September 25, 2013

Ontario Energy Board
2300 Young St. 26th Floor
Toronto, Ontario
M4P 1E4

Attention: Ms. Kirsten Walli
Board Secretary

RE: 2012 Annual Conservation and Demand Management (CDM) Report 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 2012 Annual CDM Report covering the period of January 1, 2012 to December 31, 2012 and due to the Board by September 30, 2013. A copy of this report has been filed today via RESS.

A copy of the 2012 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, 2013.

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

# 2012 Annual Report

**Submitted to:**

**Ontario Energy Board**

**Submitted on September 25, 2013**

*TABLE OF CONTENTS*

# Executive Summary

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

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

In 2011, FHI 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.

FHI has achieved 1.5 MW of net incremental peak demand savings and 6.4 GWh of net incremental energy savings in 2012. A summary of the achievements towards the FHI CDM targets is shown below:

**OPA-Contracted Province-Wide CDM Programs FINAL 2012 Results**

**LDC:** Festival Hydro Inc.

| FINAL 2012 Progress to Targets | 2012 Incremental | Program-to-Date Progress to Target (Scenario 1) | Scenario 1: % of Target Achieved | Scenario 2: % of Target Achieved |
|---|---|---|---|---|
| **Net Annual Peak Demand Savings (MW)** | 1.5 | 1.9 | **31.1%** | **32.2%** |
| **Net Energy Savings (GWh)** | 6.4 | 31.6 | **108.1%** | **108.1%** |

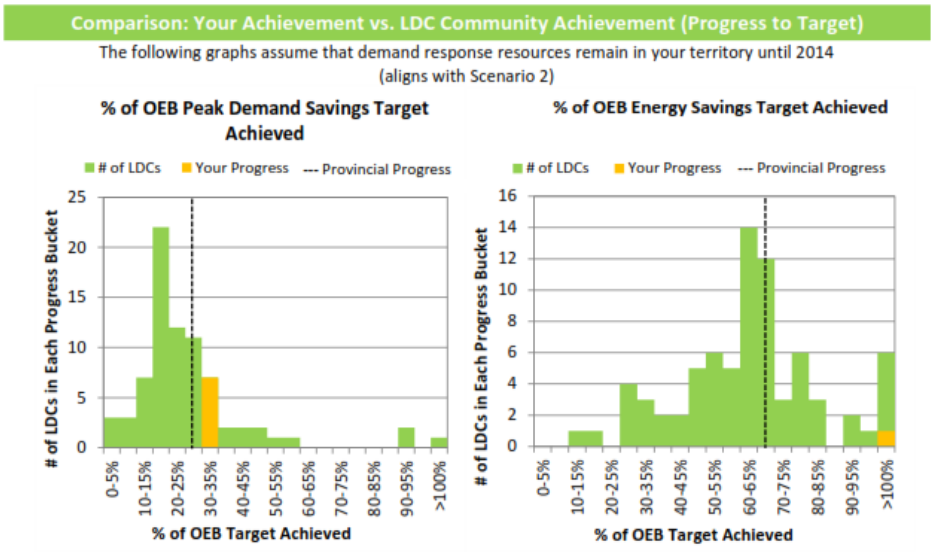
**Scenario 1** = Assumes that demand resource resources have a persistence of 1 year

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

Taken directly from 2012 OPA CDM Annual Report Festival Hydro Inc., page 4

At the end of 2012, FHI achieved a net annual peak demand savings of 1.9 MW resulting in a demand short fall of 1.26 MW relative to FHI's CDM Strategy milestones. This represents a variance to FHI Strategy of -20.2 %. The portion of full OEB demand savings target achieved at this time is 31.1% (Scenario 1). Although, the peak demand savings are below target, Festival Hydro Inc. has 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 full OEB net energy savings target achieved at this time is 108.1%.

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:




Taken directly from 2012 OPA CDM Annual Report Festival Hydro Inc., page 4

Given the demand shortfall, Festival Hydro Inc. continues to work actively on participant engagement with focus remaining on the Demand Response program. In addition FHI has partnered with other LDCs, and has been working with the Ontario Power Authority ("OPA") and the Electrical Distribution Association ("EDA") to improve program effectiveness; however it is FHI's position that this effort in itself may not be enough to meet FHI's full OEB peak demand savings target.

# Background

On March 31, 2010, the Minister of Energy and Infrastructure of Ontario, under the guidance of sections 27.1 and 27.2 of the *Ontario Energy Board Act, 1998*, directed the Ontario Energy Board (OEB) to establish Conservation and Demand Management (CDM) targets to be met by electricity distributors. Accordingly, on November 12, 2010, the OEB amended the distribution license of Festival Hydro Inc. (FHI) to require FHI, 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 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, FHI submitted its Updated Version 1 CDM Strategy on May 16, 2011 which provided a high level of description of how FHI intended to achieve its CDM targets.

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

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

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

The Ministerial Directive did not amend the timelines for LDCs to achieve their energy savings and demand savings targets; therefore, LDCs remain focused on the achievement of CDM targets by December 31, 2014.

# 1 Conservation Framework

## 1.1 Current Framework

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

The state of Board-Approved programs and the current suite of Province-Wide OPA programs have limited CDM offerings to customers. This has restricted the associated opportunity for LDCs to meet their respective targets. The process to introduce changes to current program Initiatives or to pilot new Initiatives has been challenging, taking considerable time, cost and effort.

Moving forward, the future CDM framework should address the challenges of the current framework and build on its strengths. Currently overbuilt governance and excessive legal requirements results in a slow, bureaucratic process, with a burdensome administrative process. There is a misalignment of control and risk; LDCs have the accountability to achieve their respective CDM targets as a condition of distribution license, but the authority for design and funding are controlled substantially by the OPA.

The Ministerial Directive provides continuality of conservation programs and associated compensation for participants; however, the subsequent savings is currently not attributed to any defined LDC target and at the time of this report, it is not clear whether this extension is only for project completion or whether new applications will also be accepted.

## 1.2 Future Framework

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

Long-term commitment for CDM funding and a confirmation of the role of LDC's is required to maintain current program infrastructure including LDC staff and third party contracts through 2015.

To ensure a seamless and smooth transition that maintains and builds upon CDM momentum beyond 2014, a new CDM framework should be in place well before the expiry of the current one. Work involving key parties including LDCs, the government, customer groups and the OEB should begin in 2013 with a new framework in place by early 2014. The remainder of 2014 could then be utilized for program development, program design, economic analysis, procurement, and launching of new CDM program initiatives.

# 2 Board-Approved CDM Programs

## 2.1 Introduction

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

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

## 2.2 TOU Pricing

### 2.2.1 BACKGROUND

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

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

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

As of September 30, 2013, the OPA had not released any verified results of TOU savings to FHI; therefore, FHI is not able to provide any verified savings related to LDC's TOU program at this time.

### 2.2.2. TOU PROGRAM DESCRIPTION

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

**Initiative Frequency:** Year-Round

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

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

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

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

**Table 2.2a: Summary of Regulated Price Plan Time of Use Pricing**

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

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

**Initiative Activities/Progress:**

FHI began transitioning its RPP customers to TOU billing on May 1, 2012. At December 31st, 2012, 98.8% RPP customers were on TOU billing.

## 2.3 Festival Hydro Inc. Application with the OEB

Festival Hydro Inc. has not applied to the OEB for any Tier 2 or Tier 3 CDM programs.

# 3. OPA-Contracted Province-Wide CDM Programs

## 3.1 Introduction

Effective March 2, 2011, Festival Hydro Inc. entered into an agreement with the OPA to deliver CDM programs extending from January 1, 2011 to December 31, 2014. A CDM program list is provided below. Program details are included in Appendix A. Results include projects started pre 2011 which were completed in 2011:

**Table 3.1a: Conservation Demand Management Programs, Festival Hydro Inc.**

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

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

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

**Table 3.1b: Pre-2011 Programs, Festival Hydro Inc.**

| **Pre-2011 Programs** | |
|---|---|
| Electricity Retrofit Incentive Program | *All general service classes* |
| High Performance New Construction | *All general service classes* |
| ~~Toronto Comprehensive~~ | ~~*All general service classes*~~ |
| ~~Multifamily Energy Efficiency Rebates~~ | ~~*All general service classes*~~ |
| ~~Data Centre Incentive Program~~ | ~~*All general service classes*~~ |
| ~~EnWin Green Suites~~ | ~~*All general service classes*~~ |

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

**Table 3.1c: Initiatives Not in Market, Festival Hydro Inc.**

| **Initiative Not in Market in 2012** | **Objective** | **Status** |
|---|---|---|
| **Residential Program** | | |
| Midstream Electronics | The objective of this initative is to encourage retailers to promote and sell high efficency televisions, and for distributors to distribute high efficiency | Never launched and removed from Schedule in Q2, 2013. |

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

The Master CDM Program Agreement includes program change management provisions in Article 3. Collaboration between the OPA and the Local Distribution Companies (LDCs) commenced in 2011, and continued in 2012, as the change management process was implemented to enhance the saveONenergy program suite. The change management process allows for modifications to the Master Service Agreement and initiative Schedules. The program enhancements required need to give LDCs additional tools and greater flexibility to deliver programs in a way that meets the needs of customers and further drives participation in the Initiatives.

## 3.2 Program Descriptions

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

### 3.2.1 RESIDENTIAL PROGRAMS

**Description:**

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

**Objective:**

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

**Discussion:**

The inclusion of LED technology into the Biannual Retailers events in 2012 and the annual coupons in 2013, as well as some LDC custom coded coupons, has had a positive effect on consumer engagement.

The Residential Program Portfolio is predominately a carryover of Initiatives from previous programs. It is primarily driven by retailers and contractors, many of which who have not delivered what was originally anticipated. Three new initiatives were never launched and subsequently removed from schedule in 2013 with no replacements. Delays in communication with regards to Initiative offerings and results reporting have hampered LDCs abilities to engage customers and promote participation.

Work to revitalize and increase the effectiveness and breadth of the Initiatives through the Residential Program needs to be a high priority. There are opportunities within the Residential marketplace that need to be identified, developed and offered to customers. Additional initiatives that would engage an average residential customer should be considered.

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

**Initiative Activities/Progress:**

FHI promoted the Appliance Retirement program using the following activities:

| | |
|---|---|
| Newspaper Advertising | 10 ads placed throughout the year |
| Billing Inserts | Customer base received inserts with bills in both the spring and the fall of 2012. Billing inserts totaled 44,000 units. |
| Billing & Envelope Message | Customer base received message on their summer bill. Envelope messages totaled 66,000 units. |
| saveONenergy Events | 3 day Home & Garden Show, Communities in Bloom, Stratford City |

| | |
|---|---|
| | Hall Conservation Week, Energy Week Conservation Display at Festival Marketplace Mall, Conserve Canada Sessions at Schools |

**Additional Comments:**

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

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

**Initiative Activities/Progress:**

FHI promoted the Appliance Exchange Initiative using the following activities:

| | |
|---|---|
| saveONenergy Events | 3 day Home & Garden Show, Communities in Bloom, Stratford City Hall Conservation Week, Energy Week Conservation Display at Festival Marketplace Mall, Conserve Canada Sessions at Schools |

**Additional Comments:**

- Eligible measures and incentive amounts are influenced by the retail partner with no direct involvement from the LDCs. The restrictive, limited and sometimes non-participation of local stores can diminish the savings potential for this Initiative.
- To date there has only been one retailer participant in the Appliance Exchange Initiative. The Fall events have not had retailer participation; therefore, savings budgeted by the LDCs have not materialized.
- Evaluation, Measurement, and Verification (EMV) results indicated that the value of savings for retired room AC has dropped resulting in the retail participant not accepting window a/c's during the Spring 2013 event.
- Notification regarding retailer participation and eligible measures continues to be delayed. Improved communications would aid in appropriate resource allocation and marketing of the Initiative by LDCs.

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

**Initiative Activities/Progress:**

FHI promoted the HVAC Incentives Initiative program using the following activities:

| | |
|---|---|
| Newspaper Advertising | 22 advertisements placed throughout the year |
| Billing Inserts | Customer base received inserts with bills in the fall. of 2012. Billing inserts totaled 22,000 units. |
| saveONenergy Events | 3 day Home & Garden Show, Communities in Bloom, Stratford City Hall Conservation Week, Energy Week Conservation Display at Festival Marketplace Mall, Conserve Canada Sessions at Schools |

**Additional Comments:**

- Incentive levels appear to be insufficient to prompt Participants to upgrade HVAC equipment prior to end of useful life. It is hoped that the introduction of an Air Miles incentive in 2013 may help with this.
- This Initiative is contractor driven with LDCs responsible for marketing efforts to customers. More engagement with the HVAC contractor channel should be undertaken to drive a higher proportion of furnace and CAC sales to eligible units.
- Channel partners require timeliness of the Rebate process to maintain a positive relationship between consumers, contractors, the OPA, and the participating LDC. Due to a contracting delay no applications were processed from approximately the end of October 2012 to February 2013.
- In an effort to build capacity, mandatory training has been instituted for all participating HVAC contractors. This could present too much of a barrier for participation for some contractors as the application process already presents a restriction to contractor sales. It has been noted that there are approximately 4500-5000 HVAC contractors in the Province. Only 1500 are participating in program.
- There are cases where non-participating contractors are offering their own incentives (by discounting their installations to match value of the OPA incentive) to make the sale. As this occurs outside of the Initiative, these installations should be attributed to the appropriate LDC.

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

**Initiative Activities/Progress:**

FHI promoted the Conservation Instant Coupon Initiative using the following activities:

| | |
|---|---|
| saveONenergy Events | 3 day Home & Garden Show, Communities in Bloom, Stratford City |

| | |
|---|---|
| | Hall Conservation Week, Energy Week Conservation Display at Festival Marketplace Mall, Conserve Canada Sessions at Schools |
| Coupon Events | Promoted coupon initiative at four fall events: Brussels Home Hardware, Seaforth Home Hardware, Seaforth Canadian Tire and St Marys Canadian Tire |

**Additional Comments:**

- This Initiative was ineffective for most of 2012 as the Instant coupons (annual) were not available to consumers until September 2012.
- The timeframe for retailer submission of redeemed coupons vary from retailer to retailer and in some cases has been lengthy. These delays limit the ability to react and respond to Initiative performance or changes in consumer behaviour. This also resulted in the delayed launch of the Initiative in 2012.
- Coupon booklets were not printed and mailed out in 2012. As such, Coupons were not widely available to consumers without the ability to download and print them.
- Without Provincial coupon distribution - and delay in Initiative launch - consumers may not have been aware of the online coupons. This Initiative could benefit from provincial marketing as a substitute to distribution.
- The product list could be distinctive from the Bi-Annual Retailer Event Initiative in order to gain more consumer interest and uptake.
- Program evolution, including new products and review of incentive pricing for the coupon Initiatives, should be a regular activity to ensure continued consumer interest.

