,668
HVAC Incentives	Equipment	388	285	344	415	136	68	76	89	259,654	122,478	136,597	165,748	369	1,844,992
Conservation Instant Coupon Booklet	Items	1,780	108	1,217	3,613	4	1	2	7	65,399	4,891	26,962	98,495	14	428,686
Bi-Annual Retailer Event	Items	3,331 0	3,711 0	3,305 0	16,877 0	6	5	4	28	102,799 0	93,684 0	60,096 0	429,922	43 0	1,242,365
Retailer Co-op Residential Demand Response	Items Devices	117	0	0	12	66	0	0	4	0	0	0	0	4	0
Residential Demand Response (IHD)	Devices	0	0	0	0	0	0	0	4	0	0	0	0	0	0
Residential New Construction	Homes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Consumer Program Total	nomes			0	0	237	99	104	151	570,702	348.547	338.363	787,002	520	4.788.111
						237	55	104	131	570,702	340,347	330,303	707,002	520	4,700,111
Retrofit	Projects	13	58	93	71	52	436	322	517	192,530	2,318,860	2,039,349	2,230,123	1,326	14,027,285
Direct Install Lighting	Projects	123	80	25	66	128	62	322	61	335,087	242,528	131,294	229,866	261	2,480,917
Building Commissioning	Buildings	0	0	0	0	0	02	0	0	0	0	0	0	0	2,480,517
New Construction	Buildings	2	3	1	4	0	10	0	38	0	35,487	0	194,388	48	300,848
Energy Audit	Audits	1	2	2	4	0	10	18	53	0	50,353	96,902	261,094	81	605,955
Small Commercial Demand Response	Devices	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small Commercial Demand Response (IHD)	Devices	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demand Response 3	Facilities	1	1	1	1	68	68	69	50	2,665	995	927	0	50	4,587
Business Program Total						248	586	447	719	530,281	2,648,223	2,268,471	2,915,471	1,766	17,419,593
Industrial Program							u								
Process & System Upgrades	Projects	0	0	0	1	0	0	0	51	0	0	0	447,640	51	447,640
Monitoring & Targeting	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Energy Manager	Projects	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Retrofit	Projects	8	0	0	0	66	0	0	0	427,748	0	0	0	66	1,710,993
Demand Response 3	Facilities	0	0	2	4	0	0	334	1,372	0	0	7,597	0	1,372	7,597
Industrial Program Total						66	0	334	1,423	427,748	0	7,597	447,640	1,488	2,166,230
Home Assistance Program							-				-				
Home Assistance Program	Homes	0	8	310	92	0	0	21	9	0	4,983	189,557	73,548	30	465,114
Home Assistance Program Total						0	0	21	9	0	4,983	189,557	73,548	30	465,114
Aboriginal Program			-						-			÷			
Home Assistance Program	Homes	0	0	0	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	0	0	0
Aboriginal Program Total						0	0	0	0	0	0	0	0	0	0
Pre-2011 Programs completed in 2011															
Electricity Retrofit Incentive Program	Projects	23	0	0	0	154	0	0	0	714,841	0	0	0	154	2,859,364
High Performance New Construction	Projects	0	0	0	0	0	0	0	0	1,841	383	0	0	1	8,514
Toronto Comprehensive	Projects	0	0	0	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	0	0	0
LDC Custom Programs	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
						155	0	0	0	716,682	383	0	0	155	2,867,877
Pre-2011 Programs completed in 2011	otal														
Pre-2011 Programs completed in 2011 1 Other	otal														
Pre-2011 Programs completed in 2011 T Other Program Enabled Savings	Projects	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Other		0	0	1	0 n/a	0	0	0	0 257	0	0	0	0	0 257	0
Other Program Enabled Savings	Projects				-										
Other Program Enabled Savings Time-of-Use Savings LDC Pilots	Projects Homes	0	0	0	n/a	0	0	0	257	0	0	0	0	257	0
Other Program Enabled Savings Time-of-Use Savings LDC Pilots Other Total	Projects Homes	0	0	0	n/a	0	0 0 0	0 0 0	257 0 257	0	0 0 0	0 0 0	0 0 0	257 0 257	0 0 0
Other Program Enabled Savings Time-of-Use Savings LDC Pilots Other Total Adjustments to 2011 Verified Results	Projects Homes	0	0	0	n/a	0	0	0 0 0	257 0 257 0	0	0	0 0 0	0 0 0 1,222	257 0 257 783	0 0 0 13,735,828
Other Program Enabled Savings Time-of-Use Savings LDC Pilots Other Total Adjustments to 2011 Verified Results Adjustments to 2012 Verified Results	Projects Homes	0	0	0	n/a	0	0 0 0	0 0 0	257 0 257 0 27	0	0 0 0	0 0 0	0 0 0 1,222 108,464	257 0 257 783 29	0 0 0 13,735,828 334,271
Other Program Enabled Savings Time-of-Use Savings LDC Pilots Other Total Adjustments to 2011 Verified Results Adjustments to 2012 Verified Results Adjustments to 2013 Verified Results	Projects Homes	0	0	0	n/a	0 0 0	0 0 0 783	0 0 0 0 1	257 0 257 0 257 0 27 319	0 0 0	0 0 3,432,735	0 0 0 2,908	0 0 1,222 108,464 1,914,503	257 0 257 783 29 319	0 0 0 13,735,828 334,271 3,829,084
Other Program Enabled Savings Time-of-Use Savings LDC Pilots Other Total Adjustments to 2011 Verified Results Adjustments to 2012 Verified Results Adjustments to 2013 Verified Results Energy Efficiency Total	Projects Homes	0	0	0	n/a	0 0 0 572	0 0 783 617	0 0 0 1 502	257 0 257 0 27 319 1,132	0 0 0 2,242,749	0 0 3,432,735 3,001,141	0 0 0 2,908 2,795,465	0 0 1,222 108,464 1,914,503 4,223,661	257 0 257 783 29 319 2,789	0 0 13,735,828 334,271 3,829,084 27,694,741
Other         Other           Program Enabled Savings         Time-of-Use Savings           LDC Pilots         Other Total           Adjustments to 2011 Verified Results         Adjustments to 2012 Verified Results           Adjustments to 2013 Verified Results         Energy Efficiency Total           Demand Response Total (Scenario 1)         Demand Response Total (Scenario 1)	Projects Homes Projects	0	0	0	n/a	0 0 0 572 134	0 0 783 617 68	0 0 0 1 502 403	257 0 257 0 27 319 1,132 1,426	0 0 0 2,242,749 2,665	0 0 3,432,735 3,001,141 995	0 0 0 2,908 2,795,465 8,524	0 0 1,222 108,464 1,914,503 4,223,661 0	257 0 257 783 29 319 2,789 1,426	0 0 0 13,735,828 334,271 3,829,084 27,694,741 12,185
Other Program Enabled Savings Time-of-Use Savings LDC Pilots Other Total Adjustments to 2011 Verified Results Adjustments to 2012 Verified Results Adjustments to 2013 Verified Results Energy Efficiency Total Demand Response Total (Scenario 1) Adjustments to Previous Years' Verified	Projects Homes Projects Results Total	0	0	0	n/a	0 0 0 572 134 0	0 0 783 617 68 783	0 0 0 1 502 403 1	257 0 257 0 27 319 1,132 1,426 346	0 0 0 2,242,749 2,665 0	0 0 3,432,735 3,001,141 995 3,432,735	0 0 0 2,908 2,795,465 8,524 2,908	0 0 1,222 108,464 1,914,503 4,223,661 0 2,024,189	257 0 257 783 29 319 2,789 1,426 1,130	0 0 0 13,735,828 334,271 3,829,084 27,694,741 12,185 17,899,182
Other Program Enabled Savings Time-of-Use Savings LDC Pilots Other Total Adjustments to 2011 Verified Results Adjustments to 2012 Verified Results Adjustments to 2013 Verified Results Energy Efficiency Total Demand Response Total (Scenario 1) Adjustments to Previous Years' Verified OPA-Contracted LDC Portfolio Total (inc	Projects Homes Projects Results Total . Adjustments)		0	0	n/a 0	0 0 0 572 134 0 706	0 0 783 617 68 783 1,468	0 0 0 1 502 403	257 0 257 0 27 319 1,132 1,426	0 0 0 2,242,749 2,665	0 0 3,432,735 3,001,141 995	0 0 0 2,908 2,795,465 8,524	0 0 1,222 108,464 1,914,503 4,223,661 0 2,024,189 6,247,851	257 0 257 783 29 319 2,789 1,426 1,130 5,346	0 0 0 13,735,828 334,271 3,829,084 27,694,741 12,185 17,899,182 45,606,107
Other Program Enabled Savings Time-of-Use Savings LDC Pilots Other Total Adjustments to 2011 Verified Results Adjustments to 2012 Verified Results Energy Efficiency Total Demand Response Total (Scenario 1) Adjustments to Previous Years' Verified	Projects Homes Projects Results Total . Adjustments) es for each year represer		0	0	n/a 0	0 0 0 572 134 0	0 0 783 617 68 783 1,468 s were issued	0 0 0 1 502 403 1 907	257 0 257 0 27 319 1,132 1,426 346 2,904	0 0 0 2,242,749 2,665 0 2,245,414	0 0 3,432,735 3,001,141 995 3,432,735	0 0 0 2,795,465 8,524 2,806,897	0 0 1,222 108,464 1,914,503 4,223,661 0 2,024,189 6,247,851 Full OEB Target:	257 0 257 783 29 319 2,789 1,426 1,130	0 0 0 13,735,828 334,271 3,829,084 27,694,741 12,185 17,899,182

