



**PUC Distribution Inc.
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September 28, 2012

Kirsten Walli, Board Secretary
Ontario Energy Board
P.O. Box 2319, 27th Floor
2300 Yonge Street
Toronto, ON M4P 1E4

Dear Ms. Walli:

**Re: Espanola Regional Hydro Distribution Corporation (“ERH”)
2011 CDM Annual Report EB-2010-0215**

ERH is scheduled to file a 2011 CDM annual report to the Board on or before September 30, 2012 as per the CDM code dated September 16, 2010.

Sincerely,

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Espanola Regional Hydro Distribution Corporation

(EB-2010-0215)

Conservation and Demand Management

2011 Annual Report

Submitted to:

The Ontario Energy Board

Submitted on September 28, 2012

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Executive Summary

2011 CDM results for Espanola Regional Hydro Distribution Corporation

Espanola Regional Hydro Distribution Corporation (ERH) is the Local Distribution Company (LDC) for Espanola, Massey and Webbwood. ERH is responsible for the distribution of electricity and the operation and maintenance of each community's electrical distribution infrastructure. ERH is working hard to be 'Best in Class' and provide superior service to its customers. Conservation and Demand Management (CDM) plays a key role in providing a reliable, sustainable, and affordable energy supply. Espanola feels that conservation is an essential part of its core services and can help customers to manage rising energy costs.

The Ontario Energy Board (OEB) has set CDM targets for ERH, as a condition of its license, to achieve 2.76 GWh of energy savings and 520 kW of summer peak demand savings, over the period between January 1, 2011 and December 31, 2014. This Annual Report covers ERH's CDM activities and progress towards its targets for the period from January 1, 2011 to December 31, 2011.

ERH is pleased to report substantial progress in 2011 towards the achievement of its CDM targets. Despite experiencing some start-up challenges, ERH achieved 53.1% of its cumulative 2011-2014 energy target and 11% of its 2014 summer peak demand target.

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

2011 CDM Program Delivery

ERH offered a full suite of CDM programs available from the OPA for its residential and commercial customers and select programs available from the OPA for its industrial customers. In 2011, ERH has secured delivery agents, developed processes and procedures, putting ERH in a position to successfully deliver the OPA's province wide CDM programs in 2012 and beyond.

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

In all, over 1,100 Espanola customers participated in at least one of the CDM programs offered, making it clear that the communities of Espanola, Massey and Webbwood support conservation and all of its benefits.

Meeting EEH CDM targets

While ERH had a successful year in 2011, ERH expects that achieving 100% of its summer 2014 demand target will remain a significant challenge. 2011 was a "start-up" year for OPA CDM program initiatives across the province. The OPA was not entirely ready for the anticipated January 1, 2011 launch. Additionally, ERH had to review schedules, develop processes, and procure third party resources before it could market the OPA CDM program initiatives to its customers.

ERH is also currently re-evaluating its CDM delivery strategies in order to ensure they will enable it to continue achieving strong energy savings and begin ramping up its demand savings. It is expected that this re-evaluation will contribute to ERH achieving its targeted savings.

Board-Approved Program Applications

ERH has not filed any applications to the OEB for Board-approved CDM Programs. ERH recognizes that OPA province-wide programs were never designed to meet 100% of the LDCs' CDM targets and sees Board-approved programs as a potential means for extending the savings realized from the province-wide programs.

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

Because of the difficulties experienced by Toronto Hydro surrounding Board-approved program applications, ERH does not plan on pursuing these programs at this time. ERH will continue to evaluate the need and feasibility of Board-approved CDM programs as it tracks progress from province-wide programs and time-of-use results, as opportunities present themselves, and as the conditions and requirements for approval evolve.

CDM Program Evaluation Results

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

The commercial programs completed in 2011 contributed the most to the total energy savings (78%) and demand savings (70%) achieved by ERH in 2011. The residential programs contributed 19% and 26% of energy and demand savings respectively. The remaining savings are due to pre-2011 projects that were completed in 2011.