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

**Initiative Activities/Progress:**

FHI promoted the Bi-Annual Retailer Event Initiative using the following activities:

| | |
|---|---|
| saveONenergy Events | 3 day Home & Garden Show, Communities in Bloom, Stratford City Hall Conservation Week, Energy Week Conservation Display at Festival Marketplace Mall, Conserve Canada Sessions at Schools |

**Additional Comments:**

- This Initiative is strongly influenced by the retail participants and has no direct involvement from the LDCs.
- The Product list has changed very little over the past four years.
- Limited engagement of local retailers can restrict the savings potential for this Initiative.
- Program evolution, including new products and review of incentive pricing for the coupon Initiatives, must be a regular activity to ensure continued consumer interest.
- The Product list could be distinctive from the Conservation Instant Coupon Initiative in order to gain more consumer interest and uptake.
- A review conducted by the Residential Working Group in Q4 2011 identified three areas of need for Initiative evolution: 1) introduction of product focused marketing; 2) enhanced product selection and 3) improved training for retailers as retail staff tend not to be knowledgeable regarding the products or promotion.
- Communications regarding retailer participation continues to be delayed. Improved communications will aid in appropriate resource allocation and marketing of the Initiative.
- This Initiative may benefit from a more exclusive relationship with a retailer appropriate to the program.

#### *3.2.1.6 Retailer Co-op*

**Initiative Activities/Progress:**

FHI promoted the Retailer Co-op Initiative using the following activities:

| | |
|---|---|
| saveONenergy Events | 3 day Home & Garden Show, Communities in Bloom, Stratford City Hall Conservation Week, Energy Week Conservation Display at Festival Marketplace Mall, Conserve Canada Sessions at Schools |

**Additional Comments:**

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

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

**Initiative Activities/Progress:**

FHI provided customer support for this Initiative. One enquiry was received from a new home owner. The builder was not interested in supporting the participant's application; as a result, the participant was unable to successfully submit an application through the online system and contacted FHI directly. After correspondence with both FHI and the OPA, the participant decided the incentives were not significant enough to pursue.

**Additional Comments:**

- Following limited participation in 2011, the application process was revisited in 2012 to streamline administration in response to builder feedback. Participation levels are expected to grow but there will be a lag to when results materialize as homes pre-approved could take a year or more to be completed.
- Administrative requirements, in particular individual home modeling, must align with perceived stakeholder payback. As per the Electricity Distributors Association ("EDA") Working Groups, changes are being processed through change management for 2012. However, the lengthy change management process has resulted in continued non-participation.

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

**Initiative Activities/Progress:**

In 2012, FHI continued to meet with Trilliant and In Home Display (IHD) vendors to look for an integrated IHD solution. Our current meter supplier, Trilliant has approved four vendors for integration to their smart meter. Unfortunately, the IHDs need to connect with a Trilliant firmware version that is still in development. Trilliant was unable to release the firmware version before year end; therefore, we were unable to participate in the RDR program as we have no in-home display to provide our customer. We will continue to work closely with Trilliant and the IHD vendors for a 2013 solution. Until a technical solution is available, FHI is unable to launch the program as no flexibility is available to substitute the IHD with another participant incentive as an interim measure.

**Additional Comments:**

- The schedule for Peaksaver Plus was posted in August 2011. This did not provide adequate time for LDCs to complete product procurement. In addition, the procurement process uncovered that the In Home Display units that communicate with installed smart meter technology were still in development and not ready for market deployment. Consequently, LDCs could not be in market with the Peaksaver Plus program until 2012 or later.
- Smart Meters installed by most LDCs do not have the capability to communicate directly to an In Home Display. When proposing technical Initiatives that rely on existing LDC hardware or technology there should be an extensive consultative process.

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

- The variable funding associated with installing a load controllable thermostat is not sufficient unless it is combined with an In Home Display (IHD). This is not always possible when an IHD is optional.

- This is the main Initiative within the Residential portfolio that drives demand savings for LDCs.

- Given the different needs of LDCs and their respective smart meter environments, each LDC is positioning the Initiative slightly different. As such, greater program flexibility is required.

- Provincial wide marketing needs to be sensitive to the variations of the Initiative and provide solid, consistent messaging.

### 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 help fund energy audits, replace energy-wasting equipment and encourage 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 2011 and 2012 the Commercial and Institutional (C&I) Working Group has strived to enhance the existing C&I programs and rectify identified program and system deficiencies. This has proven to be a challenging undertaking, normally taking months to complete sometimes relatively minor changes due to the current CDM framework. Overbuilt governance, numerous initiative requirements, complex program structure and lengthy change management have restricted growth without providing the necessary improvement in Measurement and Verification results. In addition, Evaluation, Measurement and Verification (EM&V) has not yet achieved transparency. LDCs are held accountable for these results yet are mostly completely removed from the process.

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

Despite these challenges the C&I Working Group, working in cooperation with the OPA, have managed to iron out many of the issues which could be rectified. In particular, an accomplishment of 2012 was the advent of the expedited change management as means to accelerate certain program changes.

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

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

**Initiative Activities/Progress:**

Direct sales continued throughout 2012 with frequent site visits to industrial, institutional and commercial customers. Marketing continued to focus on larger industrial, institutional and commercial clients as well as local contractors. In May, FHI hosted a business seminar to promote the saveONenergy programs. A Retrofit information package created specifically for local HVAC contractors was distributed and included a CD of program material.

A Natural Resources Canada Spot the Savings Opportunities workshop was hosted within our service territory in October and was very well attended with representatives from industrial, institutional, municipal and commercial sectors in attendance. Feedback from those attending was extremely positive and as a result subsequent sessions were planned for 2013.

Technical guides provided by the OPA covering compressed air and electric motors were combined with CDM program material and an OPA measurement and verification guide. This package was distributed to large commercial and industrial customers. In December, saveONenergy marketing material was mailed to our largest clients along with a calendar. 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.

Working with other LDCs, an outreach program was created to market to critical channel partners including: rooftop unit manufacturers, motor manufacturers, data centre equipment providers, refrigeration vendors, VFD and synchronous belt vendors and elevator manufacturers.

Because of the successes experienced in 2011, FHI continued to act as an applicant representative for the Retrofit program. In addition to decreasing the review time, this resulted in a significant number of referrals from contractors and businesses that had completed successful Retrofit applications.

The Retrofit program continues to be FHI'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 lighting and HVAC projects. On the other hand, energy measures at industrial sites tend to be more varied and initially are focused on savings achieved during non-production hours. Energy measures include variable speed drives, HVAC upgrades,

process controls, compressed air upgrades, lighting, cycle time improvements and central system automation. Typically, if an industrial site has a positive first experience with the Retrofit program, additional applications can be expected. As a result, FHI continues to emphasize relationship building and customer service, to encourage growth of repeat CDM business.

**Additional Comments:**

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

- While the Ministerial Directive provides continuality of the conservation programs for the participant, unclear direction on LDC administrative funding could result in many LDCs 'ramping down' programs in 2015. The establishment of defined administrative funding for 2015 is required to avoid a "stop and start" process.

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

**Initiative Activities/Progress:**

FHI working with a program service provider, continued to maximize the uptake at each customer assessment leveraging the standard incentive, and the late addition of the increased base incentive, to $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 with a shrinking customer base, alternate approaches were incorporated. Our partnership with local contractors remained strong.

Many of the challenges presented in 2012 were related to the significant penetration levels in FHI's service territory. Along with market saturation, challenges related to the eligible measures list emerged in delivery of this program in 2012. It was determined that the focus of many suppliers is now on their LED technology. Throughout the DIL program, many applications such as restaurant or higher end retail applications were identified where CFL quality would not suffice.

The increase in the base incentive to $1,500 was a positive improvement to the program. This combined with changes to the federal energy efficiency legislation, specifically the upcoming ban on T12 lamps, gave field staff good opportunities to maximize program incentives at each customer site. 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:**

- Successful execution of the previous rendition of this Initiative has resulted in diminished 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.
- Electrical contractor's margins have been reduced due to no labour rate increase, increase cost of materials, greater distances between retrofits, more door knocking required before a successful sale and no funding for lifts. This has led to a reduction in vendor channel participation in some regions.
- Ambiguity with regard to eligibility resulted in large lists of customers rejected following installation due to perceived ineligibility. Due to this, some LDCs were forced to carry considerable financial burden while this was worked through.

- The eligibility requirements have now been revamped and expanded however there has been limited communication and documentation of this to the marketplace.
- Currently LDCs are unable to offer these standard incentives to prior participants. The ability to return to prior participants and offer a standard incentive on the remaining measures has potential to provide additional energy and demand savings.

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

**Initiative Activities/Progress:**

FHI 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 significant barriers to participation.
- The customer expectation is that the program be expanded to include a broader range of measures for a more holistic approach to building recommissioning. In addition, 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, FHI 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. Current leads identified in FHI's service territory, have expected project completion dates beyond 2014.

**Additional Comments**

- There is typically a long sales cycle for these projects, and then a long project development cycle. As the program did not launch until mid-2011 and had limited participation, results did not appear in 2011.
- With the Ministerial Directive facilities with a completion date near the end of 2014 currently have some security that they will be compensated for choosing efficient measures.
- Participants estimated completion dates tend to be inaccurate and are generally six months longer. This could result in diminished savings towards target when facilities are not substantially completed by December 31, 2014.
- The custom application process requires considerable customer support and skilled LDC staff.
- The effort required to participate through the custom stream exceeds the value of the incentive for many customers.
- This Initiative has a very low Net-to-Gross ratio, which results in half the proposed target savings being 'lost'.

#### *3.2.2.5 Energy Audit Initiative*

**Initiative Activities/Progress:**

FHI continued to heavily promote the Energy Audit Initiative in 2012 within the industrial and commercial sectors. It was FHI'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. In addition, the program was covered in detail during an Energy Audit session hosted by FHI in May 2012. Engagement of the program continues to be limited with three energy audits being pre-approved in 2012.

**Additional Comments:**

- Customer uptake was limited in 2011, however improved throughout 2012 especially with the new audit component for one system (i.e. compressed air).
- The energy audit Initiative is considered an 'enabling' Initiative and 'feeds into' other saveONenergy Initiatives.
- Audit reports from consultants vary considerably and in some cases, while they adhere to the Initiative requirements, do not provide value for the Participant. A recommended template with specific energy saving calculation requirements would be beneficial.
- Participants are limited to one energy audit which restricts enabling and direction to the other Initiatives. This Initiative should be evaluated for additional customer participation when presented with a new scope of work.

### 3.2.3 INDUSTRIAL PROGRAM

**Description:**

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

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

**Objective:**

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

**Discussion:**

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

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

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

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

**Initiative Activities/Progress:**

Large industrial, institutional and commercial clients were educated on incentive opportunities offered through the Process & Systems programs during site visits and saveONenergy sessions hosted by FHI. Two preliminary engineering studies and two micro-project capital applications were received in 2012. At the time of submission, these micro-project applications were not eligible through the Retrofit program due to their size. At a later time, eligibility for the Retrofit program was revised to include larger projects; as a result, future projects of this size will be routed through the Retrofit program and not the PSUI Initiative. 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, does not make participation practical for this size of project. With no micro-project agreement available at the time, the complicated capital agreement presented a significant barrier to participation for submitted projects with approved engineering studies.

**Additional Comments:**

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

load displacement generation projects to proceed under PSUI. It is expected that a number of projects will proceed although results may not be counted towards LDC targets due to in-service dates beyond 2014.

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

**Initiative Activities/Progress:**

FHI promoted this program in 2012 through our general For Business marketing. No applications were received in 2012 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, a limited number of applications have been received to date.
- The savings target required for this Initiative can present a significant challenge for smaller customers.
- Through the change management process in 2013, changes are being made to ERII to allow smaller facilities to employ M&T systems.

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

**Initiative Activities/Progress:**

FHI promoted the Embedded Energy Manager Initiative in 2012 within the industrial and institutional sectors. The program was introduced and recommended during client site visits. No applications were received within 2012.

FHI did not participate in the REM program as industrial clients within our service territory continue to be addressed with existing staff.

**Additional Comments:**

- The Energy Managers have proven to be a popular and useful resource for larger customers. There are approximately 70 Embedded Energy Managers (EEMs) and 25 Roving Energy Managers (REMs) being utilized by customers across the province.
- LDCs that are too small to qualify for their own REM are teaming up with other utilities to hire an REM to be shared by the group of utilities.

- At the beginning, it took longer than expected to set up the energy manager application process and unclear communication resulted in marketing and implementation challenges for many LDCs.

- Some LDCs and Customers are reporting difficulties in hiring capable Roving and Embedded Energy Managers (REM/EEM), in some instances taking up to 7 months to have a resource in place.

- New energy managers require training, time to familiarize with facilities and staff, and require time to establish "credibility". Energy Managers started filling their pipeline with projects; however, few projects were implemented in 2012.

- Delays with processing EEM payments caused LDCs to delay payments to Participants beyond contract requirements.

- Requirement that 30% of target must come from non-incented projects is identified as an issue for most REMs. The working group has proposed to remove this requirement for REM's only as they are not resident full time at a customer facility.

- A decision on extending funding for EM's is required in 2013 for this initiative; failing this, expert resources will be lost in favour of full-time employment elsewhere.

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

**Initiative Activities/Progress:**

FHI did not participate in the KAP program as industrial clients within our service territory are being addressed with existing CDM staff. As the KAP program is limited within the current CDM cycle, it was decided that a longer term CDM relationship needed to be established between FHI 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 LDCs may be struggling with.

### *3.2.3.5 Demand Response 3 (D-6)*

**Initiative Activities/Progress:**

FHI began 2012 providing local marketing and support for this initiative; however, based on lagging demand results it was determined that direct sales needed to focus on the DR3 program in particular. FHI'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 FHI service territory, industrial sites were identified as having low, medium or high demand response potential. Contact was made with high/medium potential sites using LDC staff and demand response meetings were scheduled at the customer site with both the LDC and aggregator in attendance. Because of customer relationships built through participation in the Retrofit program, FHI was successful scheduling DR3 discussions with clients.