#### Table 1: Festival Hydro Inc. Initiative and Program Level Net Savings by Year

		Table 2: Adjus	tments to Fest	val Hydro Inc.	Net Ver	ified Results du	e to Variances								
Initiative	Unit	(new program	Incremental A activity occurrir reporting pe	, ng within the sp	ecified	(new peak de	nental Peak Der mand savings fro pecified reportir	om activity with			remental Energy wings from activ reporting pe	ity within the s		Program-to-Date Verif (exclud 2014 Net Annual Peak Demand Savings (kW)	
															Savings (kWh)
		2011*	2012*	2013*	2014	2011	2012	2013	2014	2011	2012	2013	2014	2014	2014
Consumer Program			1				1				1	1 .			
Appliance Retirement	Appliances	0	0	0		0	0	0		0	0	0		0	0
Appliance Exchange	Appliances	0	0	0		0	0	0		0	0	0		0	0
HVAC Incentives	Equipment	-60	6	10		-18	1	2		-34,906	2,908	3,844		-15	-123,213
Conservation Instant Coupon Booklet	Items	29	0	4		0	0	0		964	0	82		0	4,021
Bi-Annual Retailer Event	Items	286	0	0		0	0	0		7,638	0	0		0	30,551
Retailer Co-op	Items	0	0	0		0	0	0		0	0	0		0	0
Residential Demand Response	Devices	0	0	0		0	0	0		0	0	0		0	0
Residential Demand Response (IHD)	Devices	0	0	0		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						-18	1	2		-26,304	2,908	3,926		-14	-88,641
Business Program															
Retrofit	Projects	1	4	24		2	25	156		1,168	101,453	661,801		183	1,632,631
Direct Install Lighting	Projects	6	0	0		5	0	0		11,580	0	0		5	46,320
Building Commissioning	Buildings	0	0	0		0	0	0		0	0	0		0	0
New Construction	Buildings	2	0	1		788	0	34		3,421,115	0	83,715		822	13,851,892
Energy Audit	Audits	1	0	0		5	0	0		26,398	1,708	64		6	110,846
Small Commercial Demand Response	Devices	0	0	0		0	0	0		0	0	0		0	0
Small Commercial Demand Response (IHD)	Devices	0	0	0		0	0	0		0	0	0		0	0
Demand Response 3	Facilities	0	0	0		0	0	0		0	0	0		0	0
Business Program Total	racintics	0	0	0		801	26	190		3,460,261	103,161	745.580		1,016	15,641,689
Busiliess Program rotal						801	20	190		5,400,201	103,101	745,580		1,016	15,041,065
Industrial Program	Projects	0	0	0		0	0	0	-	0	0	0		0	0
Process & System Upgrades	Projects	0	0	0						-				0	0
Monitoring & Targeting	Projects					0	0	0		0	0	0			
Energy Manager	Projects	0	0	1		0	0	0		0	0	10,468		0	20,935
Retrofit	Projects	0	0	0		0	0	0		0	0	0		0	0
Demand Response 3	Facilities	0	0	0		0	0	0		0	0	0		0	0
Industrial Program Total						0	0	0		0	0	10,468		0	20,935
Home Assistance Program			1				1	r	-		1	1			
Home Assistance Program	Homes	0	2	11		0	1	2		0	5,380	12,157		3	40,300
Home Assistance Program Total						0	1	2		0	5,380	12,157		3	40,300
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	0	0	0		0	0	0		0	0	0		0	0
High Performance New Construction	Projects	0	0	0		0	0	0		0	0	0		0	0
	,	-	-	0		0	0	0		0	0	0		-	0
Toronto Comprehensive	Projects	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						0	0	0		0	0	0		0	0
Other															
Program Enabled Savings	Projects	0	0	1		0	0	125		0	0	1,142,450		125	2,284,899
Time-of-Use Savings	Homes	0	0	0		0	0	0		0	0	0		0	0
LDC Pilots	Projects	0	0	0		0	0	0		0	0	0		0	0
Other Total				· · · ·		0	0	125		0	0	1,142,450		125	2,284,899
			_				-				-	_,,,			
Adjustments to 2011 Verified Results						783				3,433,957	444 440			783	13,735,828
Adjustments to 2012 Verified Results							29			-	111,449			29	334,271
Adjustments to 2013 Verified Results								319				1,914,580		319	3,829,084
Total Adjustments to Previous Years' Verified Res						783	29	319		3,433,957	111,449	1,914,580		1,130	17,899,182
Activity and savings for Demand Response resources for each year								e 1 as the information	tion prese	nted above is prese	nted in the implem	nentation year.			
savings from all active facilities or devices contracted since Janu	ary 1, 2011	Adjustements in 1	Table 1 reflect pers	isted savings in th	e year in v	which that adjustme	ent is verified.								

#### Table 2: Adjustments to Festival Hydro Inc. Net Verified Results due to Variances

savings from all active facilities or devices contracted since January 1, 2011 (reported cumulatively).

## Table 3: Festival Hydro Inc. Realization Rate & NTG

					nd Saving	5 Nedil2d(						Energy	Savings			
Initiative		Realizatio	n Rate			Net-to-Gro	ss Ratio			Realizatio	on Rate			Net-to-Gro	oss Ratio	
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Consumer Program																
Appliance Retirement	1.00	1.00	n/a	n/a	0.50	0.46	0.42	0.42	1.00	1.00	n/a	n/a	0.52	0.47	0.44	0.44
Appliance Exchange	1.00	1.00	1.00	1.00	0.52	0.52	0.53	0.53	1.00	1.00	1.00	1.00	0.52	0.52	0.53	0.53
HVAC Incentives	1.00	1.00	n/a	1.00	0.60	0.49	0.48	0.51	1.00	1.00	n/a	1.00	0.60	0.49	0.48	0.51
Conservation Instant Coupon Booklet	1.00	1.00	1.00	1.00	1.14	1.00	1.11	1.69	1.00	1.00	1.00	1.00	1.11	1.05	1.13	1.73
Bi-Annual Retailer Event	1.00	1.00	1.00	1.00	1.13	0.91	1.04	1.74	1.00	1.00	1.00	1.00	1.10	0.92	1.04	1.75
Retailer Co-op	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Residential Demand Response	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Residential Demand Response (IHD)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Residential New Construction	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Business Program																
Retrofit	0.95	0.97	0.91	0.95	0.73	0.75	0.71	0.72	1.23	1.07	0.99	1.01	0.74	0.75	0.71	0.72
Direct Install Lighting	1.08	0.68	0.81	0.78	0.93	0.94	0.94	0.94	0.90	0.85	0.84	0.83	0.93	0.94	0.94	0.94
Building Commissioning	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
New Construction	n/a	0.70	n/a	0.37	n/a	0.49	n/a	0.54	n/a	0.61	n/a	0.52	n/a	0.49	n/a	0.54
Energy Audit	n/a	n/a	1.02	0.96	n/a	n/a	0.66	0.68	n/a	n/a	0.97	1.00	n/a	n/a	0.66	0.67
Small Commercial Demand Response	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Small Commercial Demand Response (IHD)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Demand Response 3	0.76	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Industrial Program																
Process & System Upgrades	n/a	n/a	n/a	1.00	n/a	n/a	n/a	0.62	n/a	n/a	n/a	1.00	n/a	n/a	n/a	0.62
Monitoring & Targeting	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Energy Manager	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Retrofit																
Demand Response 3	0.84	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Home Assistance Program																
Home Assistance Program	n/a	1.34	0.14	0.93	n/a	1.00	1.00	1.00	n/a	1.00	0.91	0.80	n/a	1.00	1.00	1.00
Aboriginal Program																
Home Assistance Program	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Direct Install Lighting	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pre-2011 Programs completed in 2011																
Electricity Retrofit Incentive Program	0.77	n/a	n/a	n/a	0.52	n/a	n/a	n/a	0.77	n/a	n/a	n/a	0.52	n/a	n/a	n/a
High Performance New Construction	1.00	1.00	1.00	1.00	0.50	0.50	0.50	0.50	1.00	1.00	1.00	1.00	0.50	0.50	0.50	0.50
Toronto Comprehensive	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Multifamily Energy Efficiency Rebates	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LDC Custom Programs	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Other		· ·	· ·	· · ·	-		· ·	<u>t</u>			· · ·	· · ·		· ·	· ·	
Program Enabled Savings	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Time-of-Use Savings	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LDC Pilots	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

## Summary Achievement Against CDM Targets

Results are recognized using current IESO reporting policies. Energy efficiency resources persist for the duration of the effective useful life. Any upcoming code changes are taken into account. Demand response resources persist for 1 year (Scenario 1). Please see methodology tab for more detailed information.

