
Enersource Hydro Mississauga Inc.

Conservation and Demand Management 2011 Annual Report

**Submitted to:
Ontario Energy Board**

Submitted on October 1, 2012

Enersource Hydro Mississauga Inc. 2011 CDM Annual Report

October 1, 2012

TABLE OF CONTENTS

EXECUTIVE SUMMARY	2
BACKGROUND	2
1 BOARD-APPROVED CDM PROGRAMS.....	6
1.1 INTRODUCTION.....	6
1.2 TOU PRICING	6
1.2.1 BACKGROUND	6
1.2.2 TOU PROGRAM DESCRIPTION.....	6
1.3 ENERSOURCE HYDRO MISSISSAUGA'S APPLICATION WITH THE OEB	8
2 OPA-CONTRACTED PROVINCE-WIDE CDM PROGRAMS	9
2.1 INTRODUCTION.....	9
2.2 PROGRAM DESCRIPTIONS	11
2.2.2 COMMERCIAL AND INSTITUTIONAL PROGRAM.....	22
2.2.3 INDUSTRIAL PROGRAM.....	30
2.2.4 LOW INCOME INITIATIVE (HOME ASSISTANCE PROGRAM) (Schedule E).....	36
2.2.5 PRE-2011 PROGRAMS COMPLETED IN 2011	38
2.3 PARTICIPATION	40
2.4 SPENDING	42
2.5 EVALUATION	44
2.5.1 EVALUATION FINDINGS.....	44
2.5.2 EVALUATION RESULTS	51
2.6 ADDITIONAL COMMENTS.....	55
3 COMBINED CDM REPORTING ELEMENTS.....	56
3.1 PROGRESS TOWARDS CDM TARGETS	56
3.2 CDM STRATEGY MODIFICATIONS	58

Executive Summary

2011 CDM Savings Results

The Ontario Power Authority (OPA) has issued the final verified CDM results for 2011, which shows that Enersource Hydro Mississauga Inc. (Enersource) has achieved the following actual savings:

- 42 GWh incremental Energy savings or 74% of the 2011 CDM targets, which accounts to cumulative savings of 167 GWh or 40% of the Ontario Energy Board (OEB) approved targets for the four (4) year period, 2011 – 2014, as shown in Table 1 below.
- 16 MW incremental Peak Demand savings or 44% of the 2011 CDM targets, which reduces to 10 MW annual savings (excluding Demand Response 3 (DR 3) savings) or 10.8% of the OEB approved targets for the four (4) year period, 2011 – 2014, as shown in Table 2 below. However, if the DR 3 savings achieved in 2011 are counted towards 2014 targets, that is, assuming persistence of the DR 3 savings through renewal of DR contract (as shown in the OPA results for Scenario 2), then Enersource would have achieved 17.1% of the OEB-approved Peak Demand targets for the four (4) year period.

Table 1: Net Energy Consumption CDM Savings Result

	As At December 31, 2011 Annual GWh Savings			2011 - 2014 Cumulative GWh Savings		
CDM PROGRAM	Target Savings	Actual Savings	% Targets Achieved	Target Savings	Actual Savings	% Targets Achieved
Residential	13.1	6.4	49%	123.4	25.4	21%
Commercial & Institutional	34.5	33.7	98%	197.5	133.4	68%
Industrial	9.3	2.2	23%	96.2	8.2	8%
TOTAL CDM	56.9	42.3	74%	417.1	167.0	40%

Table 2: Net Peak Demand (MW) Savings Result

	As at December 31, 2011 Annual MW Savings			2011 - 2014 Annual MW Savings		
CDM PROGRAM	Target Savings	Actual Savings	% Targets Achieved	Target Savings	Actual Savings	% Targets Achieved
Residential	3.5	2.5	72%	18.5	2.2	12%
Commercial & Institutional	23.1	9.7	42%	47.9	7.5	16%
Industrial	9.7	3.7	38%	26.6	0.4	2%
TOTAL CDM	36.3	15.9	44%	92.98	10.1	10.8%

Enersource Hydro Mississauga Inc. 2011 CDM Annual Report

- **Program Implementation and Progress**

In alignment with the *Green Energy and Green Economy Act, 2009*, to promote energy conservation and energy efficiency for all consumers, Enersource's implementation strategy for 2011 comprises the following delivery approaches:

- Procuring services of third party delivery contractors on full turnkey basis for some CDM program initiatives in order to attract appropriate conservation resources that facilitated an aggressive approach towards sales, marketing and promotion efforts to maximize our savings results;
- The use of permanent and contract employees, who maintained the company's focus on program contract administration, monitoring, reporting, quality assurance, and quality control; and
- Collaboration with other Local Distribution Companies such as Hydro One Brampton and Coalition of Large Distributors (CLD) members as well as Hydro One Networks Inc. to share learning and best practices to generate cost efficiencies.

Enersource's actual verified savings results in 2011, as per Table 1 and Table 2 above, indicate a shortfall from OEB-approved targets as follows:

- 15 GWh Energy, or 26% adverse variance; and
- 20 MW Peak Demand, or 26 % adverse variance.

The main reasons for the shortfall from the targets include the following factors:

- (i) OPA delays with finalizing and launching the CDM program schedules on time for January 1, 2011, which was exacerbated due to the requirement for competitive procurement processes in order to outsource delivery services to third party vendors and recruitment of appropriate skilled CDM internal staffing.
- (ii) Non-availability of several OPA program initiatives in market place for 2011
- (iii) Low program uptake by participants for several OPA program initiatives that were available in 2011.
- (iv) The average savings achieved in 2011 for some program initiatives have been much lower than forecasted. This includes Equipment Replacement Initiative and all residential programs with the exception of Heating and Cooling Incentives.
- (v) To date we have seen several CDM projects being postponed by participants due to restrictions in capital budget allocations relating to the economic climate in Ontario.

(vi) Longer lead time is expected for project completion under the Industrial Programs Process and Systems Upgrade Initiative, which would result to significant savings being achieved beyond December 31, 2014.

(vii) Some of the program initiatives or similar programs were being run prior to 2011 and are now experiencing the market saturation phase.

Despite the shortfalls in the 2011 savings results, Enersource expects to meet the remaining CDM Targets through the delivery of OPA-contracted programs (“OPA Programs”) and may consider any OEB or Board-approved CDM programs, including Time-of-Use (TOU) pricing, that become available. Also, in order to make up the potential shortfalls in targets, Enersource is proposing for the OPA to consider expanding the program duration beyond 2014 to make up for the delays with program start up beyond January 1, 2011.

Enersource will not revise its CDM Strategy at this point and is forecasting to make up for any shortfalls in its 2011 targets through OPA Programs, while continuing to explore opportunities for synergies and cost savings with program expansion under potential Board-approved CDM programs. As a result, Enersource's CDM delivery strategy to achieve its targets fully for the remaining years to 2014 is dependent upon the OPA's progress with replacing and or enhancing the unsuccessful CDM program initiatives that were included as part of its approved CDM Strategy (submitted in November, 2010).

Background

On March 31, 2010, the Minister of Energy and Infrastructure of Ontario, under the guidance of Sections 27.1 and 27.2 of the *Ontario Energy Board Act, 1998*, directed the Ontario Energy Board (OEB) to establish Conservation and Demand Management (CDM) targets to be met by electricity distributors. Accordingly, on November 12, 2010, the OEB amended the distribution licence of Enersource Hydro Mississauga Inc. (Enersource) to require Enersource, as a condition of its licence, to achieve 417 GWh of energy savings and 92 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, Enersource submitted its CDM Strategy on November 1, 2010, which provided a high level description of how Enersource 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 CDM program that is being offered in Enersource’s service area.

1.2 TOU Pricing

1.2.1 BACKGROUND

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

In accordance with a Directive dated March 31, 2010 by the Minister of Energy and Infrastructure, the OEB is of the view that any evaluations of savings from TOU pricing should be conducted by the OPA for the province, and then allocated to distributors. Enersource 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 Enersource is not able to provide any verified savings related to Enersource’s TOU program at this time.