ERH will continue delivering OPA CDM programs as described in its CDM Strategy. Currently, ERH is in the process of reviewing its marketing and delivery strategies. The review will identify any strategy modifications that will be pursued in 2012 and beyond.

Background

On March 31, 2010, the Minister of Energy and Infrastructure of Ontario, under the guidance of sections 27.1 and 27.2 of the *Ontario Energy Board Act, 1998*, directed the Ontario Energy Board (OEB) to establish Conservation and Demand Management (CDM) targets for electricity distributors. Accordingly, on November 12, 2010, the OEB amended the distribution licence of Espanola Regional Hydro Distribution Corporation (ERH) to require ERH, as a condition of its licence, to achieve 2.76 GWh of energy savings and 0.52 MW of summer peak demand savings, over the period beginning January 1, 2011 through December 31, 2014.

In accordance with the same Minister's directive, the OEB issued the Conservation and Demand Management Code for Electricity Distributors (the Code) on September 16, 2010. The Code sets out the obligations and requirements with which electricity distributors must comply in relation to the CDM targets set out in their licenses. To comply with the Code requirements, ERH submitted its amended CDM Strategy on June 10, 2011, which provided a high level description of how ERH intended to achieve its CDM targets.

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

1 Board-Approved CDM Programs

1.1 Introduction

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

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

1.2 TOU Pricing

1.2.1 BACKGROUND

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

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

1.2.2 TOU PROGRAM DESCRIPTION

Target Customer Type(s): Residential and small business customers with a monthly demand less than 50 KW.

Initiative Frequency: Year-Round.

Objectives: TOU pricing was designed to incent the shifting of energy usage. Therefore peak demand reductions were expected, and energy conservation benefits may also have been realized.

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

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

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

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

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

1.2.2.1 Initiative Activities/Progress:

ERH began transitioning its RPP customers to TOU billing on November 16, 2011. By December 31st, 2011, 3,186 RPP customers were on TOU billing.

1.3 ERH's Application with the OEB

When preparing its CDM Strategy, ERH forecasted reaching its targets without the use of Board-approved programs.

ERH does not foresee developing applications for new Board-approved programs at this time, but will continue to evaluate the need and feasibility of these as it tracks progress from province-wide programs, time-of-use results, as opportunities present themselves, and as the conditions and requirements for approval evolve.

2 OPA-Contracted Province-Wide CDM Programs

2.1 Introduction

Effective February 4, 2011, ERH entered into an agreement with the OPA to deliver CDM programs extending from January 1, 2011 to December 31, 2014. The CDM programs with their associated initiatives are listed in the table below. In addition, programs that were started prior to 2011 that were completed in 2011 are included. The OPA Industrial programs and the Low-income program were not offered.

Table 2: OPA-contracted province-wide CDM programs

Initiative	Schedule	Date schedule was 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
Residential Demand Response	Schedule B-3	Aug 22, 2011	All residential rate classes
Residential New Construction	Schedule B-2	Jan 26, 2011	All residential rate classes
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

Initiative	Schedule	Date schedule was posted	Customer class
Energy Audit	Schedule C-1	Jan 26, 2011	All general service classes
Small Commercial Demand Response (part of the Residential program schedule)	Schedule B-3	Jan 26, 2011	General service < 50 kW
Industrial Program			
Efficiency: Equipment Replacement	Schedule C-2	Jan 26, 2011	All general service classes
Low Income Program			
Home Assistance Program	Schedule E-1	May 31, 2011	All residential rate classes
Pre-2011 Programs completed in 2011			
Electricity Retrofit Incentive Program	n/a	n/a	All general service classes

Several initiatives that were included in the schedules were not in market in 2011. The OPA communicated that the initiatives listed in the table below were not in market in 2011 and that they represent a very small percentage of the planned energy and demand savings.

ERH did not incorporate in its strategy any significant savings from the initiatives below that were not in market in 2011.