## Table 4: Net Peak Demand Savings at the End User Level (MW) (Scenario 1)

Implementation Period		ŀ	Annual	
Implementation Period	2011	2012	2013	2014
2011 - Verified	0.7	0.6	0.6	0.5
2012 - Verified†	0.8	1.5	1.4	1.4
2013 - Verified†	0.0	0.0	0.9	0.5
2014 - Verified†	0.0	0.0	0.3	2.9
Ve	erified Net Annual Po	eak Demand Savin	gs Persisting in 2014:	5.3
	CDM Capacity Target:	6.2		
Verified Por	rtion of Peak Demar	nd Savings Target A	Achieved in 2014 (%):	85.8%

## Table 5: Net Energy Savings at the End User Level (GWh)

Implementation Period		А	nnual		Cumulative					
Implementation Period	2011	2012	2013	2014	2011-2014					
2011 - Verified	2.2	2.2	2.2	2.2	8.9					
2012 - Verified†	3.4	6.4	6.4	6.4	22.7					
2013 - Verified†	0.0	0.0	2.8	2.8	5.6					
2014 - Verified†	0.0	0.1	2.02	6.2	8.4					
Verified Net Cumulative Energy Savings 2011-2014:										
Festival Hydro Inc. 2011-2014 Annual CDM Energy Target:										
	Verifie	ed Portion of Cumula	Verified Portion of Cumulative Energy Target Achieved in 2014 (%):							

+Includes adjustments to previous years' verified results

Results presented using scenario 1 which assumes that demand response resources have a persistence of 1 year

	Unit		Incremen	tal Activity curring within th	ogram Level Net	Net In	rr (Scenario 1) cremental Peak demand saving					nergy Savings (k vity within the sp	Wh) ecified reporting	Program-to-Date Verif (exclud	
Initiative	Unit		reportir	ıg period)			specified rep	orting period)			pe	riod)		2014 Net Annual Peak Demand Savings (kW)	Cumulative Energy Savings (kWh)
		2011*	2012*	2013*	2014	2011	2012	2013	2014	2011	2012	2013	2014	2014	2014
Consumer Program															
Appliance Retirement	Appliances	56,110	34,146	20,952	22,563	3,299	2,011	1,433	1,617	23,005,812	13,424,518	8,713,107	9,497,343	8,221	159,100,415
Appliance Exchange	Appliances	3,688	3,836	5,337	5,685	371	556	1,106	1,178	450,187	974,621	1,971,701	2,100,266	2,973	10,556,192
HVAC Incentives	Equipment	92,748	87,540	96,286	113,002	32,037	19,060	19,552	23,106	59,437,670	32,841,283	33,923,592	42,888,217	93,755	447,009,930
Conservation Instant Coupon Booklet	Items	567,678	30,891	347,946	1,208,108	1,344	230	517	2,440	21,211,537	1,398,202	7,707,573	32,802,537	4,531	137,258,436
Bi-Annual Retailer Event	Items	952,149	1,060,901	944,772	4,824,751	1,681	1,480	1,184	8,043	29,387,468	26,781,674	17,179,841	122,902,769	12,389	355,157,348
Retailer Co-op	Items	152	0	0	0	0	0	0	0	2,652	0	0	0	0	10,607
Residential Demand Response	Devices	19,550	98,388	171,733	241,381	10,947	49,038	93,076	117,513	24,870	359,408	390,303	8,379	117,513	782,960
Residential Demand Response (IHD)	Devices	0	49,689	133,657	188,577	0	0	0	0	0	0	0	0	0	0
Residential New Construction	Homes	27	21	279	2,367	0	2	18	369	743	17,152	163,690	2,330,865	390	2,712,676
Consumer Program Total	nomes			273	2,507	49,681	72,377	116,886	154,267	133,520,941	75,796,859	70,049,807	212,530,376	239,772	1,112,588,565
						45,001	72,377	110,000	134,207	133,520,541	73,750,035	70,043,007	212,550,570	233,772	1,112,300,303
Business Program	Brojects	2,828	6,481	9,746	10,925	24,467	61,147	59,678	70,662	136,002,258	314,922,468	345,346,008	462,903,521	213,493	2 621 401 222
Retrofit	Projects	2,828	6,481 18.691	9,746	23,784	24,467		59,678 18,708	23,419			345,346,008 64.315.558		73,304	2,631,401,223
Direct Install Lighting	Projects				- / -	- /	15,284	.,		61,076,701	57,345,798		84,503,302		604,196,658
Building Commissioning	Buildings	0	0	0	5	0	0	0	988	0	0	0	1,513,377	988	1,513,377
New Construction	Buildings	25	98	158	226	123	764	1,584	6,432	411,717	1,814,721	4,959,266	20,381,204	8,904	37,390,767
Energy Audit	Audits	222	357	589	473	0	1,450	2,811	6,323	0	7,049,351	15,455,795	30,874,399	10,583	82,934,042
Small Commercial Demand Response	Devices	132	294	1,211	3,652	84	187	773	2,116	157	1,068	373	319	2,116	1,916
Small Commercial Demand Response (IHD)	Devices	0	0	378	820	0	0	0	0	0	0	0	0	0	0
Demand Response 3	Facilities	145	151	175	180	16,218	19,389	23,706	23,380	633,421	281,823	346,659	0	23,380	1,261,903
Business Program Total						64,617	98,221	107,261	133,319	198,124,253	381,415,230	430,423,659	600,176,121	332,769	3,358,699,887
Industrial Program															
Process & System Upgrades	Projects	0	0	5	10	0	0	294	9,692	0	0	2,603,764	72,053,255	9,986	77,260,782
Monitoring & Targeting	Projects	0	1	3	5	0	0	0	102	0	0	0	502,517	102	502,517
Energy Manager	Projects	1	132	306	379	0	1,086	3,558	5,191	0	7,372,108	21,994,263	40,436,427	8,384	95,324,998
Retrofit	Projects	433	0	0	0	4,615	0	0	0	28,866,840	0	0	0	4,613	115,462,282
Demand Response 3	Facilities	124	185	281	336	52,484	74.056	162,543	166.082	3.080.737	1,784,712	4,309,160	0	166.082	9,174,609
Industrial Program Total						57,098	75,141	166,395	181,066	31,947,577	9,156,820	28,907,187	112,992,199	189,168	297,725,188
Home Assistance Program							- 7	,			.,,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Home Assistance Program	Homes	46	5,920	29,654	25,424	2	566	2,361	2,466	39,283	5,442,232	20,987,275	19,582,658	5,370	77,532,571
Home Assistance Program Total	nomes		5,520	23,031	23,121	2	566	2,361	2,466	39,283	5,442,232	20,987,275	19,582,658	5,370	77,532,571
nome Assistance Program rotar						-	500	2,301	2,400	33,203	3,442,232	20,507,275	15,502,050	5,570	77,332,371
Aboriginal Program	Homes	0	0	717	1.125	0	0	267	549	0	0	1 600 202	2 101 207	816	6 210 002
Home Assistance Program		-			1,125			267				1,609,393	3,101,207		6,319,993
Direct Install Lighting	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aboriginal Program Total						0	0	267	549	0	0	1,609,393	3,101,207	816	6,319,993
Pre-2011 Programs completed in 2011															
Electricity Retrofit Incentive Program	Projects	2,028	0	0	0	21,662	0	0	0	121,138,219	0	0	0	21,662	484,552,876
High Performance New Construction	Projects	182	73	19	3	5,098	3,251	772	134	26,185,591	11,901,944	3,522,240	688,738	9,255	148,181,415
Toronto Comprehensive	Projects	577	15	4	5	15,805	0	0	281	86,964,886	0	0	2,479,840	16,086	350,339,385
Multifamily Energy Efficiency Rebates	Projects	110	0	0	0	1,981	0	0	0	7,595,683	0	0	0	1,981	30,382,733
LDC Custom Programs	Projects	8	0	0	0	399	0	0	0	1,367,170	0	0	0	399	5,468,679
Pre-2011 Programs completed in 2011 Tot			· · ·	· · ·	, v	44,945	3,251	772	415	243,251,550	11,901,944	3,522,240	3,168,578	49,382	1,018,925,088
The 2011 Programs completed in 2011 10			_	_		44,543	3,231	112	415	243,231,330	11,501,544	3,322,240	3,100,378	43,302	1,010,923,008
Other				1											
Program Enabled Savings	Projects	33	71	46	43	0	2,304	3,692	5,500	0	1,188,362	4,075,382	19,035,337	11,496	30,751,187
Time-of-Use Savings	Homes	0	0	0	n/a	0	0	0	54,795	0	0	0	0	54,795	0
LDC Pilots	Projects	0	0	0	1,174	0	0	0	1,170	0	0	0	5,061,522	1,170	5,061,522
Other Total						0	2,304	3,692	61,466	0	1,188,362	4,075,382	24,096,859	67,462	35,812,709
Adjustments to 2011 Verified Results							1,406	641	1,418		18,689,081	1,736,381	7,319,857	3,215	110,143,550
Adjustments to 2012 Verified Results							_,	6,260	9,221			41,947,840	37,080,215	15,401	238,780,637
Adjustments to 2012 Verified Results								0,200	24,391			.2,5 17,040	150,785,808	24,391	296,465,211
Energy Efficiency Total						136,610	109,191	117,536	224,457	603,144,419	482,474,435	554,528,447	975,639,300	575,647	5,896,382,612
Demand Response Total (Scenario 1)						79,733	142,670	280,099	309,091	3,739,185	2,427,011	5,046,495	8,698	309,091	11,221,389
Adjustments to Previous Years' Verified R						0	1,406	6,901	35,030	0	18,689,081	43,684,221	195,185,880	43,006	645,389,397
OPA-Contracted LDC Portfolio Total (inc. /	Adjustments)					216,343	253,267	404,536	568,578	606,883,604	503,590,526	603,259,163	1,170,833,878	927,745	6,552,993,397
Activity and savings for Demand Response resources	for each year represent	the savings from all	active facilities or	devices	*Includes adjustme	nts after Final Repor	s were issued						Full OEB Target:	1,330,000	6,000,000,000
contracted since January 1, 2011 (reported cumulativ					Results presented u	sing scenario 1 whic	n assumes that dem	and response resou	irces have a	0/ - 1					
					persistence of 1 yea	r				% Of I	UII UEB Target	Achieved to Da	ate (Scenario 1):	70%	109%