1.2.2 TOU PROGRAM DESCRIPTION

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

Initiative Frequency: Year-Round

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

Description: In August of 2010, the OEB issued a final determination to mandate TOU pricing for Regulated Price Plan (RPP) customers by June 2011, in order to support the Government's expectation for 3.6 million RPP consumers to be on TOU pricing by June 2011, and to ensure that smart meters funded at ratepayer expense are being used for their intended purpose.¹

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

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

Delivery: OEB set rates; LDC installation and maintenance of the meter; LDC converts customers to TOU billing.

Initiative Activities/Progress:

Enersource began transitioning its RPP customers to TOU billing in September 2011. On December 31st, 2011, 25,494 RPP customers were on TOU billing.

¹ By application dated January 27, 2011, seeking an extension to its mandated time-of-use pricing date, Enersource received Board approval for an exemption from the requirement to apply TOU pricing under the Standard Supply Service Code until May 31, 2012.

1.3 Enersource's Application to the OEB

In its application for 2012 rates, EB-2011-0100, Enersource received approval for the recovery of lost revenues associated with its conservation efforts, per the Lost Revenue Adjustment Mechanism (LRAM). Enersource's LRAM claim in that proceeding represented lost revenues arising from the persistence of 2005-2009 CDM programs in 2010 and lost revenues from 2010 CDM programs in 2010. No claim was included for 2011.

On April 26, 2012, the Board issued "Guidelines for Electricity Distributor Conservation and Demand Management" (CDM Guidelines). In these CDM Guidelines, the Board established a new approach for LRAM for the 2011-2014 CDM periods and authorized the establishment of an LRAM variance account (LRAMVA) to capture variances between the actual results of CDM programs and the levels forecast in LDC load forecasts underpinning rates.

Enersource will track and monitor the impacts of CDM activities in 2011-2014 and record these variances in the LRAMVA, in accordance with the CDM Guidelines.

2 OPA-Contracted Province-Wide CDM Programs

2.1 Introduction

Effective March 1 2010, Enersource entered into an agreement with the OPA to deliver CDM programs extending from January 1, 2011 to December 31, 2014. These programs are listed below. In addition, results will be reported from projects started pre-2011 yet were completed in 2011:

Table 3: OPA-Contracted Province-Wide In-Market CDM Programs

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

Enersource Hydro Mississauga Inc. 2011 CDM Annual Report

Industrial Program			
Process & System Upgrades	Schedule D-1	May 31, 2011	General Service 50 kW & above
Monitoring & Targeting	Schedule D-2	May 31, 2011	General Service 50 kW & above
Energy Manager	Schedule D-3	May 31, 2011	General Service 50 kW & above
Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	Schedule C-2	May 31, 2011	General Service 50 kW & above
Demand Response 3	Schedule D-6	May 31, 2011	General Service 50 kW & above
Home Assistance Program			
Home Assistance Program	Schedule E-1	May 9, 2011	All residential rate classes
Pre-2011 Programs completed in 2011			
Electricity Retrofit Incentive Program	n/a	n/a	All general service classes
High Performance New Construction	n/a	n/a	All general service classes
Multifamily Energy Efficiency Rebates	n/a	n/a	All general service classes

Table 4: OPA-Contracted Province-Wide Not-In-Market CDM Programs

Initiative Not in Market in 2011	Objective	Status
Residential Program		
Midstream Electronics	The objective of this initiative is to encourage retailers to promote and sell high efficiency televisions, and for distributors to distribute high efficiency set top boxes.	Not launched to market
Midstream Pool Equipment	The objective of this initiative is to encourage pool installers to sell and install efficient pool pump equipment in residential in-ground pools.	Not launched to market
First Nations Program	First Nations programs are delivered by OPA and results are attributed to LDCs for reporting.	Not launched to market
Home Energy Audit Tool	This is a provincial online audit tool to engage customers in conservation and help drive	Not launched to market

	customer participation to CDM programs.	
Commercial & Institutional Program		
Direct Service Space Cooling	The objective of this initiative is to offer free servicing of air conditioning systems and refrigeration units for the purpose of achieving energy savings and demand reduction.	Not launched to market in 2011. The OPA has no plans to launch this initiative 2012
Demand Response 1	This initiative allows distribution customers to voluntarily reduce electricity demand during certain periods of the year pursuant to the DR 1 contract. The initiative provides DR payment for service for the actual electricity reduction provided during a demand response event.	No customer uptake for this initiative
Industrial Program		
Demand Response 1	As above	No customer uptake for this initiative

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

2.2 Program Descriptions

2.2.1 RESIDENTIAL PROGRAM

2.2.1.1 APPLIANCE RETIREMENT INITIATIVE (Exhibit D)

Target Customer Type(s): Residential customers

Initiative Frequency: Year round

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

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

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

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

Additional detail is available:

- Schedule B-1, Exhibit D
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf

and

- saveONenergy website <https://saveonenergy.ca/Consumer/Programs/Appliance-Retirement.aspx>

Initiative Activities/Progress: Appliance Retirement program uptake continues to decline. This program has been offered as the Great Refrigerator Round-Up in earlier years and is reaching market saturation. Enersource only achieved 38% and 41% of its 2011 kW and MWh targets respectively, despite increased marketing efforts.

In Market Date: March 5, 2011

Although the program was made available by the OPA early in 2011, marketing efforts were not fully in place until June due to delays with recruitment of appropriate personnel. Marketing activities were increased with various local media, online as well as at community events.

Lessons Learned:

- The Appliance Retirement Initiative (previously The Great Refrigerator Round-Up) has been offered by LDCs since 2007. This initiative is approaching market saturation.
- While the OPA and the LDCs have reviewed this initiative to assess whether to include other products, appliances have a natural life cycle and the initiative

cannot be expected to continually deliver the high level of results in perpetuity. These lower expectations have been taken into account when developing conservation portfolios.

- This initiative now faces some competition from independent retailers and municipalities.
- Results are very responsive to province-wide advertising.

2.2.1.2 APPLIANCE EXCHANGE INITIATIVE (Exhibit E)

Target Customer Type(s): Residential customers

Initiative Frequency: Spring and Fall

Objective: The objective of this initiative is to remove and permanently decommission older, inefficient window air conditioners and portable dehumidifiers that are in Ontario.

Description: This initiative involves appliance exchange events. Exchange events are held at local retail locations and customers are encouraged to bring in their old room air conditioners (AC) and dehumidifiers in exchange for coupons/discounts towards the purchase of new energy efficient equipment.

Targeted End Uses: Window air conditioners and portable dehumidifiers

Delivery: OPA contracts with participating retailers for collection of eligible units.

Additional detail is available:

- Schedule B-1, Exhibit C
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf and
- saveONenergy website <https://saveonenergy.ca/Consumer.aspx>

Initiative Activities/Progress: Enersource achieved 14% and 12% of its budgeted 2011 kW and MWh targets for this program. Progress is slow as customers are limited to a specific weekend in which they can bring their units in for retirement. As a result, retailers lost interest in the program after the initial Spring launch and ceased to participate in the Fall. This program does not work without retailer support.

In Market Date: March 5, 2011

This program was offered in the Enersource area during the weekends specified by the OPA and retailers. Enersource has printed advertisements to drive traffic to participating retailers and when possible, have arranged for staff to be on site to further promote energy conservation.

Lessons Learned:

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

2.2.1.3 HVAC INCENTIVES INITIATIVE (Exhibit B)

Target Customer Type(s): Residential customers

Initiative Frequency: Year round

Objective: The objective of this initiative is to encourage the replacement of existing heating systems with high efficiency furnaces equipped with Electronically Commutated Motors (ECM), and to replace existing central air conditioners with ENERGY STAR qualified systems and products.

Description: This is an energy efficiency initiative that provides rebates for the replacement of old heating or cooling systems with high efficiency furnaces (equipped with ECM) and Energy Star qualified central air conditioners by approved Heating, Refrigeration, and Air Conditioning Institute (HRAI) qualified contractors.

Targeted End Uses: Central air conditioners and furnaces

Delivery: OPA contracts centrally for delivery of the program and LDCs are encouraged to convince local contractors to participate in the initiative.