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

Initiative not in market in 2011	Objective	Status
Residential Program		
Midstream Electronics	The objective of this initiative was to encourage retailers to promote and sell high-efficiency televisions, and for distributors to distribute high-efficiency set top boxes.	Not launched to market
Midstream Pool Equipment	The objective of this initiative was to encourage pool installers to sell and	Not launched to market

Initiative not in market in 2011	Objective	Status
	install efficient pool pump equipment in residential in-ground pools.	
Commercial & Institutional Program		
Direct Service Space Cooling	The objective of this initiative was to offer free servicing of air conditioning systems and refrigeration units for the purpose of achieving energy savings and demand reduction.	Not launched to market.

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

2.2 Program Descriptions

All of ERH's CDM initiatives that were in-market in 2011 were promoted via the ERH saveONenergy microsite and through the OPA's province wide marketing campaign.

2.2.1 RESIDENTIAL PROGRAM

ERH staff was trained on residential program initiatives in a spring 2011. As part of this training, ERH educated its customer service and call centre staff on the details of the residential program and where to direct customers who requested more information.

All residential initiatives that were in-market in ERH's service territory were also promoted via the EHR conservation microsite and the OPA's province wide marketing campaign. ERH also promoted the saveONenergy initiatives through a display booth in the main lobby of ERH.

2.2.1.1 APPLIANCE RETIREMENT INITIATIVE (Exhibit D)

Staffs at ERH were trained on residential program initiatives in a spring 2011 session held internally by PUC. As part of this training, PUC educated its customer service and call centre staff on the details of the residential program and where to direct customers who requested more information.

All residential initiatives that were in-market in ERH's service territory were promoted via the ERH conservation microsite and the OPA's province wide marketing campaign.

Target Customer Type(s): Residential customers

Initiative Frequency: Year-round

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

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

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

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

Additional detail is available at the following websites:

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

In-Market Date: February 4, 2011

Lessons Learned:

- The Appliance Retirement Initiative (previously The Great Refrigerator Round-Up) has not previously been offered by ERH.
- While the OPA and the LDCs reviewed this initiative to assess whether to include other products, appliances have a natural life cycle and the initiative could not be expected to continually deliver the high level of results in perpetuity. These lower expectations were taken into account when developing conservation portfolios.
- This initiative was facing some competition from independent retailers and municipalities.
- Results were very responsive to province-wide advertising.

2.2.1.2 APPLIANCE EXCHANGE INITIATIVE (Exhibit E)

Target Customer Type(s): Residential customers

Initiative Frequency: Spring and fall

Objective: The objective of this initiative was to remove and permanently decommission older, inefficient window air conditioners (AC) and portable dehumidifiers.

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

Targeted End Uses: Window air conditioners and portable dehumidifiers

Delivery: Delivery was OPA contracted and had participating retailers collect eligible units.

Additional detail is available at the following websites:

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

In-Market Date: February 4, 2011

Lessons Learned:

- The spring event had the participation of 1 retailer within ERH's service territory. However, the Fall 2011 event had no retailer participation anywhere in the province, therefore savings anticipated by the ERH did not materialize.
- Evaluation, Measurement, and Verification (EMV) results indicated that the value of savings for retired room air conditioners had dropped.
- The initiative may have been achieving market saturation.
- The type of unit turned in was very dependent upon what was promoted by the retailers.

2.2.1.3 HVAC INCENTIVES INITIATIVE (Exhibit B)

Target Customer Type(s): Residential customers

Initiative Frequency: Year-round

Objective: The objectives of this initiative were to encourage the replacement of existing heating systems with high-efficiency furnaces equipped with Electronically Commutated Motors (ECM), and to replace existing central air conditioners with systems and products that qualify under the ENERGY STAR program.

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

Targeted End Uses: Central air conditioners and furnaces

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

Additional detail is available at the following websites:

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

In-Market Date: February 4, 2011

Lessons Learned:

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

2.2.1.4 CONSERVATION INSTANT COUPON BOOKLET INITIATIVE (Exhibit A)

Target Customer Type(s): Residential customers

Initiative Frequency: Year-round

Objective: The objective of this initiative was to encourage households to purchase energy-efficient products by offering discount coupons.