#### Table 6: Province-Wide Initiatives and Program Level Net Savings by Year (Scenario 1)

#### Table 7: Adjustments to Province-Wide Net Verified Results due to Variances

Consumer Program Appliance Retirement Appliance Extinange HVAC Incentives Conservation Instant Coupon Booklet Bi-Annual Retailer Event Retailer Co-op Residential Demand Response Residential Demand Response (IHD) Residential Demand Response (IHD) Residential New Construction Consumer Program Total Business Program Retrofit Direct Install Lighting Divide a Composition ince	Appliances Appliances Equipment Items Items Devices Devices Homes Projects	2011* 0 0 -18,839 8,216 81,817 0 0 0 0 20	2012* 0 0 2,319 0 0 0 0 0 0 0 0 2 2	2013* 0 0 4,705 1,050 0 0 0 0 0	2014	2011 0 -5,270 16	2012 0 0 479	<b>2013</b> 0 0	2014	<b>2011</b>	<b>2012</b>	<b>2013</b>	2014	2014	Savings (kWh) 2014
Appliance Retirement Appliance Retirement Appliance Exchange HVAC Incentives Conservation Instant Coupon Booklet Bi-Annual Retailer Co-op Residential Demand Response Residential Demand Response Residential Demand Response (IHD) Residential New Construction <b>Consumer Program Total</b> Business Program Retrofit Direct Install Lighting	Appliances Equipment Items Items Items Devices Devices Homes	0 -18,839 8,216 81,817 0 0 0	0 2,319 0 0 0 0 0 0	0 4,705 1,050 0 0 0		0 -5,270	0	-		0	0	0			
Appliance Exchange HVAC Incentives Conservation Instant Coupon Booklet Bi-Annual Retailer Event Retailer Co-op Residential Demand Response Residential Demand Response (IHD) Residential New Construction Consumer Program Total Business Program Retrofit Direct Install Lighting	Appliances Equipment Items Items Items Devices Devices Homes	0 -18,839 8,216 81,817 0 0 0	0 2,319 0 0 0 0 0 0	0 4,705 1,050 0 0 0		0 -5,270	0	-		0	0	0			
HVAC Incentives Conservation Instant Coupon Booklet Bi-Annual Retailer Event Retailer Co-op Residential Demand Response Residential Demand Response (IHD) Residential New Construction Consumer Program Total Business Program Retrofit Direct Install Lighting	Equipment Items Items Items Devices Devices Homes	-18,839 8,216 81,817 0 0 0	2,319 0 0 0 0 0 0	4,705 1,050 0 0 0		-5,270		0						0	0
Conservation Instant Coupon Booklet Bi-Annual Retailer Event Retailer Co-op Residential Demand Response Residential Demand Response (IHD) Residential New Construction Consumer Program Total Business Program Retrofit Direct Install Lighting	Items Items Items Devices Devices Homes	8,216 81,817 0 0 0	0 0 0 0	1,050 0 0			479			0	0	0		0	0
Bi-Annual Retailer Event Retailer Co-op Residential Demand Response Residential Demand Response (IHD) Residential New Construction Consumer Program Total Business Program Retrofit Direct Install Lighting	Items Items Devices Devices Homes	81,817 0 0 0	0 0 0 0	0 0 0		16		1,037		-9,707,002	955,512	1,838,408		-3,754	-32,284,656
Retailer Co-op Residential Demand Response Residential Demand Response (IHD) Residential New Construction <b>Consumer Program Total</b> Business Program Retrofit Direct Install Lighting	Items Devices Devices Homes	0 0 0	0 0 0	0			0	2		275,655	0	23,571		18	1,149,763
Residential Demand Response Residential Demand Response (IHD) Residential New Construction Consumer Program Total Business Program Retrofit Direct Install Lighting	Devices Devices Homes	0	0	0		108	0	0		2,183,391	0	0		108	8,733,563
Residential Demand Response (IHD) Residential New Construction Consumer Program Total Business Program Retrofit Direct Install Lighting	Devices Homes	0	0			0	0	0		0	0	0		0	0
Residential New Construction Consumer Program Total Business Program Retrofit Direct Install Lighting	Homes	-		0		0	0	0		0	0	0		0	0
Consumer Program Total Business Program Retrofit Direct Install Lighting		20	2	U		0	0	0		0	0	0		0	0
Consumer Program Total Business Program Retrofit Direct Install Lighting				193		1	1	72		14,667	985	441,938		74	945,497
Business Program Retrofit Direct Install Lighting	Projects					-5,145	480	1,111		-7,233,290	956,497	2,303,917		-3,555	-21,664,975
Direct Install Lighting	Projects									,,	,.	1000		.,	
Direct Install Lighting		312	876	961		3,208	7,233	11,961		16,266,129	42,498,052	78,146,280		22,056	347,545,386
	Projects	444	197	501		501	204	46		1,250,388	736,541	164,667		620	7,158,143
Building Commissioning	Buildings	0	0	0		0	0	40		0	0	0		0	0
		15	29	72		850	1,304	2,241		3,604,553	4,825,774	8,636,179		4,401	46,187,216
New Construction	Buildings Audits	15	29	270		604	439	2,241		2,945,189	4,825,774 2,145,367	13,100,635		3,426	46,187,216
Energy Audit	Devices	0	0	0		0	0	0		0	0	0		0	0
Small Commercial Demand Response	Devices	0	0	0		0	0	0		0	0	0		0	0
Small Commercial Demand Response (IHD)		-				0		0		0	-	0		0	0
Demand Response 3	Facilities	0	0	0	L		0	-			0				
Business Program Total						5,162	9,181	16,631		24,066,259	50,205,734	100,047,761		30,503	385,148,444
Industrial Program	<u> </u>														
Process & System Upgrades	Projects	0	0	2		0	0	324		0	0	968,659		324	1,937,318
Monitoring & Targeting	Projects	0	1	3		0	0	54		0	528,000	639,348		54	2,862,696
Energy Manager	Projects	1	93	101		27	1,067	2,395		241,515	8,266,841	25,814,853		4,345	81,853,489
Retrofit	Projects	0	0	0		0	0	0		0	0	0		0	0
Demand Response 3	Facilities	0	0	0		0	0	0		0	0	0		0	0
Industrial Program Total						27	1,067	2,774		241,515	8,794,841	27,422,860		4,723	61,215,516
Home Assistance Program			-												
Home Assistance Program	Homes	0	887	2,898		0	222	791		0	1,316,749	4,321,794		1,009	12,515,300
Home Assistance Program Total						0	222	791		0	1,316,749	4,321,794		1,009	8,581,177
Aboriginal Program															
Home Assistance Program	Homes	0	0	133		0	0	134		0	0	563,715		134	1,127,430
Direct Install Lighting	Projects	0	0	0		0	0	0		0	0	0		0	0
Aboriginal Program Total						0	0	134		0	0	563,715		134	1,127,430
Pre-2011 Programs completed in 2011								-							
Electricity Retrofit Incentive Program	Projects	12	0	0		138	0	0		545,536	0	0		138	2,182,145
High Performance New Construction	-	37	4	15		1,507	363	-184		2,398,941	2,832,533	-993,596		1.686	16,106,171
	Projects	_		-		-		-		-				1	
Toronto Comprehensive	Projects	0	15	4		0	672	185		0	4,523,517	1,324,388		857	16,219,327
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						1,645	1,035	2		2,944,477	7,356,050	330,792		2,682	11,104,528
Other															
Program Enabled Savings	Projects	33	55	33		1,776	3,712	2,020		7,727,573	11,481,687	10,688,564		7,509	86,732,481
Time-of-Use Savings	Homes	0	0	0		0	0	0		0	0	0		0	0
LDC Pilots	Projects	0	0	0		0	0	0		0	0	0		0	0
Other Total	.,		· · ·	-		1,776	3,712	2,020		7,727,573	11,481,687	10,688,564		7,509	86,732,481
						3,465		,		27,746,535	, _,,	.,		3,215	110,143,550
Adjustments to 2011 Verified Results						3,405	15 607			27,740,535	00 111 550				
Adjustments to 2012 Verified Results							15,697	22.000			80,111,558	145 670 465		15,401	238,780,637
Adjustments to 2013 Verified Results						0.007	45.007	23,463			00 444 555	145,679,403		24,391	296,465,211
Adjustments to Previous Years' Verified Results Total Activity and savings for Demand Response resources for each year represer						3,465 not align to adjust	15,697	23,463		27,746,535	80,111,558	145,679,403		43,006	645,389,397

from all active facilities or devices contracted since January 1, 2011 (reported cumulatively). Adjustements in Table 1 reflect persisted savings in the year in which that adjustment is verified.

