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# **Woodstock Hydro Services Inc.**

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**Conservation and Demand Management**

## **2011 Annual Report**

**Submitted to:**

**The Ontario Energy Board**

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## **Executive Summary**

### **2011 CDM results for Woodstock Hydro Services Inc.**

Woodstock Hydro Services Inc. (WHSI) is a Local Distribution Company (LDC) responsible for the distribution of electricity and the servicing and maintenance of power line infrastructure for Woodstock Ontario. WHSI is working hard to be 'Best in Class' and provide superior service to its community of customers. Conservation and Demand Management (CDM) plays a key role in securing its future for a reliable, sustainable, and affordable energy supply. WHSI feels that conservation is an essential part of its core services and can help customers manage rising energy and operating costs.

The Ontario Energy Board (OEB) has set CDM targets for WHSI, as a condition of its licence, to achieve 18.88 GWh of energy savings and 4.49 MW of summer peak demand savings, over the period between January 1, 2011 and December 31, 2014. This Annual Report covers WHSI's CDM activities and progress towards its targets for the period from January 1, 2011 to December 31, 2011.

WHSI is pleased to report strong progress in 2011 towards the achievement of its CDM targets. Despite start-up challenges and the fact that CDM programs had a late start in 2011, WHSI has already achieved 107% of its cumulative 2011-2014 energy target and 20% of its 2014 summer peak demand target.

WHSI is committed to working with the Ontario Power Authority (OPA) to deliver CDM programs for the remainder of the current CDM 2011-2014 framework and beyond.

### **2011 CDM program delivery**

WHSI offered a full suite of CDM programs available from the OPA for its residential, commercial, and industrial customers.

WHSI's role in delivery of the initiatives included promotion, customer service, acting as the local "face" for the initiatives in the community, managing channel partner networks, reporting to the OPA, reviewing applications, referral of participants to the OPA, and contracting for delivery with third-party service providers.

In all, over 4,100 WHSI customers participated in at least one of the CDM programs offered, making it clear that the community within its service territory support conservation and all of its benefits.

WHSI is also proud to report on its progress with conservation activities in 2011 beyond the delivery of OPA CDM programs. Woodstock Hydro's Sunny Side Up program promotes conservation and the integration of renewable energy in Woodstock homes and businesses. Under the Sunny Side Up brand, WHSI has worked with the community to develop an effective energy strategy that encompasses electric vehicle development, renewable energy and responsible use of energy resources. A highlight of this program is the Sunny Side Up roving demonstration trailer, which educates the public on various uses and benefits of smart grid technologies. The trailer is also a conduit to promote other conservation endeavors and will be used in the future to distribute promotional material for OPA programs.

In addition to the Sunny Side Up program, WHSI also runs a YouTube account and posts videos that educate the community on various energy-related topics, including TOU pricing and details on solar installations being built across Woodstock.

As an active member of the Woodstock Chamber of Commerce, Woodstock Hydro has taken the lead on two initiatives. As the sponsor of the annual Energy Conservation and Innovation Award, Woodstock Hydro raises awareness of those businesses that achieve exceptional results from retrofit and innovative energy efficiency implementations. The second initiative is the Chamber's Energy Conservation and Innovation committee. Working as a sub-committee of the Industry and Business committee, Woodstock Hydro created and Chaired this initiative for several years.

### **Meeting WHSI CDM targets**

2011 was a start-up year for OPA CDM program initiative across Ontario. Despite the delays that this caused, WHSI is pleased to report that it is not only well beyond its 2011 forecasted savings but that it has already met its entire 2011-2014 energy savings target. Additionally, should existing DR3 contracts remain in place until 2014, WHSI has met over 50% of its 2014 summer peak demand target.

This success was realized through savings from 2011 programs, as well as a through savings from pre-2011 ERIP projects completed in 2011. WHSI's savings were examined to determine the success of WHSI's 2011 programs without the contribution of pre-2011 ERIP projects. The results of this examination show that WHSI's 2011 CDM programs are performing at the provincial average for energy savings and above the provincial average for demand savings.

In light of these results, WHSI will aim to hit over 100% of both of its energy and demand targets. To do so, it will continue delivering OPA CDM programs as described in its CDM Strategy. In addition, WHSI is in the process of reviewing its delivery strategies and identifying any strategy modifications that it will pursue in 2012 and beyond.

In order to meet its ambitious goals, WHSI has a few key recommendations for future program delivery. These recommendations include:

1. **Establishing a better method of sharing DR3 participant information between aggregators, the OPA and WHSI.** In several instances, WHSI has approached a customer in its service territory to gauge their interest in DR3 only to find that the customer has already signed on with an aggregator. As WHSI has close connections with many of its customers, its staff would be an excellent resource to nurture existing participants and ensure that they continue participation until 2014. Not having access to the details of DR3 contracts in its service territory also prevents WHSI from knowing if the DR3 contracts are a result of its marketing efforts, or the result of satellite applications or aggregator efforts.
2. **Providing additional support to the public sector.** WHSI notes that many public sector facilities and institutions are in need of major energy efficiency retrofits. WHSI hopes to work more closely with public official in the future to help them launch conservation projects. Any consideration towards specialized public sector initiatives (or special rules within existing initiatives) to help overcome barriers faced by this sector would facilitate this relationship. Unlike projects in commercial, industrial and residential sectors, retrofits within the public sector go to improving services and infrastructure used and supported by all ratepayers and thus could warrant additional support.
3. **Customer awareness, and education are vital in the promotion of conservation.** Through WHSI's experiences with its Sunny Side Up program, WHSI has learned that public engagement is very effective in getting the community active and excited about the benefits of conservation. In the future, WHSI hopes to boost its community engagement activities, and create one consistent conservation brand under its Sunny Side Up logo. As a result, it hopes that the

existing buzz around the Sunny Side Up program and its YouTube channel can be extended towards the OPA CDM programs.

4. **Business case studies and industry fact-finding can enable WHSI to better market the PSUI and Energy Audit initiatives.** WHSI is interested in compiling business case studies that demonstrate the actual savings that can be achieved through the PSUI program, or through equivalent programs in other jurisdictions. These case studies could be put in a report format and presented to prospective PSUI participants in WHSI's service territory (or throughout Ontario) as a means of demonstrating the business case of conservation. Additionally, this exercise can help WHSI gain an understanding of the potential for industrial conservation in its service territory and how to effectively promote the PSUI and Energy Audit initiatives to its customers.

#### **Board-approved program applications**

WHSI has not filed any applications to the OEB for Board-approved CDM Programs. WHSI recognizes that Board-approved programs are a potential means for extending the savings realized from the province-wide programs.

Board-approved programs could be designed to address barriers specific to WHSI, or deliver conservation initiatives to potential participants who may feel constrained by certain design and delivery features of existing OPA programs. Board-approved programs could also contribute greatly to the savings required to increase demand results in the WHSI service territory.

