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# **Welland Hydro-Electric System Corp.**

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## **Conservation and Demand Management 2011 Annual Report**

**Submitted to:  
Ontario Energy Board**

**Submitted on September 30, 2012**

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ELECTRICITY DISTRIBUTOR 2011 CDM Annual Report

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## Executive Summary

On November 12, 2010, the Ontario Energy Board amended Welland Hydro-Electric System Corp.'s distribution licence to require Welland Hydro-Electric System Corp., as a condition of its licence, to achieve **20.600 GWh** of energy savings and **5.560 MW** of peak demand savings through the delivery of Conservation and Demand Management (CDM) programs, over the four year period beginning on January 1, 2011 and ending on December 31, 2014. While Welland Hydro-Electric System Corp.'s demand and energy targets were aggressive, we felt that it would be possible to achieve them using the proposed suite of OPA-Contracted Province-Wide CDM Programs. Unfortunately, the transition from the 2010 CDM programs to the new 2011 – 2014 suite of OPA-Contracted Province-Wide CDM Programs did not go smoothly. While many of the Initiative Schedules were posted in January 2011 (as evidenced in Section 2.1), the release of the Master Agreement for execution did not occur until late February, preventing Welland Hydro-Electric System Corp. from moving forward on many critical, and lengthy, start-up processes (securing third party service providers, preparing marketing and promotional materials, conducting training, etc...). In addition, once the Master Agreement was executed, several Initiatives were not ready for launch while others never made it to market in 2011, further complicating the start-up process and resulting in missed opportunities for Welland Hydro-Electric System Corp. to achieve peak demand and energy savings. Nevertheless, Welland Hydro-Electric System Corp. overcame the many challenges it faced in 2011, and was pleased overall with the results it had achieved. While we did fall below our assumption for 2011 peak demand reduction by 15%, we overachieved in energy savings by 26%.

Welland Hydro-Electric System Corp. will continue to employ the resources and strategies developed in 2011 and carry these into 2012, with additional focus towards encouraging projects resulting in higher peak demand savings. Although the lost opportunities, as a result of delays in the release of almost all Initiatives has significantly affected Welland Hydro-Electric System Corp.'s ability to achieve both its peak demand and energy savings targets, Welland Hydro-Electric System Corp. will move forward efficiently and effectively with the objective to meet or exceed these targets by December 31, 2014.

## 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 CDM targets to be met by ELECTRICITY DISTRIBUTORS. Accordingly, on November 12, 2010, the OEB amended the distribution licence of Welland Hydro-Electric System Corp. to require Welland Hydro-Electric System Corp., as a condition of its licence, to achieve **20.600 GWh** of energy savings and **5.560 MW** of peak demand savings, over the period beginning January 1, 2011 through to December 31, 2014.

In accordance with the same Minister's directive, the OEB issued the Conservation and Demand Management Code for Electricity Distributors (the Code) on September 16, 2010. The Code sets out the obligations and requirements with which ELECTRICITY DISTRIBUTORS must comply in relation to the CDM targets set out in their licences. To comply with the Code requirements, Welland Hydro-Electric System Corp. submitted its original CDM Strategy on November 1, 2010 and its amended CDM Strategy on May 2, 2011, which provided a high level of description of how Welland Hydro-Electric System Corp. intended to achieve its CDM targets.

The Code also requires a distributor to file annual report with the Board. This Annual Report is therefore prepared accordingly and covers the period from January 1, 2011 to December 31, 2011.

This document was developed based on a template prepared by Hydro One Networks Inc. The template was reviewed by the Reporting and Evaluation Working Group and the Ontario Power Authority (OPA) through May and June 2012. OEB Staff were consulted on May 28<sup>th</sup>, 2012. It was sent to the Electricity Distributors Associate (EDA) on July 17<sup>th</sup>, 2012, for circulation to all ELECTRICITY DISTRIBUTORS to use for their reporting requirement to the OEB.

# 1 Board-Approved CDM Programs

## 1.1 Introduction

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

At this time, the implementation of Time-of-Use (“TOU”) Pricing is the only Board-Approved Conservation and Demand Management (“CDM”) program that is being offered in Welland Hydro-Electric System Corp.’s service area.

## 1.2 TOU Pricing

### 1.2.1 BACKGROUND

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

In accordance with a Directive dated March 31, 2010 by the Minister of Energy and Infrastructure, the OEB is of the view that any evaluations of savings from TOU pricing should be conducted by the OPA for the province, and then allocated to distributors. Welland Hydro-Electric System Corp. will report these results upon receipt from the OPA. As of September 30, 2012, the OPA has not released its preliminary results of TOU savings to distributors. Therefore Welland Hydro-Electric System Corp. is not able to provide any verified savings related to Welland Hydro-Electric System Corp.’s TOU program at this time.

### 1.2.2 TOU PROGRAM DESCRIPTION

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

**Initiative Frequency:** Year-Round

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

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

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

RPP TOU	Rates (cents/kWh)		
	On Peak	Mid Peak	Off Peak
Effective Date			
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

**Delivery:** OEB set rates; ELECTRICITY DISTRIBUTOR responsible for installation and maintenance of the meter; ELECTRICITY DISTRIBUTOR converts customers to TOU billing.

**Initiative Activities/Progress:**

Welland Hydro-Electric System Corp. began transitioning its RPP customers to TOU billing February 1, 2012. At December 31<sup>st</sup>, 2011, Welland Hydro-Electric System Corp. had not transitioned any RPP customers to TOU billing.

### **1.3 Welland Hydro-Electric System Corp.’s Application with the OEB**

At the time this report was prepared, Welland Hydro-Electric System Corp. did not have any applications submitted for Board-Approved Programs.

## 2 OPA-Contracted Province-Wide CDM Programs

### 2.1 Introduction

Effective March 1, 2011, Welland Hydro-Electric System Corp. entered into an agreement with the OPA to deliver CDM programs extending from January 1, 2011 to December 31, 2014, which are listed below. In addition to the new 2011 – 2014 suite of OPA Contracted Province-Wide Programs, peak demand and energy savings will be reported from projects that started prior to 2011 but completed in 2011. Welland Hydro-Electric System Corp. has put a strike through the Initiative(s) for which it did not register an agreement, or was unable to offer due to the Initiative(s) not being eligible in its service territory.

Initiative	Schedule	Date schedule posted	Customer Class
<b>Residential Program</b>			
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		Jan 26 2011*	All residential rate classes
Residential Demand Response	Schedule B-3	Aug 22 2011	All residential rate classes
New Construction Program	Schedule B-2	Jan 26 2011*	All residential rate classes
<b>Commercial &amp; Institutional Program</b>			
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

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<b>Industrial Program</b>			
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
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
<b>Home Assistance Program</b>			
Home Assistance Program	Schedule E-1	May 9, 2011	All residential rate classes
<b>Pre-2011 Programs completed in 2011</b>			
Electricity Retrofit Incentive Program	n/a	n/a	All general service classes
High Performance New Construction	n/a	n/a	All general service classes
<del>Toronto Comprehensive</del>	<del>n/a</del>	<del>n/a</del>	<del>All general service classes</del>
Multifamily Energy Efficiency Rebates	n/a	n/a	All general service classes
<del>Data Centre Incentive Program</del>	<del>n/a</del>	<del>n/a</del>	<del>All general service classes</del>
<del>EnWin Green Suites</del>	<del>n/a</del>	<del>n/a</del>	<del>All general service classes</del>

\* Master Agreement not available for execution until late February, 2011

Several initiatives that were included in the schedules were not in market in 2011. The OPA has communicated that the initiatives listed in the table below were not in market in 2011 and that they represent a very small percentage of the forecasted energy and demand savings. During the 2011 program year, the OPA placed emphasis on supporting the implementation of initiatives that would offer the greatest ratepayer value and greatest amount of persisting savings.

<b>Initiative Not in Market in 2011</b>	<b>Objective</b>	<b>Status</b>
<b>Residential Program</b>		
Midstream Electronics	The objective of this initiative is to encourage retailers to promote and sell high efficiency televisions, and for distributors to distribute high efficiency set top boxes.	Not launched to market

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.	Not launched to market
First Nations Program	First Nations programs are delivered by OPA and results are attributed to ELECTRICITY DISTRIBUTORS for reporting.	Not launched to market
Home Energy Audit Tool	This is a provincial online audit tool to engage customers in conservation and help drive customer participation to CDM programs.	Not launched to market
<b>Commercial &amp; Institutional Program</b>		
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. The OPA has no plans to launch this initiative 2012
<p>* Welland Hydro-Electric System Corp. respectfully disagrees with the OPA's opinion that the Direct Service Space Cooling would result in a very small percentage of demand and energy savings. Based on our assumptions, and the tremendous uptake of other Initiatives targeting small businesses, we expected similar, if not greater peak demand and energy savings from the Direct Service Space Cooling Initiative than would be achieved through the Residential Demand Response Initiative (which is promoted by the OPA as a significant contributor to an ELECTRICITY DISTRIBUTOR's peak demand and energy savings).</p>		
Demand Response 1	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
<b>Industrial Program</b>		
Demand Response 1	As above	No customer uptake for this initiative

## 2.2 Program Descriptions

### 2.2.1 RESIDENTIAL PROGRAM

#### 2.2.1.1 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 located in Ontario.

**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 province-wide marketing, call centre, appliance pick-up and decommissioning process. ELECTRICITY DISTRIBUTOR provides local marketing and coordination with municipal pick-up where available.