### Table 8: Province-Wide Realization Rate & NTG

				Peak Dema								Energy	Savings			
Initiative		Realizat	ion Rate			Net-to-Gr	oss Ratio			Realizatio	n Rate			Net-to-Gro	ss Ratio	
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Consumer Program																
Appliance Retirement	1.00	1.00	1.00	1.00	0.51	0.46	0.42	0.45	1.00	1.00	1.00	1.00	0.46	0.47	0.44	0.47
Appliance Exchange	1.00	1.00	1.00	1.00	0.51	0.52	0.53	0.53	1.00	1.00	1.00	1.00	0.52	0.52	0.53	0.53
HVAC Incentives	1.00	1.00	1.00	1.00	0.60	0.50	0.48	0.48	1.00	1.00	1.00	1.00	0.50	0.49	0.48	0.48
Conservation Instant Coupon Booklet	1.00	1.00	1.00	1.00	1.14	1.00	1.11	1.69	1.00	1.00	1.00	1.00	1.00	1.05	1.13	1.73
Bi-Annual Retailer Event	1.00	1.00	1.00	1.00	1.12	0.91	1.04	1.74	1.00	1.00	1.00	1.00	0.91	0.92	1.04	1.75
Retailer Co-op	1.00	n/a	n/a	n/a	0.68	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Residential Demand Response	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Residential Demand Response (IHD)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Residential New Construction	1.00	3.65	0.78	1.03	0.41	0.49	0.63	0.63	3.65	7.17	3.09	0.62	0.49	0.49	0.63	0.63
Business Program																
Retrofit	1.06	0.93	0.92	0.84	0.72	0.75	0.73	0.71	0.93	1.05	1.01	0.98	0.75	0.76	0.73	0.72
Direct Install Lighting	1.08	0.69	0.82	0.78	1.08	0.94	0.94	0.94	0.69	0.85	0.84	0.83	0.94	0.94	0.94	0.94
Building Commissioning	n/a	n/a	n/a	1.97	n/a	n/a	n/a	1.00	n/a	n/a	n/a	1.16	n/a	n/a	n/a	1.00
New Construction	0.50	0.98	0.68	0.71	0.50	0.49	0.54	0.54	0.98	0.99	0.76	0.79	0.49	0.49	0.54	0.54
Energy Audit	n/a	n/a	1.02	0.96	n/a	n/a	0.66	0.68	n/a	n/a	0.97	1.00	n/a	n/a	0.66	0.67
Small Commercial Demand Response	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Small Commercial Demand Response (IHD)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Demand Response 3	0.76	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Industrial Program																
Process & System Upgrades	n/a	n/a	0.85	0.96	n/a	n/a	0.94	0.79	n/a	n/a	0.87	0.96	n/a	n/a	0.93	0.80
Monitoring & Targeting	n/a	n/a	n/a	0.59	n/a	n/a	n/a	1.00	n/a	n/a	n/a	0.36	n/a	n/a	n/a	1.00
Energy Manager	n/a	1.16	0.90	0.91	n/a	0.90	0.90	0.90	1.16	1.16	0.90	0.96	0.90	0.90	0.90	0.85
Retrofit	1.11	n/a	n/a	n/a	0.72	n/a	n/a	n/a	0.91	n/a	n/a	n/a	0.75	n/a	n/a	n/a
Demand Response 3	0.84	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Home Assistance Program										1						
Home Assistance Program	1.00	0.32	0.26	0.49	0.70	1.00	1.00	1.00	0.32	0.99	0.88	0.78	1.00	1.00	1.00	1.00
Aboriginal Program																
Home Assistance Program	n/a	n/a	0.05	0.15	n/a	n/a	1.00	1.00	n/a	n/a	0.95	0.97	n/a	n/a	1.00	1.00
Direct Install Lighting	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
D. 2011 D						1				1				1		
Pre-2011 Programs completed in 2011																
Pre-2011 Programs completed in 2011 Electricity Retrofit Incentive Program	0.80	n/a	n/a	n/a	0.54	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	0.80	n/a 1.00	n/a 1.00	n/a n/a	0.54	n/a 0.50	n/a 0.50	n/a 0.50	n/a 1.00	n/a 1.00	n/a 1.00	n/a n/a	n/a 0.50	n/a 0.50	n/a 0.50	n/a 0.50
Electricity Retrofit Incentive Program							,									
Electricity Retrofit Incentive Program High Performance New Construction Toronto Comprehensive	1.00	1.00 n/a	1.00	n/a n/a	0.49	0.50	0.50	0.50 n/a	1.00	1.00 n/a	1.00 n/a	n/a n/a	0.50 n/a	0.50 n/a	0.50 n/a	0.50 n/a
Electricity Retrofit Incentive Program High Performance New Construction	1.00 1.13	1.00	1.00 n/a	n/a	0.49	0.50 n/a	0.50 n/a	0.50	1.00 n/a	1.00	1.00	n/a	0.50	0.50	0.50	0.50
Electricity Retrofit Incentive Program High Performance New Construction Toronto Comprehensive Multifamily Energy Efficiency Rebates LDC Custom Programs	1.00 1.13 0.93	1.00 n/a n/a	1.00 n/a n/a	n/a n/a n/a	0.49 0.50 0.78	0.50 n/a n/a	0.50 n/a n/a	0.50 n/a n/a	1.00 n/a n/a	1.00 n/a n/a	1.00 n/a n/a	n/a n/a n/a	0.50 n/a n/a	0.50 n/a n/a	0.50 n/a n/a	0.50 n/a n/a
Electricity Retrofit Incentive Program High Performance New Construction Toronto Comprehensive Multifamily Energy Efficiency Rebates LDC Custom Programs Other	1.00 1.13 0.93 1.00	1.00 n/a n/a	1.00 n/a n/a	n/a n/a n/a	0.49 0.50 0.78 1.00	0.50 n/a n/a	0.50 n/a n/a	0.50 n/a n/a	1.00 n/a n/a n/a	1.00 n/a n/a	1.00 n/a n/a	n/a n/a n/a	0.50 n/a n/a n/a	0.50 n/a n/a	0.50 n/a n/a	0.50 n/a n/a
Electricity Retrofit Incentive Program High Performance New Construction Toronto Comprehensive Multifamily Energy Efficiency Rebates LDC Custom Programs	1.00 1.13 0.93	1.00 n/a n/a n/a	1.00 n/a n/a n/a	n/a n/a n/a n/a	0.49 0.50 0.78	0.50 n/a n/a n/a	0.50 n/a n/a n/a	0.50 n/a n/a n/a	1.00 n/a n/a	1.00 n/a n/a n/a	1.00 n/a n/a n/a	n/a n/a n/a n/a	0.50 n/a n/a	0.50 n/a n/a n/a	0.50 n/a n/a n/a	0.50 n/a n/a n/a

# Summary Provincial Progress Towards CDM Targets

# Table 9: Province-Wide Net Peak Demand Savings at the End User Level (MW)

Implementation Daried		Anr	nual				
Implementation Period	2011	2012	2013	2014			
2011	216.3	136.6	135.8	129.0			
2012†	1.4	253.3	109.8	108.2			
2013†	0.6	7.0	404.5	122.0			
2014†	1.4	10.8	34.2	568.6			
Ver	ified Net Annua	l Peak Demand S	Savings in 2014:	927.7			
2014 Annual CDM Capacity Target:							
Verified Portion of Peak	Demand Saving	s Target Achieve	ed in 2014 (%):	69.8%			

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

Implementation Period		Anr	nual		Cumulative			
Implementation Period	2011	2012	2013	2014	2011-2014			
2011	606.9	603.0	601.0	582.3	2,393.1			
2012†	18.7	503.6	498.4	492.6	1,513.3			
2013†	1.7	44.4	603.3	583.4	1,232.8			
2014†	7.3	44.8	191.0	1,170.8	1,413.9			
	Verified Net Cumulative Energy Savings 2011-2014:							
	Energy Target:	6,000						
Ver	fied Portion of (	Cumulative Ener	gy Target Achiev	/ed in 2014 (%):	109.2%			

*†Includes adjustments to previous years' verified results* 

Results presented using scenario 1 which assumes that demand response resources have a persistence of 1 year

# 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
<b>Consumer Program</b>	1		
Appliance Retirement	2008 & 2009 residential throughout. Home	Savings are considered to begin in the year the appliance is picked up.	Peak demand and energy savings are determined
Appliance Exchange	I DC When postal code is not available results	Savings are considered to begin in the year that	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.
HVAC Incentives		Savings are considered to begin in the year that the installation occurred.	