A large portion of FHI's system load is just in time manufacturing facilities, and significant resources to create and test a curtailment plan are required for these sites to participate successfully. In certain cases, substantial capital investment is also needed. Because FHI's service territory is within a DR3 discounted incentive zone, this effectively doubles the payback period presenting a barrier to participation. As a result, the incentives are not enough to meet customer's internal acceptance criteria and encourage enrollment.

**Additional Comments:**

- Until early 2013 customer data was not provided on an individual customer basis due to contractual requirements with the aggregators. This limited LDCs' ability to effectively market to prospective participants and verify savings.
- No program improvements were made in 2012 however, it was accepted that prior participants who renew their DR3 contract within the 2011-2014 term will contribute to LDC targets.
- As of 2013, aggregators are able to enter into contracts beyond 2014. This has allowed them to offer a more competitive contract price (5 year) than if limited to 1 or 2 year contracts.
- Metering and settlement requirements are expensive and complicated and can reduce customer compensation amounts presenting a barrier to smaller customers.
- Compensation amounts for new contracts and renewals have been reduced from the initial launch of this program (premium zones and 200 hour option have been discontinued) and subsequently there has been a corresponding decrease in renewal revenue.

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

**Initiative Activities/Progress:**

FHI promoted the Home Assistance Program using the following activities:

| | |
|---|---|
| Newspaper Coverage | Launch of Home Assistance Program at FHI |
| saveONenergy Events | 3 day Home & Garden Show, Communities in Bloom, Stratford City Hall Conservation Week, Energy Week Conservation Display at Festival Marketplace Mall |
| Local Housing Visits | Visited three local housing co-operatives to introduce Home Assistance Program |

**Additional Comments:**

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

## 4.1 Participation and Savings

The Retrofit program continues to be FHI's most active business initiative with 54 projects completed in 2012. At the end of 2012, FHI had an additional 43 submitted and pre-approved projects in the system. One large HPNC custom application was completed in FHI's service territory with gross project savings for peak demand and annual energy savings of 1,602 kW and 6,957 MWh respectively. After application of the total OPA adjustment on this project, the verified net annual peak demand savings was reduced to 785 kW and the verified net annual energy savings was reduced to 3,408 MWh. At the end of 2012, two sites within FHI's service territory were enrolled in Demand Response.

**Table 4.1a: Summarized Program Results, Festival Hydro Inc.**

| Program | Gross Savings | | Net Savings | | Contribution to Targets | | | |
|---|---|---|---|---|---|---|---|---|
| | 2011 & 2012 Incremental Peak Demand Savings (kW) | 2011 & 2012 Incremental Energy Savings (kWh) | 2011 & 2012 Incremental Peak Demand Savings (kW) | 2011 & 2012 Incremental Energy Savings (kWh) | Program-to-Date: Net Annual Peak Demand Savings in 2014 | | Program-to-Date: 2011-2014 Net Cumulative Energy Savings | |
| | | | | | kW | % of Full OEB Target | kWh | % of Full OEB Target |
| Consumer Program Total | 518 | 1,440,132 | 336 | 919,249 | 265 | 4.3% | 3,324,383 | 11.4% |
| Business Program Total | 2698 | 11,036,032 | 1,617 | 6,611,240 | 1,453 | 23.3% | 23,701,589 | 81.0% |
| Industrial Program Total | 89 | 601,032 | 66 | 427,748 | 66 | 1.1% | 1,710,993 | 5.8% |
| Home Assistance Program Total | 0 | 5,033 | 0 | 4,983 | 0 | 0.0% | 14,949 | 0.1% |
| Pre-2011 Programs completed in 2011 Total | 298 | 1,378,376 | 155 | 717,065 | 155 | 2.5% | 2,867,877 | 9.8% |
| **Total OPA Contracted Province-Wide CDM Programs** | **3,602** | **14,460,605** | **2,174** | **8,680,285** | **1,939** | **31.1%** | **31,619,791** | **108.1%** |
| **Full OEB Target** | | | | | **6,230** | | **29,250,000** | |

*Gross savings not provided by OPA at time of report. Estimates calculated by FHI.*

In 2011 the gross savings were provided by the OPA as part of the 2011 Annual Results; in 2012 this information was not included. FHI has requested the 2012 gross savings values directly from the OPA; however, at the time of this report the data has not yet been received. As a result, the above values have been estimated by FHI by back calculating the figures using the provided net and realization rate/net to gross ratio figures provided by the OPA in OPA Table 3. As these self calculations consider net to gross calculated at the initiative level and not on a per measure basis, they are acknowledged as approximations by FHI.

The incremental net savings for 2011 and 2012 combined was 2,174 kW of incremental peak demand savings and 8,680 MWh of incremental energy savings. After the total OPA adjustments, the program to date net annual peak demand savings was 1,939 kW and the program to date net cumulative energy savings was 31,620 MWh. The Total OPA Adjustments remain difficult to mitigate at the LDC level. To improve these figures, FHI continues to rely on the OPA to review and implement changes related to the OPA Contacted Province Wide Programs.

## OPA Table 1: FHI Initiative and Program Level Savings by Year (Scenario 1)

**Taken directly from 2012 OPA CDM Annual Report Festival Hydro Inc., page 5**

Table 1: Festival Hydro Inc. Initiative and Program Level Savings by Year (Scenario 1)

| Initiative | Unit | Incremental Activity (new program activity occurring within the specified reporting period) | | | | Net Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period) | | | | Net Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period) | | | | Program-to-Date Verified Progress to Target (excludes DR) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | 2014 Net Annual Peak Demand Savings (kW) | 2011-2014 Net Cumulative Energy Savings (kWh) |
| | | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 | 2014 | 2014 |
| **Consumer Program** | | | | | | | | | | | | | | | |
| Appliance Retirement | Appliances | 329 | 287 | | | 20 | 17 | | | 136,087 | 113,761 | | | 35 | 884,418 |
| Appliance Exchange | Appliances | 52 | 53 | | | 5 | 8 | | | 6,763 | 13,734 | | | 10 | 65,399 |
| HVAC Incentives | Equipment | 448 | 279 | | | 136 | 68 | | | 259,654 | 122,478 | | | 204 | 1,406,049 |
| Conservation Instant Coupon Booklet | Items | 1,751 | 108 | | | 4 | 1 | | | 65,399 | 4,891 | | | 5 | 276,267 |
| Bi-Annual Retailer Event | Items | 3,044 | 3,711 | | | 6 | 5 | | | 102,799 | 93,684 | | | 11 | 692,250 |
| Retailer Co-op | Items | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| Residential Demand Response (switch/pstat) | Devices | 117 | 0 | | | 66 | 0 | | | 0 | 0 | | | 0 | 0 |
| Residential Demand Response (IHD) | Devices | 0 | 0 | | | 0 | | | | 0 | | | | | |
| Residential New Construction | Homes | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| **Consumer Program Total** | | | | | | **237** | **99** | | | **570,702** | **348,547** | | | **265** | **3,324,383** |
| **Business Program** | | | | | | | | | | | | | | | |
| Retrofit | Projects | 12 | 54 | | | 52 | 436 | | | 192,530 | 2,318,860 | | | 487 | 7,721,009 |
| Direct Install Lighting | Projects | 117 | 80 | | | 128 | 62 | | | 335,087 | 242,528 | | | 162 | 1,988,463 |
| Building Commissioning | Buildings | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| New Construction | Buildings | 0 | 3 | | | 0 | 10 | | | 0 | 35,487 | | | 10 | 106,460 |
| Energy Audit | Audits | 0 | 2 | | | 0 | 10 | | | 0 | 50,353 | | | 10 | 151,058 |
| Small Commercial Demand Response | Devices | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| Small Commercial Demand Response (IHD) | Devices | 0 | 0 | | | 0 | | | | 0 | | | | 0 | 0 |
| Demand Response 3 | Facilities | 1 | 1 | | | 68 | 68 | | | 2,665 | 995 | | | 0 | 3,660 |
| **Business Program Total** | | | | | | **248** | **586** | | | **530,281** | **2,648,223** | | | **670** | **9,970,650** |
| **Industrial Program** | | | | | | | | | | | | | | | |
| Process & System Upgrades | Projects | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| Monitoring & Targeting | Projects | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| Energy Manager | Projects | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| Retrofit | Projects | 8 | | | | 66 | | | | 427,748 | | | | 66 | 1,710,993 |
| Demand Response 3 | Facilities | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| **Industrial Program Total** | | | | | | **66** | **0** | | | **427,748** | **0** | | | **66** | **1,710,993** |
| **Home Assistance Program** | | | | | | | | | | | | | | | |
| Home Assistance Program | Homes | 0 | 6 | | | 0 | 0 | | | 0 | 4,983 | | | 0 | 14,949 |
| **Home Assistance Program Total** | | | | | | **0** | **0** | | | **0** | **4,983** | | | **0** | **14,949** |
| **Pre-2011 Programs completed in 2011** | | | | | | | | | | | | | | | |
| Electricity Retrofit Incentive Program | Projects | 23 | 0 | | | 154 | 0 | | | 714,841 | 0 | | | 154 | 2,859,364 |
| High Performance New Construction | Projects | 0 | 0 | | | 0 | 0 | | | 1,841 | 383 | | | 1 | 8,514 |
| Toronto Comprehensive | Projects | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| Multifamily Energy Efficiency Rebates | Projects | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| LDC Custom Programs | Projects | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| **Pre-2011 Programs completed in 2011 Total** | | | | | | **155** | **0** | | | **716,682** | **383** | | | **155** | **2,867,877** |
| **Other** | | | | | | | | | | | | | | | |
| Program Enabled Savings | Projects | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| Time-of-Use Savings | Homes | | | | | | | | | | | | | | |
| **Other Total** | | | | | | | **0** | | | | **0** | | | **0** | **0** |
| **Adjustments to Previous Year's Verified Results** | | | | | | | **783** | | | | **3,432,735** | | | **783** | **13,730,939** |
| **Energy Efficiency Total** | | | | | | **572** | **617** | | | **2,242,749** | **3,001,141** | | | **1,150** | **17,885,192** |
| **Demand Response Total (Scenario 1)** | | | | | | **134** | **68** | | | **2,665** | **995** | | | **0** | **3,660** |
| **OPA-Contracted LDC Portfolio Total (inc. Adjustments)** | | | | | | **706** | **1,468** | | | **2,245,414** | **6,434,871** | | | **1,939** | **31,619,791** |
| | | | | | | | | | | | | | **Full OEB Target:** | **6,230** | **29,250,000** |
| | | | | | | | | | | | | | **% of Full OEB Target Achieved to Date (Scenario 1):** | **31.1%** | **108.1%** |

Activity & savings for Demand Response resources for each year and quarter represent the savings from all active facilities or devices contracted since January 1, 2011.

Due to the limited timeframe of data, which didn't include the summer months, 2012 IHD results have been deemed inconclusive. The IHD line item on the 2012 annual report will be left blank. Once a full year of data is available (2013 evaluation), and the savings are quantified, 2012 results will be updated to reflect the quantified savings.

## OPA Table 2: Adjustments to Festival Hydro Inc. Verified Results due to Errors or Omissions (Scenario 1)

**Taken directly from 2012 OPA CDM Annual Report Festival Hydro Inc., page 6**

Table 2: Adjustments to Festival Hydro Inc. Verified Results due to Errors or Omissions (Scenario 1)

| Initiative | Unit | Incremental Activity (new program activity occurring within the specified reporting period) | | | | Net Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period) | | | | Net Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period) | | | | Program-to-Date Verified Progress to Target (excludes DR) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 | 2014 Net Annual Peak Demand Savings (kW) 2014 | 2011-2014 Net Cumulative Energy Savings (kWh) 2014 |
| **Consumer Program** | | | | | | | | | | | | | | | |
| Appliance Retirement | Appliances | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Appliance Exchange | Appliances | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| HVAC Incentives | Equipment | -60 | | | | -18 | | | | -34,906 | | | | -18 | -139,625 |
| Conservation Instant Coupon Booklet | Items | 29 | | | | 0 | | | | 964 | | | | 0 | 3,857 |
| Bi-Annual Retailer Event | Items | 286 | | | | 0 | | | | 7,638 | | | | 0 | 30,551 |
| Retailer Co-op | Items | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Residential Demand Response (switch/pstat)* | Devices | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Residential Demand Response (IHD) | Devices | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Residential New Construction | Homes | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| **Consumer Program Total** | | | | | | **-18** | | | | **-26,304** | | | | **-18** | **-105,217** |
| **Business Program** | | | | | | | | | | | | | | | |
| Retrofit | Projects | 1 | | | | 2 | | | | 1,168 | | | | 2 | 4,670 |
| Direct Install Lighting | Projects | 6 | | | | 5 | | | | 11,580 | | | | 5 | 46,320 |
| Building Commissioning | Buildings | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| New Construction | Buildings | 2 | | | | 788 | | | | 3,421,115 | | | | 788 | 13,684,461 |
| Energy Audit | Audits | 1 | | | | 5 | | | | 25,176 | | | | 5 | 100,705 |
| Small Commercial Demand Response (switch/pstat)* | Devices | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Small Commercial Demand Response (IHD) | Devices | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Demand Response 3* | Facilities | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| **Business Program Total** | | | | | | **800** | | | | **3,459,039** | | | | **800** | **13,836,156** |
| **Industrial Program** | | | | | | | | | | | | | | | |
| Process & System Upgrades | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Monitoring & Targeting | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Energy Manager | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Retrofit | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Demand Response 3* | Facilities | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| **Industrial Program Total** | | | | | | **0** | | | | **0** | | | | **0** | **0** |
| **Home Assistance Program** | | | | | | | | | | | | | | | |
| Home Assistance Program | Homes | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| **Home Assistance Program Total** | | | | | | **0** | | | | **0** | | | | **0** | **0** |
| **Pre-2011 Programs completed in 2011** | | | | | | | | | | | | | | | |
| Electricity Retrofit Incentive Program | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| High Performance New Construction | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Toronto Comprehensive | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Multifamily Energy Efficiency Rebates | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| LDC Custom Programs | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| **Pre-2011 Programs completed in 2011 Total** | | | | | | **0** | | | | **0** | | | | **0** | **0** |
| **Other** | | | | | | | | | | | | | | | |
| Program Enabled Savings | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Time-of-Use Savings | Homes | | | | | | | | | | | | | | |
| **Other Total** | | | | | | **0** | | | | **0** | | | | **0** | **0** |
| **Adjustments to Previous Year's Verified Results** | | | | | | **783** | | | | **3,432,735** | | | | **783** | **13,730,939** |

* Activity & savings for Demand Response resources for each year and quarter represent the savings from all active facilities or devices contracted since January 1, 2011.