Additional detail is available:

- Schedule B-1, Exhibit B
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholder

s/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf and

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

Initiative Activities/Progress: Enersource has placed additional marketing efforts into this program as it is a new program that can bring long term savings to our customers. Current activities include direct mail campaigns to selected neighbourhoods, GO transit shelter decals, local community outreach at events, newspaper advertisements as well as The Weather Network online banners, just to name a few. Progress with this program is excellent as customers can obtain a rebate and save energy in the long term and customers are opting to install the higher efficiency Tier 2 air conditioners and thus, increasing the net to gross ratio. However, with the high cost of a new heating and cooling system, many customers will not be able to afford a new system even with the rebate and participation will start to decline once we have reached out to all the high income families that can afford a new system.

Enersource achieved 133% and 153% of its 2011 kW and MWh targets.

In Market Date: March 5, 2011

Enersource entered the market with full advertising in September of 2011. As a result of the Fall campaign, Enersource saw a sharp increase in participation rate in the latter part of the year.

Lessons Learned:

- Channel engagement is a highly effective method of connecting with customers; however channel partners require timeliness of the rebate process to maintain a positive relationship between consumers, contractors, the OPA, and the participating LDC.
- There appears to be spillover from non-HRAI contractors who are ineligible for this initiative. There are cases where smaller independent contractors are offering their own incentives (by discounting their installations to match value of the OPA incentive) to make the sale. As this occurs outside of the initiative, these installations are not being attributed to any LDC.

2.2.1.4 CONSERVATION INSTANT COUPON BOOKLET INITIATIVE (Exhibit A)

Target Customer Type(s): Residential customers

Initiative Frequency: Year round

Enersource Hydro Mississauga Inc. 2011 CDM Annual Report

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

Description: This initiative provides customers with year round coupons. The coupons offer instant rebates towards the purchase of a variety of low cost, easy to install energy efficient measures and can be redeemed at participating retailers. Booklets were directly mailed to customers and were also available at point-of-purchase. Downloadable coupons were also available at www.saveoneenergy.ca.

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

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

Additional detail is available:

- Schedule B-1, Exhibit A
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf and
- saveONenergy website <https://saveonenergy.ca/Consumer.aspx>

Initiative Activities/Progress: Enersource has been active with the conservation coupon books, distributing them to our residents through direct mail, at community and retailer events.

Enersource explored other options for distributing coupons, including posting online for customer download and print as well as printing them in the local newspaper. Although both have proven to be effective, Enersource was asked by the OPA to refrain from these avenues as it will cause discrepancies in their marketing data.

Additionally, coupon redemption data were not made available until the end of 2011. Enersource did not have any reporting data during the course of 2011 to gauge marketing effectiveness and adjust accordingly.

With the limited marketing and market feedback, Enersource achieved 52% and 33% of its 2011 kW and MWh target.

In Market Date: March 5, 2011

Enersource began actively promoting these coupon booklets as well as educating customers on the use of each product in June of 2011.

Lessons Learned:

- The downloadable coupons proved to be more successful than the mailed out booklets.
- This initiative may benefit from an enabler such as a Conservation Card / Loyalty Card to increase customer participation.
- The timeframe for retailer submission of redeemed coupons vary from retailer to retailer. This delays the results reporting, which in turn limits the OPA and LDC 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 is to provide instant point of purchase discounts to individuals at participating retailers for a variety of energy efficient products.

Description: Twice a year (Spring and Fall), participating retailers host month-long rebate events. During the months of April and October, customers are encouraged to visit participating retailers where they can find coupons redeemable for instant rebates towards a variety of low cost, easy to install energy efficient measures.

Targeted End Uses: Same as the conservation instant coupon booklet initiative.

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

Additional detail is available:

- Schedule B-1, Exhibit C
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholder_s/current_electricity_contracts/pdfs/Schedule%20B-1%20Residential%20Program.pdf and
- saveONenergy website <https://saveonenergy.ca/Consumer.aspx>

Enersource Hydro Mississauga Inc. 2011 CDM Annual Report

Initiative Activities/Progress: Enersource achieved 73% and 49% of its 2011 kW and MWh targets through active promotion of the events.

In Market Date: Enersource participated in both the spring and fall events through marketing.

Lessons Learned:

- The product list has changed very little over the past four years.
- Program evolution, including new products (for example, LED lighting) and review of incentive pricing for the coupon initiatives, must be a regular activity to ensure continued consumer interest.
- A review conducted by the Residential Working Group in Q4 2011 identified three areas of need for initiative evolution: 1) introduction of product focused marketing; 2) enhanced product selection and 3) improved training for retailers.

2.2.1.6 RETAILER CO-OP

Target Customer Type(s): Residential customers

Initiative Frequency: Year round

Objective: Hold promotional events to encourage customers to purchase energy efficiency measures (and go above-and-beyond the traditional bi-annual coupon events).

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

Targeted End Uses:

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

Initiative Activities/Progress: Enersource achieved an incremental net savings of 86 kWh, cumulating to 344 kWh by the end of 2014.

In Market Date: March 5, 2011

Lessons Learned:

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

2.2.1.7 NEW CONSTRUCTION PROGRAM (Schedule B-2)

Target Customer Type(s): Residential customers

Initiative Frequency: Year round

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

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

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

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

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

Additional detail is available:

- Schedule B-1, Exhibit C
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholder_s/current_electricity_contracts/pdfs/Schedule%20B-2%20New%20Construction%20Program.pdf and
- saveONenergy website <https://saveonenergy.ca/Consumer.aspx>

Enersource Hydro Mississauga Inc. 2011 CDM Annual Report

Initiative Activities/Progress: Enersource had not received any application or expression of interest in this program. Mississauga has been developing rapidly in recent years and designated residential land use space is short, resulting in a limited new developments.

In Market Date: March 5, 2011

Incentive for program uptake in Mississauga will be low despite monetary incentives offered by the OPA. High demand for new developments in Mississauga continued to drive housing prices up, reducing the need for developers to “add-value” to their developments in order to complete the housing transaction.

Lessons Learned:

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

2.2.1.8 RESIDENTIAL DEMAND RESPONSE PROGRAM (Schedule B-3)

Target Customer Type(s): Residential and small commercial customers

Initiative Frequency: Year round

Objective: The objectives of this initiative are to enhance the reliability of the IESO-controlled grid by accessing and aggregating specified residential and small commercial end uses for the purpose of load reduction, increasing consumer awareness of the importance of reducing summer demand and providing consumers their current electricity consumption and associated costs.

Description: In *peaksaver*PLUS™ participants are eligible to receive a free programmable thermostat or switch, including installation. Participants also receive access to price and real-time consumption information on an In Home Display (IHD). LDCs were given the choice to continue to offer the standard load control program (programmable thermostat or switch with a \$25 bill credit) for the first 8 months of 2011 (referred to as *peaksaver*® Extension). After August 2011, the Extension ended and the program (including marketing) ceased until new IHD products were available.

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

Enersource Hydro Mississauga Inc. 2011 CDM Annual Report

Delivery: LDC's recruit customers and procure technology

Additional detail is available:

- Schedule B-1, Exhibit C
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/SCHED_2011_ResDR_B_3_110727%28MJB%29v15_redacted.pdf and
- SaveONenergy website <https://saveonenergy.ca/Consumer.aspx>

Initiative Activities/Progress: Due to the complexity of the program and the infancy of in home display technology in the marketplace, Enersource was unable to offer the *peaksaver*PLUS™ program in its service territory in 2011. Rather, Enersource opted for the *peaksaver*® Extension and installed an additional 431 thermostat load control devices, equivalent to 75% and 11% of Enersource's 2011 kW and MWh targets.

The variance between MWh achieved and forecasted in Enersource's budget submitted to the OEB is caused by the Evaluation Measurement and Verification (EM&V) process. Enersource utilized the Resource Planning Tool supplied by the OPA to convert from participation rates to energy and peak demand savings. The EM&V process had determined that the savings per device was only 10% of the assumed savings provided by the OPA in the Resource Planning Tool. As a result, Enersource's actual energy savings achieved was reduced from 6,711 kWh to 783.51 kWh.