In light of the OEB's decision on the Toronto Hydro application for Board-approved programs, and the OEB taking a very broad and all-encompassing definition of 'duplicative', WHSI does not foresee pursuing these programs at this time. WHSI will continue to evaluate the need and feasibility of Board-approved CDM programs as it tracks progress from province-wide programs and time-of-use results, as opportunities present themselves, and as the conditions and requirements for approval evolve.

#### **CDM program evaluation results**

Independent third-party evaluators were hired by the OPA to evaluate the OPA programs. The results of those evaluations are presented in this report along with their impact on WHSI's progress towards its targets. The evaluation results provide calculations to adjust the gross savings to determine the net savings from a given initiative. The net savings are used to track WHSI's progress towards its targets.

WHSI will continue delivering OPA CDM programs as described in its CDM Strategy. Currently, WHSI is in the process of reviewing its delivery strategies and identifying any strategy modifications that it will pursue in 2012 and beyond.

## Background

On March 31, 2010, the Minister of Energy and Infrastructure of Ontario, under the guidance of sections 27.1 and 27.2 of the *Ontario Energy Board Act, 1998*, directed the Ontario Energy Board (OEB) to establish Conservation and Demand Management (CDM) targets for electricity distributors. Accordingly, on November 12, 2010, the OEB amended the distribution licence of WHSI to require WHSI, as a condition of its licence, to achieve 18.88 GWh of energy savings and 4.49 MW of summer peak demand savings, over the period beginning January 1, 2011 through December 31, 2014.

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

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

# 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 WHSI’s service area.

## 1.2 TOU Pricing

### 1.2.1 BACKGROUND

In its April 26, 2012 CDM Guidelines, the OEB recognized 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 established 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. WHSI 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 WHSI is not able to provide any verified savings related to WHSI’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 was designed to incent the shifting of energy usage. Therefore peak demand reductions were expected, and energy conservation benefits may also have been 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 has been adjusted twice annually by the OEB. A summary of the RPP TOU pricing is provided below:

**Table 1: Regulated Price Plan (RPP) Time-of-Use (TOU) pricing for November 1, 2010 to May 1, 2012**

RPP TOU	Rates (cents/kWh)		
Effective Date	On Peak	Mid Peak	Off Peak
November 1, 2010	9.9	8.1	5.1
May 1, 2011	10.7	8.9	5.9
November 1, 2011	10.8	9.2	6.2
May 1, 2012	11.7	10.0	6.5

**Delivery:** OEB set the TOU rates. WHSI installed and maintained the meters, and converted customers to TOU billing.

#### 1.2.2.1 Initiative Activities/Progress:

WHSI began transitioning its RPP customers to TOU billing on (May 1, 2010). By December 31<sup>st</sup>, 2011, 13787 residential RPP customers (99.9%) and 1187 GS<50 kW RPP customers (99.2%) were on TOU billing.

### 1.3 WHSI's Application with the OEB

WHSI has not filed any applications to the Board for Board-approved programs.

WHSI recognizes that Board-approved programs are a potential means for extending the savings realized from the province-wide programs. In WHSI's CDM strategy filed November 1, 2010, it forecasted that OPA programs would reach approximately 60% of its demand target and 65% of its energy target. WHSI identified several potential Board-approved programs that could contribute to achieving the remaining portion of its energy and demand targets.

WHSI had begun pursuing a Board-approved application for a solar thermal program but in light of the Board's decision on the Toronto Hydro application, and the Board taking a very broad and all-encompassing definition of 'duplicative', WHSI does not foresee pursuing Board-approved programs at this time; it will continue to evaluate the need and feasibility of these as it tracks progress from province-wide programs, time-of-use results; as opportunities present themselves; and as the conditions and requirements for approval evolve.



## 2 OPA-Contracted Province-Wide CDM Programs

### 2.1 Introduction

Effective January 2011, WHSI entered into an agreement with the OPA to deliver CDM programs extending from January 1, 2011 to December 31, 2014. The CDM programs with their associated initiatives are listed in the table below. In addition, programs that were started prior to 2011 that were completed in 2011 are included.

**Table 2: OPA-contracted province-wide CDM programs**

Initiative	Schedule	Date schedule was 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
Residential New Construction	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

<b>Initiative</b>	<b>Schedule</b>	<b>Date schedule was posted</b>	<b>Customer class</b>
			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	General service < 50 kW
Demand Response 3 (part of the Industrial program schedule)	Schedule D-6	May 31, 2011	General service 50 kW & above
<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>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

Several initiatives that were included in the schedules were not in market in 2011. The OPA 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 planned energy and demand savings.

**Table 3: OPA-contracted province-wide CDM programs not in market in 2011**

<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 was 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 was 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 were to be delivered by the OPA and results would have been attributed to LDCs for reporting.	Not launched to market
Home Energy Audit Tool	This was to be 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 was 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.
Demand Response 1	This initiative allowed distribution customers to voluntarily reduce electricity demand during certain periods of the year pursuant to the DR 1 contract. The initiative provided DR payments for the actual electricity reduction provided during a demand response event.	There was no customer uptake for this initiative province-wide.

Initiative not in market in 2011	Objective	Status
<b>Industrial Program</b>		
Demand Response 1	As above	There was no customer uptake for this initiative province-wide.

The Master CDM Program Agreement includes program change management provisions in Article 3. Collaboration between the OPA and LDCs commenced in 2011 and the change management process was implemented to enhance the saveONenergy program suite. The change management process allowed for modifications to the Master Service Agreement and initiative schedules. The program enhancements were intended to give LDCs additional tools and greater flexibility to deliver programs in a way that meets the needs of customers and further drives participation in the initiatives.

## 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:** The objective was to achieve energy and demand savings by permanently decommissioning certain older, inefficient refrigeration appliances located in Ontario.

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

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

**Delivery:** The OPA centrally contracted for the province-wide marketing, call centre, appliance pick-up and decommissioning processes. WHSI provided local marketing.

Additional detail is available at the following websites:

- 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:** WHSI promoted this initiative in magazines and during the local Summerfest event. During the event, WHSI staff distributed OPA brochures and were able to respond to

questions from interested customers. Residential customers have also been phoning in with questions on where to recycle freezers and WHSI has taken that opportunity to promote the initiative.

**In-Market Date:** January 2011

### **Lessons Learned:**

- The Appliance Retirement Initiative (previously The Great Refrigerator Round-Up) has been offered by WHSI since 2007. This initiative was approaching market saturation by 2011.
- While the OPA and the LDCs reviewed this initiative to assess whether to include other products, appliances have a natural life cycle and the initiative could not be expected to continually deliver the high level of results in perpetuity. These lower expectations were taken into account when developing conservation portfolios.
- This initiative was facing some competition from independent retailers and municipalities.
- Results were very responsive to province-wide advertising.
- Some customers do not bother with the initiative since there is not enough incentive to remove their secondary fridge.

### **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 was to remove and permanently decommission older, inefficient window air conditioners (AC) and portable dehumidifiers.