## OPA Table 3: Festival Hydro Inc. Realization Rate & Net to Gross Adjustments

**Taken directly from 2012 OPA CDM Annual Report Festival Hydro Inc., page 7**

Table 3: Festival Hydro Inc. Realization Rate & NTG

| Initiative | Peak Demand Savings | | | | | | | | Energy Savings | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Realization Rate | | | | Net-to-Gross Ratio | | | | Realization Rate | | | | Net-to-Gross Ratio | | | |
| | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 |
| **Consumer Program** | | | | | | | | | | | | | | | | |
| Appliance Retirement | | 1.00 | | | | 0.46 | | | | 1.00 | | | | 0.47 | | |
| Appliance Exchange | | 1.00 | | | | 0.52 | | | | 1.00 | | | | 0.52 | | |
| HVAC Incentives | | 1.00 | | | | 0.49 | | | | 1.00 | | | | 0.49 | | |
| Conservation Instant Coupon Booklet | | 1.00 | | | | 1.00 | | | | 1.00 | | | | 1.05 | | |
| Bi-Annual Retailer Event | | 1.00 | | | | 0.91 | | | | 1.00 | | | | 0.92 | | |
| Retailer Co-op | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Residential Demand Response (switch/pstat)* | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Residential Demand Response (IHD) | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Residential New Construction | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| **Business Program** | | | | | | | | | | | | | | | | |
| Retrofit | | 0.97 | | | | 0.75 | | | | 1.07 | | | | 0.75 | | |
| Direct Install Lighting | | 0.68 | | | | 0.94 | | | | 0.85 | | | | 0.94 | | |
| Building Commissioning | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| New Construction | | 0.70 | | | | 0.49 | | | | 0.61 | | | | 0.49 | | |
| Energy Audit | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Small Commercial Demand Response (switch/pstat)* | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Small Commercial Demand Response (IHD) | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Demand Response 3* | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| **Industrial Program** | | | | | | | | | | | | | | | | |
| Process & System Upgrades | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Monitoring & Targeting | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Energy Manager | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Retrofit | | | | | | | | | | | | | | | | |
| Demand Response 3* | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| **Home Assistance Program** | | | | | | | | | | | | | | | | |
| Home Assistance Program | | 1.34 | | | | 1.00 | | | | 1.00 | | | | 1.00 | | |
| **Pre-2011 Programs completed in 2011** | | | | | | | | | | | | | | | | |
| Electricity Retrofit Incentive Program | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| High Performance New Construction | | 1.00 | | | | 0.50 | | | | 1.00 | | | | 0.50 | | |
| Toronto Comprehensive | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Multifamily Energy Efficiency Rebates | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| LDC Custom Programs | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| **Other** | | | | | | | | | | | | | | | | |
| Program Enabled Savings | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Time-of-Use Savings | | n/a | | | | n/a | | | | n/a | | | | n/a | | |

## 4.2 Evaluation

The following evaluation details were received from the OPA and are included without changes:

# 2012 EM&V Findings

## Consumer Initiatives

**Bi-Annual Coupons**

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

**Annual Coupons**

- The number of coupons associated with the redemption of 2012 Annual Coupons was 90% lower than 2011 Instant Coupon Booklet. Factors include:
  - Shorter duration (September – December) of availability.
  - In 2012, only online coupons were available, versus in 2011, there were coupon booklets & online coupons.

**HVAC**

- Change in measure & usage patterns caused per unit savings for furnace with ECM dropped from 1,279 annual kWh to 1,139 annual kWh.
- NTG decreased by 10% from 0.6 in 2011 to 0.5 in 2012 due to an increase in free-ridership related to the furnace with ECM measure.

**Appliance Retirement**

- Participation was 39% lower in 2012 than 2011
- Per unit savings estimates per unit for refrigerators dropped this year by 3.5% based on the in situ metering conducted. This suggests the population of refrigerators collected in 2012 was more efficient than in 2011.Per unit savings estimates per unit for freezers increased this year by 17.5% based on the in situ metering conducted. This suggests the population of freezers collected in 2012 was less efficient than in 2011.

**Appliance Exchange**

- Overall participation increased by 4% in 2012 versus 2011, and dehumidifier participation was up 30% from 2011
- Higher per unit savings for dehumidifiers drove an increase in savings

***peaksaver*PLUS**

- The event impact for the average residential peaksaver PLUS customer in Ontario is estimated to be 0.41 kW. For the average SMB customer, the impact was 0.46 kW.

- Ex ante values for residential CACs were calculated using 2012 events. Specifically, the estimated impact of 0.49 kW per unit on a 1-in-10 August peak day was used.
- Customer Information Display (CID) impact analysis produced very small and highly uncertain impact estimates.
- The offer of the CID had a positive influence on enrollment and re-enrollment. 20 to 35% of new enrollees said they wouldn't have enrolled without the IHD offer.

## Business Initiatives

### Retrofit

- Prescriptive lighting projects had verified wattage reductions were 15% higher than assumed and verified operating hours were 11% higher than assumed.
- The low realization rate in the engineered measure track can be partially explained by overstated lighting operation hour assumptions claimed on participant applications.
- Net-to-gross ratios for the initiatives were above 75% in 2012

### Small Business Lighting

- Only 12% of site visits had verified annual hours of use within +/-10% of the assumed value.
- The saturation of eligible customers and preferred business types are leading to buildings and applicants that don't necessarily operate during the summer peak period. This is leading to very low realization rates for demand in 2012.
- Due to changing regulations the assumed baseline technology will eventually be phased out. This impacts the persistence of the energy and demand savings over the lifetime of the measure.

## Industrial Initiatives

### Process and Systems Upgrade Initiative

- Energy managers are seen as important drivers of Program Enabled savings projects. 88% of survey respondents indicated that the assistance provided by energy managers was very important or somewhat important to implementing the projects.
- Energy Managers indicated it would be beneficial if they received additional support in terms of training and guides to help them influence the adoption of energy efficiency measures by the participants.
- Program enabled savings projects varied substantially in how well they were documented. More guidance on documentation requirements would be beneficial to all parties.

### DR-3

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

## 4.3 Spending

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 most third party costs were charged directly to the specific program initiative.

In FHI'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, FHI has reported spending associated with the Retrofit program as a total under Business Programs.

The 2011 and 2012 budget has been spent and represents 48% of the total PAB Budget. Considering the program to date net cumulative energy savings of 108.1% and the net annual peak demand savings of 31.1%, moving forward PAB spending will prioritize the achievement of demand savings where possible.

**Table 4.3a: 2012 Spending – Festival Hydro Inc. (EB-2002-0513)**

| Initiative | Program Administration Budget (PAB) | Participant Based Funding (PBF) | Participant Incentives (PI) | Capability Building Funding (CBF) | TOTAL |
|---|---|---|---|---|---|
| **Consumer Program** | | | | | |
| Appliance Retirement | 19,421 | | | | 19,421 |
| Appliance Exchange | 2,627 | | | | 2,627 |
| HVAC Incentives | 16,561 | | | | 16,561 |
| Conservation Instant Coupon Booklet | 2,931 | | | | 2,931 |
| Bi-Annual Retailer Event | 2,712 | | | | 2,712 |
| Retailer Co-op | 0 | | | | 0 |
| Residential Demand Response | 35,136 | | | | 35,136 |
| New Construction Program | 4,350 | | | | 4,350 |
| **Business Program** | | | | | |
| Efficiency: Equipment Replacement | 102,534 | | 184,684 | | 287,218 |
| Direct Installed Lighting | 45,050 | 21,600 | 79,904 | | 146,554 |

| | | | | | |
|---|---|---|---|---|---|
| Existing Building Commissioning Incentive | 4,472 | | | | 4,472 |
| New Construction and Major Renovation Initiative | 63,933 | | 415,768 | | 479,701 |
| Energy Audit | 17,994 | | 12,225 | | 30,219 |
| Small Commercial Demand Response (part of the Residential program schedule) | 248 | | | | 248 |
| Demand Response 3 (part of the Industrial program schedule) | | | | | |
| **Industrial Program** | | | | | |
| Process & System Upgrades | | | | | |
| a) preliminary engineering study | 2,881 | | | | 2,881 |
| b) detailed engineering study | 2,960 | | | | 2,960 |
| c) program incentive | 2,960 | | | | 2,960 |
| Monitoring & Targeting | 246 | | | | 246 |
| Energy Manager | 1,729 | | | | 1,729 |
| Key Account Manager ("KAM") | 247 | | | | 247 |
| Demand Response 3 | 247 | | | | 247 |
| **Home Assistance Program** | | | | | |
| Home Assistance Program | 13,539 | | | | 15,339 |
| **Pre 2011 Programs** | | | | | |
| Electricity Retrofit Incentive Program | | | 23,093 | | 23,093 |
| High Performance New Construction | | | | | |
| ~~Toronto Comprehensive~~ | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| ~~Multifamily Energy Efficiency Rebates~~ | | | | | |
| ~~Data Centre Incentive Program~~ | | | | | |
| ~~EnWin Green Suites~~ | | | | | |
| **Initiatives Not In Market** | | | | | |
| Midstream Electronics | | | | | |
| Midstream Pool Equipment | | | | | |
| Demand Service Space Cooling | | | | | |
| Demand Response 1 (Commercial) | | | | | |
| Demand Response 1 (Industrial) | | | | | |
| Home Energy Audit Tool | | | | | |
| **TOTAL Province-wide CDM PROGRAMS** | **342,778** | **21,600** | **715,674** | | 1,080,052 |

**Table 4.3b: Cumulative Spending (2011-2014)**

| Initiative | Program Administration Budget (PAB) | Participant Based Funding (PBF) | Participant Incentives (PI) | Capability Building Funding (CBF) | TOTAL |
|---|---|---|---|---|---|
| **Consumer Program** | | | | | |
| Appliance Retirement | 49,274 | | | | 49,274 |
| Appliance Exchange | 3,622 | | | | 3,622 |
| HVAC Incentives | 23,901 | | | | 23,901 |
| Conservation Instant Coupon Booklet | 3,984 | | | | 3,984 |
| Bi-Annual Retailer Event | 3,648 | | | | 3,648 |
| Retailer Co-op | 0 | | | | 0 |
| Residential Demand | 56,570 | 50,310 | 2,925 | | 109,805 |

| | | | | | |
|---|---|---|---|---|---|
| Response | | | | | |
| New Construction Program | 7,243 | | | | 7,243 |
| **Business Program** | | | | | |
| Efficiency: Equipment Replacement | 163,493 | | 263,030 | | 426,523 |
| Direct Installed Lighting | 97,730 | 53,190 | 193,373 | | 344,293 |
| Existing Building Commissioning Incentive | 9,354 | | | | 9,354 |
| New Construction and Major Renovation Initiative | 73,697 | | 415,768 | | 489,465 |
| Energy Audit | 37,523 | | 12,225 | | 49,748 |
| Small Commercial Demand Response (part of the Residential program schedule) | 764 | | | | 764 |
| Demand Response 3 (part of the Industrial program schedule) | 516 | | | | 516 |
| **Industrial Program** | | | | | |
| Process & System Upgrades | | | | | |
| a) preliminary engineering study | 5,458 | | | | 5,458 |
| b) detailed engineering study | 5,021 | | | | 5,021 |
| c) program incentive | 5,021 | | | | 5,021 |
| Monitoring & Targeting | 762 | | | | 762 |
| Energy Manager | 3,276 | | | | 3,276 |
| Key Account Manager ("KAM") | 763 | | | | 763 |
| Demand Response 3 | 247 | | | | 247 |

| | | | | | |
|---|---|---|---|---|---|
| **Home Assistance Program** | | | | | |
| Home Assistance Program | 14,651 | | | | 14,651 |
| **Pre 2011 Programs** | | | | | |
| Electricity Retrofit Incentive Program | 17,524 | | 263,543 | | 281,067 |
| High Performance New Construction | | | | | |
| ~~Toronto Comprehensive~~ | | | | | |
| ~~Multifamily Energy Efficiency Rebates~~ | | | | | |
| ~~Data Centre Incentive Program~~ | | | | | |
| ~~EnWin Green Suites~~ | | | | | |
| **Initiatives Not In Market** | | | | | |
| Midstream Electronics | | | | | |
| Midstream Pool Equipment | | | | | |
| Demand Service Space Cooling | 4,882 | | | | 4,882 |
| Demand Response 1 (Commercial) | | | | | |
| Demand Response 1 (Industrial) | | | | | |
| Home Energy Audit Tool | | | | | |
| **TOTAL Province-wide CDM PROGRAMS** | **588,924** | **103,500** | **1,150,864** | | **1,843,288** |

# 5 Combined CDM Reporting Elements

## 5.1 Progress Towards CDM Targets

As shown in the OPA Tables below, at the end of 2012 the verified portion of peak demand savings target achieved by FHI was 31.1% (Scenario 1) and the verified portion of cumulative energy target achieved by FHI was 108.1%.

**OPA Table 4: Net Peak Demand Savings at the End User Level (MW), Festival Hydro Inc.**

Taken directly from 2012 OPA CDM Annual Report Festival Hydro Inc., page 8

**Table 4: Net Peak Demand Savings at the End User Level (MW)**

| Implementation Period | Annual | | | |
|---|---|---|---|---|
| | 2011 | 2012 | 2013 | 2014 |
| 2011 - Verified | 0.7 | 0.6 | 0.6 | 0.5 |
| 2012 - Verified | | 1.5 | 1.4 | 1.4 |
| 2013 | | | | |
| 2014 | | | | |
| Verified Net Annual Peak Demand Savings Persisting in 2014: | | | | 1.9 |
| Festival Hydro Inc. 2014 Annual CDM Capacity Target | | | | 6.2 |
| Verified Portion of Peak Demand Savings Target Achieved in 2014(%): | | | | 31.1% |

**OPA Table 5: Net Energy Savings at the End-User Level (GWh), Festival Hydro Inc.**

Taken directly from 2012 OPA CDM Annual Report Festival Hydro Inc., page 8

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

| Implementation Period | Annual | | | | Cumulative |
|---|---|---|---|---|---|
| | 2011 | 2012 | 2013 | 2014 | 2011-2014 |
| 2011 - Verified | 2.2 | 2.2 | 2.2 | 2.2 | 8.9 |
| 2012 - Verified | | 6.4 | 6.4 | 6.4 | 22.7 |
| 2013 | | | | | |
| 2014 | | | | | |
| Verified Net Cumulative Energy Savings 2011-2014: | | | | | 31.6 |
| Festival Hydro Inc. 2011-2014 Annual CDM Energy Target | | | | | 29.3 |
| Verified Portion of Cumulative Energy Target Achieved (%): | | | | | 108.1% |

*2011 energy adjustments included in cumulative energy savings.