Additional detail is available:

- Schedule B-1, Exhibit D  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf) and
- saveONenergy website <https://saveonenergy.ca/Consumer/Programs/Appliance-Retirement.aspx>

**Initiative Activities/Progress:**

- Promotion in Winter / Spring newsletter (distribution 22,000).
- Distribution of the saveONenergy for Home brochures through our main office and at community events (approximately 2,000 brochures).
- 31 ads throughout the year in local newspapers (circulation approximately 25,000 per ad).
- Promotion on company website after signing the Master Agreement.

**In Market Date:** Officially March 1, 2011 (after Welland Hydro-Electric System Corp. signed the Master Agreement), however, appliances were being collected as of January 1, 2011.

**Lessons Learned:**

- The Appliance Retirement Initiative (previously The Great Refrigerator Round-Up) has been offered by ELECTRICITY DISTRIBUTORS since 2007. This initiative is approaching market saturation.

- While the OPA and the ELECTRICITY DISTRIBUTORS have reviewed this initiative to assess whether to include other products, appliances have a natural life cycle and the initiative cannot be expected to continually deliver the high level of results in perpetuity. These lower expectations have been taken into account when developing conservation portfolios.
- This initiative now faces some competition from independent retailers and municipalities, as well as scrap metal and junk removal companies.
- Results are very responsive to province wide advertising.

**Identified Challenges:**

- This initiative is approaching market saturation
- Customer participation for this initiative was affected by the fact that LDCs can no longer offer the customer additional incentives, which had been very successful in the past, for participating in the program (i.e. gift cards redeemable at local retailers). LDCs are competing against other junk removal / scrap metal contractors that incentivise customers.

2.2.1.2 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.

Additional detail is available:

- Schedule B-1, Exhibit C  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf) and
- saveONenergy website <https://saveonenergy.ca/Consumer/Programs/EXCHANGE-EVENT.aspx>

**Initiative Activities/Progress:**

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- Promotion in Winter / Spring newsletter (distribution 22,000).
- Promotion on company website after signing the Master Agreement.

**In Market Date:** March 1, 2011 after Welland Hydro-Electric System Corp. signed the Master Agreement.

**Lessons Learned:**

- The spring event had the participation of 3 retailers with 300 – 400 locations across the province. However, the fall 2011 event had no retailer participation, therefore savings budgeted by the ELECTRICITY DISTRIBUTORS did not materialize.
- Evaluation, Measurement, and Verification (EMV) results indicated that the value of savings for retired room AC has dropped.
- The initiative may be achieving market saturation.
- The type of unit turned in is very dependent upon what is promoted by the retailers.

**Identified Challenges:**

- Some ELECTRICITY DISTRIBUTORS may not have many or any participating retailers in their service territory.
- The marketing materials for these events were provided last minute and ELECTRICITY DISTRIBUTORS could not market the events through bill inserts and/or newspaper advertisements.
- The retailers were very slow in confirming LDC participation agreements.
- Certain retailers cancelled their participation for the fall event after some LDCs had already advertised the event.

### 2.2.1.3 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 and ELECTRICITY DISTRIBUTORs are encouraged to convince local contractors to participate in the Initiative.

Additional detail is available:

- Schedule B-1, Exhibit B  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf) and
- saveONenergy website <https://saveonenergy.ca/Consumer/Programs/HVAC-Rebates.aspx>

**Initiative Activities/Progress:**

- Promotion in Winter / Spring newsletter (distribution 22,000).
- Distribution of the saveONenergy for Home brochures through our main office and at community events (approximately 2,000 brochures).
- 13 ads throughout the year in local newspapers (circulation approximately 25,000 per ad).
- Promotion on company website after signing the Master Agreement.

**In Market Date:** March 1, 2011 after Welland Hydro-Electric System Corp. signed the Master Agreement.

**Lessons Learned:**

- Channel engagement is a highly effective method of connecting with customers; however channel partners require timeliness of the Rebate process to maintain a positive relationship between consumers, contractors, the OPA, and the participating ELECTRICITY DISTRIBUTOR.
- There appears to be spillover from non-HRAI contractors who are ineligible for this initiative. There are cases where smaller independent 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 not being attributed to any ELECTRICITY DISTRIBUTOR.

**Identified Challenges:**

- Rebate process has been slow resulting in frustrations for customers and contractors.
- Lack of contractor education on the initiative, resulted in customer registration delays.
- Remove requirement that contractors must apply to be considered a “participating contractor”. The Initiative could be simplified to allow consumers to submit proof of purchase for incentives which detail/verify that they have purchased qualifying equipment. This would potentially

increase participation as all consumers would have access to the incentives and not only those who use a participating contractor.

- Requiring contractors to be involved in the redemption process can result in incentive processing delays as well as reduces participation numbers.
- While this does not appear to be a wide-spread issue, we have received inquiries / complaints from consumers who were being charged a fee by a participating contractor to submit the required information on their behalf for incentives.

#### 2.2.1.4 CONSERVATION INSTANT COUPON BOOKLET 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](http://www.saveoneenergy.ca).

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

**Delivery:** OPA contracts centrally for the distribution of the coupon booklets across Ontario. ELECTRICITY DISTRIBUTOR distributes coupons at local events. The OPA enters into agreements with retailers to honour the coupons.

Additional detail is available:

- Schedule B-1, Exhibit A  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf) and
- saveONenergy website <https://saveonenergy.ca/Consumer/Programs/Coupons.aspx>

**Initiative Activities/Progress:**

- Promotion in Winter / Spring newsletter (distribution 22,000).
- Distribution of the saveONenergy for Home brochures through our main office and at community events (approximately 2,000 brochures).

- Additional booklets were sent as unaddressed mail pieces to all of our residential customers (distribution of approximately 18,000 booklets).
- Promotion on company website after signing the Master Agreement.

**In Market Date:** March 1, 2011 after Welland Hydro-Electric System Corp. signed the Master Agreement.

**Lessons Learned:**

- The downloadable coupons proved to be more successful than the mailed out booklets.
- This Initiative may benefit from an enabler such as a Conservation Card / Loyalty Card to increase customer participation.
- The timeframe for retailer submission of redeemed coupons vary from retailer to retailer. This delays the results reporting, which in turn limits the OPA and ELECTRICITY DISTRIBUTOR abilities to react and respond to initiative performance or changes in consumer behaviour.

**Identified Challenges:**

- Some retailers were not aware about the redemption process (resulting in customers having to wait in separate lines to redeem coupons).
- Bar coding was done incorrectly for a number of LDCs (postal code issue).
- Timing of coupons does not correspond with LDC event promotion. Having coupons available in early January would allow LDCs to better market at tradeshow throughout the year.
- Cumbersome redemption process for retailers.
- Customer receives no real indication on what the savings are for each product.
- The OPA seems reluctant to update coupons to include products LDCs and consumers are requesting (addition of LEDs).

2.2.1.5 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:** Same as the conservation instant coupon booklet initiative

**Delivery:** The OPA enters into arrangements with participating retailers to promote the discounted products, and to post and honour related coupons. ELECTRICITY DISTRIBUTORS also refer retailers to the OPA.

Additional detail is available:

- Schedule B-1, Exhibit C  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf) and
- saveONenergy website <https://saveonenergy.ca/Consumer.aspx>

**Initiative Activities/Progress:**

- Did not actively promote this program.

**In Market Date:** March 1, 2011 after Welland Hydro-Electric System Corp. signed the Master Agreement.

**Lessons Learned:**

- The Product list has changed very little over the past four years.
- Program evolution, including new products (for example, LED lighting) and review of incentive pricing for the coupon initiatives, need to be a regular activity to ensure continued consumer interest.
- 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.

**Identified Challenges:**

- Late marketing of this initiative did not allow LDCs to properly promote the program through newspaper advertisement and bill inserts.

#### 2.2.1.6 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 ELECTRICITY DISTRIBUTORs 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:**

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

**Initiative Activities/Progress:**

- Did not actively promote this program.

**In Market Date:** March 1, 2011 after Welland Hydro-Electric System Corp. signed the Master Agreement.

**Lessons Learned:**

- The availability of retailer and/or ELECTRICITY DISTRIBUTOR 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 ELECTRICITY DISTRIBUTORs.