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

Targeted End Uses: standard compact fluorescent lights (CFLs) that qualify under the ENERGY STAR® program, light fixtures that qualify under the ENERGY STAR® program, lighting control products, weather-stripping, hot water pipe wrap, electric water heater blankets, heavy duty plug-in timers, advanced power bars, clotheslines, baseboard programmable thermostats

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

Additional detail is available at the following websites:

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

In-Market Date: February 4, 2011

Lessons Learned:

- The downloadable coupons proved to be more successful than the mailed out booklets.
- This Initiative may have benefited from an enabler such as a conservation card / loyalty card to increase customer participation.

- The timeframe for retailer submission of redeemed coupons varied from retailer to retailer. This delayed the results reporting, which in turn limited the OPA and ERH's abilities to react and respond to initiative performance or changes in consumer behaviour.

2.2.1.5 RESIDENTIAL NEW CONSTRUCTION PROGRAM (Schedule B-2)

Target Customer Type(s): Residential customers

Initiative Frequency: Year-round

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

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

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

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

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

Additional detail is available at the following websites:

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

In-Market Date: February 4, 2011

Lessons Learned:

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

2.2.1.6 RESIDENTIAL DEMAND RESPONSE PROGRAM (Schedule B-3)

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

Initiative Frequency: Year-round

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

Description: This initiative, also known as *peaksaver* PLUS™, offered participants the option to receive a free programmable thermostat or switch, including installation. Participants also received access to price and real-time consumption information on an In Home Display (IHD).

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

Delivery: Not offered by ERH in 2011

Additional detail is available at the following websites:

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

In-Market Date: Not offered by ERH in 2011

Lessons Learned:

- The schedule for Peaksaver Plus was posted in August 2011, but this did not provide adequate time for product procurement for 2011 or the early part of 2012. The product procurement process uncovered that the In Home Display units that communicate with installed smart meter technology were still in development and not ready for market deployment. Consequently, ERH could not be in market with the Peaksaver Plus program in 2011.
- Introduction of new technology required incentives for the development of such technology. Appropriate lead times for ERH to have conducted analysis and assessment, product procurement, and testing and integration into the smart meter environment were also required. Making seemingly minor changes to provincial technical specifications could create significant issues when ERH attempted to implement the solution in ERH's unique environment.
- Where a provincial solution was not available to all participants, attention to addressing ERH's specific concerns was needed.

2.2.2 COMMERCIAL AND INSTITUTIONAL PROGRAM

Most of 2011 was spent ramping up the C&I program initiatives; marketing efforts did not fully launch until the beginning of 2012.

Starting in August 2011, a third party completed outbound calls and held face-to-face meetings with many of ERH's top 20 customers to promote the ERH initiative.

A third party was also signed on to deliver the Existing Building Commissioning Incentive, the New Construction and Major Renovation Initiative, and the Energy Audit initiative starting November 2011.

The ERH microsite was also launched and updated to include information on the C&I program initiatives.

ERH expects marketing to ramp up in 2012.

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

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

Initiative Frequency: Year-round

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

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

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

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

Delivery: The initiative was delivered by ERH.

Additional detail is available at the following websites:

- Schedule C-2
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20C-2%20ERII%20Initiative.pdf and
- SaveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Retrofit-for-Commercial.aspx>

In-Market Date: August 8, 2011

Lessons Learned:

- ERII (previously Equipment Replacement Incentive Program – ERIP) was offered by ERH for many years leading up to 2011. It was a high-performing, cost-effective program, and there was one pre-2011 project 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 OPA’s Master Agreement. The delayed availability of these automated processes, coupled with a greater than expected volume of pre-2011 projects being completed province-wide in 2011, caused considerable payment delays by the OPA. Based on the lessons learned in the 2011 process, the centralized process review used by the OPA for 2012 project payment was streamlined.
- In March 2011, the revised iCON system was launched by the OPA. This was the major online application system implemented to aid the 2011-2014 ERII application process. With system

applications of this size and functionality, it was expected that there would be various issues identified at the time of the release and in the early stages before the system was "ready for market." Unfortunately, the resolution of these issues, with the corresponding time lags and workarounds, was seen to be a barrier to some customers' participation in the 2011 program year. In addition, there were also on-going issues and limitations with the back-end CRM system that affected ERH's ability to effectively review and approve applications.