To comply with the Code requirements, FHI submitted its Updated Version 1 CDM Strategy dated May 16, 2011 which provided a high level description of how FHI intended to achieve its CDM targets. Variance details are shown in the below table. In summary, using FHI's milestones submitted for 2011-2012 Program to Date, the variance to FHI Strategy for verified net annual peak demand savings and verified net cumulative energy savings is -20.2% and 88.0% respectively.

**Table 5.1a: Variance to Festival Hydro Inc. Strategy for Peak Demand Savings**

| | | |
|---|---|---|
| Festival Hydro Inc. 2014 Annual CDM Capacity Target (MW) | 6.23 | - |
| Verified Net Annual 2012 Peak Demand Savings Persisting in 2014 (MW) | 1.40 | 22.5% |
| Verified Net Annual 2011-2012 Peak Demand Savings Persisting in 2014 (MW) | 1.94 | 31.1% |
| LDC Milestone Submitted for 2012 (MW) | 2.45 | 39.3% |
| LDC Milestones Submitted for 2011-2012 Program to Date (MW) | 3.20 | 51.4% |
| Variance to FHI Strategy | | -20.2% |

**Table 5.1b: Variance to Festival Hydro Inc. Strategy for Cumulative Energy Savings**

| | | |
|---|---|---|
| Festival Hydro Inc. 2011-2014 Cumulative CDM Energy Target (GWh) | 29.25 | - |
| Verified Net Cumulative 2012 Energy Savings Persisting in 2014 (GWh) | 22.70 | 77.6% |
| Verified Net Cumulative 2011-2012 Energy Savings Persisting in 2014 (GWh) | 31.62 | 108.1% |
| LDC Milestone Submitted for 2012 (GWh) | 4.76 | 16.3% |
| LDC Milestones Submitted for 2011-2012 Program to Date (GWh) | 5.89 | 20.1% |
| Variance to FHI Strategy | | 88.0% |

## 5.2 Outlook to 2014 and Strategy Modifications

A summary of provincial progress is shown in OPA Tables 9 and 10. Comparing FHI and provincial CDM targets, for both demand and energy savings, FHI is above the provincial progress. The verified portion of energy target achieved provincially at the end of 2012 is 65.1%; however, the corresponding net demand savings is 17.8% with demand savings continuing to be a challenge faced across the province.

FHI has no plans to revise the CDM Strategy for 2013. Demand savings will continue to be generated by the Retrofit program; however, the forecasted uptake is not expected to be substantial enough to address the current demand shortfall. In response to FHI's demand performance, focus will remain on the Demand Response 3 (DR3) program and will continue in the form of direct sales. Increasing participation in this program is expected to be challenging as FHI resides in a discounted region. With no flexibility to address specific DR3 participation barriers for FHI specific customers, this effort may not be enough to meet the full OEB peak demand savings target.

No Tier 2 or 3 programs are being considered at this time; however, FHI is working on pilot proposals to the OPA`s Program Innovation Stream of the Conservation Fund.

**OPA Table 9 and 10: Summary – Provincial Progress**

**Taken directly from 2012 OPA CDM Annual Report Festival Hydro Inc., page 12**

**Summary - Provincial Progress**

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

| Implementation Period | Annual | | | |
|---|---|---|---|---|
| | 2011 | 2012 | 2013 | 2014 |
| 2011 | 216.3 | 136.6 | 135.8 | 129.0 |
| 2012 | | 253.3 | 109.8 | 108.2 |
| 2013 | | | | |
| 2014 | | | | |
| Verified Net Annual Peak Demand Savings in 2014: | | | | 237.2 |
| 2014 Annual CDM Capacity Target | | | | 1,330 |
| Verified Peak Demand Savings Target Achieved - 2011 (%): | | | | 17.8% |

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

| Implementation Period | Annual | | | | Cumulative |
|---|---|---|---|---|---|
| | 2011 | 2012 | 2013 | 2014 | 2011-2014 |
| 2011 | 606.9 | 603.0 | 601.0 | 582.3 | 2,393 |
| 2012 | | 503.6 | 498.4 | 492.6 | 1,513 |
| 2013 | | | | | |
| 2014 | | | | | |
| Verified Net Cumulative Energy Savings 2011-2014: | | | | | 3,906 |
| 2011-2014 Cumulative CDM Energy Target: | | | | | 6,000 |
| Verified Portion of Energy Target Achieved - 2011 (%): | | | | | 65.1% |

*2011 energy adjustments included in cumulative energy savings.

# 6.0 Conclusion

Over the course of 2012, Festival Hydro Inc. has achieved 1.9 MW in peak demand savings and 31.6 GWh in energy savings, which represents 31.1% and 108.1% of FHI`s 2014 target respectively. These results are representative of a considerable effort expended by FHI, in cooperation with other LDCs, customers, channel partners and stakeholders to overcome many operational and structural issues that limited program effectiveness across all market sectors. This achievement is a success and the relationships built within the 2011-2014 CDM program term will aid results in a subsequent CDM term.

However, despite continuing improvements to existing programs FHI faces challenges in the remaining years of the current CDM framework. With the current slate of available OPA Programs, FHI has met the full OEB consumption target but will struggle to meet its 6.230 MW peak demand savings target.

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

# **Appendix A:** Initiative Descriptions

## Residential Program

### APPLIANCE RETIREMENT INITIATIVE (Exhibit D)

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

**Initiative Frequency:** Year round

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

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

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

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

Additional detail is available:

- Schedule B-1, Exhibit D
- SaveONenergy website https://saveonenergy.ca/Consumer/Programs/Appliance-Retirement.aspx

**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.

**Targeted End Uses**: Window air conditioners and portable dehumidifiers

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

Additional detail is available:

- Schedule B-1, Exhibit
- SaveONenergy website https://saveonenergy.ca/Consumer.aspx

**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 qualified central air conditioners by approved Heating, Refrigeration, and Air Conditioning Institute (HRAI) qualified contractors.

**Targeted End Uses:** Central air conditioners and furnaces

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

Additional detail is available:

- Schedule B-1, Exhibit B
- SaveONenergy website https://saveonenergy.ca/Consumer.aspx

**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® qualified Standard Compact Flourescent Lights ("CFLs"),ENERGY STAR® qualified Light Fixtures lighting control products, weather-stripping, hot water pipe wrap, electric water heater blanket, heavy duty plug-in Timers, Advanced power bars, clothesline, baseboard programmable thermostats.

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

Additional detail is available:

- Schedule B-1, Exhibit A
- SaveONenergy website https://saveonenergy.ca/Consumer.aspx

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

Additional detail is available:

- Schedule B-1, Exhibit C
- SaveONenergy website https://saveonenergy.ca/Consumer.aspx

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

**In Market Date:** Not applicable

## NEW CONSTRUCTION PROGRAM (Schedule B-2)

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

**Initiative Frequency:** Year round

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

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

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

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

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

Additional detail is available:

- Schedule B-1, Exhibit C
- SaveONenergy website https://saveonenergy.ca/Consumer.aspx

**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 ™ 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

- SaveONenergy website https://saveonenergy.ca/Consumer.aspx

**In Market Date:** ***peaksaver*** ™ Extension March 2011-August 2011
***peaksaver***PLUS ™ not available

# 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
- SaveONenergy website https://saveonenergy.ca/Business/Program-Overviews/Retrofit-for-Commercial.aspx

**In Market Date:** March 2011

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

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

**Initiative Frequency:** Year round

**Objective**: The objective of this Initiative is to offer a free installation of eligible lighting and water heating measures of up to $1,000 to eligible owners and tenants of small commercial, institutional and

agricultural facilities and multi-family buildings, for the purpose of achieving electricity and peak demand savings.

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

**Target End Uses:** Lighting and electric water heating measures

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

Additional detail is available:

- Schedule C-3
- SaveONenergy website https://saveonenergy.ca/Business.aspx

**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

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

**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
- SaveONenergy website https://saveonenergy.ca/Business/Program-Overviews/New-Construction.aspx

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

**In Market Date: June 2011**

# Industrial Program

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

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

**Initiative Frequency:** Year round

**Objectives:** The objectives of this Initiative are to:

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

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

a) $200/MWh of annualized electricity savings

b) 70% of projects costs

c) A one year pay back

**Targeted End Uses:** Process and systems

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

Additional detail is available:

- Schedule D-1
- SaveONenergy website https://saveonenergy.ca/Business.aspx

**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 systems in order to deliver a minimum savings target at the end of 24 months and sustained for the term of the M&T Agreement.

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

**Targeted End Uses:** Process and systems

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

Additional detail is available:

- Schedule D-2
- SaveONenergy website https://saveonenergy.ca/Business.aspx

**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
- SaveONenergy website https://saveonenergy.ca/Business.aspx

**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

**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 OPA. The OPA administers contracts with all DRPs and Direct Participants (who provide in excess of 5 MW of demand response capacity). OPA provides administration including settlement, measurement and verification, and dispatch. LDCs are responsible for local customer outreach and marketing efforts.

Additional detail is available:

- Schedule D-6
- SaveONenergy website https://saveonenergy.ca/Business.aspx

**In Market Date:** January 2011

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

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

**Target Customer Type(s):** Income Qualified Residential Customers

**Initiative Frequency:** Year Round

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

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

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

**Delivery:** LDC delivered.

Additional detail is available:

- Schedule E

**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 OPA (and subcontracted to Union Gas), which ran until December 2010.

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

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

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

## TORONTO COMPREHENSIVE INITIATIVE

**Target Customer Type(s):** Commercial and Institutional Customers

**Initiative Frequency:** Year round

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

## MULTIFAMILY ENERGY EFFICIENCY REBATES

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

**Initiative Frequency:** Year round

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

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

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

**Targeted End Uses**: Electricity saving measures

**Delivery**: OPA contracted with Greensaver

## DATA CENTRE INCENTIVE PROGRAM

**Target Customer Type(s):**

**Initiative Frequency:** Year round

**Objective:**

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

## ENWIN GREEN SUITES

**Target Customer Type(s):**

**Initiative Frequency:** Year round

**Objective:**

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

# Appendix C:

OPA-Contracted Province Wide CDM Programs Final 2012 Results
as received by Festival Hydro Inc.

**Message from the Vice President:**

The OPA is pleased to provide you with the enclosed Final 2012 Results Report. We have seen a 39% increase in energy savings for our new province-wide 2011-2014 suite of saveONenergy initiatives. Overall progress to targets is moving up with 29% of demand and 65% of energy savings achieved. Many LDCs, both large and small, continue to stay on track to meet or exceed their OEB targets. Conservation programs continue to be a valuable and cost effective resource for customers across the province, over the past two years the program cost to consumers remains within 3 cents per kWh.

Further to programmatic savings, capability building efforts launched in 2011 are yielding healthy enabled savings through Embedded Energy Managers and Audit initiative projects. The strong momentum continues in 2013.

We remain committed to ensuring LDCs are successful in meeting their objectives and our collective efforts to date have improved the current program suite by offering more local program opportunities, implementing a new expedited change management process, and enhancing incentives to make it easier for customers to participate in programs. We invite you to continue to provide your feedback to us and to celebrate our successes as we move forward.

The format of this report was developed in collaboration with the OPA-LDC Reporting and Evaluation Working Group and is designed to help populate LDC annual report templates that will be submitted to the OEB in late September. All results are now considered final for 2012. Any additional 2012 program activity not captured will be reported in the Final 2013 Results Report.

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

We appreciate your ongoing collaboration and cooperation throughout the reporting and evaluation process. We look forward to another successful year.

Sincerely,

Andrew Pride

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## Table of Contents

## OPA-Contracted Province-Wide CDM Programs FINAL 2012 Results

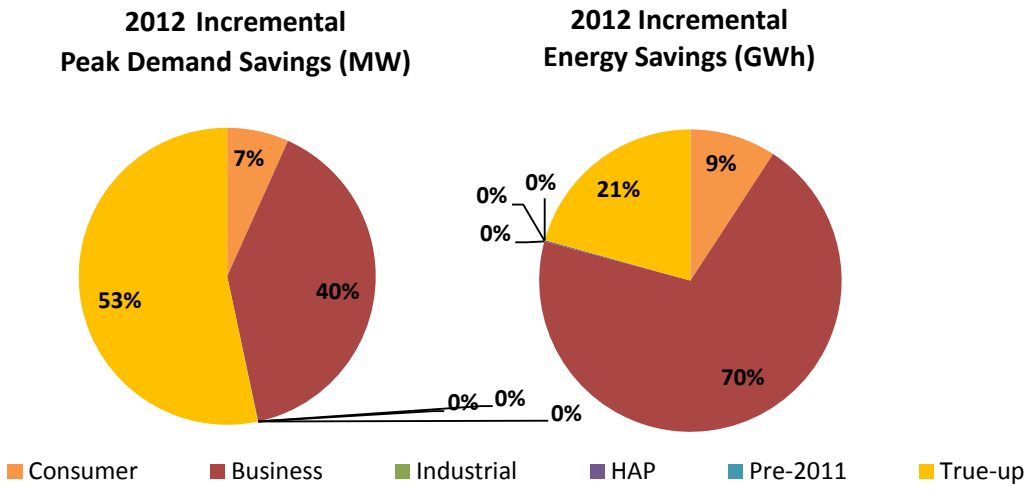
**LDC:** Festival Hydro Inc.

| FINAL 2012 Progress to Targets | 2012 Incremental | Program-to-Date Progress to Target (Scenario 1) | Scenario 1: % of Target Achieved | Scenario 2: % of Target Achieved |
|---|---|---|---|---|
| **Net Annual Peak Demand Savings (MW)** | 1.5 | 1.9 | **31.1%** | **32.2%** |
| **Net Energy Savings (GWh)** | 6.4 | 31.6 | **108.1%** | **108.1%** |