**Description:** This initiative involved appliance exchange events. Exchange events were held at local retail locations and customers were encouraged to bring in their old room air conditioners 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:** Delivery was OPA contracted and had participating retailers collect eligible units.

Additional detail is available at the following websites:

- 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:** WHSI promoted this initiative in magazines and during the local Summerfest event. During the event, WHSI staff distributed OPA brochures and were able to respond to questions from interested customers. Residential customers have also been phoning in with questions on where to recycle freezers and WHSI has taken that opportunity to promote the initiative.

**In-Market Date:** January 2011

## Lessons Learned:

- The spring event had the participation of 3 retailers within WHSI's service territory. However, the Fall 2011 event had no retailer participation anywhere in the province, therefore savings anticipated by the WHSI did not materialize.
- Evaluation, Measurement, and Verification (EMV) results indicated that the value of savings for retired room air conditioners had dropped.
- The initiative may have been achieving market saturation.
- The type of unit turned in was very dependent upon what was promoted by the retailers.

### 2.2.1.3 HVAC INCENTIVES INITIATIVE (Exhibit B)

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

**Initiative Frequency:** Year-round

**Objective:** The objectives of this initiative were 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 systems and products that qualify under the ENERGY STAR program.

**Description:** This was an energy-efficiency initiative that provided rebates for the replacement of old heating or cooling systems with high-efficiency furnaces (equipped with ECM) and central air conditioners that qualify under the ENERGY STAR program. Approved contractors who were qualified through the Heating, Refrigeration, and Air Conditioning Institute (HRAI) replaced the equipment.

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

**Delivery:** OPA contracted the delivery of the program centrally. WHSI was encouraged by the OPA to convince local contractors to participate in the initiative.

Additional detail is available at the following websites:

- 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.aspx>

**Initiative Activities/Progress:** WHSI staff have spoken with contractors, and provided information on the rules and benefits of the initiative from the perspective of the contractor. Contact has been both over the telephone and through one-on-one meetings. This engagement has led to three of six local contractors actively participating in this initiative. WHSI hopes to promote this initiative through community events in the future.

**In-Market Date:** January 2011

## Lessons Learned:

- Channel engagement was a highly effective method of connecting with customers; however channel partners required that rebates be issued promptly to maintain a positive relationship between consumers, contractors, the OPA, and WHSI.
- There appears to have been spillover to non-HRAI contractors who were ineligible for this initiative. There were cases where smaller independent contractors were offering their own incentives (by discounting their installations to match the value of the OPA incentive) to make the sale. As this occurred outside of the initiative, the savings from these installations were not being attributed to WHSI.

### 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 was to encourage households to purchase energy-efficient products by offering discount coupons.

**Description:** This Initiative provided customers with year-round coupons. The coupons offered instant rebates towards the purchase of a variety of low-cost, easy-to-install, energy-efficient measures that could 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:** standard compact fluorescent lights (CFLs) that qualify under the ENERGY STAR® program, light fixtures that qualify under the ENERGY STAR® program, lighting control products, weather-stripping, hot water pipe wrap, electric water heater blankets, heavy duty plug-in timers, advanced power bars, clotheslines, baseboard programmable thermostats

**Delivery:** The delivery was OPA contracted centrally for the distribution of the coupon booklets across Ontario. WHSI distributed the coupons at local events. The OPA entered into agreements with retailers to honour the coupons.

Additional detail is available at the following websites:

- 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.aspx>

**Initiative Activities/Progress:** WHSI has relied on provincial marketing for this initiative and promotion through its CDM microsite. WHSI plans on increasing marketing efforts on this initiative in the future by promoting it as part of its roving Sunny Side Up demonstration trailer.

**In-Market Date:** January 2011

## Lessons Learned:

- The downloadable coupons proved to be more successful than the mailed out booklets.

- This Initiative may have benefited from an enabler such as a conservation card / loyalty card to increase customer participation.
- The timeframe for retailer submission of redeemed coupons varied from retailer to retailer. This delayed the results reporting, which in turn limited the OPA and WHSI's abilities to react and respond to initiative performance or changes in consumer behaviour.

### 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 was 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 hosted month-long rebate events. During the months of April and October, customers were encouraged to visit participating retailers where they could obtain and redeem coupons for instant rebates towards a variety of low-cost, easy-to-install, energy-efficient measures.

**Targeted End Uses:** The same as those for the conservation instant coupon booklet initiative

**Delivery:** The OPA entered into arrangements with participating retailers to promote the discounted products, and to post and honour related coupons. WHSI also provided local marketing to local retailers to encourage participation in the program.

Additional detail is available at the following websites:

- 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:** WHSI has relied on provincial marketing for this initiative and promotion through its CDM microsite.

**In-Market Date:** January 2011

#### Lessons Learned:

- The product list changed very little over the past four years.
- Program evolution, including new products (for example, LED lighting) and reviews of incentive pricing for the coupon initiatives, should have been a regular activity to ensure continued consumer interest.
- A review conducted by the LDC/OPA 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.

### 2.2.1.6 RETAILER CO-OP

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



**Initiative Frequency:** Year-round

**Objective:** The objective of this initiative was to hold promotional events to encourage customers to purchase energy-efficiency measures (and go beyond the traditional bi-annual coupon events).

**Description:** This initiative provided WHSI with the opportunity to work with retailers in its service area by holding special events at retail locations. These events were typically special promotions that encouraged customers to purchase energy-efficiency measures.

**Targeted End Uses:** The same as those for conservation instant coupon booklet initiative

**Delivery:** Retailers applied to the OPA for co-op funding to run special events that promoted energy-efficiency to customers in their stores. The OPA provided WHSI with a list of retailers who qualified for co-op funding in its service territory as well as details of the proposed special events.

**Initiative Activities/Progress:** WHSI did not actively promote this initiative.

**In-Market Date:** January 2011

### **Lessons Learned:**

- The availability of retailer and/or WHSI staff with product knowledge and the ability to conduct demonstration in store during the events would have been an asset. This could have been a valuable role for WHSI.

## **2.2.1.7 RESIDENTIAL NEW CONSTRUCTION PROGRAM (Schedule B-2)**

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

**Initiative Frequency:** Year-round

**Objective:** The objective of this initiative was to provide incentives to participants for the purpose of promoting the construction of energy-efficient residential homes in the province of Ontario.

**Description:** This initiative provided incentives to homebuilders for constructing new homes that are efficient, smart, and integrated (applicable to new single family dwellings). Incentives were provided in two key categories:

- a) Incentives for homebuilders who installed electricity-efficiency measures from a prescriptive list or determined by a custom evaluation; and
- b) Incentives for homebuilders who met or exceeded aggressive efficiency standards using the EnerGuide performance rating system.