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

Target Customer Type(s): Small Commercial, institutional, agricultural facilities and multi-family buildings

Initiative Frequency: Year-round

Objective: The objective of this initiative was to offer the free installation of eligible lighting and water-heating measures valued at up to \$1,000 to eligible owners and tenants of commercial, institutional, and agricultural facilities and multi-family buildings, for the purpose of achieving electricity savings and peak demand savings.

Description: The Direct Install Lighting Initiative targeted customers in the general service <50kW account category. This Initiative offered turnkey installation of energy-efficient lighting and electric hot water heating measures with a value up to \$1,000 at no cost to qualifying small businesses. In addition, standard prescriptive incentives were available for eligible equipment that the customer chose to have installed beyond the initial \$1,000 limit.

Target End Uses:

Delivery: In 2011 ERH worked with their service providers to seek out local qualified electrical contractors to perform the audits and installations.

Additional detail is available at the following websites:

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

In-Market Date: Not offered by ERH in 2011

Lessons Learned:

- The Direct Install Lighting and Water Heating Initiative was a continuation of the Power Saving Blitz Initiative was not offered by ERH previous to 2011.

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

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

Initiative Frequency: Year-round

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

Description: This Initiative offered participants incentives for the following project phases:

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

Targeted End Uses: Chilled water systems for space cooling

Delivery: ERH delivered.

Additional detail is available at the following websites:

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

In-Market Date: November 1, 2011

Lessons Learned:

- There was no customer uptake for this initiative province-wide. It was suspected that the scope of the initiative being limited to space cooling contributed to the lack of participation. Accordingly chilled water systems used for other purposes should be made eligible and considered through the OPA's change management process.
- The customer expectation was that the program be expanded to include broader building improvements for a more holistic approach to building decommissioning.

2.2.2.4 NEW CONSTRUCTION AND MAJOR RENOVATION INITIATIVE (HPNC) (Schedule C-4)

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

Initiative Frequency: Year-round

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

Description: The New Construction Initiative provided incentives for new buildings and major renovations to existing buildings that exceeded existing building codes and standards for energy efficiency. This is a continuation of the High Performance New Construction program previously delivered by Enbridge Gas under contract with the OPA (and subcontracted to Union Gas), which ran until December 2010. The initiative used both a prescriptive and custom approach.

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

Delivery: ERH delivered to customers and design decision makers.

Additional detail is available at the following websites:

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

In-Market Date: November 1, 2011

Lessons Learned:

- For 2011, new industry participation was limited due to the delays in redesign of certain aspects of the initiative such as:
 - 2011 prescriptive incentives needed to be aligned with ERH incentives;
 - In the cases of delivering large projects (i.e. custom applications), 2011 participation was limited due to 1) building code changes and 2) level of documentation required.

2.2.2.5 ENERGY AUDIT INITIATIVE (Schedule C-1)

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

Initiative Frequency: Year-round

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

Description: This Initiative provided participants incentives for the completion of energy audits of electricity consuming equipment located in their facility. Energy audits included development of energy baselines, use assessments, and performance monitoring and reporting.

Targeted End Uses: Various

Delivery: ERH delivered.

Additional detail is available at the following websites:

- Schedule C-1
http://www.powerauthority.on.ca/sites/default/files/new_files/industry_stakeholders/current_electricity_contracts/pdfs/Schedule%20C-1%20Energy%20Audit%20Initiative.pdf and
- SaveONenergy website <https://saveonenergy.ca/Business/Program-Overviews/Audit-Funding.aspx>

In-Market Date: November 1, 2011

3.2.2.6 SMALL COMMERCIAL DEMAND RESPONSE (Schedule B-3)

- See 3.2.1.6

Lessons Learned:

- Customers expected a greater connection with other CDM initiatives as a result of completing the Energy Audit. The initiative should be reviewed under the OPA's change management process for the means to readily incent participants with audits in hand to implement other electricity savings initiatives.

2.2.3 INDUSTRIAL PROGRAM

Only a portion of the industrial program was offered by ERH in 2011. Resources were allocated to both Consumer and Commercial and Institutional programs.