**Identified Challenges:**

- Welland Hydro-Electric System Corp. does not have the staffing resources available to fulfill the requirements of this Initiative.

### 2.2.1.7 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 ELECTRICITY DISTRIBUTOR and will be supported by OPA air coverage driving builders to their ELECTRICITY DISTRIBUTOR for additional information.

Additional detail is available:

- Schedule B-1, Exhibit C  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20B-2%20New%20Construction%20Program.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-2%20New%20Construction%20Program.pdf) and
- saveONenergy website <https://saveonenergy.ca/Consumer/Programs/New-Residential-Construction.aspx>

**Initiative Activities/Progress:**

- Face-to-face meetings with home builders to create awareness and promote participation in the initiative.
- Promotion on company website after signing the Master Agreement.

**In Market Date:** March 1, 2011 after Welland Hydro-Electric System Corp. signed the Master Agreement.

**Lessons Learned:**

- There were limited (5) participants in the program. Because the online application system is a one to one relationship, this program was only practical for custom builders who were building one home at a time. Tract builders who might build 250 homes in a single phase would have to submit 250 applications to qualify for incentives. This administrative challenge has deterred all tract builders from participating in the program to date.
- Administrative requirements must align with perceived stakeholder payback. Changes are being processed through change management for 2012.

**Identified Challenges:**

- Lengthy application process coupled with limited incentive amounts.
- Payment of incentives to builders directly by the OPA reduces the role and exposure of LDCs.

- Home Builders felt that it was not cost effective to build to EnerGuide 85 or higher (takes too much time and there are additional costs).
- Little incentive for home builders and LDC to promote this program as savings attributed with most of the measures are very small.
- LDCs cannot act as an account representative to assist the home builder in completing the application.
- Payment process for the New Construction Initiative was not finalized until December 2011.

### 2.2.1.8 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). ELECTRICITY DISTRIBUTORS were given the choice to continue to offer the standard load control program (programmable thermostat or switch with a \$25 bill credit) for the first 8 months of 2011 (referred to as *peaksaver*®Extension). After August 2011, the Extension ended and the program (including marketing) ceased until new IHD product were available.

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

**Delivery:** ELECTRICITY DISTRIBUTOR's recruit customers and procure technology

Additional detail is available:

- Schedule B-1, Exhibit C  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/SCHED\\_2011\\_ResDR\\_B\\_3\\_110727%28MJB%29v15\\_redacted.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/SCHED_2011_ResDR_B_3_110727%28MJB%29v15_redacted.pdf) and
- saveONenergy website <https://saveonenergy.ca/Consumer.aspx>

**Initiative Activities/Progress (*peaksaver*®Extension only):**

- Promotion in Winter / Spring newsletter (distribution 22,000).

- Distribution of the saveONenergy for Home brochures through our main office and at community events (approximately 2,000 brochures).
- 52 ads throughout the extension period in local newspapers (circulation approximately 25,000 per ad).
- Promotion on company website.
- Organized a peaksaver sales challenge to Customer Service Reps.

**In Market Date:** In market with peaksaver®Extension from January 1, 2011 until August 31, 2011. Not in market with peaksaverPLUS™.

**Lessons Learned:**

- The schedule for Peaksaver Plus was posted in August 2011, but this did not provide adequate time for product procurement in 2011, and part of 2012. The product 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, ELECTRICITY DISTRIBUTORS could not be in market with the Peaksaver Plus program until 2012.
- Introduction of new technology requires incentives for the development of such technology. Appropriate lead times for ELECTRICITY DISTRIBUTOR 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 ELECTRICITY DISTRIBUTORS attempt to implement the solution in their individual environments.
- Where a provincial solution is not available to all participants, attention to addressing specific ELECTRICITY DISTRIBUTOR concerns is needed.

**Identified Challenges:**

- Welland Hydro-Electric System Corp. was not able to offer peaksaverPLUS™ in 2011 and is unable to comment on challenges faced at this time.

**2.2.2 COMMERCIAL AND INSTITUTIONAL PROGRAM**

**2.2.2.1 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:** ELECTRICITY DISTRIBUTOR delivered.

Additional detail is available:

- Schedule C-2  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20C-2%20ERII%20Initiative.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20C-2%20ERII%20Initiative.pdf) and
- saveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Retrofit-for-Commercial.aspx>

**Initiative Activities/Progress:**

- Hosted workshops to promote the program and create awareness with channel partners as well as large commercial and industrial customers.
- Continual communication with our customers either via phone, email or face-to-face.
- Promotion on company website after signing the Master Agreement.

**In Market Date:** Officially March 1, 2011 (after Welland Hydro-Electric System Corp. signed the Master Agreement), however, we continued to market this Initiative beginning on January 1, 2011.

**Lessons Learned:**

- ERII (previously Equipment Replacement Incentive Program – ERIP) has been offered by ELECTRICITY DISTRIBUTORS for many years. It is a high performing, cost-effective program.
- A major challenge for the ERII program in 2011 was payment delays. The centralized electronic processes were not ready as required by the Master Agreement. The lack of having these automated processes, exasperated by a greater than expected volume of pre-2011 projects completing in 2011, caused considerable payment delays. Based on the lessons learned in the 2011 process, the centralized process review used for 2012 project payment has been streamlined.

- In March 2011, the revised iCON system was launched by the OPA. This is the major online application system implemented to aid the 2011-2014 ERII application process. With system applications of this size and functionality, it was expected that there would be various issues identified at the time of the release, and on-going, to prove that the system was “ready for market.” Unfortunately, the resolution of these issues, with the corresponding time lags and workarounds, was seen to be a barrier to some customer participation in the 2011 program year. In addition, there were also on-going issues and limitations with the back-end CRM system that affected ELECTRICITY DISTRIBUTORS ability to effectively review and approve applications. Some ELECTRICITY DISTRIBUTORS (and their third party service providers) have developed parallel systems to monitor their applications.

**Identified Challenges:**

- EM&V and indemnity clauses in the ERII Participant Agreement are being interpreted as burdensome and difficult to budget for as an eventuality. Participant Agreements are too onerous and lengthy. This can scare away smaller participants. ELECTRICITY DISTRIBUTORS made recommendations to the OPA that they should revise the wording in these agreements.
- The OPA refused to provide clarity regarding initiative eligibility. Instead, they would simply refer back to the section the LDC was asking for clarity on.
- A system to process paper-based applications was not developed and fully mature with the implementation of the new program. This resulted in unreasonable delays in processing and issuing of incentives.
- Proper training for LDCs on worksheets was not provided.
- Handling of requests for waivers was non-existent.
- LDCs experienced challenges with customers having difficulty completing online applications.
- Fundamental problem with customers and service providers understanding eligible measures and level of inconsistency when it comes to the application review process.
- Prescriptive worksheets contained some over-incented measures that provided higher incentive amounts (compared to entering actual data via the engineered worksheets), but fewer demand and energy savings.
- Contractor education needs to be provided to ensure they are communicating information properly to customers regarding available incentives, the application process and eligible measures.

### 2.2.2.2 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 commercial, institutional and agricultural facilities and multi-family buildings, for the purpose of achieving electricity savings 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:**

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

Additional detail is available:

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

**Initiative Activities/Progress:**

- Hired a third party service provider to contact remaining eligible small businesses to promote the program.
- Uptake in the 2011 DIL program was lower than expected as a result of the delayed release of the Master Agreement to ELECTRICITY DISTRIBUTORS. This Initiative has been around for several years, previously known as the Power Savings Blitz, and is reaching market saturation. As a result, Welland Hydro-Electric System Corp. did expect lower participation in 2011 as compared to previous years.

**In Market Date:** March 1, 2011 after Welland Hydro-Electric System Corp. signed the Master Agreement.

**Lessons Learned:**

- The Direct Installed Lighting Initiative is a continuation of the Power Saving Blitz Initiative offered by ELECTRICITY DISTRIBUTORS from 2008-2010. Successful execution of the previous rendition of

this Initiative has resulted in diminished potential for the 2011-2014 Initiative in some ELECTRICITY DISTRIBUTOR territories.

- The inclusion of a standard incentive for additional measures increased project size and drove higher energy and demand savings results.
- The cost of materials has experienced price volatility, reducing the ability / desire of the electrical contractors and has led to a reduction in vendor channel participation to continue participating in the Initiative in some regions.
- Due to backlogs in the payment system, participant incentive payment from the OPA to the ELECTRICITY DISTRIBUTOR, and therefore to the customer and electrical contractors, was commonly and significantly delayed.
- To address these issues, the ELECTRICITY DISTRIBUTORs have been working with the OPA through Change Management to address:
  - extending the target initiative population to include small agricultural customers;
  - increasing the incentive envelope of \$1,000 to \$1,500 to ensure ongoing marketability of the program; and
  - reviewing the eligible measure price list to support contractor participation.