**Targeted End Uses:** All-off switch, ECM motors, central air conditioners that qualify under the ENERGY STAR program, lighting control products, lighting fixtures, EnerGuide home rating of 83, EnerGuide home rating of 85

**Delivery:** The local engagement of builders was the responsibility of WHSI. This was supported by the OPA's province-wide promotional efforts aimed at driving builders to WHSI for additional information.

Additional detail is available at the following websites:

- 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.aspx>

**Initiative Activities/Progress:** WHSI did not actively promote this initiative due to barriers faced by builders of tract homes. WHSI expects to promote this program by speaking with builders on a one-on-one basis in the future.

**In-Market Date:** January 2011

### Lessons Learned:

- There were limited (5) participants in the program province-wide. Because the online application system was 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 deterred all tract builders from participating in the program to date.
- Administrative requirements must align with perceived stakeholder payback. Changes were being processed through the OPA's change management process for 2012.

### 2.2.1.8 RESIDENTIAL DEMAND RESPONSE PROGRAM (Schedule B-3)

**Target Customer Type(s):** Residential customers and general Service customers < 50 kW

**Initiative Frequency:** Year-round

**Objective:** The objectives of this initiative were 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 with their current electricity consumption and associated costs.

**Description:** This initiative, also known as *peaksaver*PLUS™, offered participants the option to receive a free programmable thermostat, including installation. Participants also received access to price and real-time consumption information on an In Home Display (IHD). For the first 8 months of 2011 some LDCs opted to extend the peaksaver initiative, but WHSI held off until the new initiative would be launched. The OPA referred to this continuation of the previous *peaksaver*® program into 2011 as the *peaksaver*®Extension. After August 2011, the Extension ended and the program (including marketing) ceased until new IHD products became available.

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

**Delivery:** WHSI recruited customers and procured technology

Additional detail is available at the following websites:

- 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:** WHSI has made progress to identify potential *peaksaver*PLUS™ technologies. WHSI had previously delivered in home displays to its customers, but these displays were not compatible with smart meter requirements.

**In-Market Date:** 2013

### **Lessons Learned:**

- The schedule for Peaksaver Plus was posted in August 2011, but this did not provide adequate time for product procurement for 2011 or the early 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, WHSI plans on being in market with the Peaksaver Plus program in 2013.
- Introduction of new technology required incentives for the development of such technology. Appropriate lead times for WHSI to have conducted analysis and assessment, product procurement, and testing and integration into the smart meter environment were also required. Making seemingly minor changes to provincial technical specifications could create significant issues when WHSI attempted to implement the solution in WHSI's unique environment.
- Where a provincial solution was not available to all participants, attention to addressing WHSI's specific concerns was needed.

## **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 was to offer non-residential distribution customers incentives to help them achieve reductions in electricity demand and consumption by upgrading to more energy-efficient equipment for lighting, space cooling, ventilation, and other measures.

**Description:** ERII offered customers financial incentives to upgrade existing equipment or processes to more energy-efficient equipment or processes. Upgrade projects could be classified into the following program tracks:

- a) Prescriptive projects, where prescribed measures replaced associated required base case equipment;
- b) Engineered projects, where energy and demand savings and incentives were calculated for associated measures; or
- c) Custom projects for energy efficiency upgrades not covered under prescriptive or engineering streams

**Targeted End Uses:** Lighting, space cooling, ventilation, and other measures

**Delivery:** The initiative was delivered by WHSI.

Additional detail is available at the following websites:

- 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:** WHSI has been very active in promoting ERII with one-on-one meetings with prospective participants, holding information/promotion sessions, and meeting with potential participants at Chamber of Commerce meetings. Staff have found that customers are generally interested and there has been healthy take-up in this initiative.

**In-Market Date:** January 2011

### **Lessons Learned:**

- ERII (previously Equipment Replacement Incentive Program – ERIP) was offered by WHSI in the years leading up to 2011. It was a high-performing, cost-effective program, and there were many pre-2011 projects completed in 2011 (via ERIP).
- Customers that have been approached are generally interested but they often think the program is for lighting retrofits only
- Meeting customers face-to-face is an effective way of gaining interested for this initiative.
- A major challenge for the ERII program in 2011 was payment delays. The centralized electronic processes were not ready as required by the OPA's Master Agreement. The delayed availability of these automated processes, coupled with a greater than expected volume of pre-2011 projects being completed province-wide in 2011, caused considerable payment delays by the OPA. Based on the lessons learned in the 2011 process, the centralized process review used by the OPA for 2012 project payment was streamlined.
- In March 2011, the revised iCON system was launched by the OPA. This was 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 in the early stages before 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 customers' participation in the 2011 program year. In addition, there were also on-going issues and limitations with the back-end CRM system that affected WHSI's ability to effectively review and approve applications.

### **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 was to offer the free installation of eligible lighting and water-heating measures valued at 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 Install Lighting Initiative targeted customers in the general service <50kW account category. This Initiative offered turnkey installation of energy-efficient lighting and electric hot water heating measures with a value up to \$1,000 at no cost to qualifying small businesses. In addition,

standard prescriptive incentives were available for eligible equipment that the customer chose to have installed beyond the initial \$1,000 limit.

**Target End Uses:**

**Delivery:** Participants could enroll directly with WHSI, or would be contacted by WHSI or WHSI's third party delivery agent

Additional detail is available at the following websites:

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

**Initiative Activities/Progress:** WHSI has been actively promoting this initiative by holding information sessions for eligible businesses, meeting with contractors to explain the details of the initiative, and cold calling eligible general service customers. WHSI staff have also marketing the program during sessions with Woodstock's Chamber of Commerce.

**In-Market Date:** January 2011

**Lessons Learned:**

- A letter of recognition sent to participating contractors could encourage them and other non-participating contractors to further promote the initiative.
- The Direct Install Lighting and Water Heating Initiative was a continuation of the Power Saving Blitz Initiative offered by WHSI from 2008-2010. Successful execution of the previous rendition of this initiative resulted in over 60% penetration rate, and subsequently has led to diminished potential for the 2011-2014 initiative.
- The inclusion of a standard incentive for additional measures increased project size and drove higher energy and demand savings results.
- The cost of materials experienced price volatility, reducing the margins for the electrical contractors participating in the program as installers and this led to a reduction in vendor channel participation.
- Due to backlogs in the payment system, participant incentive payment from the OPA to WHSI, and therefore to the channel partner vendors, was commonly delayed.
- To address these issues, the LDCs have been working with the OPA in 2012 through its change management process 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.

### 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 was 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 offered participants incentives for the following project phases:

- a) Scoping study phase,
- b) Investigation phase,
- c) Implementation phase, and
- d) Hand off/completion phase.

**Targeted End Uses:** Chilled water systems for space cooling

**Delivery:** WHSI delivered.

Additional detail is available at the following websites:

- 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:** WHSI staff has spoken on this initiative to interested customers but this initiative has not been actively promoted.

**In-Market Date:** February 2011

#### **Lessons Learned:**

- There was no customer uptake for this initiative province-wide. It was 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 the OPA's change management process.
- The customer expectation was that the program be expanded to include broader building improvements for a more holistic approach to building recommissioning.

