MIDLAND POWER UTILITY CORPORATION
16984 Highway#12 P.O. Box 820
Midland Ontario L4R 4P4

September 30, 2015

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

Dear Ms. Walli:

Midland Power Utility Corporation – License #ED-2002-0541
2014 CDM Annual Report
EB-2010-0215

Please find attached the 2014 Annual CDM Report prepared for Midland Power Utility Corporation.

The Conservation and Demand Management Code for Electricity Distributors requires a distributor to file an annual report with the Board. The attached Annual Report is therefore prepared accordingly and covers the period from January 1, 2014 to December 31, 2014.

The 2014 Annual CDM Report for Midland Power Utility Corporation also includes an overview document with relates the experience of the CHEC Member LDCs which Midland Power Utility Corporation works in collaboration with to deliver CDM programs.

Yours very truly,

MIDLAND POWER UTILITY CORPORATION

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Cornerstone Hydro Electric Concepts (CHEC)

Combined Conservation and Demand Management Annual Report 2014

EB-2010-0215

Collaboration for Conservation

September 30, 2015

Executive Summary:

This report represents the 2014 annual reporting as required by the CDM Code for 13 of the 15 CHEC Association LDCs. The results and comments provided in this overview section are based on the combined experience of the CHEC LDCs.

The report format contains an overview section relating the combined experience of CHEC LDCs and thirteen addendums containing the individual LDC Annual CDM Reports. The overview section provides a summary of the overall target achieved, conditions impacting strategy progress and tracking of the CDM Strategy.

In the fourth year of the program the residential portfolio performed better than in previous years on an incremental level. The residential program experienced improved kW performance over the previous year. Three programs contributed to the demand which included: Coupons, HVAC and the *peaksaver*PLUS® Initiative which showed a marked improvement. Energy contribution to target on an incremental basis was much improved in the final year. The coupon initiative experienced significant growth contributing approximately a third of the total energy savings from coupons in 2014. The HVAC initiative continued to show good performance remaining fairly consistent across the framework period. The Low Income Initiative performed below expectations. The ability to engage eligible customers has been difficult in this program.

The Demand Response (DR) Initiative contribution to the targets was finalized in the last year of the framework. A number of LDCs had customers enrol in DR but then exit prior to the end of the framework. Any future DR initiative, if offered, will require designs which maintain the customer's interest and provides customer benefit over the longer term.

The Commercial and Institutional program continues to be a significant contributor to targets achieved. This portfolio accounts for 43% of the kWh achieved to the end of 2014. The retrofit initiative along with the Direct Installed Lighting Initiative continues to provide savings and continues to be of interest to the customers. The Direct Installed Lighting Initiative, which is focused primarily on lighting, is approaching market saturation and will need some renewal to maintain traction in the sector. The Retrofit Initiative continues to experience good participation and is well established in the conservation industry. It is anticipated that the Retrofit Initiative will continue to achieve energy and demand savings if offered in the future.

CHEC maintained the Roving Energy Manager (REM) position throughout 2014. The position has demonstrated value with successful approaches to industry and commercial customers. The REM continues to be instrumental in supporting CHEC LDCs and their commercial customers to identify potential savings and to implement projects. The REM's ability to work with customers has a direct impact on retrofit and monitoring projects. A number of audit projects have been initiated which are anticipated to provide savings in future frameworks.

The combined strategy results (Table 4) indicate that the demand reduction is below the 2014 Revised Projection by a couple of percent. The combined achieved demand at 61.1% of target is slightly below the provincial achieved demand reduction of 69.8%. The combined energy reduction is ahead of the 2014 Revised Projection by approximately 20% for a total of 110.7% of target which compares with the provincial achieved energy reduction of 109.2%.

1.0 Introduction:

Cornerstone Hydro Electric Concepts Association (CHEC) is an association of fifteen (15) Local Distribution Companies (LDCs) (in 2014). The CHEC member LDCs have prepared this Conservation and Demand Management (CDM) Annual Report 2014 as required by the Conservation and Demand Management Code for Electricity Distributors. The report is a collaborative initiative of 13 of the CHEC member LDCs. The report is consistent with the combined CDM Strategy filed in November 2010 and includes Orillia Power as of 2012 reporting.

1.1 Distributors Included in CHEC Association CDM Strategy:

CHEC LDCs work collaboratively to meet regulatory and operational requirements. The Association facilitates LDCs' abilities to address initiatives in a cost effective manner, sharing information, expertise and resources. The development of a collaborative CDM Strategy and the subsequent CDM Annual Report is consistent with the CHEC philosophy of working together to meet the needs of the member LDCs and to work effectively for the customers served.

The LDCs, all members of CHEC, covered under this CDM Annual Report include:

- Centre Wellington Hydro Ltd.
- COLLUS PowerStream (COLLUS Power)
- InnPower Corporation (Innisfil Hydro Distribution Systems Limited)
- Lakefront Utilities Inc.
- Lakeland Power Distribution Ltd.
- Midland Power Utility Corporation
- Orangeville Hydro Limited
- Orillia Power Distribution Corporation
- Parry Sound Corporation (Now merged with Lakeland Power)
- Rideau St. Lawrence Distribution Inc.
- Wasaga Distribution Inc.
- Wellington North Power Inc.
- West Coast Huron Energy Inc. (Goderich Hydro).

CHEC LDCs have worked collaboratively and as part of the Association since 2000. The CHEC Combined Annual CDM Report includes an overview section and separate addendums for each LDC. The LDC addendum format follows the provincial template.

2.0 CDM Targets for Electricity Demand (MW) and Electricity Consumption (GWh):

The CDM target for each LDC has been established by the Ontario Energy Board (OEB) utilizing a methodology developed by the Ontario Power Authority (OPA). The targets were later revised and incorporated into the LDC license requirements. Table 1 illustrates the final targets for each LDC.

Table 1 – OEB Defined Targets

	MW	GWH
LDC	**Revised Target**	**Revised Target**
Centre Wellington Hydro	1.64	7.81
COLLUS Power	3.14	14.97
Innisfil Hydro	2.5	9.2
Lakefront Utilities	2.77	13.59
Lakeland Power	2.32	10.18
Midland Power	2.39	10.82
Orangeville Hydro	2.78	11.82
Orillia Power	3.07	15.05
Parry Sound Power	0.74	4.16
Rideau St. Lawrence	1.22	5.1
Wasaga Distribution	1.34	4.01
Wellington North Power	0.93	4.52
West Coast Huron Energy	0.88	8.28
Total	**25.72**	**119.51**

3.0 Progress toward Achieving Target

Table 2 and Table 3 provide summaries of the progress made by CHEC LDCs in 2014 towards the combined demand and energy targets. The combined results are the summation for the 13 member LDCs and represent reported savings as per the IESO. The individual savings for each LDC are represented in the associated Addendum.

Table 2 Combined Net Demand Savings at End User Level Including DR Contribution

Implementation Period	Annual			
	2011	2012	2013	2014
2011 - Verified	5.1	2.3	2.3	2.1
2012 - Verified†	0.0	4.6	2.3	2.3
2013 - Verified†	0.0	0.0	5.9	2.1
2014 - Verified†	0.0	0.0	0.0	9.3
Verified Net Annual Peak Demand Savings Persisting in 2014:				15.7
Combined CHEC 2014 Annual CDM Capacity Target:				25.7
Verified Portion of Peak Demand Savings Target Achieved in 2014 (%):				**61.1%**

†Includes adjustments to previous years' verified results
Results presented using scenario 1 which assumes that demand response resources have a persistence of 1 year

Contribution toward the peak target at the end of the framework, while slightly below the revised prediction is in the general range anticipated.

Table 3 Combined Net Energy Savings at End User Level

Implementation Period	Annual				Cumulative
	2011	2012	2013	2014	2011-2014
2011 - Verified	10.5	10.4	10.4	9.7	41.0
2012 - Verified†		10.0	9.9	9.8	30.1
2013 - Verified†	0.0	0.0	9.5	9.4	19.9
2014 - Verified†	0.0	0.0		24.9	41.3
Verified Net Cumulative Energy Savings 2011-2014:					132.4
Combined CHEC 2011-2014 Cumulative CDM Energy Target:					119.5
Verified Portion of Cumulative Energy Target Achieved in 2014 (%):					**110.7%**

†Includes adjustments to previous years' verified results

Incremental energy savings in 2014 continue to be strong when compared to other years in the framework. Performance was generally as predicted in the revised strategy document for 2014. The total achieved energy savings exceed the target with a total of 110.7%. A large portion of the kWh achieved was due to one project which added approximately 16% of the target. This clearly illustrates the impact that a given project can have on results.

4.0 General Conditions Impacting Strategy Performance:

This section outlines issues which have impacted on the progress of Strategies and some of the general lessons learned over the fourth year of the program. While there have been many successes there remain many challenges within the CDM portfolio and specific challenges in some service territories. These specifics are outlined in the LDC specific reports contained in the addendums.

4.1 Portfolio Reduction and OEB Approved Programs:

As stated in previous reports the overall portfolio reduction as a result of midstream and OEB approved programs not being developed has reduced the overall potential to achieve target. The commercial programs aimed at demand, namely DR1 and DR3 were either never in market or withdrawn part way through the framework. The in-market initiatives, which were generally focused on kWh savings, did meet target on a provincial basis.

4.2 Roving Energy Manager:

CHEC LDCs collaborative application for a Roving Energy Manager (REM) provided an excellent resource to assist LDCs and their customers in the investigation and implementation of energy savings projects. The REM has been active across the CHEC LDC service territories and truly represents a "roving energy manager". The REM has consistently met program requirements for target resulting in contract renewal. As noted in previous reports, the delay in funding approval impacted on the initial start of the REM. An earlier start would have seen more projects implemented within the current framework, recognizing that the lead time for commercial and industrial projects can be extensive. The lead time for projects has pushed out the final implementation of many projects beyond December 31, 2014 but the resultant savings will be accounted for in the Conservation First Framework.

4.3 Residential Program Performance:

The residential programs performed well over 2014 as compared to other years in the framework and exceeded the projected performance for 2014.

The Appliance Retirement Initiative, while being in the market for several years and showing some signs of saturation, did produce results similar to 2013. Perhaps the impending termination of the program produced additional savings with customers taking part in the program prior to the final date.

The Coupon Initiative experienced significant growth in 2014 contributing approximately a third of the total energy savings from coupons in the final year. The continued performance of

coupons clearly illustrates the value of this customer outreach in the residential sector. Experience over the course of the program has clearly indicated that continued promotion of the coupons, coupons being in market over the course of the year and evaluation of spillover impact has maintained the continued value of the coupon program.

The Low Income Initiative did not meet savings expectations in the final year nor did it meet the four year expectation. The challenge to engage eligible customers as well as issues around self-identification presented difficulties with obtaining the required traction for this program. In many instances the ability to obtain deep installs has been challenging.

Within the funding envelope provided for conservation programs there was limited opportunity to fund general conservation education programs. While specific marketing of programs was undertaken this does not replace education initiatives. With the focus on target achievement, investment in educational programs where savings may be difficult to quantify was not undertaken. In future frameworks the ability to incorporate educational programs, in a cost effective manner, may be an area for investigation.

4.4 Peaksaver Plus:

The Residential Demand Response Initiative (*peaksaver* PLUS®) has been identified in most strategies as being a key contributor to obtaining significant peak demand target from the residential sector. This program has fallen well below initial performance target achievement expectations.