**Identified Challenges:**

- Lack of clarity from OPA surrounding the definition of customer eligibility (two areas- facility and participant).
- Outdated and limited options for certain lighting replacement scenarios.

### 2.2.2.3 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:** ELECTRICITY DISTRIBUTOR delivered.

Additional detail is available:

- Schedule C-6  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20C-6%20Commissioning%20Initiative.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20C-6%20Commissioning%20Initiative.pdf)and
- saveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Existing-Building-Commissioning.aspx>

**Initiative Activities/Progress:**

- Not actively promoted.

**In Market Date:** March 1, 2011 after Welland Hydro-Electric System Corp. signed the Master Agreement.

**Lessons Learned:**

- There was no customer uptake for this Initiative. It is suspected that the scope of the Initiative being limited to space cooling contributed to the lack of participation. Accordingly chilled water systems used for other purposes should be made eligible and considered through Change Management .
- The customer expectation is that the program be expanded to include broader building improvements for a more holistic approach to building re-commissioning.

**Identified Challenges:**

- The limited scope of this Initiative has made it not relevant to our customer base.

#### 2.2.2.4 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 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:** Building modeling, lighting, space cooling, ventilation and other Measures

**Delivery:** ELECTRICITY DISTRIBUTOR delivers to customers and design decision makers.

Additional detail is available:

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

**Initiative Activities/Progress:**

- The delayed release of this program in July 2011 only afforded Welland Hydro-Electric System Corp. with enough time to select and conduct negotiations with our third party service provider.

**In Market Date:** Welland Hydro-Electric System Corp. was unable to begin actively offering this program until January 24, 2012 (the date we executed the third party service provider contract with Enbridge).

**Lessons Learned:**

- This is a continuation of the High Performance New Construction program previously delivered by Enbridge Gas under contract with the OPA (and subcontracted to Union Gas), which ran until December 2010.
- For 2011, new industry participation was limited due to the delays in redesign of certain aspects of the Initiative such as:
  - 2011 prescriptive incentives needed to be aligned with ERII incentives
  - In the cases of delivering large projects (i.e. custom applications), 2011 participation was limited due to 1) building code changes and 2) level of documentation required.

**Identified Challenges:**

- Welland Hydro-Electric System Corp. was not able to offer HPNC in 2011 and is unable to comment on challenges faced at this time.

#### 2.2.2.5 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:** ELECTRICITY DISTRIBUTOR delivered.

Additional detail is available:

- Schedule C-1  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20C-1%20Energy%20Audit%20Initiative.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20C-1%20Energy%20Audit%20Initiative.pdf) and
- saveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Audit-Funding.aspx>

**Initiative Activities/Progress:**

- Promotion of the initiative via ongoing communications with our commercial and institutional customers.

**In Market Date:** March 1, 2011 after Welland Hydro-Electric System Corp. signed the Master Agreement.

**Lessons Learned:**

- Customer uptake in the beginning of 2011 was slow, and increased later in the year. Hence, little if any savings were realized in 2011, but projects are expected for 2012.
- Customers expect a greater connection with other CDM Initiatives as a result of completing the Energy Audit. The Initiative should be reviewed under Change Management for the means to readily incent Participants with Audits in hand to implement other electricity savings Initiatives.

**Identified Challenges:**

- Initiative should allow for energy audits to be conducted on specific measures.

## 2.2.3 INDUSTRIAL PROGRAM

### 2.2.3.1 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 payback

**Targeted End Uses:** Process and systems

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

Additional detail is available:

- Schedule D-1  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20D-1%20Process%20and%20Systems%20Upgrades%20Initiative.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20D-1%20Process%20and%20Systems%20Upgrades%20Initiative.pdf) and
- saveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Process-and-System-Upgrades.aspx>

**Initiative Activities/Progress:**

- Met with all of our large use consumers to promote the program and suggest Initiatives within it that would be beneficial for their particular facilities / operations.
- Secured commitment for a Detailed Engineering Study (not processed by Technical Reviewer until Q1 2012) and received funding approval by the OPA for an Embedded Energy Manager in Q4 2011.

**In Market Date:** Welland Hydro-Electric System Corp. was actively promoting the program beginning in late Q2 2011. Unfortunately, the delay in the OPA selecting a Technical Reviewer did not allow any

ELECTRICITY DISTRIBUTORS the ability to officially approve incentives for most Initiatives under the PSUI suite until Q4 2011.

**Lessons Learned:**

- The PSUI program targets large customers that are undertaking large capital projects. There is typically a long sales cycle to sell these projects, and then a long project development cycle. As such, results from PSUI did not appear in 2011. Limited results are expected to appear in 2012. The majority of the results are expected in 2013-2014, with a much reduced benefit to cumulative energy savings targets.
- Steps are being taken in the 2012 change management process to simplify and streamline the micro-project application process and to allow smaller projects to be directed to the ERII stream.
- Given the size of the projects involved, the contract required for PSUI is a lengthy and complicated document. Attempts are being made through change management in 2012 to simplify the document while still protecting the ratepayer.
- With the considerable customer interest in on-site Load Displacement projects, the Initiative should be reviewed to ensure that these projects may be accepted as part of the PSUI Initiative.

**Identified Challenges:**

- Most of the Initiatives under PSUI rely on approval from the Technical Reviewer. This resource was not contracted by the OPA until November, 2011. This delay has made it extremely difficult to achieve any savings in 2011, and as a result, ELECTRICITY DISTRIBUTORS will lose out on a full year of potential cumulative energy savings from PSUI projects.
- The contract length for PSUI Initiatives is too long and filled with lengthy and complicated provisions. The contract is a significant barrier to customer participation, especially for small industrial, municipal, or institutional customers who do not have access to in-house legal services.

### 2.2.3.2 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 sustain 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:**

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

Additional detail is available:

- Schedule D-2  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20D-2%20Monitoring%20and%20Targeting%20Initiative.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20D-2%20Monitoring%20and%20Targeting%20Initiative.pdf)  
and
- saveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Process-and-System-Upgrades/Monitoring-and-Targeting.aspx>

**Initiative Activities/Progress:**

- Met with all of our large use consumers to promote the program and suggest Initiatives within it that would be beneficial for their particular facilities / operations.

**In Market Date:** Welland Hydro-Electric System Corp. was actively promoting the program beginning in late Q2 2011. Unfortunately, the delay in the OPA selecting a Technical Reviewer did not allow any ELECTRICITY DISTRIBUTORS the ability to officially approve any incentives for most Initiatives under the PSUI suite until Q4 2011.

**Lessons Learned:**

- The M&T initiative was originally 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. Through the change management process in 2012, changes are being made to both the M&T schedule and ERII to allow smaller facilities to employ M&T systems.

**Identified Challenges:**

- Most of the Initiatives under PSUI rely on approval from the Technical Reviewer. This resource was not contracted by the OPA until November, 2011. This delay has made it almost impossible to achieve any savings in 2011, and as a result, LDCs will lose out on a full year of potential cumulative energy savings from PSUI projects.
- The contract length for PSUI Initiatives is too long and filled with lengthy and complicated provisions. The contract is a significant barrier to customer participation, especially for small industrial, municipal, or institutional customers who do not have access to in-house legal services.

### 2.2.3.3 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 ELECTRICITY DISTRIBUTORs 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 ELECTRICITY DISTRIBUTOR. 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. ELECTRICITY DISTRIBUTORs receive funding of up to \$120,000 for a Roving Energy Manager plus \$8,000 for expenses.

**Targeted End Uses:**

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

Additional detail is available:

- Schedule D-3  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20D-3%20Energy%20Manager%20Initiative%202011-2014.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20D-3%20Energy%20Manager%20Initiative%202011-2014.pdf) and
- saveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Process-and-System-Upgrades/Embedded-Energy-Manager.aspx>

**Initiative Activities/Progress:**

- Met with all of our large use consumers to promote the program and suggest Initiatives within it that would be beneficial for their particular facilities / operations.
- Secured funding approval for an Embedded Energy Manager in Q4 2011.

**In Market Date:** Welland Hydro-Electric System Corp. was actively promoting the program beginning in late Q2 2011. Unfortunately, the delay in the OPA selecting a Technical Reviewer did not allow any ELECTRICITY DISTRIBUTORs the ability to officially approve any incentives for most Initiatives under the PSUI suite until Q4 2011.

**Lessons Learned:**

- The energy managers have proven to be a popular resource.
- At the beginning, it took longer than expected to set up the energy manager application process.

- Some ELECTRICITY DISTRIBUTORs are reporting difficulties in hiring capable Roving Energy Managers (REM).
- ELECTRICITY DISTRIBUTORs that are too small to qualify for their own REM, are teaming up with other utilities to hire an REM.