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

- See 3.2.2.1

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

The low-income program was not in-market in PUC's service territory in 2011 as ERH initiated an RFP process to procure a program delivery agent as PUC did not have sufficient internal resources to administer the program.

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

Initiative Frequency: Year-round

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

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

Targeted End Uses: End uses based on results of audit

Delivery: Not offered by ERH in 2011

Additional detail is available at the following website:

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

In-Market Date: Not offered by ERH in 2011

Lessons Learned:

- This initiative schedule was finalized later (May 2011) than the rest of the OPA initiatives and ERH did not have the initiative in market in 2011.
- Centralized payment processes were not developed in 2011 and were not in place until mid-2012. As a result, ERH delayed its launch to market.
- The financial scope, complexity, and customer privacy requirements of this initiative resulted in a lengthy procurement process. ERH had to procure a service provider to deliver the program through an RFP process which meant that delivery of the program could not be offered 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

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.

2.3 Participation

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

#	Initiative	Activity unit	Uptake/ participation units
Residential Program			
1	Appliance Retirement	Appliances	18
2	Appliance Exchange	Appliances	6

#	Initiative	Activity unit	Uptake/ participation units
3	HVAC Incentives	Equipment	33
4	Conservation Instant Coupon Booklet	Coupons	408
5	Bi-Annual Retailer Event	Coupons	715
6	Residential Demand Response	Devices	0
7	Residential New Construction	Houses	0
Commercial & Institutional Program			
8	Efficiency: Equipment Replacement	Projects	2
9	Direct Install Lighting	Projects	0
10	Existing Building Commissioning Incentive	Buildings	0
11	New Construction and Major Renovation Incentive	Buildings	0
12	Energy Audit	Audits	0
13	Small Commercial Demand Response (part of the Residential program schedule)	Devices	0
Industrial Program			
14	Efficiency: Equipment Replacement	Projects	See #8
Low Income Program			
15	Home Assistance Program	Measures	0
Pre 2011 Programs Completed in 2011			
16	Electricity Retrofit Incentive Program	Projects	1
17	High Performance New Construction	Projects	0

2.4 Spending

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

#	Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
Residential Program						
1	Appliance Retirement	\$113				\$113
2	Appliance Exchange					
3	HVAC Incentives	\$54				\$54
4	Conservation Instant Coupon Booklet	\$54				\$54
5	Bi-Annual Retailer Event	\$54				\$54
6	Residential Demand Response					
7	Residential New Construction	\$400				\$400
Business Program						
8	Efficiency: Equipment Replacement	\$2,856				\$2,856
9	Direct Install Lighting	\$1,080				\$1,080
10	Existing Building Commissioning Incentive	\$567				\$567

#	Initiative	Program Administration Budget (PAB)	Participant Based Funding (PBF)	Participant Incentives (PI)	Capability Building Funding (CBF)	TOTAL
11	New Construction and Major Renovation Initiative	\$564				\$564
12	Energy Audit	\$560				\$560
13	Small Commercial Demand Response (part of the Residential program schedule)					
Industrial Program						
14	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	See #8				
Low Income Program						
15	Home Assistance Program	\$339				\$339
Pre 2011 Programs Completed in 2011						
16	Electricity Retrofit Incentive Program					
17	High Performance New Construction					
Total province-wide CDM programs		\$6,640				\$6,640

#	Initiative	Program Administration Budget (PAB)
Initiatives Not In Market		
18	Midstream Electronics	0
19	Midstream Pool Equipment	0
20	Demand Service Space Cooling	0
TOTAL Province-wide CDM PROGRAMS Not In Market		\$0

2.5 Evaluation

2.5.1 EVALUATION FINDINGS

The following details the provincial evaluation findings from the independent third party evaluators of each initiative.