### 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 was to encourage builders and renovators of commercial, institutional, and industrial buildings (including multi-family buildings and agricultural facilities) to reduce electricity demand and/or consumption by designing and building new buildings with more energy-efficient equipment and systems for lighting, space cooling, ventilation, and other measures.

**Description:** The New Construction Initiative provided incentives for new buildings and major renovations to existing buildings that exceeded existing building codes and standards for energy efficiency. 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. The initiative used both a prescriptive and custom approach.

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

**Delivery:** WHSI delivered to customers and design decision makers.

Additional detail is available at the following websites:

- 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:** WHSI has used its position on the economic committee to identify new industry arriving in town that would benefit from participation in this initiative.

**In-Market Date:** February 2011

### **Lessons Learned:**

- 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.

### **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 was to offer incentives to owners and lessees of commercial, institutional, and agricultural facilities and multi-family buildings 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 provided participants incentives for the completion of energy audits of electricity consuming equipment located in their facility. Energy audits included development of energy baselines, use assessments, and performance monitoring and reporting.

**Targeted End Uses:** Various

**Delivery:** WHSI delivered.

Additional detail is available at the following websites:

- 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:** WHSI staff have promoted this initiative through face-to-face meetings with potential participants and through information sessions and Chamber of Commerce meetings.

**In-Market Date:** January 2011

### **Lessons Learned:**

- Customer uptake in 2011 was slow. Little if any savings from projects resulting from audits were realized in 2011, but projects were expected for 2012.
- Customers expected a greater connection with other CDM initiatives as a result of completing the Energy Audit. The initiative should be reviewed under the OPA's change management process for the means to readily incent participants with audits in hand to implement other electricity savings initiatives.
- The development of case studies within the Woodstock Hydro service territory could help staff identify opportunities for conservation and help promote this initiative as one that leads to real, measureable savings

## **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 were to:

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

**Description:** PSUI was an energy management initiative that included three parts:

- a) Preliminary engineering study,
- b) Detailed engineering study, and
- c) Project incentive.

The incentives were 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 was the lowest of:

- a) \$200/MWh of annualized electricity savings,
- b) 70% of projects costs, or
- c) A one-year pay back.

**Targeted End Uses:** Processes and systems

**Delivery:** WHSI delivered

Additional detail is available at the following websites:

- 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.aspx>

**Initiative Activities/Progress:** WHSI has provided information on the PSUI initiative during information sessions to customers that have shown interest in this initiative.

**In-Market Date:** May 2011

### **Lessons Learned:**

- WHSI could benefit from case studies completed within their service territory to better identify potential participants and gather information on the types of upgrades that these participants could benefit from.
- The PSUI program targeted large customers that were undertaking large capital projects. There was typically a long sales cycle for these projects, and then a long project development cycle. As such, results from PSUI did not appear in 2011. Limited results were expected to appear in 2012. The majority of the results were expected in 2013-2014, with a much-reduced benefit to cumulative energy savings targets.
- Steps were being taken in the 2012 OPA 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 was a lengthy and complicated document. Attempts were being made through the OPA's change management process 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.

### **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 offered 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 to sustain the target level of savings for the term of the M&T agreement.

**Description:** This Initiative offered 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 oversaw energy usage, would then be able to use historical energy consumption performance to analyze and set targets.

**Targeted End Uses:**

**Delivery:** WHSI delivered with Key Account Management support

Additional detail is available at the following websites:

- 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.aspx>

**Initiative Activities/Progress:** WHSI has provided information on the M&T initiative during information sessions to customers that have shown interest in this initiative.

**In-Market Date:** May 2011

**Lessons Learned:**

- WHSI could benefit from case studies completed within their service territory to better identify potential participants and gather information on the types of monitoring & targeting measures that these participants could benefit from.
- The M&T initiative was originally targeted at larger customers with the capacity to review the M&T data. This review required the customer facility to employ an energy manager, or a person with equivalent qualifications, which was a barrier for some customers. Through the OPA's change management process in 2012, changes were being made to both the M&T schedule and ERII to allow smaller facilities to employ M&T systems.

### 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 was to provide customers and WHSI the opportunity to access funding for the engagement of energy managers in order to deliver a minimum annual savings target.

**Description:** This Initiative provided customers the opportunity to access funding to engage an on-site, full-time embedded energy manager. The initiative also provided funding for an off-site roving energy manager who could be engaged by WHSI to provide services for a number of customers. The role of the energy manager was to take control of a facility's energy use by monitoring performance, leading awareness programs, identifying opportunities for energy consumption improvement, and spearheading projects. Participants were funded for 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 had a target of 300 kW/year of energy savings from one or more facilities. WHSI was eligible to receive funding of up to \$120,000 for a Roving Energy Manager plus \$8,000 for expenses.

**Targeted End Uses:**

**Delivery:** WHSI delivered with Key Account Management support

Additional detail is available at the following websites:

- 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.aspx>

**Initiative Activities/Progress:** WHSI shares an Energy Manager for Fanshawe College with London Hydro although there were no energy savings reported from EM activities in 2011.

**In-Market Date:** May 2011

**Lessons Learned:**

- Savings from energy managers require time to have the position establish itself within the participating facility

**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 offered WHSI the opportunity to access funding for the employment of a KAM in order to support WHSI in fulfilling its obligations related to the PSUI. The KAM was considered to be a key element in assisting the customer in overcoming traditional barriers related to energy management and help them achieve savings. The KAM was expected to achieve these results by building relationships and becoming a significant resource of knowledge to the customer.

**Description:**

**Targeted End Uses:**

**Delivery:**

Additional detail is available at the following website:

- 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:** There has been no take up of this initiative in the WHSI service territory

**In-Market Date:** May 2011

### 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 provided participants with demand response (DR) payments for service to compensate them for making available electricity DR during a DR event.

**Description:** Demand Response 3 (DR3) was a DR initiative for commercial and industrial customers with demand of 50 kW or greater willing to reduce the amount of power being used during certain periods of the year. The DR3 Initiative was a contractual resource that was an economic alternative to procurement of new generation capacity. DR3 came with specific contractual obligations requiring participants to reduce their use of electricity relative to a baseline when called upon. This initiative provided regular payments to participants to be on standby and payments for the actual energy reduction provided during a demand response event. Participants were 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:** Energy peak reducing measures

**Delivery:** DR3 was delivered by demand response providers (DRPs), under contract to the OPA. The OPA administered contracts with all DRPs as well as direct participants that provided in excess of 5 MW of demand response capacity. The OPA provided administration including settlement, measurement and verification, and dispatch. WHSI was responsible for outreach and marketing efforts.

Additional detail is available at the following website:

- 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.aspx>

**Initiative Activities/Progress:** WHSI are actively promoting this initiative by holding one-on-one customer meetings and by promoting the initiative at information sessions and through the Chamber of Commerce

**In-Market Date:** May 2011

#### **Lessons Learned:**

- Customer data was not provided by the OPA on an individual customer basis due to contractual requirements with the aggregators. This limited WHSI's ability to effectively market to prospective participants.