**Identified Challenges:**

- Most of the Initiatives under PSUI rely on approval from the Technical Reviewer, however, the EEM Initiative does give the ELECTRICITY DISTRIBUTOR the choice of who can approve funding for an EEM applications (the OPA or Technical Reviewer). Since the Technical Reviewer was not contracted by the OPA until November, 2011, Welland Hydro-Electric System Corp. selected the OPA as the approving body for our largest customer’s EEM application.
- The contract length for PSUI Initiatives is too long and filled with lengthy and complicated provisions. The contract is a significant barrier to customer participation, especially for small industrial, municipal, or institutional customers who do not have access to in-house legal services.

2.2.3.4 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 ELECTRICITY DISTRIBUTORs the opportunity to access funding for the employment of a KAM in order to support them in fulfilling their obligations related to the PSUI. 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.

**Description:**

**Targeted End Uses:**

**Delivery:**

Additional detail is available:

- ScheduleD-4  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/projects\\_programs/pdfs/PSUI%20Initiative%20Schedule%20D-4.Key%20Account%20Manager.20110322.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/projects_programs/pdfs/PSUI%20Initiative%20Schedule%20D-4.Key%20Account%20Manager.20110322.pdf)

**Initiative Activities/Progress:**

- Welland Hydro-Electric System Corp. joined together with other ELECTRICITY DISTRIBUTORs on an application for a shared KAM resource. This application was approved at the end of Q2 2011.

**In Market Date:** July 2011.

**Lessons Learned:**

- Customers appreciate dealing with a single contact to interface with an ELECTRICITY DISTRIBUTOR, a resource that has both the technical and business background who can communicate easily with the customer and the ELECTRICITY DISTRIBUTOR. Finding this type of skill set has been difficult resulting in longer lead times to acquire the right resource.

**Identified Challenges:**

- Many LDCs do not have the required number of large use customers needed to be eligible for this very important resource. Welland Hydro-Electric System Corp. was fortunate to be given the opportunity to share a KAM with other ELECTRICITY DISTRIBUTORs.

### 2.2.3.5 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) payment for service to DR3 participants to compensate them for making available electricity demand response during a demand response 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 energy payments for the actual energy 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:**

**Delivery:** DR3 is delivered by Demand Response Providers, under contract to the OPA. The OPA administers contracts with all DRPs and Direct Participants that provide in excess of 5 MW of demand response capacity. OPA provides administration including settlement, measurement and verification, and dispatch. ELECTRICITY DISTRIBUTORs are responsible for outreach and marketing efforts.

Additional detail is available:

- Schedule D-6  
[http://www.powerauthority.on.ca/sites/default/files/new\\_files/industry\\_stakeholders/current\\_electricity\\_contracts/pdfs/Schedule%20D-6%20Demand%20Response%203%202011-2014.pdf](http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20D-6%20Demand%20Response%203%202011-2014.pdf)  
and
- saveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Demand-Response/Demand-Response-3.aspx>

**Initiative Activities/Progress:**

- Welland Hydro-Electric System Corp.'s service territory was upgraded from a discount zone to a standard zone in 2011. This upgrade almost doubled incentive amounts for new DR3 participants making the Initiative easier to market and more appealing to eligible consumers.

**In Market Date:** March 1, 2011 after Welland Hydro-Electric System Corp. signed the Master Agreement.

**Lessons Learned:**

- Customer data is not provided by the OPA on an individual customer basis due to contractual requirements with the aggregators. This limits ELECTRICITY DISTRIBUTORS ability to effectively market to prospective participants. ELECTRICITY DISTRIBUTORS are now approaching the Aggregators individually and working to develop agreements in order to identify potential customers of this initiative.

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

**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 uses based on results of audit

**Delivery:** ELECTRICITY DISTRIBUTOR delivered.

Additional detail is available:

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

**Initiative Activities/Progress:**

- Welland Hydro-Electric System Corp. was one of the first ELECTRICITY DISTRIBUTORS in market offering this Initiative.
- Distribution of the Home Assistance Program (HAP) brochures through our main office and at community events (approximately 250 brochures).
- 13 ads throughout the year in local newspapers (circulation approximately 25,000 per ad).
- Promotion on company website beginning in September 2011.
- Attended 3 community events to promote HAP.
- Issued 1 press release (circulation approximately 25,000).
- Targeted bill insert (approximately 7,000 inserts).
- Unaddressed mail pieces (approximately 12,000).

**In Market Date:** September 2011.

**Lessons Learned:**

- Difficulty identifying eligible customers.
- This Initiative Schedule was finalized later (May 2011) than the rest of the OPA Initiatives and in 2011 only 2 ELECTRICITY DISTRIBUTORS were in market.
- Required training by OPA not offered until September 2011.
- Centralized payment processes were not developed in 2011, but were in place mid-2012. This resulted in some ELECTRICITY DISTRIBUTORS delaying their launch to market, or for some pulling out of the market until the payment processes were completed.
- The financial scope, complexity, and customer privacy requirements of this Initiative resulted in a lengthy procurement process. Some ELECTRICITY DISTRIBUTORS must adhere to very transparent procurement processes which meant that delivery of the program did not start in 2011.

## 2.2.5 PRE-2011 PROGRAMS COMPLETED IN 2011

### 2.2.5.1 ELECTRICITY RETROFIT INCENTIVE PROGRAM

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

**Initiative Frequency:** Year Round

**Objective:** Refer to section 2.2.2.1

**Description:** Refer to section 2.2.2.1

**Targeted End Uses:** Refer to section 2.2.2.1

**Delivery:** ELECTRICITY DISTRIBUTOR delivered.

**Initiative Activities/Progress:**

- Final processing of pre-approved 2010 ERIP projects that commenced in 2010, but were not completed until sometime in 2011.

**In Market Date:** Not applicable.

**Lessons Learned:**

- Not applicable.

**Identified Challenges:**

- Unreasonable delays in payment processing by the OPA resulted in a tremendous amount of frustration felt by participants. Ultimately, this type of unpleasant experience negatively impacts the likelihood of future participation in initiatives offered by ELECTRICITY DISTRIBUTORS.

### 2.2.5.2 HIGH PERFORMANCE NEW CONSTRUCTION

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

**Initiative Frequency:** Year round

**Objective:** Refer to section 2.2.2.5

**Description:** Refer to section 2.2.2.5

**Targeted End Uses:** Refer to section 2.2.2.5

**Delivery:** GAS DISTRIBUTOR delivered.

**Initiative Activities/Progress:**

- Not applicable.

**In Market Date:** Not applicable

**Lessons Learned:**

- Not applicable.

**Identified Challenges:**

- Not applicable.

### 2.2.5.3 TORONTO COMPREHENSIVE INITIATIVE

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

**Initiative Frequency:** Year round

**Objective:**

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

**Targeted End Uses:**

**Delivery:**

**Initiative Activities/Progress:**

- Not applicable.

**In Market Date:** Not applicable

**Lessons Learned:**

- Not applicable.

**Identified Challenges:**

- Not applicable.

### 2.2.5.4 MULTIFAMILY ENERGY EFFICIENCY REBATES

**Target Customer Type(s):**

**Initiative Frequency:** Year round

**Objective:**

**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 ELECTRICITY DISTRIBUTOR, all incentives through MEER are paid through the contracted partner (i.e. GreenSaver).

**Targeted End Uses:**

**Delivery:**

Additional detail is available:

**Initiative Activities/Progress:**

- No activity in Welland Hydro-Electric Corp.’s service territory.

**In Market Date:** Not applicable

**Lessons Learned:**

- Not applicable.

**Identified Challenges:**

- Not applicable.

## 2.2.5.5 DATA CENTRE INCENTIVE PROGRAM

**Target Customer Type(s):**

**Initiative Frequency:** Year round

**Objective:**

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

**Targeted End Uses:**

**Delivery:**

**Initiative Activities/Progress:**

- Not applicable.

**In Market Date:** Not applicable

**Lessons Learned:**

- Not applicable.

**Identified Challenges:**

- Not applicable.

#### 2.2.5.6 ENWIN GREEN SUITES

**Target Customer Type(s):**

**Initiative Frequency:** Year round

**Objective:**

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

**Targeted End Uses:**

**Delivery:**

**Initiative Activities/Progress:**

- Not applicable.

**In Market Date:** Not applicable

**Lessons Learned:**

- Not applicable.

**Identified Challenges:**

- Not applicable.