Table 6: Evaluation Findings

#	Initiative	Evaluation findings
Residential Program		
1	Appliance Retirement	<ul style="list-style-type: none"> • Overall participation continues to decline year over year <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ Measure Breakdown: 66% refrigerators, 30% freezers, 4% Dehumidifiers and

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

#	Initiative	Evaluation findings
		<ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ 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) <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ 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

#	Initiative	Evaluation findings
		<ul style="list-style-type: none"> ○ 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.
6	Residential Demand Response	<ul style="list-style-type: none"> ● Approximately 20,000 new devices were installed in 2011 <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ 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
7	Residential New Construction Initiative	<ul style="list-style-type: none"> ● Initiative was not evaluated in 2011 due to limited uptake ● Business case assumptions were used to calculate savings
Commercial & Institutional Program		
8	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 <ul style="list-style-type: none"> ○ On average, the evaluation found high realization rates as a result of both longer operating hours and larger wattage reductions than initial

#	Initiative	Evaluation findings
		<ul style="list-style-type: none"> assumptions <ul style="list-style-type: none"> ○ 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% <ul style="list-style-type: none"> ○ 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
9	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 <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ 2011 evaluation recorded the highest energy realization rate to date at 89.5%

#	Initiative	Evaluation findings
		<ul style="list-style-type: none"> ○ 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
10	Existing Building Commissioning Incentive	<ul style="list-style-type: none"> ● Initiative was not evaluated in 2011, no completed projects in 2011
11	New Construction and Major Renovation Initiative	<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)
12	Energy Audit	<ul style="list-style-type: none"> ● The evaluation is ongoing. The sample size for 2011 was too small to draw reliable conclusions.
13	Small Commercial Demand Response (part of the Residential program schedule)	<ul style="list-style-type: none"> ● See residential demand response (#7)
Industrial Program		
14	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	<ul style="list-style-type: none"> ● See Efficiency: Equipment Replacement (#11)
Low Income Program		
15	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

#	Initiative	Evaluation findings
Pre-2011 Programs completed in 2011		
16	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)
17	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%)

2.5.2 EVALUATION RESULTS

The following details the final energy and demand savings verified through the independent third party evaluations of each of these initiatives.

Table 7: Evaluation Results

#	Initiative	NTG	Gross Savings		Net Savings		Contribution to Targets	
			Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Program-to-Date: Annual Demand Savings in 2014	Net Peak (kW)
Residential Program								
1	Appliance Retirement	51%	2	14,245	1	7,301	1	29,103

#	Initiative	NTG	Gross Savings		Net Savings		Contribution to Targets	
			Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Program-to-Date: Net Annual Demand Savings in 2014	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (kWh)
2	Appliance Exchange	52%	1	1,318	1	679	0	2,350
3	HVAC Incentives	59%	19	38,654	11	22,963	11	91,854
4	Conservation Instant Coupon Booklet	114%	1	13,855	1	15,266	1	61,064
5	Bi-Annual Retailer Event	113%	1	22,093	1	24,136	1	96,545
6	Residential Demand Response	-	0	0	0	0	0	0
8	Residential New Construction	-	0	0	0	0	0	0
Commercial & Institutional Program								
8	Efficiency: Equipment Replacement	75%	54	372,942	40	284,973	40	1,139,893
9	Direct Install Lighting	-						
10	Existing Building Commissioning Incentive	-						
11	New Construction and Major	-						

#	Initiative	Gross Savings			Net Savings		Contribution to Targets	
		NTG	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Program-to-Date: Net Annual Demand Savings in 2014	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (kWh)
	Renovation Incentive							
12	Energy Audit	-						
13	Small Commercial Demand Response (part of the Residential program schedule)	-						
Industrial Program								
14	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)	-	0	0	0	0	0	0
Low Income Program								
15	Home Assistance Program	-						
Pre-2011 programs completed in 2011								
16	Electricity Retrofit Incentive Program	52%	4	21,915	2	11,396	2	45,583
17	High Performance New Construction	50%		266		133		532

Table 8: Summarized program results

Program	Gross Savings		Net Savings		Contribution to Targets	
	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Program-to-Date: Net Annual Peak Demand Savings (kW) in 2014	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (kWh)
Residential Program Total	25	90,165	15	70,346	15	280,915
Commercial & Institutional Program Total	54	372,942	40	284,973	40	1,139,893
Industrial Program Total						
Home Assistance Program Total						
Pre-2011 Programs completed in 2011 Total	4	22,181	2	11,529	2	46,114
Total OPA contracted province-wide CDM programs	83	485,288	57	366,848	57	1,466,922

2.6 Additional Comments

ERH is pleased to report substantial progress in 2011 towards the achievement of its CDM targets.