CHEC LDCs released an RFP for a supplier of service and technology in late 2012. Issues with respect to launching the program moved the in-market date later than anticipated including postponement into 2014 awaiting communication capabilities for some LDCs. Further complicating the issue was the need to terminate installation as colder weather approached to avoid completing the initial test installations when the AC would not be operating. The benefits of the "in home devices" as part of this program did not meet expectations as it was determined that there was no statistically valid energy savings from these devices. This finding impacted on the kWh savings which had been planned for in the initial CDM Strategies.

4.5 CDM Awareness:

The continued offering of conservation programs has raised the general awareness and readiness to participate among customers. Customer experience within one program appears to foster continued participation as opportunities present themselves.

Within the residential portfolio, as programs continue or special offerings are repeated, customers appear to be "looking towards" the program. This should assist with marketing efforts and make the resulting participation easier on a go forward basis. Of course to maintain

this interest offerings need to be continually revised to ensure they are meeting both the customer expectations and technology advancements as well as producing savings for LDCs.

4.6 Commercial Programs:

The Direct Installed Lighting Initiative has been in market for some time however continued to show good performance in 2014. The ability to achieve results in this program was assisted by the addition of LED lamps and continued out-reach to customers who have not participated.

The Retrofit Initiative continues to be a stable and important program delivering approximately 60% of the 2014 energy savings. The program has significant traction within the sector with opportunities being pursued in a variety of technologies. As noted previously the Roving Energy Manager has been active in supporting LDC efforts with their customers and the Retrofit Initiative provides an excellent tool for the REM to use in assisting customers with implementation of energy efficiency projects.

4.8 DR 3 Contribution:

Within the strategies filed by CHEC LDCs, DR 3 accounted for approximately 3.4 MW of demand. In evaluating the demand contribution of various programs it is apparent that DR 3 or a similar demand focused program is required to obtain the demand reduction. Early in the framework customers participated in the DR3 program however over the course of the framework a number withdrew from the program. Overall a total of 2.6 MW of demand was obtained through the DR 3 Program.

5.0 Variation from CDM Strategy:

The Addendums for each LDC include tracking of the CDM Strategy. A number of the LDCs have modified their strategies based on their results to the end of 2013. The combined strategy for the 13 CHEC LDCs is summarized in Table 4.

The final results are slightly below the expected demand savings while energy achieved savings exceed the expected results by about 20%. The impact of one project increased the energy savings by approximately 16%. Without this project included the combined strategy savings is 94.9 approximately 3% above the revised strategy expectation.

CHEC LDCs remain committed to CDM and obtaining kW and kWh savings. The experience gained and relationships developed in the 2011-2014 Framework will assist CHEC LDCs within the Conservation First Framework.

The specific activities associated with each LDC are outlined in the attached Addendums.

Table 4 – CHEC CDM Combined Strategy:

Summary	Annual Milestone - Contribution to 2014 Target																			
	2011 Original Strategy Projection		Actual 2011 Results		2012 Revised Strategy Projection		Actual 2012 Results		2013 Revised Strategy Projection		Actual 2013 Results		2014 Revised Strategy Projection		Actual 2014 Results		Revised Total Projected Reduction		Contribution to Target	
Category - Consumer	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
Provincial Programs																				
Appliance Retirement	73	2,124,285	74	2,102,677	94	1,124,617	72	1,216,018	58	732,121	61	532,404	63	380,084	66	288,970	270	4,231,182	274	4,140,068
Instant Discounts (Rebates)	28	2,893,444	58	3,942,109	28	1,787,544	33	1,713,721	19	907,638	34	1,008,998	20	459,212	210	3,132,718	144	7,124,040	334	9,797,546
HVAC Discounts (Rebates)	205	1,286,117	410	3,173,721	336	1,588,507	280	1,514,923	214	764,551	287	1,047,261	289	607,656	369	692,825	1,267	6,343,561	1,347	6,428,730
Demand Response	607	3,846,518	0	338	130	338	0	0	953	2,977,503	146	0	832	255,731	394	0	978	256,068	540	338
Midstream Incentives	3	82,243	0	0	0	0	0	0	2	19,945	0	0	2	6,207	0	0	2	6,207	0	0
New Construction	25	250,419	0	0	1	6,486	0	1,232	26	131,323	1	24,771	24	106,557	2	18,533	26	132,560	3	44,536
Low Income	0	0	0	0	12	186,345	13	387,814	152	1,552,205	47	866,648	116	798,077	30	191,197	177	2,052,539	90	1,445,659
Provincial Consumer Total	941	10,483,027	542	9,218,844	601	4,693,837	398	4,833,707	1,423	7,085,286	576	3,480,082	1,347	2,613,524	1,071	4,324,243	2,863	20,146,158	2,588	21,856,877
OEB Approved Programs																				
General Consumer	36	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0
Low Income	5	0	0	0	0	0	0	0	5	0	0	0	1	8,775	0	0	1	8,775	0	0
OEB Approved Programs Total	41	0	0	0	0	0	0	0	15	0	0	0	1	8,775	0	0	1	8,775	0	0
Consumer Program Total	982	10,483,027	542	9,218,844	601	4,693,837	398	4,833,707	1,438	7,085,286	576	3,480,082	1,348	2,622,299	1,071	4,324,243	2,864	20,154,933	2,588	21,856,877

	Annual Milestone - Contribution to 2014 Target																			
	2011 Original Strategy Projection		Actual 2011 Results		2012 Revised Strategy Projection		Actual 2012 Results		2013 Revised Strategy Projection		Actual 2013 Results		2014 Revised Strategy Projection		Actual 2014 Results		Revised Total Projected Reduction		Contribution to Target	
Category - Commercial & Institutional	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
Provincial Programs																				
rofits – Medium and Large Buildings	987	7,342,065	266	7,087,736	1,712	9,875,529	957	12,473,024	1,446	6,773,176	688	7,648,637	1,760	9,345,757	1,209	8,576,956	3,672	36,555,155	3,121	35,784,972
Existing Building Retrofits – Small Buildings	835	16,571,055	451	5,894,370	576	7,733,791	628	7,346,407	1,049	7,686,179	441	3,260,774	1,004	2,937,019	1,042	3,895,407	2,524	19,438,570	2,563	20,396,958
Small Commercial Demand Response	19	39,713	0	12	19	1,070	0	0	39	56,981	15	148,792	56	291,415	2	0	71	440,218	17	148,804
Demand Response 1 & 3	0	37	526	7,522	120	15,376	-341	19,359	375	60,075	169	6,270	357	13,684	87	0	711	46,835	441	33,150
Provincial Commercial & Inst. Total	1,841	23,952,871	1,243	12,989,640	2,427	17,625,765	1,245	19,838,789	2,910	14,576,411	1,314	11,064,473	3,178	12,587,875	2,340	12,472,363	6,979	56,480,778	6,141	56,363,885
OEB Approved Programs																				
Retrofits	79	0	0	0	0	0	0	0	79	0	0	0	0	0	0	0	0	0	0	0
New Construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	78,171	0	0	15	78,171
OEB Approved Programs Total	79	0	0	0	0	0	0	0	79	0	0	0	0	0	15	78,171	0	0	15	78,171
Commercial & Inst. Total	1,920	23,952,871	1,243	12,989,640	2,427	17,625,765	1,245	19,838,789	2,989	14,576,411	1,314	11,064,473	3,178	12,587,875	2,355	12,550,534	6,979	56,480,778	6,156	56,442,056

	Annual Milestone - Contribution to 2014 Target																			
	2011 Original Strategy Projection		Actual 2011 Results		2012 Revised Strategy Projection		Actual 2012 Results		2013 Revised Strategy Projection		Actual 2013 Results		2014 Revised Strategy Projection		Actual 2014 Results		Revised Total Projected Reduction		Contribution to Target	
Category - Industrial	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
Program Name																				
Industrial Accelerator	55	1,284,928	0	0	0	0	0	0	0	0	149	712,800	0	0	-81	5,582	149	712,800	68	718,382
Industrial Equipment Replacement	431	10,125,877	53	2,938,736	436	5,576,430	0	0	357	3,098,905	0	0	183	1,026,032	0	0	236	3,964,769	53	2,938,736
Demand Response 1	0	7	0	0	0	0	0	0	0	4	0	0	1	1	0	0	1	1	0	0
Demand Response 3	24	524,494	1,549	90,925	21	436,972	66	52,874	410	678	1,111	48,065	75	775	-527	0	2,801	192,638	2,199	191,863
Provincial Industrial Total	511	11,935,306	1,602	3,029,661	457	6,013,402	66	52,874	767	3,099,587	1,260	760,865	259	1,026,809	-608	5,582	3,187	4,870,208	2,320	3,848,981
OEB Approved Programs																				
A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OEB Approved Programs Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Industrial Total	511	11,935,306	1,602	3,029,661	457	6,013,402	66	52,874	767	3,099,587	1,260	760,865	259	1,026,809	-608	5,582	3,187	4,870,208	2,320	3,848,981

Note: Sums above do not include Orillia Power's projected or actuals as Strategy not itemized by intiatives

	2011 Original Strategy Projection		Actual 2011 Results		2012 Revised Strategy Projection		Actual 2012 Results		2013 Revised Strategy Projection		Actual 2013 Results		2014 Revised Strategy Projection		Actual 2014 Results		Revised Total Projected Reduction		Contribution to Target	
CDM Strategy Total	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
Program Total	3,933	48,501,204	4,134	29,589,650	3,975	32,093,004	1,840	28,356,940	5,414	28,881,284	3,478	17,059,738	6,384	20,666,984	3,084	18,334,221	15,860	95,945,920	12,535	93,339,169
2010 Contribution	0	0	577	11,452,775	6	29,450	32	307,683	0	0	0	0	0	0	0	0	439	8,540,239	610	11,760,458
Time Of Use Savings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,058	0	0	0	1,058	0
Adjustments to Verified Final Results	0	0	0	0	0	0	860	19,411,939	0	0	255	5,383,811	0	0	398	2,455,885	203	5,289,504	1,513	27,251,635
Adjusted Total	3,933	48,501,204	4,711	41,042,426	3,981	32,122,454	2,732	48,076,562	5,414	28,881,284	3,733	22,443,549	6,384	20,666,984	4,540	20,790,106	16,501	109,775,662	15,716	132,351,262
															Target to Achieve		25,720	119,510,000		

	2011 Original Strategy Projection		Actual 2011 Results		2012 Revised Strategy Projection		Actual 2012 Results		2013 Revised Strategy Projection		Actual 2013 Results		2014 Revised Strategy Projection		Actual 2014 Results		Revised Total Projected Reduction		Contribution to Target	
Percentage of Target	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
	15.3%	40.6%	18.3%	34.3%	15.5%	26.9%	10.6%	40.2%	21.0%	24.2%	14.5%	18.8%	24.8%	17.3%	17.7%	17.4%	64%	91.9%	61.1%	110.7%

Note: Total Projection is formed of 2011, 2012 & 2013 Actuals added with 2014 Revised Strategy Projection

6.0 Addendums:

Centre Wellington Hydro ..... Addendum 1
COLLUS Power Stream..... Addendum 2
Innisfil Hydro Distribution Systems..... Addendum 3
Lakefront Utilities..... Addendum 4
Lakeland Power Distribution..... Addendum 5
Midland Power Utility..... Addendum 6
Orangeville Hydro..... Addendum 7
Orillia Power..... Addendum 8
Parry Sound Power..... Addendum 9
Rideau St. Lawrence Distribution..... Addendum 10
Wasaga Distribution Ltd..... Addendum 11
Wellington North Power..... Addendum 12
West Coast Huron Energy..... Addendum 13

Midland Power Utility Corporation

Addendum 6 – CHEC CDM Combined Annual Report 2014

Conservation and Demand Management

2014 Annual Report

Submitted to:

Ontario Energy Board

Submitted on September 30, 2015

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Executive Summary

This annual report is submitted by Midland Power Utility Corporation ("Midland PUC") in accordance with the filing requirements set out in the Conservation and Demand Management ("CDM") Code for Electricity Distributors, issued September 16, 2010, Board File No. EB-2010-0215 specifically, the Appendix C Annual Report Template, as a progress report and update to Midland PUC's Strategy filed with the Ontario Energy Board ("Board" or "OEB") on November 1, 2010. Accordingly, this report outlines Midland PUC's CDM activities for the period of January 1, 2014 to December 31, 2014. It includes net peak demand and net energy savings achieved in 2011, 2012, 2013, and 2014, CDM program activities, successes and challenges.