In Market Date: June 27, 2011

Enersource continued promotion of the *peaksaver*® Extension program in July after the OPA issued the amended schedule. The *peaksaver*PLUS™ program launch is planned for September of 2012.

Lessons Learned:

- The schedule for Peaksaver Plus was posted in August 2011, but this did not provide adequate time for product procurement for 2011, and part of 2012. The product procurement process uncovered that the In Home Display units that communicate with installed smart meter technology were still in development and not ready for market deployment. Consequently, LDCs could not be in market with the Peaksaver Plus program until 2012.
- Introduction of new technology requires incentives for the development of such technology. Appropriate lead times for LDC analysis and assessment, product procurement, and testing and integration into the Smart Meter environment are also required. Making seemingly minor changes to provincial technical

specifications can create significant issues when all LDCs attempt to implement the solution in their individual environments.

- Where a provincial solution is not available to all participants, attention to addressing specific LDC concerns is 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 is to offer incentives to non-residential distribution customers to achieve reductions in electricity demand and consumption by upgrading to more energy efficient equipment for lighting, space cooling, ventilation and other measures.

Description: The Equipment Replacement Incentive Initiative (ERII) offers financial incentives to customers for the upgrade of existing equipment to energy efficient equipment. Upgrade projects can be classified into either: 1) prescriptive projects where prescribed measures replace associated required base case equipment; 2) engineered projects where energy and demand savings and incentives are calculated for associated measures; or 3) custom projects for other energy efficiency upgrades.

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

Delivery: LDC delivered.

Additional detail is available:

- Schedule C2
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholder_s/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: Enersource achieved 2,236 kW and 12,075 MWh savings which represents 25% and 69% of its demand and energy targets, respectively in 2011.

As a result, the annual demand savings persistence is 2,236 kW and the cumulative energy savings is 48,301 MWh representing a 12% demand savings and 44% energy savings as at December 31, 2014.

This initiative was delivered through a third party vendor via a turnkey solution with the aim of targeting Enersource's sales and marketing efforts to attract larger average size kW savings per project application. However, since the average demand savings per project under the ERII applications received in 2011 have been much lower than forecasted, Enersource has changed its delivery approach in 2012 in order to optimize its Program Administration Budget (PAB) spend for smaller average size kW projects. The delivery approach now involves utilizing internal resources for managing program delivery and utilizes the third party vendor to complete technical evaluations of complex and large projects including non-lighting custom retrofit project applications.

In Market Date: Enersource registered with the OPA in March 2011 for this initiative, but experienced delays in program launch due to the OPA CRM / ICON system not being fully functional and the requirements for competitive procurement process.

The uptake of the ERII program in 2011 was affected by the late launch of the saveONenergy Business Incentives Programs.

Enersource continues to aggressively market and promote this initiative to determine CDM opportunities including: out bound call activity, regular information seminars to potential customers and vendors, breakfast seminar engaging various associations with appropriate channel partner engagement and education, participants E-blasts, vendor E-blasts, Key Account Manager direct meetings with customers, etc.

Lessons Learned:

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

process, the centralized process review used for 2012 project payment has been streamlined.

- In March 2011, the revised iCON system was launched by the OPA. This is the major online application system implemented to aid the 2011-2014 ERII application process. With system applications of this size and functionality, it was expected that there would be various issues identified at the time of the release, and on-going, to prove that the system was "ready for market." Unfortunately, the resolution of these issues, with the corresponding time lags and workarounds, was seen to be a barrier to some customer participation in the 2011 program year. In addition, there were also on-going issues and limitations with the back-end CRM system that affected the LDCs' ability to effectively review and approve applications. Some LDCs (and their third party service providers) have developed parallel systems to monitor their 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 is to offer a free installation of eligible lighting and water heating measures of up to \$1,000 to eligible owners and tenants of commercial, institutional, agricultural facilities, and multi-family buildings, in order to achieve electricity savings and peak demand savings.

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

Target End Uses:

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

Additional detail is available:

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

Enersource Hydro Mississauga Inc. 2011 CDM Annual Report

- SaveONenergy website <https://saveonenergy.ca/Business.aspx>

Initiative Activities/Progress: Enersource achieved 3,359 kW and 8,483 MWh savings which represents 99% and 122% of its demand and energy targets respectively in 2011.

As a result, the annual demand savings persistence is 2,887 kW and the cumulative energy savings is 32,310 MWh representing a 3% demand savings and 8% energy savings as at December 31, 2014.

In Market Date: Enersource registered with the OPA in March 2011 for this initiative, but experience delays in launching the program to small business customers until June 2011 due to the competitive procurement process.

Enersource continues to actively promote this program through business partners, local media, and targeted marketing. However, the program uptake is expected to reduce significantly in 2012 due to market saturation in Enersource's service area.

Lessons Learned:

- The Direct Installed Lighting Initiative is a continuation of the Power Saving Blitz Initiative offered by LDCs from 2008-2010. Successful execution of the previous rendition of this initiative has resulted in diminished potential for the 2011-2014 initiative in some LDC territories.
- The inclusion of a standard incentive for additional measures increased project size and drove higher energy and demand savings results.
- The cost of materials has experienced price volatility, reducing the margins of the electrical contractors and has led to a reduction in vendor channel participation in some regions.
- Due to backlogs in the payment system, participant incentive payment from the OPA to the LDC, and therefore to the customer, was commonly delayed.
- To address these issues, the LDCs have been working with the OPA through Change Management to address:
 - extending the target initiative population to include small agricultural customers;
 - increasing the incentive envelope of \$1,000 to \$1,500 to ensure ongoing marketability of the program; and
 - reviewing the eligible measure price list to support contractor participation.

2.2.2.3 EXISTING BUILDING COMMISSIONING INCENTIVE INITIATIVE (Schedule C-6)

Target Customer Type(s): Commercial, institutional, and agricultural customers

Initiative Frequency: Year round

Objective: The objective of this initiative is to offer incentives for optimizing (but not replacing) existing chilled water systems for space cooling in non-residential facilities for the purpose of achieving implementation phase energy savings, implementation phase demand savings, or both.

Description: This initiative offers participants incentives for the following:

- scoping study phase
- investigation phase
- implementation phase
- hand off/completion phase

Targeted End Uses: Chilled water systems for space cooling

Delivery: LDC delivered.

Additional detail is available:

- Schedule C-6
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20C-6%20Commissioning%20Initiative.pdf and
- saveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Existing-Building-Commissioning.aspx>

Initiative Activities/Progress: Enersource has not received any applications or expressions of interest in this program within the Mississauga area.

In Market Date: Enersource registered with the OPA in March 2011 for this initiative, but experienced delays in launching the program to business customers until June 2011 due to the competitive procurement process.

The opportunities for program uptake in the Existing Building Commissioning Incentive Program are limited and time sensitive. As a result, the market for water chiller re-commissioning is significantly smaller than previously anticipated and may explain the

general lack in uptake of this incentive program. Enersource will continue to market and promote the program by building program awareness and engaging commissioning agents, the HVAC channel and vendors partners.

Lessons Learned:

- There was no customer uptake for this initiative. It is suspected that the scope of the initiative being limited to space cooling contributed to the lack of participation. Accordingly chilled water systems used for other purposes should be made eligible and considered through Change Management.
- The customer expectation is that the program be expanded to include broader building improvements for a more holistic approach to building 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 is to encourage builders of commercial, institutional, and industrial buildings (including multi-family buildings and agricultural facilities) to reduce electricity demand and/or consumption by designing and building new buildings with more energy-efficient equipment and systems for lighting, space cooling, ventilation and other measures.

Description: The New Construction initiative provides incentives for new buildings to exceed existing codes and standards for energy efficiency. The initiative uses both a prescriptive and custom approach.

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

Delivery: LDC delivers to customers and design decision makers.

Additional detail is available:

- Schedule C-4
<http://www.powerauthority.on.ca/sites/default/files/page/ScheduleC-4NewConstructionInitiativeV2.pdf> and

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

Initiative Activities/Progress: Enersource has not received any new applications in this program within the Mississauga area.

In Market Date: Enersource registered with the OPA in March 2011 for this initiative but experienced delays in launching the program to business customers until June 2011 due to the competitive procurement process.