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

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

## Achievement by Sector




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

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

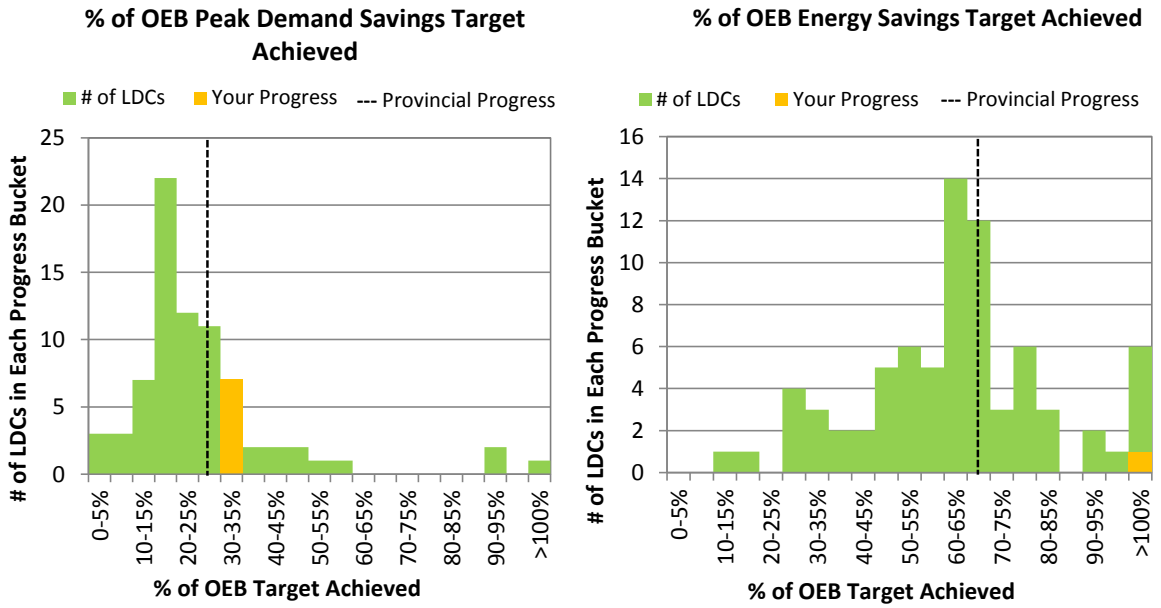


Table 1: **Festival Hydro Inc.** Initiative and Program Level Savings by Year (Scenario 1)

| Initiative | Unit | Incremental Activity (new program activity occurring within the specified reporting period) | | | | Net Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period) | | | | Net Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period) | | | | Program-to-Date Verified Progress to Target (excludes DR) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | 2014 Net Annual Peak Demand Savings (kW) | 2011-2014 Net Cumulative Energy Savings (kWh) |
| | | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 | 2014 | 2014 |
| **Consumer Program** | | | | | | | | | | | | | | | |
| Appliance Retirement | Appliances | 329 | 287 | | | 20 | 17 | | | 136,087 | 113,761 | | | 35 | 884,418 |
| Appliance Exchange | Appliances | 52 | 53 | | | 5 | 8 | | | 6,763 | 13,734 | | | 10 | 65,399 |
| HVAC Incentives | Equipment | 448 | 279 | | | 136 | 68 | | | 259,654 | 122,478 | | | 204 | 1,406,049 |
| Conservation Instant Coupon Booklet | Items | 1,751 | 108 | | | 4 | 1 | | | 65,399 | 4,891 | | | 5 | 276,267 |
| Bi-Annual Retailer Event | Items | 3,044 | 3,711 | | | 6 | 5 | | | 102,799 | 93,684 | | | 11 | 692,250 |
| Retailer Co-op | Items | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| Residential Demand Response (switch/pstat) | Devices | 117 | 0 | | | 66 | 0 | | | 0 | 0 | | | 0 | 0 |
| Residential Demand Response (IHD) | Devices | 0 | 0 | | | 0 | | | | 0 | | | | | |
| Residential New Construction | Homes | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| **Consumer Program Total** | | | | | | **237** | **99** | | | **570,702** | **348,547** | | | **265** | **3,324,383** |
| **Business Program** | | | | | | | | | | | | | | | |
| Retrofit | Projects | 12 | 54 | | | 52 | 436 | | | 192,530 | 2,318,860 | | | 487 | 7,721,009 |
| Direct Install Lighting | Projects | 117 | 80 | | | 128 | 62 | | | 335,087 | 242,528 | | | 162 | 1,988,463 |
| Building Commissioning | Buildings | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| New Construction | Buildings | 0 | 3 | | | 0 | 10 | | | 0 | 35,487 | | | 10 | 106,460 |
| Energy Audit | Audits | 0 | 2 | | | 0 | 10 | | | 0 | 50,353 | | | 10 | 151,058 |
| Small Commercial Demand Response | Devices | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| Small Commercial Demand Response (IHD) | Devices | 0 | 0 | | | 0 | | | | 0 | | | | 0 | 0 |
| Demand Response 3 | Facilities | 1 | 1 | | | 68 | 68 | | | 2,665 | 995 | | | 0 | 3,660 |
| **Business Program Total** | | | | | | **248** | **586** | | | **530,281** | **2,648,223** | | | **670** | **9,970,650** |
| **Industrial Program** | | | | | | | | | | | | | | | |
| Process & System Upgrades | Projects | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| Monitoring & Targeting | Projects | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| Energy Manager | Projects | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| Retrofit | Projects | 8 | | | | 66 | | | | 427,748 | | | | 66 | 1,710,993 |
| Demand Response 3 | Facilities | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| **Industrial Program Total** | | | | | | **66** | **0** | | | **427,748** | **0** | | | **66** | **1,710,993** |
| **Home Assistance Program** | | | | | | | | | | | | | | | |
| Home Assistance Program | Homes | 0 | 6 | | | 0 | 0 | | | 0 | 4,983 | | | 0 | 14,949 |
| **Home Assistance Program Total** | | | | | | **0** | **0** | | | **0** | **4,983** | | | **0** | **14,949** |
| **Pre-2011 Programs completed in 2011** | | | | | | | | | | | | | | | |
| Electricity Retrofit Incentive Program | Projects | 23 | 0 | | | 154 | 0 | | | 714,841 | 0 | | | 154 | 2,859,364 |
| High Performance New Construction | Projects | 0 | 0 | | | 0 | 0 | | | 1,841 | 383 | | | 1 | 8,514 |
| Toronto Comprehensive | Projects | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| Multifamily Energy Efficiency Rebates | Projects | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| LDC Custom Programs | Projects | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| **Pre-2011 Programs completed in 2011 Total** | | | | | | **155** | **0** | | | **716,682** | **383** | | | **155** | **2,867,877** |
| **Other** | | | | | | | | | | | | | | | |
| Program Enabled Savings | Projects | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| Time-of-Use Savings | Homes | | | | | | | | | | | | | | |
| **Other Total** | | | | | | | **0** | | | | **0** | | | **0** | **0** |
| **Adjustments to Previous Year's Verified Results** | | | | | | | **783** | | | | **3,432,735** | | | **783** | **13,730,939** |
| **Energy Efficiency Total** | | | | | | **572** | **617** | | | **2,242,749** | **3,001,141** | | | **1,156** | **17,885,192** |
| **Demand Response Total (Scenario 1)** | | | | | | **134** | **68** | | | **2,665** | **995** | | | **0** | **3,660** |
| **OPA-Contracted LDC Portfolio Total (inc. Adjustments)** | | | | | | **706** | **1,468** | | | **2,245,414** | **6,434,871** | | | **1,939** | **31,619,791** |
| | | | | | | | | | | | | | **Full OEB Target:** | **6,230** | **29,250,000** |
| | | | | | | | | | | | | | **% of Full OEB Target Achieved to Date (Scenario 1):** | **31.1%** | **108.1%** |

Activity & savings for Demand Response resources for each year and quarter represent the savings from all active facilities or devices contracted since January 1, 2011.

Due to the limited timeframe of data, which didn't include the summer months, 2012 IHD results have been deemed inconclusive. The IHD line item on the 2012 annual report will be left blank. Once a full year of data is available (2013 evaluation), and the savings are quantified, 2012 results will be updated to reflect the quantified savings.

Table 2: Adjustments to **Festival Hydro Inc.** Verified Results due to Errors or Omissions (Scenario 1)

| Initiative | Unit | Incremental Activity (new program activity occurring within the specified reporting period) | | | | Net Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period) | | | | Net Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period) | | | | Program-to-Date Verified Progress to Target (excludes DR) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 | 2014 Net Annual Peak Demand Savings (kW) | 2011-2014 Net Cumulative Energy Savings (kWh) |
| **Consumer Program** | | | | | | | | | | | | | | | |
| Appliance Retirement | Appliances | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Appliance Exchange | Appliances | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| HVAC Incentives | Equipment | -60 | | | | -18 | | | | -34,906 | | | | -18 | -139,625 |
| Conservation Instant Coupon Booklet | Items | 29 | | | | 0 | | | | 964 | | | | 0 | 3,857 |
| Bi-Annual Retailer Event | Items | 286 | | | | 0 | | | | 7,638 | | | | 0 | 30,551 |
| Retailer Co-op | Items | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Residential Demand Response (switch/pstat)* | Devices | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Residential Demand Response (IHD) | Devices | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Residential New Construction | Homes | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| **Consumer Program Total** | | | | | | **-18** | | | | **-26,304** | | | | **-18** | **-105,217** |
| **Business Program** | | | | | | | | | | | | | | | |
| Retrofit | Projects | 1 | | | | 2 | | | | 1,168 | | | | 2 | 4,670 |
| Direct Install Lighting | Projects | 6 | | | | 5 | | | | 11,580 | | | | 5 | 46,320 |
| Building Commissioning | Buildings | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| New Construction | Buildings | 2 | | | | 788 | | | | 3,421,115 | | | | 788 | 13,684,461 |
| Energy Audit | Audits | 1 | | | | 5 | | | | 25,176 | | | | 5 | 100,705 |
| Small Commercial Demand Response (switch/pstat)* | Devices | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Small Commercial Demand Response (IHD) | Devices | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Demand Response 3* | Facilities | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| **Business Program Total** | | | | | | **800** | | | | **3,459,039** | | | | **800** | **13,836,156** |
| **Industrial Program** | | | | | | | | | | | | | | | |
| Process & System Upgrades | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Monitoring & Targeting | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Energy Manager | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Retrofit | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Demand Response 3* | Facilities | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| **Industrial Program Total** | | | | | | **0** | | | | **0** | | | | **0** | **0** |
| **Home Assistance Program** | | | | | | | | | | | | | | | |
| Home Assistance Program | Homes | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| **Home Assistance Program Total** | | | | | | **0** | | | | **0** | | | | **0** | **0** |
| **Pre-2011 Programs completed in 2011** | | | | | | | | | | | | | | | |
| Electricity Retrofit Incentive Program | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| High Performance New Construction | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Toronto Comprehensive | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Multifamily Energy Efficiency Rebates | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| LDC Custom Programs | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| **Pre-2011 Programs completed in 2011 Total** | | | | | | **0** | | | | **0** | | | | **0** | **0** |
| **Other** | | | | | | | | | | | | | | | |
| Program Enabled Savings | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Time-of-Use Savings | Homes | | | | | | | | | | | | | | |
| **Other Total** | | | | | | **0** | | | | **0** | | | | **0** | **0** |
| **Adjustments to Previous Year's Verified Results** | | | | | | **783** | | | | **3,432,735** | | | | **783** | **13,730,939** |

* Activity & savings for Demand Response resources for each year and quarter represent the savings from all active facilities or devices contracted since January 1, 2011.

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

| Initiative | Peak Demand Savings | | | | | | | | Energy Savings | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Realization Rate | | | | Net-to-Gross Ratio | | | | Realization Rate | | | | Net-to-Gross Ratio | | | |
| | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 |
| **Consumer Program** | | | | | | | | | | | | | | | | |
| Appliance Retirement | | 1.00 | | | | 0.46 | | | | 1.00 | | | | 0.47 | | |
| Appliance Exchange | | 1.00 | | | | 0.52 | | | | 1.00 | | | | 0.52 | | |
| HVAC Incentives | | 1.00 | | | | 0.49 | | | | 1.00 | | | | 0.49 | | |
| Conservation Instant Coupon Booklet | | 1.00 | | | | 1.00 | | | | 1.00 | | | | 1.05 | | |
| Bi-Annual Retailer Event | | 1.00 | | | | 0.91 | | | | 1.00 | | | | 0.92 | | |
| Retailer Co-op | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Residential Demand Response (switch/pstat)* | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Residential Demand Response (IHD) | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Residential New Construction | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| **Business Program** | | | | | | | | | | | | | | | | |
| Retrofit | | 0.97 | | | | 0.75 | | | | 1.07 | | | | 0.75 | | |
| Direct Install Lighting | | 0.68 | | | | 0.94 | | | | 0.85 | | | | 0.94 | | |
| Building Commissioning | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| New Construction | | 0.70 | | | | 0.49 | | | | 0.61 | | | | 0.49 | | |
| Energy Audit | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Small Commercial Demand Response (switch/pstat)* | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Small Commercial Demand Response (IHD) | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Demand Response 3* | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| **Industrial Program** | | | | | | | | | | | | | | | | |
| Process & System Upgrades | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Monitoring & Targeting | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Energy Manager | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Retrofit | | | | | | | | | | | | | | | | |
| Demand Response 3* | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| **Home Assistance Program** | | | | | | | | | | | | | | | | |
| Home Assistance Program | | 1.34 | | | | 1.00 | | | | 1.00 | | | | 1.00 | | |
| **Pre-2011 Programs completed in 2011** | | | | | | | | | | | | | | | | |
| Electricity Retrofit Incentive Program | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| High Performance New Construction | | 1.00 | | | | 0.50 | | | | 1.00 | | | | 0.50 | | |
| Toronto Comprehensive | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Multifamily Energy Efficiency Rebates | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| LDC Custom Programs | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| **Other** | | | | | | | | | | | | | | | | |
| Program Enabled Savings | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Time-of-Use Savings | | n/a | | | | n/a | | | | n/a | | | | n/a | | |

## Progress Towards CDM Targets

Results are attributed to target using current OPA 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. Please see methodology tab for more detailed information.