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
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
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.	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.
	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.
	Results are directly attributed to LDC based on data provided to IESO 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.

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Residential New Construction	Results are directly attributed to LDC based on LDC identified in application in the iCon 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	Results are directly attributed to LDC based on LDC identified at the facility level in the iCon system. 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 in the iCON system.	Peak demand and energy savings are determined by the total savings for a given project as reported in the iCON 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 projects with an "Actual Project Completion Da		ubmission - Payment denied by LDC) and only including

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
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.	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
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.	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 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).

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Commercial Demand Response (part of the Residential program schedule)	Results are directly attributed to LDC based on data provided to IESO through project completion reports and continuing participant lists	device was installed and/or when a customer	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.
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).

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings		
Monitoring & Targeting	Results are directly attributed to LDC based on LDC identified in the 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).		
Energy Manager	Results are directly attributed to LDC based on LDC identified in the application.		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).		

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	Application Status: "Post-Stage Submission"	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.

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings		
Home Assistance Pro	ogram				
	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.		

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings		
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, 2013 or 2014 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		
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, 2013 or 2014, assumptions as per 2010 evaluation.	Savings are considered to begin in the year in	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		
Toronto Comprehensive	Program run exclusively in Toronto Hydro- Electric System Limited service territory; Initiative was not evaluated in 2011, 2012, 2013 or 2014, assumptions as per 2010 evaluation.	which a project was completed.	provincial results from the 2010 evaluated results (http://www.powerauthority.on.ca/evaluation- measurement-and-verification/evaluation-reports)		

Initiative	Attributing Savings to LDCs	Savings 'start' Date	Calculating Resource Savings
Multifamily Energy Efficiency Rebates	Results are directly attributed to LDC based on LDC identified in the application; Initiative was not evaluated in 2011, 2012, 2013 or 2014, assumptions as per 2010 evaluation.		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
Data Centre Incentive Program	Program run exclusively in PowerStream Inc. service territory; Initiative was not evaluated in 2011, assumptions as per 2009 evaluation.	Savings are considered to begin in the year in which a project was completed.	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
EnWin Green Suites	Program run exclusively in ENWIN Utilities Ltd. service territory; Initiative was not evaluated in 2011 or 2012, assumptions as per 2010 evaluation.		evaluated results (http://www.powerauthority.on.ca/evaluation- measurement-and-verification/evaluation-reports).

# **Consumer Program Allocation Methodology**

Results can be allocated based on average of 2008 & 2009 residential throughput for each LDC (below) when additional information is not available. Source: OEB Yearbook Data 2008 & 2009

Local Distribution Company	Allocation
Algoma Power Inc.	0.2%
Atikokan Hydro Inc.	0.0%
Attawapiskat Power Corporation	0.0%
Bluewater Power Distribution Corporation	0.6%
Brant County Power Inc.	0.2%
Brantford Power Inc.	0.7%
Burlington Hydro Inc.	1.4%
Cambridge and North Dumfries Hydro Inc.	1.0%
Canadian Niagara Power Inc.	0.5%
Centre Wellington Hydro Ltd.	0.1%
Chapleau Public Utilities Corporation	0.0%
COLLUS Power Corporation	0.3%
Cooperative Hydro Embrun Inc.	0.0%
E.L.K. Energy Inc.	0.2%
Enersource Hydro Mississauga Inc.	3.9%
ENTEGRUS	0.6%
ENWIN Utilities Ltd.	1.6%
Erie Thames Powerlines Corporation	0.4%
Espanola Regional Hydro Distribution Corporation	0.1%
Essex Powerlines Corporation	0.7%
Festival Hydro Inc.	0.3%
Fort Albany Power Corporation	0.0%
Fort Frances Power Corporation	0.1%
Greater Sudbury Hydro Inc.	1.0%
Grimsby Power Inc.	0.2%
Guelph Hydro Electric Systems Inc.	0.9%
Haldimand County Hydro Inc.	0.4%
Halton Hills Hydro Inc.	0.5%
Hearst Power Distribution Company Limited	0.1%
Horizon Utilities Corporation	4.0%
Hydro 2000 Inc.	0.0%
Hydro Hawkesbury Inc.	0.1%
Hydro One Brampton Networks Inc.	2.8%
Hydro One Networks Inc.	30.0%
Hydro Ottawa Limited	5.6%
Innisfil Hydro Distribution Systems Limited	0.4%
Kashechewan Power Corporation	0.0%
Kenora Hydro Electric Corporation Ltd.	0.1%
Kingston Hydro Corporation	0.5%
Kitchener-Wilmot Hydro Inc.	1.6%
Lakefront Utilities Inc.	0.2%

Lakeland Power Distribution Ltd.	0.2%
London Hydro Inc.	2.7%
Middlesex Power Distribution Corporation	0.1%
Midland Power Utility Corporation	0.1%
Milton Hydro Distribution Inc.	0.6%
Newmarket - Tay Power Distribution Ltd.	0.7%
Niagara Peninsula Energy Inc.	1.0%
Niagara-on-the-Lake Hydro Inc.	0.2%
Norfolk Power Distribution Inc.	0.3%
North Bay Hydro Distribution Limited	0.5%
Northern Ontario Wires Inc.	0.1%
Oakville Hydro Electricity Distribution Inc.	1.5%
Orangeville Hydro Limited	0.2%
Orillia Power Distribution Corporation	0.3%
Oshawa PUC Networks Inc.	1.2%
Ottawa River Power Corporation	0.2%
Parry Sound Power Corporation	0.1%
Peterborough Distribution Incorporated	0.7%
PowerStream Inc.	6.6%
PUC Distribution Inc.	0.9%
Renfrew Hydro Inc.	0.1%
Rideau St. Lawrence Distribution Inc.	0.1%
Sioux Lookout Hydro Inc.	0.1%
St. Thomas Energy Inc.	0.3%
Thunder Bay Hydro Electricity Distribution Inc.	0.9%
Tillsonburg Hydro Inc.	0.1%
Toronto Hydro-Electric System Limited	12.8%
Veridian Connections Inc.	2.4%
Wasaga Distribution Inc.	0.2%
Waterloo North Hydro Inc.	1.0%
Welland Hydro-Electric System Corp.	0.4%
Wellington North Power Inc.	0.1%
West Coast Huron Energy Inc.	0.1%
Westario Power Inc.	0.5%
Whitby Hydro Electric Corporation	0.9%
Woodstock Hydro Services Inc.	0.3%

## **Reporting Glossary**

Annual: the peak demand or energy savings that occur in a given year (includes resource savings from new program activity and resource savings persisting from previous years).

Cumulative Energy Savings: represents the sum of the annual energy savings that accrue over a defined period (in the context of this report the defined period is 2011 - 2014). This concept does not apply to peak demand savings.

End-User Level: resource savings in this report are measured at the customer level as opposed to the generator level (the difference being line losses).

Free-ridership: the percentage of participants who would have implemented the program measure or practice in the absence of the program.

Incremental: the new resource savings attributable to activity procured in a particular reporting period based on when the savings are considered to 'start'.

Initiative: a Conservation & Demand Management offering focusing on a particular opportunity or customer end-use (i.e. Retrofit, Fridge & Freezer Pickup).

Net-to-Gross Ratio: The ratio of net savings to gross savings, which takes into account factors such as free-ridership and spillover

Net Energy Savings (MWh): energy savings attributable to conservation and demand management activities net of free-riders, etc.

Net Peak Demand Savings (MW): peak demand savings attributable to conservation and demand management activities net of free-riders, etc.

Program: a group of initiatives that target a particular market sector (e.g. Consumer, Industrial).

Realization Rate: A comparison of observed or measured (evaluated) information to original reported savings which is used to adjust the gross savings estimates.

Settlement Account: the grouping of demand response facilities (contributors) into one contractual agreement

Spillover: Reductions in energy consumption and/or demand caused by the presence of the energy efficiency program, beyond the program-related gross savings of the participants. There can be participant and/or non-participant spillover.

Unit: for a specific initiative the relevant type of activity acquired in the market place (i.e. appliances picked up, projects completed, coupons redeemed).