### 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 was to offer free installation of energy-efficiency measures to income-qualified households for the purpose of achieving electricity and peak demand savings.

**Description:** This was a turnkey initiative for income-qualified customers. It offered residents the opportunity to take advantage of free installation of energy efficient measures that improved the comfort of their home, increased efficiency, and helped them save money. All eligible customers received a Basic and Extended Measures Audit, while customers with electric heat also received a Weatherisation Audit. The Initiative was designed to enable coordination of efforts with gas utilities.

**Targeted End Uses:** End uses based on results of audit

**Delivery:** WHSI delivered

Additional detail is available at the following website:

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

**In-Market Date:** 2012

### **Lessons Learned:**

- This initiative schedule was finalized later (May 2011) than the rest of the OPA initiatives and WHSI did not have the initiative in market in 2011.
- Centralized payment processes were not developed in 2011 and were not in place until mid-2012. As a result, WHSI delayed its launch to market.

## **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:** Refer to section 2.2.2.1

**Initiative Activities/Progress:** WHSI had a number of pre-2011 ERIP applications go through in 2011. WHSI contacted all participants with applications to ensure that their projects were submitted and completed on time.

### **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 2.2.2.4

**Description:** Refer to section 2.2.2.4

**Targeted End Uses:** Refer to section 2.2.2.4

**Delivery:** Refer to section 2.2.2.4

**Initiative Activities/Progress:** WHSI did not actively promote this program in 2011.

## 2.3 Participation

**Table 4: Participation in OPA-contracted province-wide CDM programs**

#	Initiative	Activity unit	Uptake/ participation units
<b>Residential Program</b>			
1	Appliance Retirement	Appliances	153
2	Appliance Exchange	Appliances	12
3	HVAC Incentives	Equipment	443
4	Conservation Instant Coupon Booklet	Coupons	1,276
5	Bi-Annual Retailer Event	Coupons	2,218
6	Retailer Co-op	Items	0
7	Residential Demand Response	Devices	0
10	Residential New Construction	Houses	0
<b>Commercial &amp; Institutional Program</b>			
11	Efficiency: Equipment Replacement	Projects	7
12	Direct Install Lighting	Projects	53
14	Existing Building Commissioning Incentive	Buildings	0
15	New Construction and Major Renovation Incentive	Buildings	0
16	Energy Audit	Audits	0
17	Commercial Demand Response (part of the Residential program schedule)	Devices	0
19	Demand Response 3 (part of the Industrial program schedule)	Facilities	1

#	Initiative	Activity unit	Uptake/ participation units
<b>Industrial Program</b>			
20	Process & System Upgrades*	Projects	0
	a) preliminary engineering study		0
	b) detailed engineering study		0
	c) capital incentive		0
21	Monitoring & Targeting	Projects	0
22	Energy Manager	Managers	0
23	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	Projects	3
25	Demand Response 3	Facilities	4
<b>Pre 2011 Programs Completed in 2011</b>			
27	Electricity Retrofit Incentive Program	Projects	20
28	High Performance New Construction	Projects	1

## 2.4 Spending

The following details the funds used by WHSI in the one-year period applicable to the Annual Report, on each of the OPA-Contracted Province-Wide CDM Programs offered in its service area.

**Table 5: Spending for OPA-contracted province-wide CDM programs**

#	Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
<b>Residential Program</b>						
1	Appliance Retirement	\$5,676.83				\$5,676.83
2	Appliance Exchange					
3	HVAC Incentives					
4	Conservation Instant Coupon Booklet	\$3,149.76				\$3,149.76
5	Bi-Annual Retailer Event					
6	Retailer Co-op					
7	Residential Demand Response	\$1,978.78				\$1,978.78
10	Residential New Construction					
<b>Business Program</b>						
11	Efficiency: Equipment Replacement	\$31,383		\$6,170		\$37,553
12	Direct Install Lighting	\$23,878	\$11,550	\$41,583		\$77,011
14	Existing Building Commissioning Incentive					



#	Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
15	New Construction and Major Renovation Initiative					
16	Energy Audit					
17	Commercial Demand Response (part of the Residential program schedule)					
19	Demand Response 3 (part of the Industrial program schedule)					
<b>Industrial Program</b>						
20	Process & System Upgrades					
	a) preliminary study					
	b) engineering study					
	c) program incentive					
21	Monitoring & Targeting					
22	Energy Manager					
23	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)					
25	Demand Response 3	\$97				\$97
<b>Home Assistance Program</b>						
26	Home Assistance Program					
<b>Pre 2011 Programs Completed in 2011</b>						
27	Electricity Retrofit Incentive			\$317,534		\$317,534

#	Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
	Program					
28	High Performance New Construction					
29	Toronto Comprehensive					
30	Multifamily Energy Efficiency Rebates					
31	Data Centre Incentive Program					
32	EnWin Green Suites					
	<b>Total province-wide CDM programs</b>	\$66,163	\$11,550	\$365,287	\$0	\$443,000

## 2.5 Evaluation

The evaluation findings in Table 6 are those of the final evaluations of each initiative as reported by independent third-party evaluators.

### 2.5.1 EVALUATION FINDINGS

**Table 6: Evaluation Findings**

#	Initiative	Evaluation findings
<b>Residential Program</b>		
1	Appliance Retirement	<ul style="list-style-type: none"> <li>• Overall participation continues to decline year over year <ul style="list-style-type: none"> <li>○ Participation declined 17% from 2010 (from over 67,000 units in 2010 to over 56,000 units in 2011)</li> </ul> </li> <li>• 97% of net resource savings achieved through the home pick-up stream <ul style="list-style-type: none"> <li>○ Measure Breakdown: 66% refrigerators, 30% freezers, 4% Dehumidifiers and</li> </ul> </li> </ul>

#	Initiative	Evaluation findings
		<p style="text-align: center;">window air conditioners</p> <ul style="list-style-type: none"> <li>• 3% of net resource savings achieved through the Retailer pick-up stream <ul style="list-style-type: none"> <li>○ Measure Breakdown: 90% refrigerators, 10% freezers</li> </ul> </li> <li>• Net-to-Gross ratio for the initiative was 50% <ul style="list-style-type: none"> <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> </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) <ul style="list-style-type: none"> <li>○ Measure Breakdown: 75% window air conditioners, 25% dehumidifiers</li> </ul> </li> <li>• Dehumidifiers and window air conditioners contributed almost equally to the net energy savings achieved <ul style="list-style-type: none"> <li>○ Dehumidifiers provide more than three times the energy savings per unit than window air conditioners</li> </ul> </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) <ul style="list-style-type: none"> <li>○ Measure Breakdown: 64% furnaces, 10% tier 1 air conditioners (SEER 14.5) and 26% tier 2 air conditioners (SEER 15)</li> </ul> </li> </ul>