2011 was a “start-up” year for OPA CDM program initiatives across the province. The OPA was not ready for the anticipated January 2011 launch, and ERH had to finalize schedules, develop processes and procure resources before programs could be made available to customers. Challenges associated with the online application system also hindered participation in programs, and some participants were disappointed that ERH could no longer do applications manually for them. Glitches and delays in the functionality of the online system created additional difficulties.

Despite start-up challenges and the fact that ERH mainly focused on the delivery of Residential along with Commercial and Institutional programs which led to many Industrial program initiatives not being launched in 2011. ERH achieved 53.1% of its cumulative 2011-2014 energy target and 11% of its 2014 summer peak demand target. These achievements show the efforts and dedication of the ERH team in supporting all aspects of CDM across its service territory

ERH’s achievements could not have been met without the strong participation and involvement of residents, contractors, local businesses and service delivery agents. With over 1,100 CDM program participants in the ERH service territory, it is clear that ERH’s customers support conservation and all of its benefits.

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

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

3 Combined CDM Reporting Elements

3.1 Progress Towards CDM Targets

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

Implementation Period	Annual (MW)			
	2011	2012	2013	2014
2011 - Verified	0.06	0.06	0.06	0.06
2012				
2013				
2014				
Verified Net Annual Peak Demand Savings in 2014:				0.06
ERH 2014 Annual CDM Capacity Target:				0.52
Verified Portion of Peak Demand Savings Target Achieved (%):				10.97%
ERH Strategy, Milestone submitted for 2011				17%
Variance (MW)	-0.03	-0.03	-0.03	-0.03

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

Implementation Period	Annual (GWh)				Cumulative (GWh)
	2011	2012	2013	2014	2011-2014
2011 - Verified	0.37	0.37	0.37	0.37	1.47
2012					
2013					
2014					
Verified Net Cumulative Energy Savings 2011-2014:					1.47

Implementation Period	Annual (GWh)				Cumulative (GWh)
	2011	2012	2013	2014	2011-2014
ERH 2011-2014 Cumulative CDM Energy Target:					2.76
Verified Portion of Cumulative Energy Target Achieved (%):					53.15%
ERH Strategy, Milestone submitted for 2011					49%
Variance (MWh)	+0.03	+0.03	+0.03	+0.03	+0.13

3.2 CDM Strategy Modifications

2011 was a “start-up” year for OPA CDM program initiatives across the province. The OPA was not ready for the anticipated January 1, 2011 launch. Additionally, ERH had to familiarize themselves with program schedules, develop processes, and procure services and resources before it could market the OPA CDM program initiatives to its customers. Delays in the launch of OPA CDM programs and challenges with the online program delivery systems also hindered the timely and efficient delivery of CDM programs throughout the province, including the ERH service territory.

Despite these delays, ERH exceeded its forecasted energy savings milestone for 2011. It also met 65% of its 2011 demand milestone.

ERH will continue delivering OPA CDM programs as delivered in 2011. Currently, ERH is in the process of procuring service providers to ensure all CDM programs identified in its CDM strategy are available to customer by the end of 2012. ERH is also reviewing its delivery strategies and identifying any strategy modifications that it will pursue moving forward these modifications will be based on:

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

ERH will continue to monitor its progress towards meeting the forecasted savings milestones it set for itself in its CDM Strategy. While it currently has exceeded its 2011 forecasted energy savings milestone and has achieved 65% of its forecasted 2011 demand savings milestone, it will be the results in 2012 and beyond that will dictate whether or not it will meet 100% of its 2011-2014 CDM targets. The OPA did not design its CDM programs to hit 100% of energy and demand targets province-wide. However, ERH will

remain optimistic that the CDM Strategy modifications that it will pursue will allow ERH to progress towards, achieving its targets.