## 2.3 Participation

Table 1: Participation

#	Initiative	Activity Unit	Uptake/ Participation Units
<b>Consumer Program</b>			
1	Appliance Retirement	Appliances	237
2	Appliance Exchange	Appliances	24
3	HVAC Incentives	Equipment	495
4	Conservation Instant Coupon Booklet	Coupons	1,980
5	Bi-Annual Retailer Event	Coupons	3,376
6	Retailer Co-op	Items	0
7	<i>peaksaver</i> <sup>®</sup> extension	Devices	106
8	Midstream Electronics	Items	N/A
9	Midstream Pool Equipment	Items	N/A
10	Residential New Construction	Houses	0
<b>Business Program</b>			
11	Equipment Replacement Incentive (ERII)	Projects	12
12	Direct Installed Lighting	Projects	84
13	Direct Service Space Cooling	Equipment	N/A
14	Building Commissioning	Buildings	0
15	New Construction	Buildings	0
16	Energy Audit	Audits	0
17	<i>peaksaver</i> <sup>®</sup> extension	Devices	0
18	Demand Response 1	Facilities	0
19	Demand Response 3	Facilities	1
<b>Industrial Program</b>			
20	Process & System Upgrades*	Projects	0
	a) Preliminary Engineering Study	Studies	0

	b) Detailed Engineering Study	Studies	0
	c) Project Incentive	Projects	0
21	Monitoring & Targeting	Projects	0
22	Energy Manager	Managers	1 – approval of funding received
23	Equipment Replacement Incentive (ERII)	Projects	1
24	Demand Response 1	Facilities	0
25	Demand Response 3	Facilities	0
<b>Home Assistance Program</b>			
26	Home Assistance Program	Homes	36
<b>Pre 2011 Programs Completed in 2011</b>			
27	Electricity Retrofit Incentive Program	Projects	7
28	High Performance New Construction	Projects	0
29	Toronto Comprehensive	Projects	N/A
30	Multifamily Energy Efficiency Rebates	Projects	0
31	Data Centre Incentive Program	Projects	N/A
32	EnWin Green Suites	Projects	N/A
<b>Enabling Initiatives</b>			
33	Home Energy Assessment Tool	Units	N/A

## 2.4 Spending

Table 2: Spending

#	Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
<b>Consumer Program</b>						
1	Appliance Retirement	5,171.58	0	0	0	<b>5,171.58</b>
2	Appliance Exchange	222.25	0	0	0	<b>222.25</b>
3	HVAC Incentives	1,175.50	0	0	0	<b>1,175.50</b>
4	Conservation Instant Coupon Booklet	0	0	0	0	<b>0</b>
5	Bi-Annual Retailer Event	0	0	0	0	<b>0</b>
6	Retailer Co-op	0	0	0	0	<b>0</b>
7	<i>peaksaver</i> ®extension	41,273.73	39,990	2,300	0	<b>83,563.73</b>
10	Residential New Construction	1,090.63	0	0	0	<b>1,090.63</b>
<b>Business Program</b>						
11	Equipment Replacement Incentive	29,597.35	0	53,133.29	0	<b>82,730.64</b>
12	Direct Installed Lighting	4,800.30	29,520.00	112,748.25	0	<b>147,068.55</b>
14	Building Commissioning	0	0	0	0	<b>0</b>
15	New Construction	547.00	0	0	0	<b>547.00</b>
16	Energy Audit	1,226.96	0	0	0	<b>1,226.96</b>
17	<i>peaksaver</i> ®extension	0	0	0	0	<b>0</b>
19	Demand Response 3	0	0	0	0	<b>0</b>
<b>Industrial Program</b>						
20	Process & System Upgrades	0	0	0	0	<b>0</b>
	a) Preliminary Engineering Study	0	0	0	0	<b>0</b>
	b) Detailed Engineering Study	1,529.03	0	0	0	<b>1,529.03</b>
	c) Project Incentive	0	0	0	0	<b>0</b>
21	Monitoring & Targeting	0	0	0	0	<b>0</b>

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22	Energy Manager	2,269.82	0	0	0	<b>2,269.82</b>
23	Equipment Replacement Incentive	0	0	0	0	<b>0</b>
25	Demand Response 3	164.26	0	0	0	<b>164.26</b>
<b>Home Assistance Program</b>						
26	Home Assistance Program	7,530.11	6,400.00	1,759.50	0	<b>15,689.61</b>
<b>Pre 2011 Programs Completed in 2011</b>						
27	Electricity Retrofit Incentive Program	0	5,800.00	330,953.29	0	336,753.29
28	High Performance New Construction	0	0	0	0	0
30	Multifamily Energy Efficiency Rebates	0	0	0	0	0
<b>TOTAL OPA PROGRAMS</b>		<b>96,598.53</b>	<b>81,710.00</b>	<b>500,894.33</b>	<b>0</b>	<b>679,202.86</b>

Describe and detail the allocation of funds, both cumulatively and in the one year period applicable to the Annual Report, on each of the following OPA-Contracted Province-Wide CDM Programs that over the course of 2011 were not in market.

Table 2a: Allocation of PAB funding for programs not in market

#	Initiative	Program Administration Budget (PAB)
<b>Initiatives Not In Market</b>		
8	Midstream Electronics	0
9	Midstream Pool Equipment	0
13	Demand Service Space Cooling	94.50
18	Demand Response 1 (Commercial)	0
19	Demand Response 1 (Industrial)	0
33	Home Energy Audit Tool	0
<b>TOTAL Province-wide CDM PROGRAMS Not In Market</b>		94.50

## 2.5 Evaluation

### 2.5.1 EVALUATION FINDINGS

Table 3: Evaluation Findings

Consumer Program							
Initiative		Realization Ratio		Net-To-Gross Ratio		OPA Key Evaluation Findings (2011)	LDC Comments (optional)
		Demand	Energy	Demand	Energy		
1	Appliance Retirement	100%	100%	50%	51%	See Table 3a	
2	Appliance Exchange	100%	100%	52%	52%	See Table 3a	
3	HVAC Incentives	100%	100%	61%	60%	See Table 3a	
4	Conservation Instant Coupon Booklet	100%	100%	114%	111%	See Table 3a	
5	Bi-Annual Retailer Event	100%	100%	113%	110%	See Table 3a	
6	Retailer Co-op	-	-	-	-	See Table 3a	
7	<i>peaksaver</i> <sup>®</sup> extension	0%	0%	-	-	See Table 3a	
8	Midstream Electronics	N/A	N/A	N/A	N/A	Not in market	

9	Midstream Pool Equipment	N/A	N/A	N/A	N/A	Not in market	
10	Residential New Construction	-	-	-	-	See Table 3a	
<b>Business Program</b>							
Initiative		Realization Ratio		Net-To-Gross Ratio		OPA Key Evaluation Findings (2011)	LDC Comments (optional)
		Demand	Energy	Demand	Energy		
11	Equipment Replacement Incentive	92%	128%	74%	77%	See Table 3a	
12	Direct Installed Lighting	108%	90%	93%	93%	See Table 3a	.
13	Direct Service Space Cooling	N/A	N/A	N/A	N/A	Not in market	
14	Building Commissioning	-	-	-	-	See Table 3a	
15	New Construction	-	-	-	-	See Table 3a	
16	Energy Audit	-	-	-	-	See Table 3a	
17	<i>peaksaver</i> <sup>®</sup> extension	-	-	-	-	See Table 3a	
18	Demand Response 1	-	-	-	-	See Table 3a	

19	Demand Response 3	76%	100%	N/A	N/A	See Table 3a	
<b>Industrial Program</b>							
Initiative		Realization Ratio		Net-To-Gross Ratio		OPA Key Evaluation Findings (2011)	LDC Comments (optional)
		Demand	Energy	Demand	Energy		
20	Process & System Upgrades	-	-	-	-	See Table 3a	
21	Monitoring & Targeting	-	-	-	-	See Table 3a	
22	Energy Manager	N/A	N/A	N/A	N/A	Not in market	
23	Retrofit (Industrial Buildings)	93%	135%	75%	76%	See Table 3a	
24	Demand Response 1	-	-	-	-	See Table 3a	
25	Demand Response 3	84%	100%	N/A	N/A	See Table 3a	
<b>Home Assistance Program</b>							
Initiative		Realization Ratio		Net-To-Gross Ratio		OPA Key Evaluation Findings (2011)	LDC Comments (optional)
		Demand	Energy	Demand	Energy		
26	Home Assistance Program	100%	100%	70%	70%	See Table 3a	*See comment below

\* Welland Hydro-Electric System Corp. believes that the Net to Gross ratio is too low considering the target audience of the Home Assistance Program. We would expect there to be very little, if any, discounting of savings.