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

| Implementation Period | Annual | | | |
|---|---|---|---|---|
| | 2011 | 2012 | 2013 | 2014 |
| 2011 - Verified | 0.7 | 0.6 | 0.6 | 0.5 |
| 2012 - Verified | | 1.5 | 1.4 | 1.4 |
| 2013 | | | | |
| 2014 | | | | |
| Verified Net Annual Peak Demand Savings Persisting in 2014: | | | | 1.9 |
| Festival Hydro Inc. 2014 Annual CDM Capacity Target | | | | 6.2 |
| Verified Portion of Peak Demand Savings Target Achieved in 2014(%): | | | | 31.1% |

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

| Implementation Period | Annual | | | | Cumulative |
|---|---|---|---|---|---|
| | 2011 | 2012 | 2013 | 2014 | 2011-2014 |
| 2011 - Verified | 2.2 | 2.2 | 2.2 | 2.2 | 8.9 |
| 2012 - Verified | | 6.4 | 6.4 | 6.4 | 22.7 |
| 2013 | | | | | |
| 2014 | | | | | |
| Verified Net Cumulative Energy Savings 2011-2014: | | | | | 31.6 |
| Festival Hydro Inc. 2011-2014 Annual CDM Energy Target | | | | | 29.3 |
| Verified Portion of Cumulative Energy Target Achieved (%): | | | | | 108.1% |

*2011 energy adjustments included in cumulative energy savings.

**Table 6: Province-Wide Initiatives and Program Level Savings by Year**

| Initiative | Unit | Incremental Activity (new program activity occurring within the specified reporting period) | | | | Net Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period) | | | | Net Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period) | | | | Program-to-Date Verified Progress to Target (excludes DR) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | 2014 Net Annual Peak Demand Savings (kW) | 2011-2014 Net Cumulative Energy Savings (kWh) |
| | | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 | 2014 | 2014 |
| **Consumer Program** | | | | | | | | | | | | | | | |
| Appliance Retirement | Appliances | 56,110 | 34,146 | | | 3,299 | 2,011 | | | 23,005,812 | 13,424,518 | | | 5,171 | 132,176,857 |
| Appliance Exchange | Appliances | 3,688 | 3,836 | | | 371 | 556 | | | 450,187 | 974,621 | | | 689 | 4,512,525 |
| HVAC Incentives | Equipment | 111,587 | 85,221 | | | 32,037 | 19,060 | | | 59,437,670 | 32,841,283 | | | 51,097 | 336,274,530 |
| Conservation Instant Coupon Booklet | Items | 559,462 | 30,891 | | | 1,344 | 230 | | | 21,211,537 | 1,398,202 | | | 1,575 | 89,040,754 |
| Bi-Annual Retailer Event | Items | 870,332 | 1,060,901 | | | 1,681 | 1,480 | | | 29,387,468 | 26,781,674 | | | 3,161 | 197,894,897 |
| Retailer Co-op | Items | 152 | 0 | | | 0 | 0 | | | 2,652 | 0 | | | 0 | 10,607 |
| Residential Demand Response (switch/pstat)* | Devices | 19,550 | 98,388 | | | 10,947 | 49,038 | | | 24,870 | 359,408 | | | 0 | 384,279 |
| Residential Demand Response (IHD) | Devices | 0 | 49,689 | | | 0 | | | | 0 | | | | | |
| Residential New Construction | Homes | 7 | 19 | | | 0 | 2 | | | 743 | 17,152 | | | 2 | 54,430 |
| **Consumer Program Total** | | | | | | **49,681** | **72,377** | | | **133,520,941** | **75,796,859** | | | **61,696** | **760,348,879** |
| **Business Program** | | | | | | | | | | | | | | | |
| Retrofit | Projects | 2,516 | 5,605 | | | 24,467 | 61,147 | | | 136,002,258 | 314,922,468 | | | 84,018 | 1,480,647,459 |
| Direct Install Lighting | Projects | 20,297 | 18,494 | | | 23,724 | 15,284 | | | 61,076,701 | 57,345,798 | | | 31,181 | 391,072,869 |
| Building Commissioning | Buildings | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| New Construction | Buildings | 10 | 69 | | | 123 | 764 | | | 411,717 | 1,814,721 | | | 888 | 7,091,031 |
| Energy Audit | Audits | 103 | 280 | | | 0 | 1,450 | | | 0 | 7,049,351 | | | 1,450 | 21,148,054 |
| Small Commercial Demand Response | Devices | 132 | 294 | | | 84 | 187 | | | 157 | 1,068 | | | 0 | 1,224 |
| Small Commercial Demand Response (IHD) | Devices | 0 | 0 | | | 0 | | | | 0 | | | | 0 | 0 |
| Demand Response 3* | Facilities | 145 | 151 | | | 16,218 | 19,389 | | | 633,421 | 281,823 | | | 0 | 915,244 |
| **Business Program Total** | | | | | | **64,617** | **98,221** | | | **198,124,253** | **381,415,230** | | | **117,535** | **1,900,875,881** |
| **Industrial Program** | | | | | | | | | | | | | | | |
| Process & System Upgrades | Projects | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| Monitoring & Targeting | Projects | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | | 0 | 0 |
| Energy Manager | Projects | 0 | 39 | | | 0 | 1,086 | | | 0 | 7,372,108 | | | 1,086 | 22,116,324 |
| Retrofit | Projects | 433 | | | | 4,615 | | | | 28,866,840 | | | | 4,613 | 115,462,282 |
| Demand Response 3* | Facilities | 124 | 185 | | | 52,484 | 74,056 | | | 3,080,737 | 1,784,712 | | | 0 | 4,865,449 |
| **Industrial Program Total** | | | | | | **57,098** | **75,141** | | | **31,947,577** | **9,156,820** | | | **5,699** | **142,444,054** |
| **Home Assistance Program** | | | | | | | | | | | | | | | |
| Home Assistance Program | Homes | 46 | 5,033 | | | 2 | 566 | | | 39,283 | 5,442,232 | | | 569 | 16,483,831 |
| **Home Assistance Program Total** | | | | | | **2** | **566** | | | **39,283** | **5,442,232** | | | **569** | **16,483,831** |
| **Pre-2011 Programs completed in 2011** | | | | | | | | | | | | | | | |
| Electricity Retrofit Incentive Program | Projects | 2,016 | 0 | | | 21,662 | 0 | | | 121,138,219 | 0 | | | 21,662 | 484,552,876 |
| High Performance New Construction | Projects | 145 | 69 | | | 5,098 | 3,251 | | | 26,185,591 | 11,901,944 | | | 8,349 | 140,448,197 |
| Toronto Comprehensive | Projects | 577 | 0 | | | 15,805 | 0 | | | 86,964,886 | 0 | | | 15,805 | 347,859,545 |
| Multifamily Energy Efficiency Rebates | Projects | 110 | 0 | | | 1,981 | 0 | | | 7,595,683 | 0 | | | 1,981 | 30,382,733 |
| LDC Custom Programs | Projects | 8 | 0 | | | 399 | 0 | | | 1,367,170 | 0 | | | 399 | 5,468,679 |
| **Pre-2011 Programs completed in 2011 Total** | | | | | | **44,945** | **3,251** | | | **243,251,550** | **11,901,944** | | | **48,195** | **1,008,712,030** |
| **Other** | | | | | | | | | | | | | | | |
| Program Enabled Savings | Projects | 0 | 16 | | | 0 | 2,304 | | | 0 | 1,188,362 | | | 2,304 | 3,565,086 |
| Time-of-Use Savings | Homes | | | | | | | | | | | | | | |
| **Other Total** | | | | | | | **2,304** | | | | **1,188,362** | | | **2,304** | **3,565,086** |
| **Adjustments to Previous Year's Verified Results** | | | | | | | **1,406** | | | | **18,689,081** | | | **1,156** | **73,918,598** |
| **Energy Efficiency Total** | | | | | | **136,610** | **109,191** | | | **603,144,419** | **482,474,435** | | | **235,998** | **3,826,263,564** |
| **Demand Response Total (Scenario 1)** | | | | | | **79,733** | **142,670** | | | **3,739,185** | **2,427,011** | | | **0** | **6,166,196** |
| **OPA-Contracted LDC Portfolio Total (inc. Adjustments)** | | | | | | **216,343** | **253,267** | | | **606,883,604** | **503,590,526** | | | **237,154** | **3,906,348,358** |
| | | | | | | | | | | | | | **Full OEB Target:** | **1,330,000** | **6,000,000,000** |
| | | | | | | | | | | | | | **% of Full OEB Target Achieved to Date (Scenario 1):** | **17.8%** | **65.1%** |

* Activity & savings for Demand Response resources for each year and quarter represent the savings from all active facilities or devices contracted since January 1, 2011.

Due to the limited timeframe of data, which didn't include the summer months, 2012 IHD results have been deemed inconclusive. The IHD line item on the 2012 annual report will be left blank. Once a full year of data is available (2013 evaluation), and the savings are quantified, 2012 results will be updated to reflect the quantified savings.

**Table 7:** Adjustments to **Province-Wide** Verified Results due to Errors & Omissions (Scenario 1)

| Initiative | Unit | Incremental Activity (new program activity occurring within the specified reporting period) | | | | Net Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period) | | | | Net Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period) | | | | Program-to-Date Verified Progress to Target (excludes DR) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 | 2014 Net Annual Peak Demand Savings (kW) 2014 | 2011-2014 Net Cumulative Energy Savings (kWh) 2014 |
| **Consumer Program** | | | | | | | | | | | | | | | |
| Appliance Retirement | Appliances | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Appliance Exchange | Appliances | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| HVAC Incentives | Equipment | -18,866 | | | | -5,278 | | | | -9,721,817 | | | | -5,278 | -38,887,267 |
| Conservation Instant Coupon Booklet | Items | 8,216 | | | | 16 | | | | 275,655 | | | | 16 | 1,102,621 |
| Bi-Annual Retailer Event | Items | 81,817 | | | | 108 | | | | 2,183,391 | | | | 108 | 8,733,563 |
| Retailer Co-op | Items | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Residential Demand Response (switch/pstat)* | Devices | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Residential Demand Response (IHD) | Devices | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Residential New Construction | Homes | 19 | | | | 1 | | | | 13,767 | | | | 1 | 55,069 |
| **Consumer Program Total** | | | | | | **-5,153** | | | | **-7,249,004** | | | | **-5,153** | **-28,996,015** |
| **Business Program** | | | | | | | | | | | | | | | |
| Retrofit | Projects | 303 | | | | 3,204 | | | | 16,216,165 | | | | 3,083 | 64,398,674 |
| Direct Install Lighting | Projects | 444 | | | | 501 | | | | 1,250,388 | | | | 372 | 4,624,945 |
| Building Commissioning | Buildings | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| New Construction | Buildings | 12 | | | | 828 | | | | 3,520,620 | | | | 828 | 14,082,482 |
| Energy Audit | Audits | 93 | | | | 481 | | | | 2,341,392 | | | | 481 | 9,365,567 |
| Small Commercial Demand Response (switch/pstat)* | Devices | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Small Commercial Demand Response (IHD) | Devices | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Demand Response 3* | Facilities | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| **Business Program Total** | | | | | | **5,014** | | | | **23,328,565** | | | | **4,764** | **92,471,668** |
| **Industrial Program** | | | | | | | | | | | | | | | |
| Process & System Upgrades | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Monitoring & Targeting | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Energy Manager | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Retrofit | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Demand Response 3* | Facilities | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| **Industrial Program Total** | | | | | | **0** | | | | **0** | | | | **0** | **0** |
| **Home Assistance Program** | | | | | | | | | | | | | | | |
| Home Assistance Program | Homes | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| **Home Assistance Program Total** | | | | | | **0** | | | | **0** | | | | **0** | **0** |
| **Pre-2011 Programs completed in 2011** | | | | | | | | | | | | | | | |
| Electricity Retrofit Incentive Program | Projects | 12 | | | | 138 | | | | 545,536 | | | | 138 | 2,182,145 |
| High Performance New Construction | Projects | 34 | | | | 1,407 | | | | 2,065,200 | | | | 1,407 | 8,260,800 |
| Toronto Comprehensive | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Multifamily Energy Efficiency Rebates | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| LDC Custom Programs | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| **Pre-2011 Programs completed in 2011 Total** | | | | | | **1,545** | | | | **2,610,736** | | | | **1,545** | **10,442,945** |
| **Other** | | | | | | | | | | | | | | | |
| Program Enabled Savings | Projects | 0 | | | | 0 | | | | 0 | | | | 0 | 0 |
| Time-of-Use Savings | Homes | | | | | | | | | | | | | | |
| **Other Total** | | | | | | **0** | | | | **0** | | | | **0** | **0** |
| **Adjustments to Previous Year's Verified Results** | | | | | | **1,406** | | | | **18,690,297** | | | | **1,156** | **73,918,598** |

* Activity & savings for Demand Response resources for each year and quarter represent the savings from all active facilities or devices contracted since January 1, 2011.

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

| Initiative | Peak Demand Savings | | | | | | | | Energy Savings | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Realization Rate | | | | Net-to-Gross Ratio | | | | Realization Rate | | | | Net-to-Gross Ratio | | | |
| | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 | 2011 | 2012 | 2013 | 2014 |
| **Consumer Program** | | | | | | | | | | | | | | | | |
| Appliance Retirement | | 1.00 | | | | 0.46 | | | | 1.00 | | | | 0.47 | | |
| Appliance Exchange | | 1.00 | | | | 0.52 | | | | 1.00 | | | | 0.52 | | |
| HVAC Incentives | | 1.00 | | | | 0.50 | | | | 1.00 | | | | 0.49 | | |
| Conservation Instant Coupon Booklet | | 1.00 | | | | 1.00 | | | | 1.00 | | | | 1.05 | | |
| Bi-Annual Retailer Event | | 1.00 | | | | 0.91 | | | | 1.00 | | | | 0.92 | | |
| Retailer Co-op | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Residential Demand Response (switch/pstat)* | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Residential Demand Response (IHD) | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Residential New Construction | | 3.65 | | | | 0.49 | | | | 7.17 | | | | 0.49 | | |
| **Business Program** | | | | | | | | | | | | | | | | |
| Retrofit | | 0.93 | | | | 0.75 | | | | 1.05 | | | | 0.76 | | |
| Direct Install Lighting | | 0.69 | | | | 0.94 | | | | 0.85 | | | | 0.94 | | |
| Building Commissioning | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| New Construction | | 0.98 | | | | 0.49 | | | | 0.99 | | | | 0.49 | | |
| Energy Audit | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Small Commercial Demand Response (switch/pstat)* | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Small Commercial Demand Response (IHD) | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Demand Response 3* | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| **Industrial Program** | | | | | | | | | | | | | | | | |
| Process & System Upgrades | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Monitoring & Targeting | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Energy Manager | | 1.16 | | | | 0.90 | | | | 1.16 | | | | 0.90 | | |
| Retrofit | | | | | | | | | | | | | | | | |
| Demand Response 3* | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| **Home Assistance Program** | | | | | | | | | | | | | | | | |
| Home Assistance Program | | 0.32 | | | | 1.00 | | | | 0.99 | | | | 1.00 | | |
| **Pre-2011 Programs completed in 2011** | | | | | | | | | | | | | | | | |
| Electricity Retrofit Incentive Program | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| High Performance New Construction | | 1.00 | | | | 0.50 | | | | 1.00 | | | | 0.50 | | |
| Toronto Comprehensive | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| Multifamily Energy Efficiency Rebates | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| LDC Custom Programs | | n/a | | | | n/a | | | | n/a | | | | n/a | | |
| **Other** | | | | | | | | | | | | | | | | |
| Program Enabled Savings | | 1.06 | | | | 1.00 | | | | 2.26 | | | | 1.00 | | |
| Time-of-Use Savings | | n/a | | | | n/a | | | | n/a | | | | n/a | | |

## Summary - Provincial Progress

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

| Implementation Period | Annual | | | |
|---|---|---|---|---|
| | 2011 | 2012 | 2013 | 2014 |
| 2011 | 216.3 | 136.6 | 135.8 | 129.0 |
| 2012 | | 253.3 | 109.8 | 108.2 |
| 2013 | | | | |
| 2014 | | | | |
| Verified Net Annual Peak Demand Savings in 2014: | | | | 237.2 |
| 2014 Annual CDM Capacity Target | | | | 1,330 |
| Verified Peak Demand Savings Target Achieved - 2011 (%): | | | | 17.8% |

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

| Implementation Period | Annual | | | | Cumulative |
|---|---|---|---|---|---|
| | 2011 | 2012 | 2013 | 2014 | 2011-2014 |
| 2011 | 606.9 | 603.0 | 601.0 | 582.3 | 2,393 |
| 2012 | | 503.6 | 498.4 | 492.6 | 1,513 |
| 2013 | | | | | |
| 2014 | | | | | |
| Verified Net Cumulative Energy Savings 2011-2014: | | | | | 3,906 |
| 2011-2014 Cumulative CDM Energy Target: | | | | | 6,000 |
| Verified Portion of Energy Target Achieved - 2011 (%): | | | | | 65.1% |

*2011 energy adjustments included in cumulative energy savings.