Enersource will continue to market and promote the program by identifying new construction leads through REED connect database, connecting with channel partners and launching telemarketing campaign.

Lessons Learned:

- This is a continuation of the High Performance New Construction program previously delivered by Enbridge Gas under contract with the OPA (and subcontracted to Union Gas), which ran until December 2010.
- For 2011, new industry participation was limited due to the delays in redesign of certain aspects of the initiative such as:
 - 2011 prescriptive incentives needed to be aligned with ERII incentives; and
 - 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 is to offer incentives to owners and lessees of commercial, institutional, multi-family buildings and agricultural facilities for the purpose of undertaking assessments to identify all possible opportunities to reduce electricity demand and consumption within their buildings or premises.

Description: This initiative provides participants incentives for the completion of energy audits of electricity consuming equipment located in the facility. Energy audits include

development of energy baselines, use assessments and performance monitoring and reporting.

Targeted End Uses: Various

Delivery: LDC delivered.

Additional detail is available:

- Schedule C-1
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: Enersource has received and successfully reviewed about ten (10) Energy Audit incentive applications. However, most of these audits were not completed by participants and were not successfully processed by OPA for payment within 2011, hence there were no savings realized.

In Market Date: Enersource registered with the OPA in March 2011 for this initiative but experienced further delays in launching the program to business customers due to the competitive procurement process, thus the in market date was June 2011.

Lessons Learned:

- Customer uptake in 2011 was slow, and Enersource expects increases in the 2012 – 2014 period. Hence, Enersource did not achieve any savings in 2011, but projects are expected for 2012.
- Customers expect a greater connection with other CDM initiatives as a result of completing the energy audit. The initiative should be reviewed under Change Management for the means to readily incent participants with audits in hand to implement other electricity savings initiatives.

2.2.3 INDUSTRIAL PROGRAMS

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

Target Customer Type(s): Industrial, commercial, institutional

Initiative Frequency: Year round

Objectives: The objectives of this initiative are to:

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

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

- a) \$200/MWh of annualized electricity savings;
- b) 70% of projects cost; or
- c) a one year payback.

Targeted End Uses: All industrial processes.

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

Additional detail is available:

- Schedule D-1
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholder_s/current_electricity_contracts/pdfs/Schedule%20D-1%20Process%20and%20Systems%20Upgrades%20Initiative.pdf and
- saveONenergy website <https://saveonenergy.ca/Business.aspx>

Initiative Activities/Progress: Enersource has one project incentive contract signed up. The metrics for the project is as follows:

Table 5: PSUI Program Uptake

Project	Project Status	Project Incentive	Annual Demand Savings (kW)	Annual Energy Savings (MWh)
Project 1	Contract signed	\$ 6,400,000	5000	31,888

In Market Date: This initiative was available to customers from June 2011.

Enersource has held customer information sessions to increase awareness of this program in its targeted customer base.

In addition to the above project, Enersource has also processed four detailed engineering study applications.

Table 6: Detailed Studies Program Uptake Information

Detailed studies	Project Status	Annual Demand Savings (kW)	Annual Energy Savings (MWh)
4	Contract signed	3,454	21,000

Lessons Learned:

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

Enersource Hydro Mississauga Inc. 2011 CDM Annual Report

- With the considerable customer interest in on-site load displacement projects, the initiative should be reviewed to ensure that these projects may be accepted as part of the PSUI initiative.

2.2.3.2 MONITORING & TARGETING INITIATIVE (Schedule D-2)

Target Customer Type(s): Industrial, commercial, institutional and agricultural customers

Initiative Frequency: Year round

Objective: This initiative offers access to funding for the installation of monitoring and targeting (M&T) systems in order to deliver a minimum savings target at the end of 24 months and sustain for the term of the M&T Agreement.

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

Targeted End Uses: Various industrial end uses such as compressed air, HVAC etc.

Delivery: LDC delivered with Key Account Management support.

Additional detail is available:

- Schedule D-2
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20D-2%20Monitoring%20and%20Targeting%20Initiative.pdf and
- SaveONenergy website <https://saveonenergy.ca/Business.aspx>

Initiative Activities/Progress: No applications

In Market Date: June 2011

Due to the energy use requirement of this program, only a few customers are eligible. Of the eligible customer base, most customers find it hard to justify the rate of return as there is no direct financial benefit.

Lessons Learned:

- The M&T initiative was originally targeted at larger customers with the capacity to review the M&T data. This review requires the customer facility to employ an energy manager, or a person with equivalent qualifications, which has been a barrier for some customers. Through the Change Management process in 2012, changes are being made to both the M&T schedule and ERII to allow smaller facilities to employ M&T systems.

2.2.3.3 ENERGY MANAGER INITIATIVE (Schedule D-3)

Target Customer Type(s): Industrial, commercial, institutional and agricultural customers

Initiative Frequency: Year round

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

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

Targeted End Uses:

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

Additional detail is available:

- Schedule D-3
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20D-3%20Energy%20Manager%20Initiative%202011-2014.pdf and
- SaveONenergy website <https://saveonenergy.ca/Business.aspx>

Initiative Activities/Progress: Enersource has actively marketed the EEM and the REM. Enersource has secured funding for two Embedded Energy Managers.

In Market Date: Enersource launched the program to its customers from May 2011 onwards.

The customers are happy to engage with an energy manager and recognize the benefit of having one. Most customers do not have an energy resource, so an energy manager is welcome. However, some customers are reluctant to commit to the Annual Savings Target and as a result do not participate.

Lessons Learned:

- The energy managers have proven to be a popular resource.
- At the beginning, it took longer than expected to set up the energy manager application process.
- Some LDCs are reporting difficulties in hiring capable Roving Energy Managers (REM).
- LDCs that are too small to qualify for their own REM, are teaming up with other utilities to hire an REM.

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: Provide funding for a human resource to be the main point of contact to promote the program with customers over 5 MW.

Description: This initiative offers LDCs the opportunity to access funding for the employment of a key account manager (KAM) in order to support them in fulfilling their obligations related to the PSUI. The KAM is considered to be a key element in assisting the consumer in overcoming traditional barriers related to energy management and help them achieve savings since the KAM can build relationships and become a significant resource of knowledge to the customer. Funding for an LDC is \$150,000 per year for 10 customers over 5 MW and prorated downwards accordingly.

Targeted End Uses: The KAM looks at all the end uses with all the key customers.

Enersource Hydro Mississauga Inc. 2011 CDM Annual Report

Delivery:

Additional detail is available:

- Schedule D-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

Initiative Activities/Progress: Enersource has secured funding for one full time key account manager from the OPA. Enersource had the key account manager start in December 2011.

The KAM has facilitated the project incentive applications, study applications and energy manager applications. The KAM has also held one employee awareness session.

Lessons Learned:

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

2.2.3.5 DEMAND RESPONSE 3 (Schedule D-6)

Target Customer Type(s): Industrial, commercial, institutional and agricultural customers

Initiative Frequency: Year round

Objective: This initiative provides for Demand Response (DR) payment for service to DR3 participants to compensate them for making available electricity demand response during a demand response event.

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

approximately 1,600 hours per calendar year for possible dispatch of up to 100 hours or 200 hours within that year depending on the contract.

Targeted End Uses: Customers with a peak demand greater than 1000 kW

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

Additional detail is available:

- Schedule D-6
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholder_s/current_electricity_contracts/pdfs/Schedule%20D-6%20Demand%20Response%203%202011-2014.pdf and
- SaveONenergy website <https://saveonenergy.ca/Business.aspx>

Initiative Activities/Progress: As per the March 2012 DR3 report, Enersource had 18 participants in this program for 2011. Enersource plans to increase marketing and promotion of the program to further increase participation by holding information sessions with its top 120 customers with greater than 1 MW load. Enersource expects most of the shortfall in demand to come from this program.

In Market Date: January 2011

Lessons Learned:

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

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

Target Customer Type(s): Income qualified residential customers

Initiative Frequency: Year round

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

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

Targeted End Uses: End uses based on results of audit

Delivery: LDC delivered.