Midland PUC did not apply for any Board-approved CDM programs during 2014 however, as noted in the Guidelines for Electricity Distributors Conservation and Demand Management ("CDM Guidelines"), released April 26, 2012, the Board has deemed Time-of-Use ("TOU") pricing to be a province-wide Board-approved CDM program. The Ontario Power Authority ("OPA"), now Independent Electricity System Operator ("IESO"), is to provide measurement and verification on TOU. The TOU savings allocated to Midland PUC's 2011 -2014 targets are 98 kW.

In 2011, Midland PUC contracted with the Ontario Power Authority (OPA) to deliver a portfolio of OPA-Contracted Province-Wide CDM Programs to all customer segments including residential, commercial, industrial and low income. These programs were rolled-out by the OPA in June 2011. In 2011 Program activities were centered on building a foundation for full program execution over the next three years of the program term, including staffing, procurement and program delivery.

In 2012, Midland PUC continued to place significant emphasis on the programs in market. The delivery of ERII and Direct Install programs continued to be active, the Home Assistance Program was launched, and the ***peaksaver*** PLUS® RFP released. To date Midland PUC has:

- Launched all available IESO Programs following their release by IESO:
- Delivered marketing to inform consumers in all sectors:
- Informed industry stakeholders about IESO Programs, including the use of online application system,
- Partnered with CHEC LDCs to form partnerships and delivery models for the various programs;
- In conjunction with other CHEC LDCs engaged the services of a Roving Energy Manager:
- Actively participated in Electrical Distribution Association (EDA), LDC and IESO working groups through our own staff or CHEC resources in order to improve and simplify the existing programs and processes; and
- Transitioned pre-2011 projects into 2011.

In 2013, Midland PUC continued to deliver all in market programs along with the associated marketing and customer support. The commercial programs such as ERII and Small Business Lighting continued to have good traction in the market place and demonstrated industry recognition. The ***peaksaver*** PLUS® RFP was released towards the end of 2012. Technology selection, system preparedness issues, and seasonal installation delays resulted in limited market exposure in 2013.

In 2014, Midland PUC continued to deliver all in-market programs with the associated marketing and customer support. The commercial programs, specifically the retrofit program continued to have good market awareness and uptake over the year. The Roving Energy Manager position was continued as part of the CHEC collaborative effort and assisted in maintaining focus and performance in this sector.

peaksaver PLUS® was in market, however, it continued to struggle. The customer engagement in this program did not meet expectations along with the associated demand reduction.

Midland PUC has achieved 1.5 MW of net incremental peak demand savings and 3.5 GWh of net incremental energy savings in 2014. A summary of the achievements towards the CDM targets is shown below in Table 1: Midland PUC Net Peak Demand Savings and Table 2: Midland PUC Net Energy Savings.

Table 1: Midland PUC Net Peak Demand Savings

Implementation Period	Annual			
	2011	2012	2013	2014
2011 - Verified	1.6	0.2	0.2	0.2
2012 - Verified†	0.0	0.7	0.2	0.2
2013 - Verified†	0.0	0.0	1.1	0.2
2014 - Verified†	0.0	0.0	0.1	1.5
Verified Net Annual Peak Demand Savings Persisting in 2014:				2.1
Midland Power Utility Corporation 2014 Annual CDM Capacity Target:				2.4
Verified Portion of Peak Demand Savings Target Achieved in 2014 (%):				88.4%

Table 2: Midland PUC Net Energy Savings

Implementation Period	Annual				Cumulative
	2011	2012	2013	2014	2011-2014
2011 - Verified	1.0	0.9	0.9	0.8	3.6
2012 - Verified†	0.0	1.0	1.0	1.0	2.9
2013 - Verified†	0.0	0.0	1.4	1.4	2.8
2014 - Verified†	0.0	0.1	0.63	3.5	4.2
Verified Net Cumulative Energy Savings 2011-2014:					13.6
Midland Power Utility Corporation 2011-2014 Annual CDM Energy Target:					10.8
Verified Portion of Cumulative Energy Target Achieved in 2014 (%):					125.4%

Midland PUC achieved 2.1 MW or 88.4 % and 13.6 GWh or 125.4% towards Midland PUC's 2014 peak demand reduction and energy consumption reduction targets respectively, as noted in the above tables. The shortfall of peak demand target was mainly due to late start of programs, and the cancellation of planned province wide programs including Direct Space Cooling in 2011. The suite of programs, while supporting kW savings, did not see significant demand focused projects implemented at the customer

level. While many projects resulted in significant kWh savings the demand was minimal. In addition, the loss of two DR-3 participants in 2011 significantly affected this shortfall. One new DR-3 participant was added in 2013 and the ERII programs drove MW savings in 2013, however, even with strong savings reported in 2014, Midland PUC has been unable to replace the demand savings lost by the exit of the 2011 DR-3 participants, and fell short of its demand target.

The overachievement of energy targets were mainly due to the increased number of industrial customers participating in saveONenergy programs. Utilizing the services of the Roving Energy Manager (REM) available through the CHEC Group provided valuable assistance in achieving this target. Energy Audits have been conducted by the REM resulting in energy saving projects being implemented and an increase in awareness of the various incentive programs available to customers. Midland PUC hosts an annual breakfast for its large users and its Energy Services Manager presents updates on the incentives and opportunities available under the saveONenergy programs. The REM also participates in the presentation to identify potential areas of opportunity where customers can achieve energy savings and also provides assistance with the application process.

In 2015, the Conservation First Framework (CFF) for the period 2015 -2020 will be implemented with CDM Plans prepared by Midland PUC effective January 1, 2016. In order to ensure a smooth transition, most 2011- 2014 Programs and Rules were extended into 2015 until the effective implementation January 1, 2015 under the Conservation First Framework.

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 OEB to establish Conservation and Demand Management ("CDM") targets to be met by electricity distributors. Accordingly, on November 12, 2010, the OEB amended the distribution license of Midland PUC to require Midland PUC, as a condition of its license, to achieve 10.82 GWh of energy savings and 2.39 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, Midland PUC submitted its CDM Strategy on November 1, 2010 which provided a high level of description of how Midland PUC intended to achieve its CDM targets.

The Code also requires a distributor to file annual reports with the Board. This is the fourth Annual Report by Midland PUC and it has been prepared in accordance with the Code requirements and covers the period from January 1, 2014 to December 31, 2014.

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

On December 21, 2012, the Minister of Energy directed the IESO to fund CDM programs which meet the definition and criteria for IESO-contracted province-wide CDM programs for an additional one-year period from January 1, 2015 to December 31, 2015.

The Ministerial Directive did not amend the timelines for LDCs to achieve their energy savings and demand savings targets. Therefore, the main focus of the LDCs remains the achievement of CDM targets by December 31, 2014.

Midland PUC submitted its 2013 Annual Report on September 30, 2014 which summarized the CDM activities undertaken by Midland PUC for the January 1, 2013 to December 31, 2013 period. The OEB's 2013 CDM Results report identified the majority of LDCs achieved close to 50% of their net peak demand (MW) target from their 2013 results. However, LDCs generally advised the Board that meeting their peak demand (MW) target is not likely and that a shortfall is expected.

In 2014, LDCs collectively achieved approximately 19.5% of the energy savings (GWh) target, adding to the overall cumulative result of approximately 109% of the net energy target of 6,000 GWh.

The report identifies that although there have been improvements to programs there still remains some shortcomings to the design and delivery of certain initiatives which have resulted in a negative impact to some programs. In particular, the change management process still requires improvements to expedite enhancements to initiatives. The report also noted that certain initiatives may be reaching the point of market saturation and that new initiatives may need to be developed in order to take the place of the existing initiatives under the new framework.

1. Conservation Framework

1.1 2011-2014 Framework

Ontario's current CDM framework is a key step towards creating a culture of conservation in the Province. The Ontario Government ("Government") Directive to the OEB to establish CDM targets that would be met by electricity distributors recognizes the importance of CDM for both electricity customers and the electricity system. CDM helps customers manage rising energy costs, supports the provincial integrated supply plan, and addresses local distribution and transmission supply constraints. The past framework was intended to enable customers to benefit from a suite of both Board-approved and IESO province-wide programs and provide a portfolio that would meet both broad and specific customer needs.

The state of Board-approved programs and the current suite of province-wide IESO programs have limited CDM offerings to customers. This has produced limited savings and has restricted the associated opportunity for LDCs to meet their targets. The process to introduce changes to current program initiatives or to pilot new initiatives has been challenging, involving considerable cost and effort, which has resulted in limited benefits to customers and CDM savings.

Challenges faced by LDCs in the 2011-2014 framework, such as overbuilt governance, unnecessarily excessive legal requirements and misalignment of control and risks, have been addressed by the new directive. However, there are still many challenges to overcome and the new CDM framework should address other challenges of the current framework and build on its strengths.

1.2 Conservation First Framework

LDCs are supportive of the Government's renewed commitment for CDM in Ontario. LDCs are committed to working with the Government, IESO, Natural Gas Utilities and other stakeholders to develop programs for the new framework for CDM in the Province.

Long-term commitment for CDM funding and confirmation of the role of LDCs have been provided in the Minister's directive dated March 31, 2014, allowing LDCs to maintain current program infrastructure, including LDC staff and third party contracts as required.

The commitment also provided LDCs the program extensions required for continuity into the Conservation First Framework which was critical for all customers.

Board-Approved CDM Programs

2.1 Introduction

In its Decision and Order dated November 12, 2010 (EB-2010-0215 and EB-2010-0216), the OEB ordered that, to meet its mandatory CDM targets, "Each licensed electricity distributor must, as a condition of its license, deliver Board-approved CDM programs, IESO-contracted province-wide CDM programs, or a combination of the two".

At this time, the implementation of TOU pricing is the only Board-approved CDM program being offered in Midland PUC's service area.

2.2 TOU Pricing

2.2.1 Background

In its April 26, 2012 CDM Guidelines, the OEB recognizes 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 the Ministry directive dated March 31, 2010 by the Minister of Energy and Infrastructure, the OEB is of the view that any evaluation of savings from TOU pricing should be conducted by the IESO for the Province, and then allocated to distributors. Midland PUC has included the results provided by the IESO in this report.

In 2013, IESO had retained the Brattle Group as the evaluation contractor and has been working with an expert panel convened to provide advice on methodology, data collection, models, savings allocation, etc. The initial evaluations were conducted in 2013 with five LDCs – Hydro One Networks Inc., Toronto Hydro-Electric System Limited, Hydro Ottawa Limited, Thunder Bay Hydro Electricity Distribution Inc. and Newmarket-Tay Power Distribution Ltd. Preliminary results from these five LDCs were issued to the five LDCs involved in the study in August 2013 and are now publically available on the IESO website. Preliminary results demonstrated load shifting behaviors from the residential customer class.

The TOU savings as reported by the IESO are included in this report and accounts for 98 kW which represents 4% of Midland PUC's demand target.