Table 11: Festival Hydro Inc. Initiative and Program Level Gross Savings by Year

Initiative	Unit	(new peal	Gross Incremental Pea k demand savings from activi	k Demand Savings (kW) ty within the specified repor	ting period)	(new e		Energy Savings (kWh) vithin the specified reporting	period)
		2011	2012	2013	2014	2011	2012	2013	2014
Consumer Program									
ppliance Retirement**	Appliances	40	17	34	27	267,345	113,761	219,610	159,245
ppliance Exchange**	Appliances	10	8	12	19	13,123	13,734	21,057	34,394
IVAC Incentives	Equipment	227	138	158	186	435,131	250,834	288,512	349,065
Conservation Instant Coupon Booklet	Items	4	1	2	4	59,377	4,638	23,935	57,053
i-Annual Retailer Event	Items	5	6	4	16	94,096	102,221	57,513	245,755
etailer Co-op	Items	0	0	0	0	0	0	0	0
Residential Demand Response	Devices	66	0	0	4	0	0	0	0
Residential Demand Response (IHD)	Devices	0	0	0	0	0	0	0	0
Residential New Construction	Homes	0	0	0	0	0	0	0	0
Consumer Program Total		352	169	209	257	869,073	485,188	610,627	845,511
usiness Program			r	7			1	7	
etrofit	Projects	72	542	459	715	259,788	2,818,519	2,902,213	3,026,461
irect Install Lighting	Projects	119	83	40	65	360,875	291,481	139,102	243,535
uilding Commissioning	Buildings	0	0	0	0	0	0	0	0
lew Construction	Buildings	0	29	0	70	0	118,578	0	359,978
nergy Audit	Audits	0	10	27	79	0	50,353	146,621	389,112
mall Commercial Demand Response	Devices	0	0	0	0	0	0	0	0
mall Commercial Demand Response (IHD)	Devices	0	0	0	0	0	0	0	0
emand Response 3	Facilities	68	68	69	50	2,665	995	927	0
usiness Program Total		259	733	595	979	623,328	3,279,925	3,188,864	4,019,087
ndustrial Program									
rocess & System Upgrades	Projects	0	0	0	82	0	0	0	722,000
Ionitoring & Targeting	Projects	0	0	0	0	0	0	0	0
nergy Manager	Projects	0	0	0	0	0	0	0	0
etrofit	Projects	89	0	0	0	601,032	0	0	0
emand Response 3	Facilities	0	0	334	1,372	0	0	7,597	0
ndustrial Program Total		89	0	334	1,454	601,032	0	7,597	722,000
ome Assistance Program			•	•	•		•	•	
ome Assistance Program	Homes	0	0	21	9	0	4,983	189,557	73,548
Iome Assistance Program Total		0	0	21	9	0	4,983	189,557	73,548
boriginal Program				•			•	•	
Iome Assistance Program	Homes	0	0	0	0	0	0	0	0
irect Install Lighting	Projects	0	0	0	0	0	0	0	0
boriginal Program Total		0	0	0	0	0	0	0	0
re-2011 Programs completed in 2011									
ectricity Retrofit Incentive Program	Projects	297	0	0	0	1,374,694	0	0	0
		1	1	0	0	3,682	766	0	0
igh Performance New Construction	Projects								
oronto Comprehensive	Projects	0	0	0	0	0	0	0	0
ultifamily Energy Efficiency Rebates	Projects	0	0	0	0	0	0	0	0
OC Custom Programs	Projects	0	0	0	0	0	0	0	0
re-2011 Programs completed in 2011 T	otal	298	1	0	0	1,378,376	766	0	0
ther									
ogram Enabled Savings	Projects	0	0	0	0	0	0	0	0
me-of-Use Savings	Homes	0	0	0	257	0	0	0	0
C Pilots	Projects	0	0	0	0	0	0	0	0
ther Total		0	0	0	257	0	0	0	0
			1,623	0	0		7,102,512	0	1,801
djustments to 2011 Verified Results			1,023	-			7,102,512	-	
djustments to 2012 Verified Results djustments to 2013 Verified Results				3	37 420			5,963	137,848 2,315,809
			000			2.452.534	2.700.007	2,000,100	
nergy Efficiency Total		864	834	756	1,529	3,469,144	3,769,867	3,988,120	5,660,146
emand Response Total		134	68	403	1,426	2,665	995	8,524	0
djustments to Previous Years' Verified		0	1,623	3	457	0	7,102,512	5,963	2,455,457
PA-Contracted LDC Portfolio Total (inc	. Adjustments)	998	2,526	1,163	3,412	3,471,809	10,873,374	4,002,608	8,115,603

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 cumulatively).

Gross results are presented for informational purposes only and are not considered official 2014 Final Verified Results

\*\*Net results substituted for gross results due to unavailability of data

#### 2011-2014 Final Results Report\_HCFestival Hydro Inc.

Table 12: Adjustments to Festival Hydro Inc. Gross Verified Results due to Variances

Initiative	Unit	Gross Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period)				Gross Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period) 2011 2012 2013 2014			
		2011	2012	2013	2014	2011	2012	2013	2014
Consumer Program				1	1				
Appliance Retirement	Appliances	0	0	0		0	0	0	
Appliance Exchange	Appliances	0	0	0		0	0	0	
HVAC Incentives	Equipment	-30	3	4		-58,739	5,963	8,130	
Conservation Instant Coupon Booklet	Items	0	0	0		895	0	72	
Bi-Annual Retailer Event	Items	0	0	0		8,303	0	0	
Retailer Co-op	Items	0	0	0		0	0	0	
Residential Demand Response	Devices	0	0	0		0	0	0	
Residential Demand Response (IHD)	Devices	0	0	0		0	0	0	
Residential New Construction	Homes	0	0	0		0	0	0	
Consumer Program Total		-30	3	4		-49,541	5,963	8,202	
Business Program				1			1		
Retrofit	Projects	4	0	227		2,153	130,028	986,321	
Direct Install Lighting	Projects	5	0	0		12,471	0	0	
Building Commissioning	Buildings	0	0	0		0	0	0	
New Construction	Buildings	1,638	0	63		7,112,252	0	155,028	
Energy Audit	Audits	5	0	0		25,176	2,517	97	
Small Commercial Demand Response	Devices	0	0	0		0	0	0	
Small Commercial Demand Response (IHD)	Devices	0	0	0		0	0	0	
Demand Response 3	Facilities	0	0	0		0	0	0	
Business Program Total		1,653	0	291		7,152,052	132,545	1,141,446	
Industrial Program									
Process & System Upgrades	Projects	0	0	0		0	0	0	
Monitoring & Targeting	Projects	0	0	0		0	0	0	
Energy Manager	Projects	0	0	0		0	0	11,631	
Retrofit	Projects	0	0	0		0	0	0	
Demand Response 3	Facilities	0	0	0		0	0	0	
Industrial Program Total		0	0	0		0	0	11,631	
Home Assistance Program									
Home Assistance Program	Homes	0	0	2		0	5,380	12,157	
Home Assistance Program Total		0	0	2		0	5,380	12,157	
Aboriginal Program									
Home Assistance Program	Homes	0	0	0		0	0	0	
Direct Install Lighting	Projects	0	0	0		0	0	0	
Aboriginal Program Total		0	0	0		0	0	0	
Pre-2011 Programs completed in 2011									
Electricity Retrofit Incentive Program	Projects	0	0	0		0	0	0	
High Performance New Construction	Projects	0	0	0		0	0	0	
Toronto Comprehensive	Projects	0	0	0		0	0	0	
Multifamily Energy Efficiency Rebates	Projects	0	0	0		0	0	0	
LDC Custom Programs	Projects	0	0	0		0	0	0	
Pre-2011 Programs completed in 2011 Total	.,	0	0	0		0	0	0	
Other		-	-	Ţ		Ţ	-		
Program Enabled Savings	Projects	0	0	125		0	0	1,142,450	
	Homes	0	0	0		0	0	0	
Time-of-Use Savings		0	0	0		0	0	0	
LDC Pilots	Projects								
Other Total		0	0	125		0	0	1,142,450	
Adjustments to 2011 Verified Results		1,623				7,102,512			
Adjustments to 2012 Verified Results			3				143,888		
Adjustments to 2013 Verified Results				422				2,315,886	
Total Adjustments to Previous Years' Verified Resu	ts	1,623	3	422		7,102,512	143,888	2,315,886	

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 cumulatively).