## 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<br>**Net Savings =** Gross Savings * Net-to-Gross Ratio<br>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<br>**Net Savings =** Gross Savings * Net-to-Gross Ratio<br>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<br>**Energy: Gross Savings = Net Savings =** provincial ex post energy savings * LDC proportion of total provincial contracted MW<br>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 Year's Verified Results | All errors and omissions from the prior years Final Annual Results report will be adjusted within this report. Any errors and ommissions with regards to projects counts, data lag, and calculations etc., will be made within this report. Considers the cumulative effect of energy savings. |

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

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

| 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 saveONenergy CRM system; Initiative was not evaluated in 2011, reported results are presented with forecast assumptions as per the business case. | Savings are considered to begin in the year of the project completion date. | **Peak demand and energy savings** are determined using the verified measure level per unit assumption multiplied by the uptake in the market (gross) taking into account net-to-gross factors such as free-ridership and spillover (net) at the measure level. |
| **Business Program** | | | |
| Efficiency: Equipment Replacement | Results are directly attributed to LDC based on LDC identified at the facility level in the saveONenergy CRM; Projects in the Application Status: "Post-Stage Submission" are included (excluding "Payment denied by LDC"); Please see "Reference Tables" tab for Building type to Sector mapping | Savings are considered to begin in the year of the actual project completion date on the iCON CRM system. | **Peak demand and energy savings** are determined by the total savings for a given project as reported in the iCON CRM system (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net). Both realization rate and net-to-gross ratios can differ for energy and demand savings and depend on the mix of projects within an LDC territory (i.e. lighting or non-lighting project, engineered/custom/prescriptive track). |
| | **Additional Note:** project counts were derived by filtering out "Application Status" = "Post-Project Submission - Payment denied by LDC" and only including projects with an "Actual Project Completion Date" in 2012 and pulling both the "Application Name" field followed by the "Building Address 1" field from the Post Stage Retrofit Report and finally performing a count of the Building Addresses. | | |

| 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; Initiative was not evaluated, no completed projects in 2011 or 2012. | Savings are considered to begin in the year of the actual project completion date. | **Peak demand and energy savings** are determined by the total savings for a given project as reported (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net). |
| New Construction and Major Renovation Incentive | Results are directly attributed to LDC based on LDC identified in the application. | Savings are considered to begin in the year of the actual project completion date. | |
| Energy Audit | Projects are directly attributed to LDC based on LDC identified in the application | Savings are considered to begin in the year of the audit date. | **Peak demand and energy savings** are determined by the total savings resulting from an audit as reported (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net). |

| 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 OPA through project completion reports and continuing participant lists | Savings are considered to begin in the year the device was installed and/or when a customer signed a ***peaksaver*** PLUS™ participant agreement. | **Peak demand savings** are based on an ex ante estimate assuming a 1 in 10 weather year and represents the "insurance value" of the initiative. **Energy savings** are based on an ex post estimate which reflects the savings that occurred as a result of activations in the year. Savings are assumed to **persist** for only 1 year, reflecting that savings will only occur if the resource is activated. |
| Demand Response 3 (part of the Industrial program schedule) | Results are attributed to LDCs based on the total contracted megawatts at the contributor level as of December 31st, applying the provincial ex ante to contracted ratio (ex ante estimate/contracted megawatts); Ex post energy savings are attributed to the LDC based on their proportion of the total contracted megawatts at the contributor level. | Savings are considered to begin in the year in which the contributor signed up to participate in demand response. | **Peak demand savings** are ex ante estimates based on the load reduction capability that can be expected for the purposes of planning. The ex ante estimates factor in both scheduled non-performances (i.e. maintenance) and historical performance. **Energy savings** are based on an ex post estimate which reflects the savings that actually occurred as a results of activations in the year. Savings are assumed to persist for 1 year, reflecting that savings will not occur if the resource is not activated and additional costs are incurred to activate the resource. |
| **Industrial Program** | | | |
| Process & System Upgrades | Results are directly attributed to LDC based on LDC identified in application in the saveONenergy CRM system; Initiative was not evaluated, no completed projects in 2011 or 2012. | 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; Initiative was not evaluated, no completed projects in 2011 or 2012. | 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; No completed projects in 2011 or 2012. | Savings are considered to begin in the year in which the project was completed by the energy manager. If no date is specified the savings will begin the year of the Quarterly Report submitted by the energy manager. | **Peak demand and energy savings** are determined by the total savings from a given project as reported (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net). |

| Initiative | Attributing Savings to LDCs | Savings 'start' Date | Calculating Resource Savings |
|---|---|---|---|
| Efficiency: Equipment Replacement Incentive (part of the C&I program schedule) | Results are directly attributed to LDC based on LDC identified at the facility level in the saveONenergy CRM; Projects in the Application Status: "Post-Stage Submission" are included (excluding "Payment denied by LDC"); Please see "Reference Tables" tab for Building type to Sector mapping | Savings are considered to begin in the year of the actual project completion date on the iCON CRM system. | **Peak demand and energy savings** are determined by the total savings for a given project as reported in the iCON CRM system (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net). Both realization rate and net-to-gross ratios can differ for energy and demand savings and depend on the mix of projects within an LDC territory (i.e. lighting or non-lighting project, engineered/custom/prescriptive track). |
| Demand Response 3 | Results are attributed to LDCs based on the total contracted megawatts at the contributor level as of December 31st, applying the provincial ex ante to contracted ratio (ex ante estimate/contracted megawatts); Ex post energy savings are attributed to the LDC based on their proportion of the total contracted megawatts at the contributor level. | Savings are considered to begin in the year in which the contributor signed up to participate in demand response. | **Peak demand savings** are ex ante estimates based on the load reduction capability that can be expected for the purposes of planning. The ex ante estimates factor in both scheduled non-performances (i.e. maintenance) and historical performance. **Energy savings** are based on an ex post estimate which reflects the savings that actually occurred as a results of activations in the year. Savings are assumed to persist for 1 year, reflecting that savings will not occur if the resource is not activated and additional costs are incurred to activate the resource. |
| **Home Assistance Program** | | | |

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

| 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 or 2012, 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 (reported). A realization rate is applied to the reported savings to ensure that these savings align with EM&V protocols and reflect the savings that were actually realized (i.e. how many light bulbs were actually installed vs. what was reported) (gross). Net savings takes into account net-to-gross factors such as free-ridership and spillover (net). **If energy savings are not available,** an estimate is made based on the kWh to kW ratio in the provincial results from the 2010 evaluated results (http://www.powerauthority.on.ca/evaluation-measurement-and-verification/evaluation-reports). |
| Data Centre Incentive Program | Program run exclusively in PowerStream Inc. service territory; Initiative was not evaluated in 2011, assumptions as per 2009 evaluation | | |
| 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 | | |

| ERII Sector (C&I vs. Industrial Mapping) | |
|---|---|
| **Building Type** | **Sector** |
| Agribusiness - Cattle Farm | C&I |
| Agribusiness - Dairy Farm | C&I |
| Agribusiness - Greenhouse | C&I |
| Agribusiness - Other | C&I |
| Agribusiness - Other,Mixed-Use - Office/Retail | C&I |
| Agribusiness - Other,Office,Retail,Warehouse | C&I |
| Agribusiness - Other,Office,Warehouse | C&I |
| Agribusiness - Poultry | C&I |
| Agribusiness - Poultry,Hospitality - Motel | C&I |
| Agribusiness - Swine | C&I |
| Convenience Store | C&I |
| Education - College / Trade School | C&I |
| Education - College / Trade School,Multi-Residential - Condominium | C&I |
| Education - College / Trade School,Multi-Residential - Rental Apartment | C&I |
| Education - College / Trade School,Retail | C&I |
| Education - Primary School | C&I |
| Education - Primary School,Education - Secondary School | C&I |
| Education - Primary School,Multi-Residential - Rental Apartment | C&I |
| Education - Primary School,Not-for-Profit | C&I |
| Education - Secondary School | C&I |
| Education - University | C&I |
| Education - University,Office | C&I |
| Hospital/Healthcare - Clinic | C&I |
| Hospital/Healthcare - Clinic,Hospital/Healthcare - Long-term Care,Hospital/Healthcare - Medical Building | C&I |
| Hospital/Healthcare - Clinic,Industrial | C&I |
| Hospital/Healthcare - Clinic,Retail | C&I |
| Hospital/Healthcare - Long-term Care | C&I |
| Hospital/Healthcare - Long-term Care,Hospital/Healthcare - Medical Building | C&I |
| Hospital/Healthcare - Medical Building | C&I |
| Hospital/Healthcare - Medical Building,Mixed-Use - Office/Retail | C&I |
| Hospital/Healthcare - Medical Building,Mixed-Use - Office/Retail,Office | C&I |
| Hospitality - Hotel | C&I |
| Hospitality - Hotel,Restaurant - Dining | C&I |
| Hospitality - Motel | C&I |
| Industrial | Industrial |
| Mixed-Use - Office/Retail | C&I |
| Mixed-Use - Office/Retail,Industrial | Industrial |
| Mixed-Use - Office/Retail,Mixed-Use - Other | C&I |
| Mixed-Use - Office/Retail,Mixed-Use - Other,Not-for-Profit,Warehouse | C&I |
| Mixed-Use - Office/Retail,Mixed-Use - Residential/Retail | C&I |
| Mixed-Use - Office/Retail,Office,Restaurant - Dining,Restaurant - Quick Serve,Retail,Warehouse | C&I |

| | |
|---|---|
| Mixed-Use - Office/Retail,Office,Warehouse | C&I |
| Mixed-Use - Office/Retail,Retail | C&I |
| Mixed-Use - Office/Retail,Warehouse | C&I |
| Mixed-Use - Office/Retail,Warehouse,Industrial | Industrial |
| Mixed-Use - Other | C&I |
| Mixed-Use - Other,Industrial | Industrial |
| Mixed-Use - Other,Not-for-Profit,Office | C&I |
| Mixed-Use - Other,Office | C&I |
| Mixed-Use - Other,Other: Please specify | C&I |
| Mixed-Use - Other,Retail,Warehouse | C&I |
| Mixed-Use - Other,Warehouse | C&I |
| Mixed-Use - Residential/Retail | C&I |
| Mixed-Use - Residential/Retail,Multi-Residential - Condominium | C&I |
| Mixed-Use - Residential/Retail,Multi-Residential - Rental Apartment | C&I |
| Mixed-Use - Residential/Retail,Retail | C&I |
| Multi-Residential - Condominium | C&I |
| Multi-Residential - Condominium,Multi-Residential - Rental Apartment | C&I |
| Multi-Residential - Condominium,Other: Please specify | C&I |
| Multi-Residential - Rental Apartment | C&I |
| Multi-Residential - Rental Apartment,Multi-Residential - Social Housing Provider,Not-for-Profit | C&I |
| Multi-Residential - Rental Apartment,Not-for-Profit | C&I |
| Multi-Residential - Rental Apartment,Warehouse | C&I |
| Multi-Residential - Social Housing Provider | C&I |
| Multi-Residential - Social Housing Provider,Industrial | C&I |
| Multi-Residential - Social Housing Provider,Not-for-Profit | C&I |
| Not-for-Profit | C&I |
| Not-for-Profit,Office | C&I |
| Not-for-Profit,Other: Please specify | C&I |
| Not-for-Profit,Warehouse | C&I |
| Office | C&I |
| Office,Industrial | Industrial |
| Office,Other: Please specify | C&I |
| Office,Other: Please specify,Warehouse | C&I |
| Office,Restaurant - Dining | C&I |
| Office,Restaurant - Dining,Industrial | Industrial |
| Office,Retail | C&I |
| Office,Retail,Industrial | C&I |
| Office,Retail,Warehouse | C&I |
| Office,Warehouse | C&I |
| Office,Warehouse,Industrial | Industrial |
| Other: Please specify | C&I |
| Other: Please specify,Industrial | Industrial |
| Other: Please specify,Retail | C&I |
| Other: Please specify,Warehouse | C&I |
| Restaurant - Dining | C&I |
| Restaurant - Dining,Retail | C&I |

| | |
|---|---|
| Restaurant - Quick Serve | C&I |
| Restaurant - Quick Serve,Retail | C&I |
| Retail | C&I |
| Retail,Industrial | Industrial |
| Retail,Warehouse | C&I |
| Warehouse | C&I |
| Warehouse,Industrial | Industrial |

## 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 in a given year 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' (please see table 5).

**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 (i.e. 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).