2.2.2 TOU PROGRAM DESCRIPTION

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

Initiative Frequency: Year-round

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

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

The RPP TOU price is adjusted twice annually by the OEB. A summary of the RPP TOU pricing is provided in Table 3: RPP TOU Pricing Summary below.

Table 3: RPP TOU Pricing Summary

	Prices (cents/kWh)		
Effective Date	**On Peak**	**Mid Peak**	**Off Peak**
November 1, 2010	9.9	8.1	5.1
May 1, 2011	10.7	8.9	5.9
November 1, 2011	10.8	9.2	6.2
May 1, 2012	11.7	10.0	6.5
November 1, 2012	11.8	9.9	6.3
May 1, 2013	12.4	10.4	6.7
November 1, 2013	12.9	10.9	7.2
May 1, 2014	13.5	11.2	7.5
November 1, 2014	14.0	11.4	7.7

Delivery: The OEB sets the TOU prices; LDCs install and maintain the smart meters; LDCs convert customers to TOU billing.

Initiative Activities/Progress

Midland PUC began transitioning its RPP customers to TOU billing in June, 2011. At December 31st, 2014, all of Midland PUC's RPP customers were on TOU billing.

2.3 Midland PUC's Application with the OEB

Midland PUC did not submit a CDM program application to the OEB for programming in 2014. Midland PUC continued to focus on developing, improving and implementing the infrastructure to support and deliver Provincial Programs.

2.4 Midland PUC's Application with the IESO's Conservation Fund

In 2013, the IESO introduced the Conservation Fund's Program Innovation stream to help meet Midland PUC's interest in the development and launch of new local, regional and province-wide initiatives. The Conservation Fund's LDC Program Innovation stream fast-tracks LDC-led program design and the launch of successfully piloted initiatives prior to full scale deployment. By driving program innovation through the Conservation Fund, LDCs have the opportunity to both realize additional savings through the piloting and implementation of initiatives not currently addressed by the IESO portfolio and the means to test concepts for future local or province wide programs post 2014. As per the IESO, as of March 2014, three pilots have been contracted and are underway with Toronto Hydro and Niagara Peninsula Energy and ten others are in various stages of the contracting and development process.

In addition, building on LDC interest in social benchmarking services for the residential sector, in 2013 the Conservation Fund in collaboration with Hydro One, Milton Hydro and Horizon Utilities completed the procurement of three social benchmarking pilot projects. Beginning in 2014 these services will be offered to more than 100,000 customers for a one year period, with evaluation reports published shortly thereafter.

Midland PUC did not submit a CDM program application to the IESO's Conservation Fund in 2014.

3 IESO-Contracted Province-Wide CDM Programs

3.1 Introduction

Effective March 1, 2011, Midland PUC entered into an agreement with the IESO to deliver CDM programs extending from January 1, 2011 to December 31, 2014. The programs included under this agreement are listed in Table 4 below. Further program details are included in Appendix A. In addition, results include projects started pre 2011 which were completed in or after 2011:

Table 4: IESO-Contracted Province-Wide CDM Program Initiatives

Initiative	Schedule	Date schedule posted	Midland PUC in Market Date
Residential Programs			
Appliance Retirement	Schedule B-1, Exhibit D	*Jan 26,2011*	*Jan 26, 2011*
Appliance Exchange	Schedule B-1, Exhibit E	*Jan 26, 2011*	*May 1, 2011*
HVAC Incentives	Schedule B-1, Exhibit B	*Jan 26, 2011*	*May 1, 2011*
Conservation Instant Coupon Booklet	Schedule B-1, Exhibit A	*Jan 26, 2011*	*May 1, 2011*
Bi-Annual Retailer Event	Schedule B-1, Exhibit C	*Jan 26, 2011*	*May 1, 2011*
Retailer Co-op	n/a	*n/a*	*n/a*
Residential Demand Response	Schedule B-3	*Aug 22, 2011*	*Apr 1, 2013*
New Construction Program	Schedule B-2	*Jan 26, 2011*	*Jun 1, 2011*
Home Assistance Program	Schedule E-1	*May 9, 2011*	*Nov, 2012*
Commercial & Institutional Programs			
Efficiency: Equipment Replacement	Schedule C-2	*Jan 26, 2011*	*Mar 1, 2011*
Direct Install Lighting	Schedule C-3	*Jan 26, 2011*	*Jun 1, 2011*
Existing Building Commissioning Incentive	Schedule C-6	*Feb 2011*	*Jul, 2011*
New Construction and Major Renovation Initiative	Schedule C-4	*Feb 2011*	*Jul,2011*
Energy Audit	Schedule C-1	*Jan 26, 2011*	*May, 2011*
Commercial Demand Response	Schedule B-3	*Jan 26, 2011*	*May 21, 2013*
Industrial Programs			
Process & System Upgrades	Schedule D-1	*May 31, 2011*	*Nov 1, 2011*
Monitoring & Targeting	Schedule D-2	*May 31, 2011*	*Sep 1, 2011*
Energy Manager	Schedule D-3	*May 31, 2011*	*Sep 24, 2012*
~~Key Account Manager ("KAM")~~	~~Schedule D-4~~	~~*May 31,2011*~~	
Demand Response 3	Schedule D-6	*May 31, 2011*	*May 1, 2011*

In addition, results were realized towards Midland PUC's 2011-2014 targets through the following pre-2011 program:

- Electricity Retrofit Incentive Program
- High Performance New Construction

As per the table 5: Pre-2011 IESO Programs below, several program initiatives are no longer available to customer or have not been launched.

Table 5: Pre-2011 IESO Programs

Not in Market	Objective	Status
Residential Program		
Midstream Electronics	Encourages retailers to promote and sell high efficency televisions, and for distributors to distribute high efficiency set top boxes.	Did not launch and removed from Schedule in Q2, 2013.
Midstream Pool Equipment	Encourage pool installers to sell and install efficient pool pump equipment in residential in-ground pools.	Did not launch and removed from Schedule in Q2, 2013.
Home Energy Audit Tool	This is a provincial online audit tool to engage customers in conservation and help drive customer participation to CDM programs.	Did not launch and removed from Schedule in Q2, 2013.
Commercial & Institutional Program		
Direct Service Space Cooling	Offers free servicing of air conditioning systems and refrigeration units for the purpose of achieving energy savings and demand reduction.	Did not launch.
Demand Response 1 ("DR1")	This initiative allows distribution customers to voluntarily reduce electricity demand during certain periods of the year pursuant to the DR 1 contract. The initiative provides DR payment for service for the actual electricity reduction provided during a demand response event.	No customer uptake for this initiative. As a result this Initiative was removed from the Schedule in Q4, 2012.
Industrial Program		
DR1	As above	No customer uptake for this initiative. Removed in Q4, 2012.

The Master CDM Program Agreement between LDCs and the IESO includes a program change management provision in Article 3. Collaboration between the IESO and LDCs commenced in 2011, and continued in 2012, 2013 and 2014, as the change management process was implemented to enhance the saveONenergy program suite. The change management process allows for modifications to the Master CDM Program 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.

3.2 Program Descriptions

Full descriptions of IESO-contracted province-wide CDM programs are available on the IESO's intranet and additional initiative information can be found on the saveONenergy website at https://saveonenergy.ca. The targeted customer types, objectives, and individual descriptions for each program initiative are detailed in Appendix A. Discussion of Midland PUC's experience with these programs is provided below.

3.2.1 RESIDENTIAL PROGRAM

Description: Provides residential customers with programs and tools to help them understand and manage the amount of energy they use in their home and help the environment.

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

Discussion: The addition of Light Emitting Diode ("LED") technology into the bi-annual retailer events in 2012 and the annual coupons in 2013, as well as LDC custom coded coupons, has had a positive effect on consumer engagement and provided opportunities to achieve additional savings in their service territory. Participation in the Spring and Fall Coupon events has also helped drive savings from retailer events as it enabled customers to have face to face contact with their LDC. This enabled customers to receive coupons that customers were able to redeem instantly.

The Residential Demand Response program is one of the main residential initiatives which drives savings for LDCs. It was anticipated that the In-Home Display ("IHD") would assist customers to manage their energy consumption and result in savings towards the kWh target. Unfortunately, there were no savings associated with the Energy Display attributed to Midland PUC in the IESO's final verified results included in this report.

The Heating and Cooling incentive program continues to be one of the strongest performer in the residential suite of programs. This program is mainly driven by contractors participating in the program but they may not always deliver results in the required manner (e.g. allowing customers to apply for their own incentives and tardy reporting).

The Residential Program Portfolio is predominately a carryover of initiatives from previous programs. Three new initiatives were never launched and subsequently removed from the schedule in 2013 with no new additions. Delays in communication with regards to initiative offerings and results reporting have hampered LDCs' abilities to engage customers and promote participation. Province-wide advertising has provided value in all residential programs except for *peaksaver* **PLUS**® due to technological inconsistency across LDCs.

Work to revitalize and increase the effectiveness and breadth of the initiatives through the residential program needs to be a high priority. There are opportunities within the residential marketplace that need to be addressed, program developed and offered to customers. The Version 5 schedules changes under the Master Agreement implemented in Q1/Q2 2014 have increased the number of LDC-coded coupons available and made new installations of central heating and cooling systems eligible for the Heating and Cooling Incentive.

3.2.1.1 Appliance Retirement Initiative (Exhibit D)

Initiative Activities/Progress: Midland PUC continues to promote the Appliance Retirement Initiative through local advertising including front office displays, appliance retailer sales areas, educational brochures, and the LDC website.

Additional Comments:

- Due to the duration of the program, and the revised appliance eligibility requirements to a minimum age of 20 years old, this initiative appears to have reached market saturation and has been under consideration for removal from the portfolio.
- IESOs results are very responsive to province-wide advertising, IESO provincial marketing should continue to play a key role.
- Better relationships with retailers may play a role in increasing participation in this initiative. Retailers can provide opportunities to capture replacement appliances and have them decommissioned after a sale has been committed.
- In an effort to capture additional savings in the perceived last year of the initiative, the eligibility requirement for refrigerators was revised from 20 years old to 15 years old in Q2 2014, prior to the conclusion of this program by December 31, 2014.
- Due to the announcement by the IESO that the Appliance Retirement program was going to cease at the end of 2014, many LDCs lowered (or removed) their marketing support for the program.

3.2.1.2 Appliance Exchange Initiative (Exhibit E)

Initiative Activities/Progress: Midland PUC was unable to participate in any Appliance Exchange events in 2014 due to lack of retailer participation. Activity levels were moderate to low, with minimal participation in the program this year.

Additional Comments:

- The design of the initiatives, including eligible measures and incentives amounts are developed through the Residential Working Group. Retail partner(s) are contracted by the IESO to deliver the initiatives province-wide. Individual LDCs have the opportunity to stage in-store events to drive the distribution of LDC coded coupons and promotion of other programs in the portfolio
- This initiative, eligible measures and incentive amounts are influenced by the retail partner with very limited involvement from the LDCs. The restrictive, limited and sometimes non-participation of local stores can diminish the savings potential for this initiative.
- To date there has only been one retailer participant in the Appliance Exchange Initiative.

- Evaluation, Measurement, and Verification ("EM&V") results indicated that the value of savings for retired room air conditioners ("AC") has dropped resulting in the retail participant not accepting window ACs during the Spring 2013 event.

- Notification to LDCs regarding retailer participation and eligible measures continues to be delayed. Improved communications will aid in appropriate resource allocation and marketing of the initiative.

- This initiative may benefit from the disengagement of the retailer and allowing LDCs to conduct these events, possibly as part of a larger community engagement effort, with the backing of the IESO's contractor for appliance removal.

- The initiative appears to require more promotion from retailers and LDCs.