#	Initiative	Evaluation findings
		<ul style="list-style-type: none"> <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 <ul style="list-style-type: none"> <li>○ Furnaces accounted for over 91% of energy savings achieved for this initiative</li> </ul> </li> <li>• Net-to-Gross ratio for the initiative was 17% higher than 2010 (from 43% in 2010 to 60% in 2011) <ul style="list-style-type: none"> <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> </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 <ul style="list-style-type: none"> <li>○ Majority of coupons redeemed were downloadable (~40%) or LDC-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> </ul> </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> </ul>
5	Bi-Annual Retailer Event	<ul style="list-style-type: none"> <li>• Customers redeemed nearly 370,000 coupons, translating to over 870,000 products <ul style="list-style-type: none"> <li>○ Majority of coupons redeemed were for multi-packs of standard spiral CFLs (49%), followed by multi-packs of specialty CFLs (16%)</li> </ul> </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> </ul>

#	Initiative	Evaluation findings
		<ul style="list-style-type: none"> <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> <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 <ul style="list-style-type: none"> <li>○ 99% of the new devices enrolled controlled residential central AC (CAC)</li> </ul> </li> <li>● 2011 only saw 1 atypical event (in both weather and timing) that had limited participation across the province <ul style="list-style-type: none"> <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> </li> </ul>
10	Residential 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>Commercial &amp; Institutional 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%</li> </ul>

#	Initiative	Evaluation findings
		<p>when including interactive energy changes</p> <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> <ul style="list-style-type: none"> <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% <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> </ul> </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.</li> <li>● Strict eligibility requirements and improvements in the pre-approval process contributed to the improvement in net-to-gross ratios</li> </ul>
12	Direct Install 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 <ul style="list-style-type: none"> <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> </ul> </li> </ul>

#	Initiative	Evaluation findings
		<ul style="list-style-type: none"> <li>• Since 2009 the overall realization rate for this program has improved               <ul style="list-style-type: none"> <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> </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> <li>• 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)</li> </ul>
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 (#25)</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>

#	Initiative	Evaluation findings
21	Monitoring & Targeting	<ul style="list-style-type: none"> <li>Initiative was not evaluated in 2011, no completed projects in 2011</li> </ul>
22	Energy Manager	<ul style="list-style-type: none"> <li>Initiative was not evaluated in 2011, no completed projects in 2011</li> </ul>
23	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	<ul style="list-style-type: none"> <li>See Efficiency: Equipment Replacement (#11)</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 <ul style="list-style-type: none"> <li>Industrial customers outperformed commercial customers by providing 84% and 76% of contracted MW, respectively</li> </ul> </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>
<b>Home Assistance Program</b>		
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>
<b>Pre-2011 Programs completed in 2011</b>		
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>



#	Initiative	Evaluation findings
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

The results in Table 7 are those of the final evaluations of each initiative as reported by independent third-party evaluators.

Table 7: Evaluation Results

#	Initiative	NTG	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>Residential Program</b>								
1	Appliance Retirement	51%	19	125,124	9	64,846	9	258,980
2	Appliance Exchange	52%	3	3,458	1	1,782	1	6,551
3	HVAC Incentives	60%	213	401,295	128	239,663	128	958,651
4	Conservation Instant Coupon Booklet	114%	3	43,259	3	47,678	3	190,711
5	Bi-Annual Retailer Event	113%	4	68,550	4	74,890	4	299,562
6	Retailer Co-op	-	0	0	0	0	0	0
7	Residential Demand Response	-	0	0	0	0	0	0
10	Residential New Construction	-	0	0	0	0	0	0
<b>Commercial &amp; Institutional Program</b>								
11	Efficiency: Equipment	73%	27	219,624	20	162,233	20	648,934

#	Initiative	NTG	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)
	Replacement							
12	Direct Install Lighting	93%	61	176,446	65	163,837	50	616,847
14	Existing Building Commissioning Incentive	-	0	0	0	0	0	0
15	New Construction and Major Renovation Incentive	-	0	0	0	0	0	0
16	Energy Audit	-	0	0	0	0	0	0
17	Commercial Demand Response (part of the Residential program schedule)		0	0	0	0	0	0
19	Demand Response 3 (part of the Industrial program schedule)		48	1,421	36	1,421	0	1,421
<b>Industrial Program</b>								
20	Process & System Upgrades	-	0	0	0	0	0	0
21	Monitoring & Targeting	-	0	0	0	0	0	0

#	Initiative	NTG	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)
22	Energy Manager	-	0	0	0	0	0	0
23	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	75%	63	342,595	47	261,784	47	1,047,137
25	Demand Response 3		2,361	116,797	1,990	116,797	0	116,797
<b>Pre-2011 programs completed in 2011</b>								
27	Electricity Retrofit Incentive Program	57%	905	5,908,389	517	3,423,067	517	13,692,267
28	High Performance New Construction	50%	227	1,168,403	114	584,202	114	2,336,806

Table 8: 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)
Residential Program Total	241	641,685	146	428,859	145	1,714,453
Commercial & Institutional Program Total	136	397,491	121	327,492	70	1,267,202
Industrial Program Total	2,424	459,392	2,037	378,581	47	1,163,934
Home Assistance Program Total	0	0	0	0	0	0
Pre-2011 Programs completed in 2011 Total	1,133	7,076,792	630	4,007,268	630	16,029,073
<b>Total OPA contracted province-wide CDM programs</b>	<b>3,934</b>	<b>8,575,361</b>	<b>2,934</b>	<b>5,142,200</b>	<b>893</b>	<b>20,174,662</b>

## 2.6 Additional Comments

WHSI is pleased to report excellent progress in 2011 towards the achievement of its CDM targets. 2011 was a “start-up” year for OPA CDM program initiatives across the province. WHSI had to finalize schedules, develop processes, and procure services and resources before it could market the Ontario Power Authority (OPA) CDM program initiatives to its customers. Delays in the launch of OPA CDM programs and challenges with the online program delivery systems also hindered the timely and efficient delivery of CDM programs throughout the province, including the WHSI service territory.

Despite start-up challenges, WHSI has already reached 106% of its four-year energy target and 20% of its 2014 summer peak demand target. These achievements could not have been met without the strong participation and involvement of Woodstock residents, contractors, local businesses and service delivery agents. With over 4,100 CDM program participants in the WHSI service territory, it is clear that Woodstock supports conservation and all of its benefits.

These achievements also exemplify WHSI’s dedication to delivering conservation to its residential, commercial, institutional and industrial customers. WHSI feels that conservation is an essential part of its core services and can help customers to manage rising energy and operating costs.