Additional detail is available:

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

Initiative Activities/Progress: Enersource did not achieve any savings in 2011. Enersource entered into agreement with Schedule E in July of 2011, initiating the procurement process for this program. Due to the complexity of the program, procurement for a delivery agent was not completed until January of 2012.

In Market Date: June 2012

Lessons Learned:

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

2.2.5 PRE-2011 PROGRAMS COMPLETED IN 2011

2.2.5.1 ELECTRICITY RETROFIT INCENTIVE PROGRAM

Target Customer Type(s): Commercial, institutional, and agricultural customers

Initiative Frequency: Year round

Objective: Refer to section 2.2.2.1

Description: Refer to section 2.2.2.1

Targeted End Uses: Refer to section 2.2.2.1

Delivery: Refer to section 2.2.2.1

Initiative Activities/Progress: Enersource achieved savings of 2,148 kW and 49,399 MWh for ERIP projects completed within 2011. This resulted to 21% of total annual peak demand savings and 29% of cumulative energy savings achieved towards 2011 – 2014.

In Market Date: Enersource received a significant number of ERIP applications in the latter part of 2010, which were completed in 2011 and processed for payment.

Enersource continued with its exceptional effort in processing the ERIP applications, which contributed to its savings targets.

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: Enersource achieved 161 kW annual peak demand savings and 3,316 MWh cumulative energy savings towards 2011 – 2014 targets.

In Market Date: A small number of HPNC applications were received and processed within 2011.

2.2.5.3 MULTIFAMILY ENERGY EFFICIENCY REBATES

Target Customer Type(s): Multifamily buildings of six units or more, including rental buildings, condominiums, and assisted social housing.

Initiative Frequency: Year round

Objective: Refer to section 2.2.2.1

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

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

Targeted End Uses: Refer to section 2.2.2.1

Delivery: Refer to section 2.2.2.1

Initiative Activities/Progress: Enersource achieved 1.3 MWh cumulative energy savings towards 2011 – 2014 targets.

In Market Date: A small number of MEER applications were received and processed within 2011.

2.3 Participation

Table 7: 2011 CDM Program Activities - Participation

#	Initiative	Activity Unit	Uptake / Participation Units
Consumer Program			
1	Appliance Retirement	Appliances	2,062
2	Appliance Exchange	Appliances	98
3	HVAC Incentives	Equipment	7,261
4	Conservation Instant Coupon Booklet	Coupons	20,386
5	Bi-Annual Retailer Event	Coupons	34,173
6	Retailer Co-op	Items	5
7	Residential Demand Response	Devices	533
8	New Construction Program	Houses	0
Business Program			
9	Efficiency: Equipment Replacement	Projects	198
10	Direct Installed Lighting	Projects	3,407
11	Existing Building Commissioning Incentive	Buildings	0
12	New Construction and Major Renovation Incentive	Buildings	0
13	Energy Audit	Audits	0
14	Commercial Demand Response (part of the Residential program schedule)	Devices	0
15	Demand Response 3 (part of the Industrial program schedule)	Facilities	10
Industrial Program			
16	Process & System Upgrades	Projects ²	0
17	Monitoring & Targeting	Projects ³	0
18	Energy Manager	Managers ^{2 3}	0

#	Initiative	Activity Unit	Uptake / Participation Units
19	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	Projects	32
20	Demand Response 3	Facilities	8
Home Assistance Program			
21	Home Assistance Program	Homes	0
Pre 2011 Programs Completed in 2011			
22	Electricity Retrofit Incentive Program	Projects	185
23	High Performance New Construction	Projects	4
24	Toronto Comprehensive	Projects	0
25	Multifamily Energy Efficiency Rebates	Projects	2
26	Data Centre Incentive Program	Projects	0
27	EnWin Green Suites	Projects	0

2.4 Program Administration Budget (PAB) Spending and Funding

Table 8: PAB Spending and Funding

#	Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
Consumer Program						
1	Appliance Retirement	\$121,686				\$121,686
2	Appliance Exchange	\$13,988				\$13,988
3	HVAC Incentives	\$35,113				\$35,113
4	Conservation Instant Coupon Booklet	\$47,472				\$47,472
5	Bi-Annual Retailer Event	\$26,893				\$26,893
6	Retailer Co-op	\$0				\$0
7	Residential Demand Response	\$515,390	\$124,056	\$10,700		\$650,146
10	New Construction Program	\$4,702				\$4,702
Business Program						
11	Efficiency: Equipment Replacement	\$622,592		\$1,560,412		\$1,918,393
12	Direct Installed Lighting	\$85,820	\$785,420	\$2,852,456		\$3,723,696
14	Existing Building Commissioning Incentive	\$1,039				\$1,039
15	New Construction and Major Renovation Initiative	\$12,165				\$12,165
16	Energy Audit	\$11,448				\$11,448
17	Commercial Demand Response (part of the Residential program schedule)					
19	Demand Response 3 (part of the Industrial program schedule)					

#	Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
Industrial Program						
20	Process & System Upgrades	\$0	\$0	\$0	\$0	\$0
	a) preliminary study	\$22,307	\$0	\$0	\$0	\$22,307
	b) engineering study	\$22,307	\$0	\$0	\$0	\$22,307
	c) program incentive	\$44,613	\$0	\$0	\$0	\$44,613
21	Monitoring & Targeting	\$0	\$0	\$0	\$0	\$0
22	Energy Manager	\$333	\$0	\$0	\$83,025	\$83,358
23	Key Account Manager	\$9,601	\$0	\$0	\$8,120	\$17,721
24	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	\$144,509	\$0	\$572,301	\$0	\$716,810
26	Demand Response 3	\$355	\$0	\$0	\$0	\$355
Home Assistance Program						
27	Home Assistance Program	\$28,676				\$28,676
Pre 2011 Programs Completed in 2011						
28	Electricity Retrofit Incentive Program		\$2,317,102			\$2,317,102
29	High Performance New Construction					
30	Toronto Comprehensive					
31	Multifamily Energy Efficiency Rebates					
32	Data Centre Incentive Program					
33	EnWin Green Suites					
	TOTAL Province-Wide CDM PROGRAMS	\$1,771,008	\$909,476	\$7,312,971	\$91,145	\$10,084,600

The non-availability of several program initiatives in the market place in 2011 have resulted in PAB funding not being fully utilized, as shown in Table 9 below.

Enersource plans to re-allocate such unutilized PAB funding in future period(s) to other successful initiatives within each CDM program category in order to achieve its OEB approved targets.

Table 9: Allocation of PAB Funding for Programs Not In Market

#	Initiative	Program Administration Budget (PAB)
Initiatives Not In Market		
8	Midstream Electronics	\$127,000
9	Midstream Pool Equipment	\$110,000
13	Direct Service Space Cooling	\$55,114
18	Demand Response 1 (Commercial)	\$304,650
19	Demand Response 1 (Industrial)	\$127,254
33	Home Energy Audit Tool	\$337,113
TOTAL Province-Wide CDM PROGRAMS Not In Market		\$1,061,130

2.5 Evaluation

2.5.1 EVALUATION FINDINGS

Table 10: Evaluation Findings

#	Initiative	OPA Province-Wide Key Evaluation Findings
Consumer Program		

Enersource Hydro Mississauga Inc. 2011 CDM Annual Report

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

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

#	Initiative	OPA Province-Wide Key Evaluation Findings
6	Retailer Co-op	<ul style="list-style-type: none"> 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
7	Residential Demand Response	<ul style="list-style-type: none"> Approximately 20,000 new devices were installed in 2011 99% of the new devices enrolled controlled residential central AC (CAC) 2011 only saw 1 atypical event (in both weather and timing) that had limited participation across the province 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
8	Residential New Construction	<ul style="list-style-type: none"> Initiative was not evaluated in 2011 due to limited uptake Business case assumptions were used to calculate savings
Business Program		
9	Efficiency: Equipment Replacement	<ul style="list-style-type: none"> Gross verified energy savings were boosted by lighting projects in the prescriptive and custom measure tracks Lighting projects overall were determined to have a realization rate of 112%; 116% when including interactive energy changes On average, the evaluation found high realization rates as a result of both longer operating hours and larger wattage reductions than initial assumptions Low realization rates for engineered lighting projects due to overstated operating hour assumptions Custom non-lighting projects suffered from process issues such as: the absence of required M&V plans, the use of inappropriate assumptions, and the lack of adherence to the M&V plan The final realization rate for summer peak demand was 94% 84% was a result of different methodologies used to calculate peak demand savings 10% due to the benefits from reduced air conditioning load in lighting retrofits Overall net-to-gross ratios in the low 70's represent an improvement over the 2009 and 2010 ERIP program where net-to-gross ratios were in the low 60's and low 50's, respectively. Strict eligibility requirements and improvements in the pre-approval process contributed to the improvement in net-to-gross ratios