**Table 3a: OPA Key Evaluation Findings**

#	Initiative	Evaluation Findings
<b>Consumer Program</b>		
1	Appliance Retirement	<ul style="list-style-type: none"> <li>* Overall participation continues to decline year over year</li> <li>* Participation declined 17% from 2010 (from over 67,000 units in 2010 to over 56,000 units in 2011)</li> <li>* 97% of net resource savings achieved through the home pick-up stream</li> <li>* Measure Breakdown: 66% refrigerators, 30% freezers, 4% dehumidifiers and window air conditioners</li> <li>* 3% of net resource savings achieved through the Retailer pick-up stream</li> <li>* Measure Breakdown: 90% refrigerators, 10% freezers</li> <li>* Net-to-Gross ratio for the initiative was 50%</li> <li>* Measure-level free ridership ranges from 82% for the retailer pick-up stream to 49% for the home pick-up stream</li> <li>* Measure-level spillover ranges from 3.7% for the retailer pick-up stream to 1.7% for the home pick-up stream</li> </ul>
2	Appliance Exchange	<ul style="list-style-type: none"> <li>* Overall eligible units exchanged declined by 36% from 2010 (from over 5,700 units in 2010 to over 3,600 units in 2011)</li> <li>* Measure Breakdown: 75% window air conditioners, 25% dehumidifiers</li> <li>* Dehumidifiers and window air conditioners contributed almost equally to the net energy savings achieved</li> <li>* Dehumidifiers provide more than three times the energy savings per unit than window air conditioners</li> <li>* Window air conditioners contributed to 64% of the net peak demand savings achieved</li> <li>* Approximately 96% of consumers reported having replaced their exchanged units (as opposed to retiring the unit)</li> <li>* Net-to-Gross ratio for the initiative is consistent with previous evaluations (51.5%)</li> </ul>

3	HVAC Incentives	<ul style="list-style-type: none"> <li>* Total air conditioner and furnace installations increased by 14% (from over 95,800 units in 2010 to over 111,500 units in 2011)</li> <li>* Measure Breakdown: 64% furnaces, 10% tier 1 air conditioners (SEER 14.5) and 26% tier 2 air conditioners (SEER 15)</li> <li>* Measure breakdown did not change from 2010 to 2011</li> <li>* The HVAC Incentives initiative continues to deliver the majority of both the energy (45%) and demand (83%) savings in the consumer program</li> <li>* Furnaces accounted for over 91% of energy savings achieved for this initiative</li> <li>* Net-to-Gross ratio for the initiative was 17% higher than 2010 (from 43% in 2010 to 60% in 2011)</li> <li>* Increase due in part to the removal of programmable thermostats from the program, and an increase in the net-to-gross ratio for both Furnaces and Tier 2 air conditioners (SEER 15)</li> </ul>
4	Conservation Instant Coupon Booklet	<ul style="list-style-type: none"> <li>* Customers redeemed nearly 210,000 coupons, translating to nearly 560,000 products</li> <li>* Majority of coupons redeemed were downloadable (~40%) or ELECTRICITY DISTRIBUTOR-branded (~35%)</li> <li>* Majority of coupons redeemed were for multi-packs of standard spiral CFLs (37%), followed by multi-packs of specialty CFLs (17%)</li> <li>* Per unit savings estimates and net-to-gross ratios for 2011 are based on a weighted average of 2009 and 2010 evaluation findings</li> <li>* Careful attention in the 2012 evaluation will be made for standard CFLs since it is believed that the market has largely been transformed</li> <li>* Customers redeemed nearly 370,000 coupons, translating to over 870,000 products</li> <li>* Majority of coupons redeemed were for multi-packs of standard spiral CFLs (49%), followed by multi-packs of specialty CFLs (16%)</li> </ul>
5	Bi-Annual Retailer Event	<ul style="list-style-type: none"> <li>* Per unit savings estimates and net-to-gross ratios for 2011 are based on a weighted average of 2009 and 2010 evaluation findings</li> <li>* Standard CFLs and heavy duty outdoor timers were reintroduced to the initiative in 2011 and contributed more than 64% of the initiative's 2011 net annual energy savings</li> </ul>

		<ul style="list-style-type: none"> <li>* While the volume of coupons redeemed for heavy duty outdoor timers was relatively small (less than 1%), the measure accounted for 10% of net annual savings due to high per unit savings</li> <li>* Careful attention in the 2012 evaluation will be made for standard CFLs since it is believed that the market has largely been transformed.</li> </ul>
6	Retailer Co-op	<ul style="list-style-type: none"> <li>* Initiative was not evaluated in 2011 due to low uptake. Verified Bi-Annual Retailer Event per unit assumptions and free-ridership rates were used to calculate net resource savings</li> </ul>
7	Residential Demand Response	<ul style="list-style-type: none"> <li>* Approximately 20,000 new devices were installed in 2011</li> <li>* 99% of the new devices enrolled controlled residential central AC (CAC)</li> <li>* 2011 only saw 1 atypical event (in both weather and timing) that had limited participation across the province</li> <li>* The ex ante impact developed through the 2009/2010 evaluations was maintained for 2011; residential CAC: 0.56 kW/device, commercial CAC: 0.64 kW/device, and Electric Water Heaters: 0.30 kW/device</li> </ul>
10	New Construction Initiative	<ul style="list-style-type: none"> <li>* Initiative was not evaluated in 2011 due to limited uptake</li> <li>* Business case assumptions were used to calculate savings</li> </ul>
<b>Business Program</b>		
11	Efficiency: Equipment Replacement	<ul style="list-style-type: none"> <li>* Gross verified energy savings were boosted by lighting projects in the prescriptive and custom measure tracks</li> <li>* Lighting projects overall were determined to have a realization rate of 112%; 116% when including interactive energy changes <ul style="list-style-type: none"> <li>* On average, the evaluation found high realization rates as a result of both longer operating hours and larger wattage reductions than initial assumptions</li> <li>* Low realization rates for engineered lighting projects due to overstated operating hour assumptions</li> </ul> </li> <li>* Custom non-lighting projects suffered from process issues such as: the absence of required M&amp;V plans, the use of inappropriate assumptions, and the lack of adherence to the M&amp;V plan</li> <li>* The final realization rate for summer peak demand was 94%</li> </ul>

		<ul style="list-style-type: none"> <li>* 84% was a result of different methodologies used to calculate peak demand savings</li> <li>* 10% due to the benefits from reduced air conditioning load in lighting retrofits</li> <li>* Overall net-to-gross ratios in the low 70's represent an improvement over the 2009 and 2010 ERIP program where net-to-gross ratios were in the low 60's and low 50's, respectively. Strict eligibility requirements and improvements in the pre-approval process contributed to the improvement in net-to-gross ratios</li> </ul>
12	Direct Installed Lighting	<ul style="list-style-type: none"> <li>* Though overall performance is above expectations, participation continues to decline year over year as the initiative reaches maturity</li> <li>* 70% of province-wide resource savings persist to 2014</li> <li>* Over 35% of the projects for 2011 included at least one CFL measure</li> <li>* Resource savings from CFLs in the commercial sector only persist for the industry standard of 3 years</li> <li>* Since 2009 the overall realization rate for this program has improved</li> <li>* 2011 evaluation recorded the highest energy realization rate to date at 89.5%</li> <li>* The hours of use values were held constant from the 2010 evaluation and continue to be the main driver of energy realization rate</li> <li>* Lights installed in "as needed" areas (e.g., bathrooms, storage areas) were determined to have very low realization rates due to the difference in actual energy saved vs. reported savings</li> </ul>
14	Existing Building Commissioning Incentive	<ul style="list-style-type: none"> <li>* Initiative was not evaluated in 2011, no completed projects in 2011</li> </ul>
15	New Construction and Major Renovation Initiative	<ul style="list-style-type: none"> <li>* Initiative was not evaluated in 2011 due to low uptake</li> </ul> <p>Assumptions used are consistent with preliminary reporting based on the 2010 Evaluation findings and consultation with the C&amp;I Work Group (100% realization rate and 50% net-to-gross ratio)</p>

16	Energy Audit	<ul style="list-style-type: none"> <li>* The evaluation is ongoing. The sample size for 2011 was too small to draw reliable conclusions.</li> </ul>
17	Commercial Demand Response (part of the Residential program schedule)	<ul style="list-style-type: none"> <li>* See residential demand response (#7)</li> </ul>
19	Demand Response 3 (part of the Industrial program schedule)	<ul style="list-style-type: none"> <li>* See Demand Response 3 (#20)</li> </ul>
<b>Industrial Program</b>		
20	Process & System Upgrades	<ul style="list-style-type: none"> <li>* Initiative was not evaluated in 2011, no completed projects in 2011</li> </ul>
21	Monitoring & Targeting	n/a
22	Energy Manager	n/a
23	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	<ul style="list-style-type: none"> <li>* See Efficiency: Equipment Replacement (#9)</li> </ul>
25	Demand Response 3	<ul style="list-style-type: none"> <li>* Program performance for Tier 1 customers increased with DR-3 participants providing 75% of contracted MW for both sectors</li> <li>* Industrial customers outperform commercial customers by provide 84% and 76% of contracted MW, respectively</li> <li>* Program continues to diversify but still remains heavily concentrated with less than 5% of the contributors accounting for the majority (~60%) of the load reductions.</li> <li>* By increasing the number of contributors in each settlement account and implementation of the new baseline methodology the performance of the program is expected to increase</li> </ul>