3.2.1.3 HVAC Incentives Initiative (Exhibit B)

Initiative Activities/Progress: Promotion to local HVAC contractors is completed on a seasonal basis each year and engagement has been made with residential energy auditors in our service area. Information about the program is also delivered through front office displays and the LDC website.

Additional Comments:

- Incentive levels appear to be insufficient to prompt participants to upgrade HVAC equipment prior to end of useful life. An Air Miles incentive was introduced in 2013 to try and encourage early replacement.

- This initiative is contractor driven with LDCs responsible for marketing efforts to customers. More engagement with the HVAC contractor channel should be undertaken to drive a higher proportion of furnace and central air conditioner sales to eligible units.

- There are cases where non-participating contractors are offering their own incentives (by discounting their installations to match the value of the IESO incentive) to make the sale. As this occurs outside of the initiative, savings are not credited to LDCs. The IESO should consider this in future program impact evaluation studies.

- Changes to the schedules in 2014 to allow for incentives for new installations, rather than strictly replacement units, may prove to be effective in providing greater results, increasing provincial participation by 20% over 2013.

3.2.1.4 Conservation Instant Coupon Initiative (Exhibit A)

Initiative Activities/Progress: Midland PUC promoted the instant coupons through front office displays and provided printable coupons through the LDC website. The availability of coupons online for the full year had a significant positive effect on results achieved with this initiative. Midland PUC has also promoted the coupons through twitter.

Additional Comments:

- The timeframe for retailer submission of redeemed coupons vary from retailer to retailer, and in some cases has been lengthy. The delays and incomplete results reporting limits the ability to react and respond to initiative performance or changes in consumer behavior.
- The product list could be distinctive from the Bi-Annual Retailer Event Initiative in order to gain more consumer interest and uptake.
- Program evolution, including new products and review of incentive pricing for the coupon initiatives, should be a regular activity to ensure continued consumer interest.
- All coupons have been provided with LDC custom coding in 2014 which allows LDCs to promote coupons based on local preferences. However, LDCs were not provided with customer coded coupon results until early 2015 and thus, had no indication of their redemption rates.
- Consumer experience varies amongst retailers offering coupon discounts which can limit redemptions. For example, a particular high volume 'participating retailer' does not accept coupons and have their own procedure. In addition, some retailers have static lists of eligible products and will not discount eligible products unless the product on the list.
- The saveONenergy programs would benefit from specific end cap displays, aisle product stands and product-specific areas. Having products throughout a retail environment weakens the impact.

3.2.1.5 Bi-Annual Retailer Event Initiative (Exhibit C)

Initiative Activities/Progress: Midland PUC participated in the spring and fall coupon events in 2014 and has worked with local retailers to co-advertise the program, provide in store displays and have staff available to answer conservation questions. These events are also used to provide a marketing opportunity for all of the other CDM programs offered.

Additional Comments:

- LDCs have the opportunity to stage in-store events to drive the distribution of LDC-coded coupons and promotion of other programs in the portfolio; however, this requires cooperation from the local retailer and LDC staff resources.

- The product list has had minimal changes over the past four years.
- Limited engagement of local retailers can restrict the savings potential for this initiative.
- Program evolution, including new products and review of incentive pricing for the coupon initiatives, must be a regular activity to ensure continued consumer interest.
- The product list could be distinctive from the Conservation Instant Coupon Initiative in order to gain more consumer interest and uptake.
- A review conducted by the EDA Residential Working Group in 2011 identified three areas of need for initiative evolution: 1) introduction of product focused marketing; 2) enhanced product selection; and 3) improved training for retailers as retail staff tend not to be knowledgeable regarding the products or promotion.
- This initiative may benefit from a more exclusive relationship with a retailer appropriate to the program. There should be a value proposition for both the retailer and LDC.
- Independently, the Retailer Co-op and Bi-Annual Retailer Event Initiative may not present a value for the investment of LDC resources to support these events and should be backed by a strong residential portfolio.

3.2.1.6 Retailer Co-op

Initiative Activities/Progress: Due to a lack of retailer interest in the provincial program Midland PUC was unable to actively pursue this initiative. Efforts to participate in the program on an annual basis are dependent on the IESO and retailer involvement.

Additional Comments:

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

3.2.1.7 New Construction Program (Schedule B-2)

Initiative Activities/Progress: Midland PUC's service territory has experienced limited new building construction, again restricting the opportunity for this initiative in 2014.

Additional Comments:

- This initiative provides incentives to home builders for incorporating energy efficiency into their buildings. To support this, LDCs need to provide education to consumers regarding the importance of choosing the energy efficient builder upgrade options without an immediate benefit to the consumer.
- In 2012 the application process was streamlined, however continues to be too cumbersome for builders. This, combined with limited return, has resulted in this initiative continuing to under-achieve.
- Administrative requirements, particularly with individual home modeling, must align with perceived stakeholder payback.
- The addition of LED light fixtures, application process improvement, and moving the incentive from the builder to the home-owner may increase participation.
- This initiative may benefit from collaboration with the natural gas utilities.

3.2.1.8 Residential Demand Response Program (Schedule B-3)

Initiative Activities/Progress: The RFP was released late in 2012 to engage providers and to finalize technology to commence the delivery of the program in 2013. It was anticipated the initial year would allow any technology issues to be resolved, marketing of the program to begin and initial installations. The bulk of installations were anticipated to occur in 2014, however program participation was limited. One significant issue affecting the results of this initiative in 2014 was the need to terminate installations once colder weather approached due to accessibility issues.

Additional Comments:

- Energy and demand savings have not been reported for the IHD portion of the program as 2013 EM&V results have determined zero savings associated with the IHD. The IESO conducted another study in 2014, expanding its study territory beyond those included in the 2013 study to provincial rather than regional results. Results from the second study have not yet been announced. The demand savings associated with the control device has been included in this report.
- The variable funding associated with installing a load controllable thermostat is not sufficient unless it is combined with an IHD. This might not be possible at all times or when the IHD is optional.
- Smart meters installed by most LDCs do not have the capability to communicate directly to an IHD and any mass replacement of newly installed meters with communicating abilities is not fiscally responsible. When proposing technical initiatives that rely on existing LDC infrastructure or technology there should be an extensive consultative process in order to prevent this type of problem in the future.

- 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.

- Given the different LDC smart meter environments and needs, each LDC is positioning the initiative with subtle differences. As such, greater program flexibility is required to address unique LDC needs

3.2.2 COMMERCIAL AND INSTITUTIONAL PROGRAM

Description: Provide commercial, institutional, agricultural and industrial organizations with energy-efficiency programs to help reduce their electrical costs while helping Ontario defer the need to build new generation and reduce its environmental footprint. Programs to help fund energy audits, replace energy-wasting equipment or pursue new construction that exceeds existing codes and standards. Businesses can also pursue incentives for controlling and reducing their electricity demand at specific times.

Targeted Customer Type(s): Commercial, institutional, agricultural, multi-family buildings, industrial.

Objective: Designed to assist building owners and operators as well as tenants and occupants in achieving demand and energy savings, and to facilitate a culture of conservation among these communities as well as the supply chains which serve them.

Discussion: Throughout 2014 the Commercial and Institutional ("C&I") Working Group continued its efforts to enhance the existing C&I programs and rectify identified program and system deficiencies. This has proven to be a challenging undertaking, normally taking months to complete sometimes relatively minor changes due to the current CDM framework. Overbuilt governance, numerous initiative requirements, complex program structure and lengthy change management have restricted growth without providing the anticipated improved measurement and verification results. In addition, Evaluation, Measurement and Verification (EM&V) has not yet achieved transparency. LDCs are held accountable for these results yet are mostly completely removed from the process.

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

Despite these challenges the C&I Working Group, working in cooperation with the IESO, have managed to iron out many of the issues which could be rectified. In particular, an accomplishment of 2012 was the advent of the expedited change management as a mean to accelerate certain program changes. The benefits of expedited change management process were seen in 2013 and carried over into 2014.

Looking ahead there is an opportunity to make valuable changes to the current program suite for the Conservation First Framework, but LDCs and the IESO should look beyond the current initiatives and work

to launch new programs, built on the strengths of the 2011-2014 programs, which will meet the needs of the industry and consumers.

Throughout 2014 Midland PUC along with other CHEC LDCs benefited from the efforts of the Roving Energy Manager. The ability to collaboratively obtain this resource has proven to be very beneficial. This key resource provides Midland PUC and CHEC members the ability to offer energy assessments, energy saving evaluations and program recommendations to C & I customers. The Roving Energy Manager has the knowledge base and experience to assist commercial and industrial customers in identifying savings and implementing programs to achieve savings while taking the customer's needs into consideration.

The C & I portfolio fell short of the projected MW and GWh strategy for 2014. The business programs continued to perform well including the Direct Install Lighting Program and Retrofit Program which saw an increase in MW savings over 2012 and 2013. Incremental energy savings incurred under the Retrofit Program in 2014 nearly doubled compared to 2013.

As we transition into the new CFF, Midland PUC continues to be engaged with its customer base. An emphasis has been placed on conducting site visits with commercial and institutional customers in order to better inform customers of the incentives available through the various program offerings. In addition, Midland PUC offers assistance to customers with the application process. Outside companies who have expertise in various areas of energy saving opportunities have been invited to work with Midland PUC customers to achieve additional energy savings. Midland PUC expects this strategy will provide significant energy savings for its customers in 2015 and beyond while contributing significantly to the achievement of its energy targets.

The C & I portfolio continues to offer one of the best avenues for savings and will continue to be a focus for the new CFF Programs.

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

Initiative Activities/Progress: Midland PUC continues to promote this program through bill inserts, in-office displays, print media in local newspapers, through the LDC website, cold calls to potential customers, social media and posters displayed at various municipal buildings. Midland PUC offers assistance with project development and file submission to the saveONenergy website. In addition, Midland PUC provides walkthrough energy surveys and calculations of Return on Investment (ROI) for Energy Management Opportunities. Progress to date has not met revised the targets, however, momentum is growing into the future. The initiative continued to have good traction within the sector. Many of the projects were not fully implemented by December 31, 2014 and as such have transitioned into the new framework.

Additional Comments:

- A large proportion of LDC savings are attributed to ERII.

- Capability building programs from industrial programs have had very positive contributions to ERII program.

- A number of customer-facing issues in iCon (the IESO's centralized application system) have been resolved; however, key LDC administrative back office processing issues continue to be a challenge. For example, currently LDCs are unable to record back office information to complete review and approval process using iCon.

- Applicants and applicant representatives continue to express dissatisfaction and difficulty with the online application system. This issue has been addressed by LDCs through application training workshops, Key Account Managers ("KAMs"), channel partner/contractor training and LDC staff acting as customer application representatives. Although this has been an effective method of overcoming these issues and encouraging submissions, it also reflects on the complexity and time consuming nature of the application process. As such, applicant representatives continue to influence the majority of applications submitted. Continued development of channel partners is essential to program success.

- Lighting is still the most popular measure. Other market sectors are not as engaged yet, specifically the mechanical sector. There continues to be significant barriers to program participation from HVAC (Unitary AC) and compressed air channel partners

- Prescriptive and engineered worksheets provide a much needed simplified application process for customers. However, the eligible measures need to be updated and expanded in both technology and incentive amounts to address changing product costs and evolution of the marketplace.

- A focus on demand incentives has limited some energy project opportunities. In particular, night lighting projects have significant savings potential for customers but tend to have incentives of 10% or less of project cost.

- The requirement to have a customer invoice the LDC for their incentive is very burdensome for the customer and results in a negative customer experience and another barrier to participation.

- There is redundancy in the application process as customers may need to complete a worksheet and then enter most of that information over to the online application form. This can be cumbersome.