#	Initiative	OPA Province-Wide Key Evaluation Findings
10	Direct Install Lighting	<ul style="list-style-type: none"> • Though overall performance is above expectations, participation continues to decline year over year as the initiative reaches maturity • 70% of province-wide resource savings persist to 2014 • Over 35% of the projects for 2011 included at least one CFL measure • Resource savings from CFLs in the commercial sector only persist for the industry standard of 3 years • Since 2009 the overall realization rate for this program has improved • 2011 evaluation recorded the highest energy realization rate to date at 89.5% • The hours of use values were held constant from the 2010 evaluation and continue to be the main driver of energy realization rate • 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
11	Existing Building Commissioning Incentive	<ul style="list-style-type: none"> • Initiative was not evaluated in 2011, no completed projects in 2011
12	New Construction and Major Renovation Incentive	<ul style="list-style-type: none"> • Initiative was not evaluated in 2011 due to low uptake • Assumptions used are consistent with preliminary reporting based on the 2010 Evaluation findings and consultation with the C&I Work Group (100% realization rate and 50% net-to-gross ratio)
13	Energy Audit	<ul style="list-style-type: none"> • The evaluation is ongoing. The sample size for 2011 was too small to draw reliable conclusions.
14	Commercial Demand Response (part of the Residential program schedule)	<ul style="list-style-type: none"> • See residential demand response (#7)
15	Demand Response 3 (part of the Industrial program schedule)	<ul style="list-style-type: none"> • See Demand Response 3 (#20)
Industrial Program		

#	Initiative	OPA Province-Wide Key Evaluation Findings
16	Process & System Upgrades	<ul style="list-style-type: none"> Initiative was not evaluated in 2011, no completed projects in 2011
17	Monitoring & Targeting	<ul style="list-style-type: none"> Initiative was not evaluated in 2011, no completed projects in 2011
18	Energy Manager	<ul style="list-style-type: none"> Initiative was not evaluated in 2011, no completed projects in 2011
19	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	<ul style="list-style-type: none"> See Efficiency: Equipment Replacement (#9)
20	Demand Response 3	<ul style="list-style-type: none"> Program performance for Tier 1 customers increased with DR-3 participants providing 75% of contracted MW for both sectors Industrial customers outperform commercial customers by provide 84% and 76% of contracted MW, respectively 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. 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
Home Assistance Program		
21	Home Assistance Program	<ul style="list-style-type: none"> Initiative was not evaluated in 2011 due to low uptake Business Case assumptions were used to calculate savings
Pre-2011 Programs Completed in 2011		
22	Electricity Retrofit Incentive Program	<ul style="list-style-type: none"> Initiative was not evaluated 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&I buildings 77% realization rate and 52% net-to-gross ratio)
23	High Performance New Construction	<ul style="list-style-type: none"> Initiative was not evaluated Net-to-Gross ratios used are consistent with the 2010 evaluation findings (realization rate of 100% and net-to-gross ratio of 50%)

#	Initiative	OPA Province-Wide Key Evaluation Findings
24	Toronto Comprehensive	<ul style="list-style-type: none"> • Initiative was not evaluated • Net-to-Gross ratios used are consistent with the 2010 evaluation findings
25	Multifamily Energy Efficiency Rebates	<ul style="list-style-type: none"> • Initiative was not evaluated • Net-to-Gross ratios used are consistent with the 2010 evaluation findings
26	Data Centre Incentive Program	<ul style="list-style-type: none"> • Initiative was not evaluated
27	EnWin Green Suites	<ul style="list-style-type: none"> • Initiative was not evaluated

2.5.2 OPA's EVALUATION, MEASUREMENT & VERIFICATION (EM&V) RESULTS

Table 11: EM&V Results

#	Initiative	Realization Rate		Gross Savings		Net-to-Gross Ratio		Net Savings		Contribution to Targets	
		Peak Demand Savings	Energy Savings	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Peak Demand Savings	Energy Savings	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Program-to-Date: Net Annual Peak Demand Savings (kW) in 2014	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (kWh)
Consumer Program											
1	Appliance Retirement	100%	100%	233	1,711,574	50%	50%	110	812,064	109	3,247,544
2	Appliance Exchange	100%	100%	19	22,010	52%	52%	10	11,343	3	39,444
3	HVAC Incentives	100%	100%	3,301	6,033,153	61%	60%	1,995	3,614,070	1,995	14,456,279
4	Conservation Instant Coupon Booklet	100%	100%	42	692,278	114%	111%	47	763,430	47	3,053,721
5	Bi-Annual Retailer Event	100%	100%	59	1,056,196	113%	110%	66	1,153,895	66	4,615,580
6	Retailer Co-op	100%	100%	0	129	68%	68%	0	87	0	349
7	Residential Demand Response	0%	0%	298	773	-	-	298	773	0	773
8	Residential New Construction	-	-	0	0	-	-	0	0	0	0
Business Program											
9	Efficiency: Equipment Replacement	93%	114%	3,113	16,278,798	72%	75%	2,236	12,075,272	2,236	48,301,086
10	Direct Install Lighting	108%	90%	3,137	9,136,175	93%	93%	3,359	8,483,296	2,887	32,309,607
11	Existing Building Commissioning Incentive	-	-	0	0	-	-	0	0	0	0
12	New Construction and Major Renovation Incentive	-	-	0	0	-	-	0	0	0	0
13	Energy Audit	-	-	0	0	-	-	0	0	0	0

2.5.2 OPA's EVALUATION, MEASUREMENT & VERIFICATION (EM&V) RESULTS

Table 12: EM&V Results

#	Initiative	Realization Rate		Gross Savings		Net-to-Gross Ratio		Net Savings		Contribution to Targets	
		Peak Demand Savings	Energy Savings	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Peak Demand Savings	Energy Savings	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Program-to-Date: Net Annual Peak Demand Savings (kW) in 2014	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (kWh)
Consumer Program											
1	Appliance Retirement	100%	100%	233	1,711,574	50%	50%	110	812,064	109	3,247,544
2	Appliance Exchange	100%	100%	19	22,010	52%	52%	10	11,343	3	39,444
3	HVAC Incentives	100%	100%	3,301	6,033,153	61%	60%	1,995	3,614,070	1,995	14,456,279
4	Conservation Instant Coupon Booklet	100%	100%	42	692,278	114%	111%	47	763,430	47	3,053,721
5	Bi-Annual Retailer Event	100%	100%	59	1,056,196	113%	110%	66	1,153,895	66	4,615,580
6	Retailer Co-op	100%	100%	0	129	68%	68%	0	87	0	349
7	Residential Demand Response	0%	0%	298	773	-	-	298	773	0	773
8	Residential New Construction	-	-	0	0	-	-	0	0	0	0
Business Program											
9	Efficiency: Equipment Replacement	93%	114%	3,113	16,278,798	72%	75%	2,236	12,075,272	2,236	48,301,086
10	Direct Install Lighting	108%	90%	3,137	9,136,175	93%	93%	3,359	8,483,296	2,887	32,309,607
11	Existing Building Commissioning Incentive	-	-	0	0	-	-	0	0	0	0
12	New Construction and Major Renovation Incentive	-	-	0	0	-	-	0	0	0	0
13	Energy Audit	-	-	0	0	-	-	0	0	0	0
14	Commercial Demand Response (part of the Residential program schedule)	0%	0%	0	0	-	-	0	0	0	0