Home Assistance Program		
26	Home Assistance Program	<ul style="list-style-type: none"> <li>* Initiative was not evaluated in 2011 due to low uptake</li> <li>* Business Case assumptions were used to calculate savings</li> </ul>
Pre-2011 Programs completed in 2011		
27	Electricity Retrofit Incentive Program	<ul style="list-style-type: none"> <li>* Initiative was not evaluated</li> <li>* Net-to-Gross ratios used are consistent with the 2010 evaluation findings (multifamily buildings 99% realization rate and 62% net-to-gross ratio and C&amp;I buildings 77% realization rate and 52% net-to-gross ratio)</li> </ul>
28	High Performance New Construction	<ul style="list-style-type: none"> <li>* Initiative was not evaluated</li> <li>* Net-to-Gross ratios used are consistent with the 2010 evaluation findings (realization rate of 100% and net-to-gross ratio of 50%)</li> </ul>
29	Toronto Comprehensive	<ul style="list-style-type: none"> <li>* Initiative was not evaluated</li> <li>* Net-to-Gross ratios used are consistent with the 2010 evaluation findings</li> </ul>
30	Multifamily Energy Efficiency Rebates	<ul style="list-style-type: none"> <li>* Initiative was not evaluated</li> <li>* Net-to-Gross ratios used are consistent with the 2010 evaluation findings</li> </ul>
31	Data Centre Incentive Program	<ul style="list-style-type: none"> <li>* Initiative was not evaluated</li> </ul>
32	EnWin Green Suites	<ul style="list-style-type: none"> <li>* Initiative was not evaluated</li> </ul>

## 2.5.2 EVALUATION RESULTS

Table 4: Evaluation Results

#	Initiative	Gross Savings		Net Savings		Contribution to Targets	
		Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Program-to-Date: Net Annual Peak Demand Savings (kW) in 2014	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (kWh)
<b>Consumer Program</b>							
1	Appliance Retirement	29	195,941	14	97,173	14	388,489
2	Appliance Exchange	5	6,379	3	3,288	1	11,938
3	HVAC Incentives	217	391,280	131	234,438	131	937,992
4	Conservation Instant Coupon Booklet	4	67,497	5	74,370	5	297,480
5	Bi-Annual Retailer Event	6	104,339	7	113,991	7	455,964
6	Retailer Co-op	0	0	0	0	0	0
7	<i>peaksaver</i> <sup>®</sup> extension	59	0	59	0	0	0
8	Midstream Electronics	N/A	N/A	N/A	N/A	N/A	N/A
9	Midstream Pool Equipment	N/A	N/A	N/A	N/A	N/A	N/A
10	Residential New	0	0	0	0	0	0

	Construction						
<b>Business Program</b>							
11	Retrofit	44	270,257	32	207,423	32	829,693
12	Direct Installed Lighting	102	307,140	109	285,191	67	1,008,692
13	Direct Service Space Cooling	N/A	N/A	N/A	N/A	N/A	N/A
14	Building Commissioning	0	0	0	0	0	0
15	New Construction	0	0	0	0	0	0
16	Energy Audit	0	0	0	0	0	0
17	<i>peaksaver</i> <sup>®</sup> extension	0	0	0	0	0	0
18	Demand Response 1	0	0	0	0	0	0
19	Demand Response 3	54	1,599	41	1,599	0	1,599
<b>Industrial Program</b>							
20	Process & System Upgrades	0	0	0	0	0	0
21	Monitoring & Targeting	0	0	0	0	0	0
22	Energy Manager	0	0	0	0	0	0
23	Industrial Electricity Retrofit	8	55,974	6	42,733	6	170,931

24	Demand Response 1	0	0	0	0	0	0
25	Demand Response 3	0	0	0	0	0	0
<b>Home Assistance Program</b>							
26	Home Assistance Program	3	43,067	2	30,147	2	120,586
<b>Pre-2011 Programs Completed in 2011</b>							
27	Electricity Retrofit Incentive Program	310*	1,783,054*	161*	927,188*	161*	3,708,753*
28	High Performance New Construction	0	2,352	0	1,176	0	4,704
29	Toronto Comprehensive	N/A	N/A	N/A	N/A	N/A	N/A
30	Multifamily Energy Efficiency Rebates	0	0	0	0	0	0
31	Data Centre Incentive Program	N/A	N/A	N/A	N/A	N/A	N/A
32	EnWin Green Suites	N/A	N/A	N/A	N/A	N/A	N/A
<b>Enabling Initiatives</b>							
33	Home Energy Assessment Tool	N/A	N/A	N/A	N/A	N/A	N/A

\* - these totals do not include two (2) Pre-2011 Electricity Replacement Incentive Program projects which are currently under review by the OPA. The applicable demand and energy savings associated with these 2 projects will be included in our 2012 Annual Report

Table 5: Summarized Program Results

Program	Gross Savings		Net Savings		Contribution to Targets	
	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Program-to-Date: Net Annual Peak Demand Savings (kW) in 2014	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (kWh)
Consumer Program Total	320	765,437	218	523,319	157	2,091,863
Business Program Total	199	578,995	182	494,214	100	1,839,984
Industrial Program Total	8	55,974	6	42,733	6	170,931
Home Assistance Program Total	3	43,067	2	30,147	2	120,586
Pre-2011 Programs completed in 2011 Total	311*	1,785,406*	162*	928,364*	162*	3,713,456*
Enabling Initiatives Total	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total OPA Contracted Province-Wide CDM Programs</b>	<b>841*</b>	<b>3,228,879*</b>	<b>570*</b>	<b>2,018,776*</b>	<b>427*</b>	<b>7,936,820*</b>

\* - these totals do not include two (2) Pre-2011 Electricity Replacement Incentive Program projects which are currently under review by the OPA. The applicable demand and energy savings associated with these 2 projects will be included in our 2012 Annual Report

## 2.6 Additional Comments

Welland Hydro-Electric System Corp. has included our comments under the subheading “Identified Challenges” within each Initiative contained in Section 2.2.

### 3 Combined CDM Reporting Elements

#### 3.1 Progress Towards CDM Targets

3.1.1 Provide a summary of the distributor’s progress towards meeting its CDM Targets, an explanation for any significant variances between the annual milestones contained in the distributor’s CDM Strategy and the verified results achieved by the distributor for the reporting year, and an explanation of the potential impact that the aforementioned significant variances may have with respect to the distributor meeting its CDM Targets.

Table 6: Net Peak Demand Savings at the End User Level (MW)

Implementation Period	Annual			
	2011	2012	2013	2014
2011 - Verified	0.57*	0.47*	0.47*	0.43*
2012				
2013				
2014				
<b>Verified Net Annual Peak Demand Savings in 2014:</b>				<b>0.43*</b>
<b>Welland Hydro-Electric System Corp. 2014 Annual CDM Capacity Target:</b>				<b>5.560</b>
<b>Verified Portion of Peak Demand Savings Target Achieved (%):</b>				<b>7.67%*</b>
<b>LDC Milestone submitted for 2011</b>				<b>22.8%</b>
<b>Variance</b>				<b>(15.13%)*</b>

\* - these totals do not include two (2) Pre-2011 Electricity Replacement Incentive Program projects which are currently under review by the OPA. The applicable demand and energy savings associated with these 2 projects will be included in our 2012 Annual Report

Table 7: Net Energy Savings at the End-User Level (GWh)

Implementation Period	Annual				Cumulative
	2011	2012	2013	2014	2011-2014
2011 - Verified	2.02*	2.02*	2.00*	1.90*	7.94*
2012					
2013					
2014					
<b>Verified Net Cumulative Energy Savings 2011-2014:</b>					<b>7.94*</b>
<b>Welland Hydro-Electric System Corp. 2011-2014 Cumulative CDM Energy Target:</b>					<b>20.600</b>
<b>Verified Portion of Cumulative Energy Target Achieved (%):</b>					<b>38.53%*</b>
<b>LDC Milestone submitted for 2011</b>					<b>12.1%</b>
<b>Variance</b>					<b>26.43%*</b>

\* - these totals do not include two (2) Pre-2011 Electricity Replacement Incentive Program projects which are currently under review by the OPA. The applicable demand and energy savings associated with these 2 projects will be included in our 2012 Annual Report

### 3.2 CDM Strategy Modifications

Due to the fact that at the end of 2011, most OPA-Contracted Province-Wide CDM Programs had been in market for less than one full year, Welland Hydro-Electric System Corp. is reluctant to make any adjustments to its CDM Strategy at this time. Welland Hydro-Electric System Corp. will wait until the conclusion of 2012 and evaluate its achievements at that point to determine whether a modification to its CDM Strategy is necessary.