- Processing head office application became much easier for the lead LDC after schedule changes came into effect in August 2013. The changes implemented allowed the lead LDC to review and approve all facilities in a head office application on behalf of all satellite LDCs under certain circumstances.

- The application process for head office projects remains a significant barrier. Applicants need to manually enter one application per facility associated with the project which can be extremely onerous, often requiring a dedicated resource.

- Streamlining of the settlements systems resulted in significant improvement in the payment process in 2013.

- IESO implemented a cut-off date of July 31, 2014 for approval of 2014 social housing adder (SHA) under ERII program. IESO had instructed that any SHA applications that will be submitted to IESO after July 31, 2014 will not be honored for SHA, however, they failed to mention that it is the timeline to submit the funding request to the IESO by the LDCs and not the submission date of the applications to IESO's ICON system by the Applicant (Customer). As a result there were some confusions and some of the applications that were submitted to IESO's iCON by July 31, 2014 but LDCs submitted the funding request to IESO at a later date (once LDCs have completed review of the applications) were not honored for SHA. Additionally, the formal letter confirming that the SHA annual allocation has been exceeded was received by conservation officers on July 15, 2014 leaving them only 15 days to inform the customers and this created a negative customer experience.

- The handling of the exterior lighting incentives was a negative customer experience. In the fall of 2014 a new section was introduced in the prescriptive Lighting worksheet. It offered generous incentives for some exterior lighting projects and many municipal customers took advantage of the available incentives. Within 2 weeks of introducing the incentives, several incentives were suddenly removed for approximately 6 weeks until new incentives were created due to $/kWh incentive being too high for some of the measures. This caused a negative customer experience in several ways:

    - Some customers were planning on applying for rebates exterior prescriptive lighting measures based on the incentives offered but were suddenly not allowed to apply for prescriptive rebates.

    - The length of time from pulling out the exterior prescriptive lighting incentives to offering new incentives was too long. There should have been a temporary incentive level offered to allow LDCs to take in new applications.

    - The incentives should have been introduced at an appropriate level the first time. While market conditions can change, the incentives offered should have been researched and approved with the expectation that they would be in place for at least 6-12 months.

- Introduction of several new prescriptive measure worksheets including Plug Loads and Refrigeration were introduced in September 2014 allowed for new opportunities, albeit late in the framework.

- The Ministerial Directive provides continuity of the conservation programs for the participant, with clear direction on LDC administrative funding for 2015, which helps to avoid a gap in program delivery.

3.2.2.2 Direct Install Initiative ("DIL") (Schedule C-3)

Initiative Activities/Progress: Midland PUC saw an increase in participants from previous years. Midland PUC continues to promote the Direct Install initiative through local advertising including front office displays and the LDC website. Local contractors continued to promote the program and the addition of new LED measures in 2013 enabled significant energy savings to be achieved in 2014 as many previous ineligible customers were now eligible to participate in the program. Entering the new CFF era, the Direct Install Program will need to be enhanced in order to continue to achieve savings for the LDC's towards their targets.

Additional Comments:

- LED lighting was introduced in 2013 as a new measure and has been well received by customers who may not have previously qualified for DIL eligible upgrades. This is an efficient product with a long estimate useful life. Cold start high output lighting was removed from the program. This particularly affected the farming customers who now have limited options within the program.
- Successful execution of the previous version of this initiative has resulted in reduced potential for the 2011-2014 initiative in some LDC's territories.
- The inclusion of a standard incentive for additional measures increased project size and drove higher energy and demand savings results in some situations. However, LDCs are unable to offer these standard incentives to prior participants. The ability to return to prior participants and offer a standard incentive on the remaining measures has potential to provide additional energy and demand savings.
- Many customers are not taking advantage of any additional measures, which may present an opportunity to for future savings with a new program offering.

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

Initiative Activities/Progress: The opportunity for chilled water systems is limited in Midland PUC's service area due to the nature of the equipment and size of the feasible cooling load. No inquiries have been made to date from customers. General promotion of this initiative was done through local advertising including front office displays and the LDC website.

Additional Comments:

- Initiative name does not properly describe the initiative.
- There was minimal participation for this initiative. It is suspected that the lack of participation in the program is a result of the initiative being limited to space cooling and a limited window of opportunity (cooling season) for participation.
- Participation is mainly channel partner driven, however the particulars of the initiative have presented too much of a significant barrier for many channel partners to participate.
- The customer expectation is that the program be expanded to include a broader range of measures for a more holistic approach to building recommissioning and chilled water systems used for other purposes should be made eligible and considered through change management.
- This initiative should be reviewed for incentive alignment with ERII, as currently a participant will not receive an incentive if the overall payback is less than 2 years.

3.2.2.4 New Construction and Major Renovation Initiative ("HPNC") (Schedule C-4)

Initiative Activities/Progress: This program is dependent upon the types of development and renovations being proposed in Midland PUC's service territory. Midland PUC will work with proponents as projects are identified. Future development is monitored to determine projects available for this program. Unfortunately to date no participation in this initiative has materialized due to the lack of development in Midland PUC's service territory. Promotion of this initiative was done through local advertising including front office displays and the LDC website.

Additional Comments

- With the Ministerial Directive issued December 21, 2012, facilities with a completion date near the end of 2014 with some confidence that they will be compensated for choosing efficiency measures.
- Participants have until the end of 2014 to submit their applications for the projects that will be completed in 2015. However savings achieved will be accounted for in the new framework (2015 - 2020).
- The custom application process requires considerable customer support and skilled LDC staff. The effort required to participate through the custom stream exceeds the value of the incentive for many customers.
- There are no custom measure options for items that do not qualify under the prescriptive or engineered track as the custom path does not allow for individual measures, only whole building modelling.
- The requirement to have a customer invoice the LDC for their incentive is very burdensome for the customer and results in a negative customer experience and a potential barrier to participation.

3.2.2.5 Energy Audit Initiative

Initiative Activities/Progress: The audit initiative continues to be promoted during site visits, local advertising including front office displays, LDC website, and posters displayed at the Midland Public Library, Town of Midland Office and the Midland Recreation Centre. 2014 saw 2 applications submitted for this program. The REM played a significant role in the submission of these applications.

Additional Comments:

- The introduction of the new audit component for one system (i.e. compressed air), has increased customer participation.
- The energy audit Initiative is considered an 'enabling' initiative and 'feeds into' other saveONenergy initiatives.

- LDCs are receiving some savings towards their targets from an audit which is mainly attributable to operational savings.

- Audit reports from consultants vary considerably and in some cases, while they adhere to the initiative requirements, they do not provide value for the participant. A standard template with specific energy saving calculation requirements should be considered.

- Customers look to the LDCs to recommend audit companies. A centralized prequalified list provided by the IESO may be beneficial.

- Participants are limited to one energy audit which restricts enabling and direction to the other initiatives. This has been revised in 2014 and LDCs are now able to consider additional customer participation when presented with a new scope of work.

- Consideration should be given to allowing a building owner to undertake an audit limited to their lighting system. This way they may receive valuable information from a neutral third party regarding the appropriate lighting solution for their facility instead of what a local supplier would like to sell.

- The requirement to have a customer invoice the LDC for their incentive is very burdensome for the customer and results in a negative customer experience and a potential barrier to participation

3.2.3 INDUSTRIAL PROGRAM

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

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

Objective:

- 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.

Discussion: The Industrial Program Portfolio has been able to provide valuable resources to large facilities such as energy managers and enabling engineering studies. The engineering studies in particular provide a unique opportunity for a customer to complete a comprehensive analysis of an energy intensive process

that they would not otherwise be able to undertake. Energy managers provide customers with a skilled individual whose only role is to assist them with conservation initiatives. To date these energy managers have played a key role in customer participation. The KAM and the industrial project supervisors have also been instrumental in managing the Embedded Energy Managers ("EEM") during the first and second half of the year respectively, and promoting activity to the Class A customers.

Midland PUC has experienced growth in this area over previous years. This can be attributed to customers being more aware of the incentives available as well as having experienced savings by participating in the program. Past customers have implemented new projects, as the incentives provide them with the capital to invest in new measures. New participants are also becoming involved as they become aware of the incentives. Site visits by the Energy Service Manager have driven the increased participation. Targeted marketing efforts are on-going with advertisements and feature articles regarding existing customers' successes in the local newspaper. The use of social media, specifically Twitter, has assisted in promoting conservation programs. An annual breakfast is held in the spring each year where large users are invited and information is provided by Midland PUC's Energy Services Manager and the CHEC Roving Energy Manager. Updates on changes to conservation programs and information on industrial programs are made available to customers.

Within Midland PUC's service territory there are a limited number of customers who can take advantage of the industrial portfolio of programs. In many instances the focus has been on the ERII program from the C&I Programs. The promotion of industrial programs has been assisted by the CHEC Roving Energy Manager, a position which has been filled from the 3rd quarter of 2012.

Due to the size, scope and long lead time of these initiatives and associated projects, the December 2012 Ministerial Directive provides some security for the continuation of the conservation programs and associated compensation for the participant.

Extensive legal documents, complex program structure and lengthy change management have restricted the change and growth of this portfolio. While the expedited change management has benefited the commercial portfolio, the industrial portfolio has not seen the same results due to the narrow scope of the process. For 2013, the change to the threshold for small capital projects and the new small capital project agreement improved the number of projects and savings achieved within Process and Systems Upgrades Initiation ("PSUI"). Likewise, a decision to proceed with applications for natural gas load displacement generation projects also increase uptake, although the limited time to bring new projects into service is a barrier.

3.2.3.1 Process and Systems Upgrades Initiative ("PSUI") (Schedule D-1)

Initiative Activities/Progress: Limited opportunity in Midland PUC's service area exists due to the required MW and GWh size of the project requirements to participate. The initiative is promoted during site visits with industrial customers, local advertising including front office displays, and through the LDC website. Midland PUC has not had any applications for PSUI to date. It is anticipated that if this initiative is a viable option for our customers the REM has advised customers during site visits over the year.
Additional Comments:

- Numerous energy studies have been submitted and completed. This is a strong indication that there is potential for large projects with corresponding energy savings. Most of these studies have been initiated through Energy Manager and Key Account Manager ("KAM") resources.

- This initiative is limited by the state of the economy and the ability of a facility to complete large capital upgrades.

- There is typically a long sales cycle for these projects, and a long project development cycle. As such, limited results are expected to be generated in 2014. The majority of the results are expected in 2015 with a much reduced benefit to cumulative energy savings targets.

- Delays with processing funding payments have caused delayed payments to participants beyond contract requirements. In some cases, LDCs have developed a separate side agreement between the LDC and participant acknowledging that the participant cannot be paid until the funds are received.

- Given the size of the projects involved, the contract required for PSUI is a lengthy and complicated document. A key to making PSUI successful is the new agreement for 'small' projects with simplified and less onerous conditions for the customer.

- To partially address this, changes were made to the ERII program which allowed smaller projects to be directed to the commercial stream. Most industrial projects to-date have been submitted as ERII projects due to less onerous contract and M&V requirements. Therefore, PSUI engineering studies and LDC's industrial resources (e.g., Energy managers, KAMs) contribute significant savings to other programs such as ERII.

- A business case was submitted by the Industrial Working Group in July 2012 which changed the limit for a small project from 700 MWh to 1 million dollars in incentives. This would allow more projects to be eligible for the new small capital project agreement and increase participant uptake, while still protecting the ratepayer. This small capital project agreement was finalized through change management in September 2013.