#	Initiative	Realization Rate		Gross Savings		Net-to-Gross Ratio		Net Savings		Contribution to Targets	
		Peak Demand Savings	Energy Savings	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Peak Demand Savings	Energy Savings	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)
15	Demand Response 3 (part of the Industrial program schedule)	76%	100%	2,373	70,271	n/a	n/a	1,794	70,271	0	70,271
Industrial Program											
16	Process & System Upgrades	-	-	0	0	-	-	0	0	0	0
17	Monitoring & Targeting	-	-	0	0	-	-	0	0	0	0
18	Energy Manager	-	-	0	0	-	-	0	0	0	0
19	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	96%	129%	594	2,652,721	71%	75%	422	1,994,497	422	7,977,989
20	Demand Response 3	84%	100%	3,840	189,961	n/a	n/a	3,236	189,961	0	189,961
Home Assistance Program											
21	Home Assistance Program	-	-	0	0	-	-	0	0	0	0
Pre-2011 Programs completed in 2011											
22	Electricity Retrofit Incentive Program	78%	79%	4,087	23,397,458	53%	53%	2,148	12,349,671	2,148	49,398,684
23	High Performance New Construction	100%	100%	323	1,657,947	50%	50%	161	828,974	161	3,315,894
24	Toronto Comprehensive	-	-	0	0	-	-	0	0	0	0
25	Multifamily Energy Efficiency Rebates	96%	96%	0	462	68%	68%	0	314	0	1,258
26	Data Centre Incentive Program	-	-	0	0	-	-	0	0	0	0

Assumes demand response resources have a persistence of 1 year

Table 13: Summarized CDM Program Results

	Gross Savings	Net Savings	Contribution to Targets
--	---------------	-------------	-------------------------

Program	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Program-to-Date: Net Annual Peak Demand Savings (kW) in 2014	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (kWh)
Consumer Program Total	3,952	9,516,113	2,526	6,355,663	2,220	25,413,689
Business Program Total	8,623	25,485,244	7,390	20,628,839	5,124	80,680,965
Industrial Program Total	4,434	2,842,682	3,658	2,184,459	422	8,167,950
Home Assistance Program Total	0	0	0	0	0	0
Pre-2011 Programs completed in 2011 Total	4,410	25,055,867	2,309	13,178,959	2,309	52,715,836
Total OPA-Contracted Province-Wide CDM Programs	21,419	62,899,907	15,883	42,347,919	10,075	166,978,440

2.6 Additional Comments

In many cases, program initiatives were in “start-up” mode as Enersource and the OPA finalized schedules, developed processes, and procured services and resources before Enersource was able to market the initiatives to customers. While most of these initial aspects of the programs were ultimately delivered during the course of 2011, results suffered accordingly. Thus, the late start up and non-availability of several program initiatives in the market place in 2011 have caused a shortfall in savings targets achieved relative to Enersource’s originally OEB-approved CDM plan. This also led to unutilised Program Administration Budget (PAB) funding as well.

However, looking forward to 2012, there is significant traction across the entire initiative portfolio, such that the results of a maturing program are now evident. Accordingly, Enersource plans to increase its marketing and sales expenditures by utilising the total PAB funding available in order to achieve its OEB-approved targets.

3 Combined CDM Reporting Elements

3.1 Progress towards CDM Targets

3.1.1 Tables 13 and 14 below provide a summary of Enersource's progress towards meeting its CDM Targets, which shows the following shortfall in 2011:

- 15 GWh Energy or 26% adverse variance; and
- 20 MW Peak Demand, or 26% adverse variance.

The main reasons for the shortfall of savings targets include the following factors:

- (i) Delays in launching and finalizing delivery procedures for CDM program initiatives in 2011 by the OPA including: Residential and Small Commercial Demand Response, Equipment Replacement Initiative. Also, Enersource experienced further delays due to the time required for outsourcing programs through competitive procurement processes.
- (ii) Non-Availability of several program initiatives in market place in 2011 including: Residential Program Midstream Electronics and Midstream Pool Equipment; and Small Business Direct Service Space Cooling.
- (iii) Several program initiatives did not attract any uptake by participants, including: Residential New Construction, New Construction & Major Renovations, Building Commissioning Process and Systems Upgrade.
- (iv) The average savings achieved in 2011 for some program initiatives have been much lower than forecast. This includes Equipment Replacement Initiative and all residential programs with the exception of Heating and Cooling Incentives.
- (v) To date Enersource has seen several CDM projects being postponed by participants due to restrictions in capital budget allocations relating to the economic climate in Ontario.
- (vi) Long lead time is expected for project completion under the Industrial Programs Process and Systems Upgrade Initiative, which would result in savings being achieved beyond December 31, 2014.
- (vii) Some of the program initiatives or similar programs were being run prior to 2011 and are now experiencing the market saturation phase, including: Residential Appliance Retirement; Small Business Direct Install Program; Equipment Replacement Incentive Initiative, all with lower average projected savings.

Table 14: Net Peak Demand Savings at the End User Level (MW)

Implementation Period	Annual (MW)			
	2011	2012	2013	2014
2011 - Verified	15.88	10.56	10.47	10.08
2012				
2013				
2014				
Verified Net Annual Peak Demand Savings in 2011 - 2014:				10.08
Enersource 2014 Annual CDM Capacity Target:				92.98
Verified Portion of Peak Demand Savings Target Achieved (%):				10.84%
Enersource Strategy, Milestone submitted for 2011				36.3MW
Variance in Demand Savings for 2011				-20.4 MW

Table 15: Net Energy Savings at the End-User Level (GWh)

Implementation Period	Annual (GWh)				Cumulative (GWh)
	2011	2012	2013	2014	2011-2014
2011 - Verified	42.35	42.08	41.84	40.71	166.98
2012					
2013					
2014					
Verified Net Cumulative Energy Savings 2011-2014:					166.98
Enersource 2011-2014 Cumulative CDM Energy Target:					417.22
Verified Portion of Cumulative Energy Target Achieved (%):					40.02%
LDC Strategy, Milestone submitted for 2011					56.9 GWh
Variance in Energy Target for 2011					-14.5 GWh

3.2 CDM Strategy Modifications

- Enersource will not modify its strategy at this time since it is expected that the OPA will consider new and enhanced CDM program initiatives to make up for the 2011 shortfalls caused mainly by delays and failures to launch the originally-planned OPA programs successfully.
- Despite the shortfalls in the 2011 savings results, Enersource expects to meet its remaining CDM energy savings targets through the delivery of OPA-contracted programs (OPA Programs) and may consider OEB-approved CDM programs including Time of Use (TOU) pricing, if available.
- Also, Enersource will continue to explore opportunities for synergies and cost savings with program expansion under potential OEB-approved programs, once the OPA programs that were not successfully launched in 2011 are revised or replaced. In this respect,
 - Enersource expects that the OPA will review and consider replacing any unsuccessful program initiatives that were included in Enersource's original plan as per its CDM Strategy submitted in November, 2010 with new and/or enhanced program initiatives, in order to achieve 100% of targets. Alternatively, Enersource would propose that the government consider expanding the program duration beyond 2014 to make up for delays in program commencement in order to overcome any potential shortfalls in targets.

Table 15: Enersource Forecast of Net Peak Demand Savings at the End User Level (MW)

Implementation Period	Annual (MW)			
	2011	2012	2013	2014
2011 - Verified	15.88	10.56	10.47	10.08
2012		14.48	12.48	12.08
2013			24.35	20.15
2014				34.25
Forecast Net Annual Peak Demand Savings in 2014:				76.56
2014 Annual CDM Capacity Target				92.98
2014 Forecast Demand Savings Relative to Target (%) :				82.4%

Table 16: Enersource Forecast of Net Energy Savings at the End-User Level (GWh)

Implementation Period	Annual (GWh)				Cumulative (GWh)
	2011	2012	2013	2014	2011-2014
2011 – Verified	42.3	42.08	41.84	40.71	166.98
2012		26.06	25.85	25.40	77.31
2013			48.64	47.68	96.32
2014				75.99	75.99
Forecast Net Cumulative Energy Savings 2011-2014:					417
2011-2014 Cumulative CDM Energy Target:					417
2011-2014 Forecast Energy Savings Relative to Target (%) :					100%