Table 13: Province-Wide Initiatives and Program Level Gross Savings by Year

Initiative	Unit	Gross Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period)				Gross Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period)				
		2011	2012	2013	2014	2011	2012	2013	2014	
Consumer Program										
Appliance Retirement**	Appliances	6,750	2,011	3,151	3,579	45,971,627	13,424,518	18,616,239	20,315,770	
Appliance Exchange**	Appliances	719	556	2,101	2,238	873,531	974,621	3,746,106	3,990,372	
HVAC Incentives	Equipment	53,209	38,346	40,418	48,467	99,413,430	66,929,213	71,225,037	90,274,814	
Conservation Instant Coupon Booklet	Items	1,184	231	464	1,442	19,192,453	1,325,898	6,842,244	19,000,254	
Bi-Annual Retailer Event	Items	1,504	1,622	1,142	4,626	26,899,265	29,222,072	16,441,329	70,254,471	
Retailer Co-op	Items	0	0	0	0	3,917	0	0	0	
Residential Demand Response	Devices	10,390	49,038	93,076	117,513	23,597	359,408	390,303	8,379	
Residential Demand Response (IHD)	Devices	0	0	0	0	0	0	0	0	
Residential New Construction	Homes	0	1	29	587	1,813	4,884	259,826	3,699,786	
Consumer Program Total		73,757	91,805	140,380	178,452	192,379,633	112,240,615	117,521,084	207,543,846	
Business Program					•					
Retrofit	Projects	34,201	78,965	82,896	98,849	184,070,265	387,817,248	478,410,896	642,515,421	
Direct Install Lighting	Projects	22,155	20,469	19,807	24,794	65,777,197	68,896,046	68,140,249	89,528,509	
Building Commissioning	Buildings	0	0	0	988	0	0	0	1,513,377	
New Construction	Buildings	247	1,596	2,934	11,911	823,434	3,755,869	9,183,826	37,742,970	
Energy Audit	Audits	0	1,450	4,283	9,367	0	7,049,351	23,386,108	46,012,517	
Small Commercial Demand Response	Devices	55	187	773	2,116	131	1,068	373	319	
Small Commercial Demand Response (IHD)	Devices	0	0	0	0	0	0	0	0	
Demand Response 3	Facilities	21,390	19,389	23,706	23,380	633,421	281,823	346,659	0	
Business Program Total		78,048	122,056	134,399	171,405	251,304,448	467,801,406	579,468,111	817,313,113	
Industrial Program		10,010					,,	0.0,.00,		
Process & System Upgrades	Projects	0	0	313	12,287	0	0	2,799,746	90,463,617	
Monitoring & Targeting	Projects	0	0	0	102	0	0	0	502,517	
Energy Manager	Projects	0	1,034	3,953	5,767	0	7,067,535	24,438,070	44,929,364	
Retrofit	Projects	6,372	0	0	0	38,412,408	0	0	0	
Demand Response 3	Facilities	176,180	74.056	162,543	166,082	4,243,958	1,784,712	4,309,160	0	
Industrial Program Total		182,552	75,090	166,809	184,238	42,656,366	8,852,247	31,546,976	135,895,498	
Home Assistance Degram		102,332	75,050	100,005	104,230	42,030,300	0,032,247	31,340,570	133,053,450	
Home Assistance Program	Homes	4	1,777	2,361	2,466	56,119	5,524,230	20,987,275	19,582,658	
Home Assistance Program Total	nomes	4	1,777	2,361	2,466	56,119	5,524,230	20,987,275	19,582,658	
			1,777	2,301	2,400	50,115	3,324,230	20,507,275	15,502,050	
Aboriginal Program	Userses	0	0	267	549	,	0	1,609,393	3,101,207	
Home Assistance Program	Homes					0	0			
Direct Install Lighting	Projects	0	0	0	0	0	0	0	0	
Aboriginal Program Total		0	0	267	549	0	0	1,609,393	3,101,207	
Pre-2011 Programs completed in 2011			1	1	1					
Electricity Retrofit Incentive Program	Projects	40,418	0	0	0	223,956,390	0	0	0	
High Performance New Construction	Projects	10,197	6,501	772	268	52,371,183	23,803,888	3,522,240	1,377,475	
Toronto Comprehensive	Projects	33,467	0	0	802	174,070,574	0	0	7,085,257	
Multifamily Energy Efficiency Rebates	Projects	2,553	0	0	0	9,774,792	0	0	0	
LDC Custom Programs	Projects	534	0	0	0	649,140	0	0	0	
Pre-2011 Programs completed in 2011 Total		87,169	6,501	772	1,070	460,822,079	23,803,888	3,522,240	8,462,733	
Other			•	•	•					
Program Enabled Savings	Projects	0	2,177	3,692	5,500	0	525,011	4,075,382	19,035,337	
Time-of-Use Savings	Homes	0	0	0	54,795	0	0	0	0	
LDC Pilots	Projects	0	0	0	1,170	0	0	0	5,061,522	
Other Total	. 10jeeta	0	2,177	3,692	60,296	0	525,011	4,075,382	19,035,337	
						v				
Adjustments to 2011 Verified Results			13,266	645	1,601		48,705,294	20,581	6,028	
Adjustments to 2012 Verified Results				8,632	13,449			54,301,893	59,098,939	
Adjustments to 2013 Verified Results					34,727				206,413,158	
Energy Efficiency Total		213,515	156,735	168,583	289,384	942,317,539	616,320,385	753,683,966	1,210,925,694	
Demand Response Total		208,015	142,670	280,099	309,091	4,901,107	2,427,011	5,046,495	8,698	
Adjustments to Previous Years' Verified Results Total		0	13,266	9,277	49,777	0	48,705,294	54,322,474	265,518,125	
OPA-Contracted LDC Portfolio Total (inc. Adjustments)		421,530	312,671	457,958	648,252	947,218,646	667,452,690	813,052,934	1,476,452,516	
Activity and savings for Demand Response resources for			informational purposes only and							

Activity and savings for Demand Response resources for each year represent the savings from all active facilities or devices contracted since January 1, 2011 \*\*Net results substituted for gross results due to unavailability of data

(reported cumulatively).

#### 2011-2014 Final Results Report\_HCFestival Hydro Inc.

Table 14: Adjustments to Province-Wide Gross Verified Results due to Variances

Initiative	Unit	(new peak demand sav	ncremental Peak Demar ings from activity within	the specified reportin	Gross Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period)				
		2011	2012	2013	2014	2011	2012	2013	2014
Consumer Program				T.			T	T	
Appliance Retirement	Appliances	0	0	0		0	0	0	
Appliance Exchange	Appliances	0	0	0		0	0	0	
HVAC Incentives	Equipment	-8,759	1,091	2,157		-16,241,086	1,952,473	3,873,449	
Conservation Instant Coupon Booklet	Items	15	0	1		255,975	0	20,668	
Bi-Annual Retailer Event	Items	117	0	0		2,373,616	0	0	
Retailer Co-op	Items	0	0	0		0	0	0	
Residential Demand Response	Devices	0	0	0		0	0	0	
Residential Demand Response (IHD)	Devices	0	0	0		0	0	0	
Residential New Construction	Homes	1	1	115		330,093	2,009	701,488	
Consumer Program Total		-8,628	1,092	2,273		-13,281,402	1,954,483	4,595,605	
Business Program									
Retrofit	Projects	4,511	10,114	16,584		22,046,931	58,528,789	108,677,566	
Direct Install Lighting	Projects	541	217	49		1,346,618	781,858	174,460	
Building Commissioning	Buildings	0	0	0		0	0	0	
New Construction	Buildings	3,287	2,673	4,151		11,323,593	9,884,305	15,992,924	
Energy Audit	Audits	656	488	3,631		2,391,744	2,386,374	19,822,524	
Small Commercial Demand Response	Devices	0	0	0		0	0	0	
Small Commercial Demand Response (IHD)	Devices	0	0	0		0	0	0	
Demand Response 3	Facilities	0	0	0		0	0	0	
Business Program Total	racintics	8,996	13,491	24,414		37,108,886	71,581,326	144,667,473	
		8,550	13,451	24,414		37,100,000	71,381,320	144,007,475	
Industrial Program Process & System Upgrades	Projects	0	0	426		0	0	1,232,785	
Monitoring & Targeting	Projects	0	0	54		0	528,000	639,348	
Energy Manager	Projects	29	1,071	2,687		0	8,968,007	28,893,596	
Retrofit	Projects	0	0	0		0	0	28,895,590	
	Facilities	0	0	0		0	0	0	
Demand Response 3	Facilities	29	1,071				-	-	
Industrial Program Total		29	1,071	3,168		0	9,496,007	30,765,729	
Home Assistance Program		0	222	704		0	4 246 740	4 224 704	
Home Assistance Program	Homes	0	222	791		0	1,316,749	4,321,794	
Home Assistance Program Total		0	222	791		0	1,316,749	4,321,794	
Aboriginal Program								1	
Home Assistance Program	Homes	0	0	134		0	0	563,715	
Direct Install Lighting	Projects	0	0	0		0	0	0	
Aboriginal Program Total		0	0	134		0	0	563,715	
Pre-2011 Programs completed in 2011									
Electricity Retrofit Incentive Program	Projects	266	0	0		1,049,108	0	0	
High Performance New Construction	Projects	13,072	727	405		23,905,663	5,665,066	1,535,048	
Toronto Comprehensive	Projects	0	1,920	529		0	12,924,335	3,783,965	
Multifamily Energy Efficiency Rebates	Projects	0	0	0		0	0	0	
LDC Custom Programs	Projects	0	0	0		0	0	0	
Pre-2011 Programs completed in 2011 Total		13,337	2,647	934		24,954,771	18,589,400	5,319,013	
	10,007	2,017	50.		21,551,772	10,000,100	0,010,010		
Other	Dreieste	1 770	2 712	2 020		1 (72 712	11 401 007	10 000 504	
Program Enabled Savings	Projects	1,776	3,712	2,020		1,673,712	11,481,687	10,688,564	
Time-of-Use Savings	Homes	0				0	÷	0	
LDC Pilots	Projects	0	0	0		0	0	-	
Other Total	1,776	3,712	2,020		1,673,712	11,481,687	10,688,564		
Adjustments to 2011 Verified Results		15,511				50,455,967			
Adjustments to 2012 Verified Results		22,235				114,419,652			
Adjustments to 2013 Verified Results				33,734				200,921,892	
Adjustments to Previous Years' Verified Results Total	15,511	22,235	33,734		50,455,967	114,419,652	200,921,892		
Activity and savings for Demand Response resources for each year	represent the savings	*Includes adjustments after Fina	al Reports were issued			Gross results are presented for Verified Results	informational purposes only an	d are not considered official 20	014 Final

urces for each year represent the s from all active facilities or devices contracted since January 1, 2011 (reported

cumulatively).

Results presented using scenario 1 which assumes that demand response resources have a persistence of 1 year

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