- With the considerable customer interest in on-site load displacement (co-generation) projects, the initiative should be reviewed to ensure that these projects may be accepted as part of the PSUI Initiative. The IESO was reviewing waste heat projects only and all other co-generation projects were on hold prior to June 2013, when a decision was made to allow natural gas load displacement generation projects to proceed under PSUI. It is expected that a number of projects may proceed although results may not be counted towards LDC 2011-2014 framework target unless applications are submitted before the end of 2014 and the projects are in service before December 31, 2015.

- The requirement for customers to invoice to the LDC and provide proof of payment to consultants for their incentive is very burdensome for the customer and results in a negative customer experience and another barrier to participation.

3.2.3.2 Monitoring and Targeting ("M&T") Initiative (Schedule D-2)

Initiative Activities/Progress: Limited opportunities exist within Midland PUC's service area due to the size of a facility required to make this initiative economically viable. The hiring of a Roving Energy Manager for CHEC LDCs and modifying the schedule to allow smaller facilities to participate will assist with this initiative locally. The initiative is promoted during site visits with industrial customers, local advertising including front office displays, and through the LDC website. In addition, monitoring and Targeting is promoted by the Roving Energy Manager where appropriate.

Additional Comments:

- The M&T initiative is targeted at larger customers with the capacity to review the M&T data. This review requires the customer facility to employ an energy manager, or a person with equivalent qualifications, which has been a barrier for some customers. As such, only five applications has been completed in 2014, province wide.
- The savings target required for this initiative can present a significant challenge for smaller customers.
- Through the change management process in 2013, changes were made to ERII to allow smaller facilities to employ M&T systems.

3.2.3.3 Energy Manager Initiative (Schedule D-3)

Initiative Activities/Progress: The Roving Energy Manager has been actively engaging customers across the CHEC LDCs. Typically Midland PUC initiates a site visit to introduce the Roving Energy Manager to the company along with the offer of assistance. The Roving Energy Manager has been very successful in Midland PUC's service area and provides a significant contribution to the awareness of conservation options and to the evaluation and implementation of programs.

To support the efforts of the Roving Energy Manager, access to the IESO training and other programs has been made available to the REM. This assists in building capacity and will lead to continued good performance in future years.

Additional Comments:

- The Embedded Energy Managers ("EEMs") have proven to be a popular and useful resource for larger customers. There are approximately 50 EEMs and 22 Roving Energy Managers ("REMs") being utilized by customers across the province.
- LDCs that are too small to qualify for their own REM are teaming up with other utilities to hire a REM to be shared by the group of utilities.
- At the beginning, it took longer than expected to set up the Energy Manager application process and unclear communication resulted in marketing and implementation challenges for many LDCs.

- There have been a number of studies identified by energy managers and they have been able to build capacity and deliver energy savings projects within their respective large commercial/industrial facilities.

- The requirement that 30% of targets must come from non-incented projects is identified as an issue for most EEMs/REMs. The EDA Industrial Working Group has proposed to remove this requirement for REMs only as they are not resident full time at a customer facility to find the non-incented savings.

3.2.3.4 Key Account Manager (Schedule D-4)

Initiative Activities/Progress: Midland PUC does not qualify for a Key Account Manager as its service area does not contain any large accounts.

Additional Comments

- Customers appreciate dealing with a single contact to interface with an LDC, a resource that has both the technical and business background who can communicate easily with the customer and the LDC.

- Finding this type of skill set has been difficult. In addition, the short-term contract and associated energy targets discourage some skilled applicants resulting in longer lead times to acquire the right resource.

- This resource has been found by some LDCs to be of limited value due to the part-time nature of the position and limited funding. In addition, the position role has been too narrow in scope to provide assistance to the wider variety of projects with which LDCs may be struggling.

3.2.3.5 Demand Response 3 ("DR3") (D-6)

Initiative Activities/Progress: The loss of two DR-3 participants in 2012 has had a significant impact on the kW savings for Midland PUC, as there are a limited number of customers within our service territory who meet the program requirements. One DR-3 participant was added in 2013 which helped increase kW savings but a shortfall was still realized. This initiative is actively promoted during site visits with industrial customers conducted by the CHEC Roving Energy Manager, local advertising including front office displays and through the LDC website.

Additional Comments:

- Until early 2013, customer data was not provided on an individual customer basis due to contractual requirements with the aggregators. This limited LDCs' ability to effectively market to prospective participants and confirm savings.

- The Industrial Working Group had a discussion with the IESO and representatives of the Ministry on proposed changes for the DR3 program. No program improvements were made in 2013. However, it was accepted that prior participants who renew their DR3 contract within the 2011-2014 term will contribute to LDC targets.

- As of 2013, aggregators are able to enter into contracts beyond 2014. This has allowed them to offer a more competitive contract price (five years) than the previously limited one- to two-year contracts. However on March 31, 2014 the Minister of Energy issued a directive entitled "Continuance of the IESO's Demand Response Program under IESO management" which restricts the IESO from granting any more contract schedules to aggregators, as the program is being transitioned from the OPA to the IESO. This decision will prevent the DR3 program from continuing to grow until the IESO is ready to assign DR3 capacity through a new auction process.

- Metering and settlement requirements are complicated and can reduce customer compensation amounts, and present a barrier to some customers.

- Compensation amounts have been reduced from the previous version of this program and subsequently there has been a corresponding decrease in renewal rates.

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

Initiative Activities/Progress: This initiative is promoted through local advertising including front office displays, Midland PUC's customer service representative contact with potential customers and through the LDC website. The program has been in market for the entire year. Midland PUC has acquired the services of an outside company to assist in the promotion and implementation of this program to eligible customers. A toll free telephone number has been created for customers to obtain information about the program and schedule an energy audit in order to participate in the program. Focus has shifted from individual homes to social housing multi-unit buildings and complexes in 2014. Midland PUC saw a slight increase in energy savings obtained in 2014 vs. 2013.

Additional Comments:

- The process for enrolling in social housing was complicated and time consuming. This was addressed in late 2012 and showed benefits since 2013.

- The financial scope, complexity, and customer privacy requirements of this initiative are challenging for LDCs and most have contracted this program out. This initiative may benefit from an IESO contracted centralized delivery agent.

3.2.5 PRE-2011 PROGRAMS

Savings were realized towards LDC's 2011-2014 target through pre-2011 programs. The targeted customer types, objectives, descriptions, and activities of these programs are detailed in Appendix B

4 2014 Midland PUC CDM Results

4.1 Participation and Savings

Table 6 – Midland Power Utility Corporation Initiative and Program Level Savings by Year below outlines Midland PUC's 2011, 2012, 2013, and 2014 participation rates and savings to date on each of the IESO contracted Province-Wide CDM programs.

Table 6: Midland Power Utility Corporation Initiative and Program Level Net Savings by Year

Initiative	Unit	Incremental Activity (new program activity occurring within the specified reporting period)				Net Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period)				Net Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period)				Program-to-Date Verified Progress to Target (excludes DR)	
														2014 Net Annual Peak Demand Savings (kW)	2011-2014 Net Cumulative Energy Savings (kWh)
		2011*	2012*	2013*	2014	2011	2012	2013	2014	2011	2012	2013	2014	2014	2014
Consumer Program															
Appliance Retirement	Appliances	73	58	20	24	4	4	1	2	31,401	23,056	8,712	9,869	11	222,064
Appliance Exchange	Appliances	11	9	8	9	1	1	2	2	1,299	2,500	2,956	3,325	5	21,229
HVAC Incentives	Equipment	51	88	72	97	23	21	16	23	44,774	36,357	28,772	43,486	82	389,198
Conservation Instant Coupon Booklet	Items	697	37	416	1,420	1	0	1	3	24,940	1,672	9,214	38,563	5	161,768
Bi-Annual Retailer Event	Items	1,138	1,268	1,129	5,768	2	2	1	10	35,133	32,018	20,539	146,930	15	424,591
Retailer Co-op	Items	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residential Demand Response	Devices	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residential Demand Response (IHD)	Devices	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residential New Construction	Homes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Consumer Program Total						**32**	**28**	**21**	**39**	**137,547**	**95,602**	**70,193**	**242,173**	**118**	**1,218,848**
Business Program															
Retrofit	Projects	8	24	39	52	71	147	184	276	475,474	676,923	1,220,107	2,156,841	678	8,529,718
Direct Install Lighting	Projects	83	57	20	71	93	48	21	79	244,291	187,768	74,400	301,383	220	1,930,632
Building Commissioning	Buildings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Construction	Buildings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Energy Audit	Audits	1	0	0	2	0	0	0	27	0	0	0	130,547	27	130,547
Small Commercial Demand Response	Devices	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Small Commercial Demand Response (IHD)	Devices	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demand Response 3	Facilities	1	1	1	1	72	72	73	54	2,813	1,050	979	0	54	4,842
Business Program Total						**236**	**267**	**278**	**435**	**722,578**	**865,741**	**1,295,485**	**2,588,771**	**979**	**10,595,739**
Industrial Program															
Process & System Upgrades	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monitoring & Targeting	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Energy Manager	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retrofit	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demand Response 3	Facilities	3	1	2	2	1,309	437	808	808	76,826	10,520	18,400	0	808	105,745
Industrial Program Total						**1,309**	**437**	**808**	**808**	**76,826**	**10,520**	**18,400**	**0**	**808**	**105,745**
Home Assistance Program															
Home Assistance Program	Homes	0	3	24	21	0	0	1	3	0	1,736	13,879	17,652	5	50,552
Home Assistance Program Total						**0**	**0**	**1**	**3**	**0**	**1,736**	**13,879**	**17,652**	**5**	**50,552**
Aboriginal Program															
Home Assistance Program	Homes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Direct Install Lighting	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aboriginal Program Total						**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Pre-2011 Programs completed in 2011															
Electricity Retrofit Incentive Program	Projects	2	0	0	0	8	0	0	0	45,369	0	0	0	8	181,475
High Performance New Construction	Projects	0	0	0	0	0	0	0	0	689	131	0	0	0	3,150
Toronto Comprehensive	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Multifamily Energy Efficiency Rebates	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDC Custom Programs	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pre-2011 Programs completed in 2011 Total						**8**	**0**	**0**	**0**	**46,058**	**131**	**0**	**0**	**8**	**184,625**
Other															
Program Enabled Savings	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time-of-Use Savings	Homes	0	0	0	n/a	0	0	0	98	0	0	0	0	98	0
LDC Pilots	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Total						**0**	**0**	**0**	**98**	**0**	**0**	**0**	**0**	**98**	**0**
Adjustments to 2011 Verified Results							**-4**	**0**	**0**		**588**	**0**	**0**	**-4**	**2,353**
Adjustments to 2012 Verified Results								**2**	**23**			**6,292**	**131,339**	**24**	**412,892**
Adjustments to 2013 Verified Results									**76**				**498,513**	**76**	**997,026**
Energy Efficiency Total						**204**	**223**	**227**	**522**	**903,369**	**962,159**	**1,378,578**	**2,848,595**	**1,155**	**12,044,922**
Demand Response Total (Scenario 1)						**1,381**	**509**	**881**	**862**	**79,639**	**11,570**	**19,379**	**0**	**862**	**110,588**
Adjustments to Previous Years' Verified Results Total						**0**	**-4**	**2**	**98**	**0**	**588**	**6,292**	**629,852**	**96**	**1,412,271**
OPA-Contracted LDC Portfolio Total (inc. Adjustments)						**1,585**	**728**	**1,110**	**1,482**	**983,008**	**974,317**	**1,404,249**	**3,478,447**	**2,113**	**13,567,780**
													Full OEB Target:	**2,390**	**10,820,000**
													% of Full OEB Target Achieved to Date (Scenario 1):	**88.4%**	**125.4%**

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

*Includes adjustments after Final Reports were issued

Results presented using scenario 1 which assumes that demand response resources have a persistence of 1 year

Table 7 below outlines Midland PUC's 2011-2014 Total Gross and Net Savings along with the Program-to-date Contribution Targets.