WHSI is also proud to report on its progress with conservation activities in 2011 beyond the delivery of OPA CDM programs. Woodstock Hydro's Sunny Side Up program promotes conservation and the integration of renewable energy in Woodstock homes and businesses. Under the Sunny Side Up brand, WHSI has worked with the community to develop an effective energy strategy that encompasses electric vehicle development, renewable energy and responsible use of energy resources. A highlight of this program is the Sunny Side Up roving demonstration trailer, which educates the public on various uses and benefits of smart grid technologies. The trailer is also a conduit to promote other conservation endeavors and will be used in the future to distribute promotional material for OPA programs. WHSI also ran a successful contest to have local children design a logo for the Sunny Side Up program. The contest gained much support from schools and local media. The Sunny Side Up program has been quite successful in engaging the community in conservation and energy sustainability. WHSI feels like this type of program is an effective means of getting the message of energy conservation out to the public and fills a niche that is not readily covered by OPA programs.

In addition to the Sunny Side Up program, WHSI also runs a YouTube account and posts videos that educate the community on various energy-related topics, including TOU pricing and details on solar installations being built across Woodstock.

As an active member of the Woodstock Chamber of Commerce, Woodstock Hydro has taken the lead on two initiatives. As the sponsor of the annual Energy Conservation and Innovation Award, Woodstock Hydro raises awareness of those businesses that achieve exceptional results from retrofit and innovative energy efficiency implementations. This award is high profile and provides case study and a short video presentation of the installation.

The second initiative is the Chamber's Energy Conservation and Innovation committee. Working as a sub-committee of the Industry and Business committee, Woodstock Hydro created and Chaired this initiative for several years.

WHSI is committed to working with the Ontario Power Authority (OPA) to deliver CDM programs for the remainder of the current CDM 2011-2014 framework, and beyond. WHSI has a number of comments based on the lessons it has learned delivering CDM in its service territory in 2011 and earlier. These include:

1. **Establishing a better method of sharing DR3 participant information between aggregators, the OPA and WHSI.** In several instances, WHSI has approached a customer in its service territory to gauge their interest in DR3 only to find that the customer has already signed on with an aggregator. As WHSI has close connections with many of its customers, its staff would be an excellent resource to nurture existing participants and ensure that they continue participation until 2014. Not having access to the details of DR3 contracts in its service territory also prevents WHSI from knowing if the DR3 contracts are a result of its marketing efforts, or the result of satellite applications or aggregator efforts.
2. **Providing additional support to the public sector.** WHSI notes that many public sector facilities and institutions are in need of major energy efficiency retrofits. WHSI hopes to work more closely with public official in the future to help them launch conservation projects. Any consideration towards specialized public sector initiatives (or special rules within existing initiatives) to help overcome barriers faced by this sector would facilitate this relationship. Unlike projects in commercial, industrial and residential sectors, retrofits within the public sector go to improving services and infrastructure used and supported by all ratepayers and thus could warrant additional support.
3. **Customer awareness, and education are vital in the promotion of conservation.** Through WHSI's experiences with its Sunny Side Up program, WHSI has learned that public engagement is very effective in getting the community active and excited about the benefits of conservation. In the future, WHSI hopes to boost its community engagement activities, and create one consistent conservation brand under its Sunny Side Up logo. As a result, it hopes that the existing buzz around the Sunny Side Up program and its YouTube channel can be extended towards the OPA CDM programs.
4. **Business case studies and industry fact-finding can enable WHSI to better market the PSUI and Energy Audit initiatives.** WHSI is interested in compiling business case studies that demonstrate the actual savings that can be achieved through the PSUI program, or through equivalent programs in other jurisdictions. These case studies could be put in a report format and presented to prospective PSUI participants in WHSI's service territory (or throughout Ontario) as a means of demonstrating the business case of conservation. Additionally, this exercise can help WHSI gain an understanding of the potential for industrial conservation in its service territory and how to effectively promote the PSUI and Energy Audit initiatives to its customers.

### 3 Combined CDM Reporting Elements

#### 3.1 Progress Towards CDM Targets

Table 9: Net peak demand savings at the end user level (MW)

Implementation Period	Annual (MW)			
	2011	2012	2013	2014
2011 - Verified	2.93	0.91	0.91	0.89
2012				
2013				
2014				
Verified Net Annual Peak Demand Savings in 2014:				<b>0.89</b>
WHSI 2014 Annual CDM Capacity Target:				<b>4.49</b>
Verified Portion of Peak Demand Savings Target Achieved (%):				<b>19.88%</b>
WHSI Strategy, Milestone submitted for 2011				10%
Variance (MW)	+2.47	+0.45	+0.45	+0.43

Table 10: Net energy savings at the end-user level (GWh)

Implementation Period	Annual (GWh)				Cumulative (GWh)
	2011	2012	2013	2014	2011-2014
2011 - Verified	5.14	5.02	5.02	4.98	20.17
2012					
2013					
2014					
Verified Net Cumulative Energy Savings 2011-2014:					<b>20.17</b>



WHSI 2011-2014 Cumulative CDM Energy Target:					<b>18.88</b>
Verified Portion of Cumulative Energy Target Achieved (%):					<b>106.86%</b>
WHSI Strategy, Milestone submitted for 2011					<b>29%</b>
Variance (GWh)	+3.76	+5.02	+5.02	+4.98	+18.80

### 3.2 CDM Strategy Modifications

2011 was a start-up year for OPA CDM program initiative across Ontario. Despite the delays that this caused, WHSI is pleased to report that it is not only well beyond its 2011 forecasted targets but that it has already met its entire 2011-2014 energy savings target. Additionally, should existing DR3 contracts remain in place until 2014, WHSI has met over 50% of its 2014 summer peak demand target.

This success was realized through savings from 2011 programs, as well as a through savings from pre-2011 ERIP projects completed in 2011. WHSI's savings were examined to determine the success of WHSI's 2011 programs without the contribution of pre-2011 ERIP projects. The results of this examination show that WHSI's 2011 CDM programs are performing at the provincial average for energy savings and above the provincial average for demand savings.

In light of these results, WHSI will aim to hit over 100% of both of its energy and demand targets. To do so, it will continue delivering OPA CDM programs as described in its CDM Strategy. In addition, WHSI is in the process of reviewing its delivery strategies and identifying any strategy modifications that it will pursue in 2012 and beyond. These modifications will be based on:

- Lessons learned in delivering programs in 2011
- Findings of the third party program evaluations
- Identifying programs that have had greatest impact in its service territory
- Identifying programs that have had the greatest impact across the province
- Understanding which programs respond best to WHSI marketing efforts
- Understanding which programs are best suited to meet the specific needs of its customer base
- Optimizing PAB expenditures to further increase participation in OPA CDM programs

As WHSI has exceeded its 2011 targets, it will also aim to continue promoting a broader definition of conservation to the Woodstock community. WHSI aims to do so through community education endeavors, the use of its innovative Sunny Side Up demonstration trailer and through other means including its YouTube channel and other social engagement. The objectives of this broader delivery of conservation are to inform the community on conservation benefits that extend beyond those of OPA programs and to continue establishing Woodstock as a leading community in conservation and energy sustainability