Table 7: Summarized 2014 Program Results

Program	Gross Savings		Net Savings		Contribution to Targets	
	Incremental Peak Demand Savings (MW)	Incremental Energy Savings (GWh)	Incremental Peak Demand Savings (MW)	Incremental Energy Savings (GWh)	Program-to-Date: Net Annual Peak Demand Savings (MW) in 2014	Program-to-Date: 2011-2014 Net Cumulative Energy Savings (GWh)
Consumer Program Total	0.062	0.225	0.039	0.242	0.118	1.219
Business Program Total	0.565	3.576	0.435	2.589	0.979	10.596
Industrial Program Total	0.808	0.000	0.808	0.000	0.808	0.106
Home Assistance Program Total	0.003	0.018	0.003	0.018	0.005	0.050
Pre-2011 Programs completed in 2011 Total	0.000	0.000	0.000	0.000	0.008	0.185
Other Adjustments to Previous Year's Verified Results	0.141	0.875	0.099	0.630	0.096	1.412
Other: Time-of-Use Savings	0.098	0.000	0.098	0.000	0.098	0.000
Total IESO Contracted Province-Wide CDM Programs	**1.677**	**4.694**	**1.482**	**3.479**	**2.112**	**13.568**

4.2 Evaluation, Measurement and Verification ("EM&V") Findings

Table 8: Evaluation Findings provides a summary of the 2014 EM&V findings for the evaluated saveONenergy program initiatives. These key evaluation findings are derived from the 2014 evaluations of the saveONenergy programs and issued by the IESO.

Table 8: Evaluation Findings

#	Initiative	IESO Province-Wide Key Evaluation Findings
Consumer Programs		
1	Appliance Retirement	• Participation increased slightly to 22,563 (7.7%) in 2014 compared with 20,952 in 2013. • Since 2011 overall Initiative participation has decreased nearly 60%. • The greatest decrease was seen in the number of refrigerators collected year-over-year • Of appliances collected, refrigerators and freezers remain the most dominate measures accounting for 90%. However, window AC units and dehumidifiers saw a marked increase of 29.6% and 27% respectively in 2014. • Net to gross ratio (NTG) increased slightly to 47% compared to 43% as reported for 2013 and 2012 program years.
2	Appliance Exchange	• Participation in 2014 increased by 6.5% to 5,685 appliances from 5,337 compared to 2013 • Per-unit savings has increased by 36.6% as ENERGY STAR criteria increases and more participants purchase ENERGY STAR replacements appliances. This resulted in a 6.5% increase in Net Energy & Demand savings. • Net to Gross ratio (NTG) remained unchanged from 2013 at 52.6%

#	Initiative	IESO Province-Wide Key Evaluation Findings
3	HVAC Incentives	• In 2014 net savings increased by 20% from 2013 and overall participation increased by 17% to 113,002 compared to 2013 • The ECM measure has remained the dominant source of savings since 2011 • Per unit furnace savings increased 12.7% due to a shift in the number of participants who use their furnace fan continuously both before and after the retrofit. • Per unit energy and demand savings assumptions for central air conditioners decreased by 56% due to reduced run hours • Net to Gross ratio (NTG) remained unchanged from 2013 at 48%
4	Conservation Instant Coupon Booklet	• Customers redeemed more than five times as many annual coupons in 2014 as in 2013. In total, approximately 500, 000 Annual Coupons were redeemed in 2014 with 110,000 being LDC Coded Coupons. • There was a further reduction in savings for lighting measures from changes in the baseline due to the phase out of 72W and 100W incandescent bulbs. • Despite the significant per unit savings reductions for lighting measure, the Net Annual Savings from Annual Coupons in 2014 was more than six times that in 2013. This is primarily because of higher participation and the inclusion of LED coupons and full year availability of all coupons. • Measured NTG ratios grew significantly in 2014. The NTG ratio is 53% higher in 2014 than in 2013 due to the inclusion of participant spillover, i.e., purchase of additional coupon initiative measures and general energy efficient measures without the use of a coupon but influenced by the coupon program.
5	Bi-Annual Retailer Event	• Over 2.5 million coupons were redeemed in 2014 compared with 2013 redemptions • The Bi-Annual Coupon Event saw a substantial increase in the number of coupons redeemed during the Spring and Fall Events in 2014 compared to 2013. The increase can be linked to a substantial increase in LED purchases with event coupons accounting for 84% of all Bi-Annual Coupons redeemed. • Reductions in per unit savings were overshadowed by the increase in coupon redemptions. Overall savings increased by approximately 85% in 2014 compared with 2013 Demand and Energy Savings. • Similar to the Annual Coupon Event measured NTG ratios rose by 53% compared to 2013 NTG ratios. The rise is due to the inclusion of participant spillover, i.e., purchase of additional coupon initiative and general energy efficient measures without the use of a coupon but influenced by the Bi-Annual Coupon event.

#	Initiative	IESO Province-Wide Key Evaluation Findings
7	Residential Demand Response	• There were an additional 55,000 CAC load control devices enrolled in the program in 2014 relative to 2013, which increased the capacity of the residential segment of the program from 129 MW in 2013 to 143 MW in 2014. • Ex-ante impacts on a per device basis were lower than 2013 average. • There were no energy savings in 2014 because there were no system-wide events were called. • Load impact estimates for the average small and medium business and for electric water heaters among residential customers remain consistent with prior year's analysis • IHD's yielded no statistically significant energy savings.

#	Initiative	IESO Province-Wide Key Evaluation Findings
8	Residential New Construction	• The most significant growth in the initiative has been participation in the prescriptive track. MW savings in the prescriptive track increased from zero summer peak MW savings in 2011 to 352 summer peak kW savings in 2014. • The custom track saw participation for the first time in 2014. One custom project of 55 homes contributed 37 kW demand savings and 0.5 GWh of energy savings. • New deemed savings for performance track homes were developed and implemented, resulting more consistent realization rates for 2014. • ENERGY STAR New Homes was introduced as an eligible measure within the performance track in 2014. As a result, these ENERGY STAR New Homes provided 1% of peak kW savings and 4% of kWh savings.

#	Initiative	IESO Province-Wide Key Evaluation Findings
Business Programs		
9	Efficiency: Equipment Replacement	• The number of prescriptive projects increased slightly (1.2%) in 2014 to a total of 4,812. However, total net verified savings and peak demand savings dropped significantly (19% and 30% respectively). This is due to a 19% drop in per-project net verified savings, which can be attributed to lower track level realization rate and net-to-gross ratio and is related to smaller average project sizes. • The quantity of engineered projects increased 22% to a total of 3,906 in 2014, combined with a net verified savings per project increase of 17% the track saw a dramatic 47% increase in net energy savings. • Lower demand realization rates across the program as a whole were tied to equipment differences between reported and calculated values. For lighting projects the difference was most often seen in baseline and retrofit lamp wattages and ballast factors. Non-lighting tracks exhibited lower demand realization rates due to the following factors: o Variations in load profiles where the evaluation team found equipment that operated fewer hours or at a lower capacity than expected from the project documentation. o Inconsistencies in equipment nameplate data (typically efficiency or capacity) between project documentation and equipment installed on-site. o Weather dependent control systems leading to shifts in how often the equipment operated.

#	Initiative	IESO Province-Wide Key Evaluation Findings
10	Direct Install Lighting	• 23,784 projects were completed in 2014 (34% increase from 2013) • The category of 'Other' business type projects increased 71% when compared to 2013. Agribusinesses make up 74% of the 'Other' business type category. While growth in the number of projects is good, agribusinesses projects, in particular, have a realization rate of only 58.5%. This is primarily due to the verified annual operating hours being approximately 45% less than the assumed annual operating hours. • In 2014 LED measures provide the most net savings of any other SBL measure making up 59% of net energy savings in 2014. Their long effective useful life and retention of a larger amount of savings after the baseline adjustment allow LED measures to also contribute substantially more lifetime savings than CFLs and linear fluorescents. • Overall energy and demand realization rates decreased by 1.8 and 3.1 %, respectively, from 2013. o Sampled rural projects have lower energy realization rather than urban projects (63.8% compared to 83.5%) across the 2011 – 2014 sample o Sampled rural projects have even lower demand realization rather than urban projects (49.7% compared to 74.1%) across the 2011 – 2014 sample • The annual proportion of net energy savings from rural projects has increased from 30% in 2011 to 41% in 2014
11	Existing Building Commissioning Incentive	• 5 projects completed the Hand-off stage in 2014. • Energy realization rate was estimated at 116% and demand realization rate at 202%. • About 31 participants are still in the scoping stage or implementation stage.
12	New Construction and Major Renovation Incentive	• Savings have increased every year of the initiative with an increased participation of 50% from 2013 • In 2014, most savings came from the custom track providing 71% of demand savings. • Participation from HVAC measures occurred for the first time in 2014 (providing 14% of summer peak kW savings and 5% of kWh savings). • The measures with the greatest impact on low realization rates for prescriptive measures were high volume low speed (HVLS) fans and variable frequency drives (VFDs). • Province-wide realization rates declined slightly for 2014, as a result of the wider variety of measures being implemented. • Key drivers for participation are: initial project cost, followed by electricity costs and expected energy savings are the key drivers to participation.

#	Initiative	IESO Province-Wide Key Evaluation Findings
Industrial Programs		

16	Process & System Upgrades	• 10 PSUI Capital Incentive projects implemented in 2014, compared to 5 in2013.
		  o 4 projects are Behind the Meter Generation (BMG) projects.
		  o The remaining projects were energy efficiency improvements in pumping, cooling, compressed air systems and industrial processes.
		• Each project received its own Net to Gross (NTG) value. NTG ratios ranged from 62% to 100% for the 10 projects
		• Realization rates remained high in 2014, ranging from 90 to over 100%.

20	Demand Response 3	• The largest 25 contributors account for 60% of the contractual demand reduction – that is, less than 4% of contributors account for the majority of the load reductions. • A multi-year analysis indicates 2012 was the best year for program performance. After 2012, a single large contributor left the program, resulting in a decrease in overall performance in 2013 and 2014. This highlights the risk having a highly concentrated program with a few large contributors representing a large share of the program capacity. • There were no events called in 2014 and the contracted capacity was similar to 2013.
Home Assistance Program		
21	Home Assistance Program	• Participation decreased by 5 % to 25,424 participants compared with 2013 (26,756). The decrease was due to six LDCs not participating in the Home Assistance Program in 2014. • Realization rates for demand doubled in 2014 to 56% compared with 2013 (26%). However, energy realization rates decreased by 10% to 77% compared with 2013 results. • Realization rate for demand savings increased due to the adoption of the new FAST Tool which incorporated updated kW savings for weatherization measures in particular insulation measures.

4.3 Spending

Table 9 below summarizes the total spending by initiative that Midland PUC has incurred in 2014 and cumulatively since 2011. It is detailed by the Program Administration Budget (PAB), Participant Based Funding (PBF), Participant Incentives (PI) and Capability Building Funding (CBF).

Table 9: Midland PUC 2014 Spending

Initiative	PAB	PBF	PI	CBF	TOTAL
Consumer Program					
Appliance Retirement	$0.00	$0.00	$0.00	$0.00	$0.00
Appliance Exchange	$0.00	$0.00	$0.00	$0.00	$0.00
HVAC Incentives	$5,942.78	$0.00	$0.00	$0.00	$5,942.78
Conservation Instant Coupon Booklet	$2,971.39	$0.00	$0.00	$0.00	$2,971.39
Bi-Annual Retailer Event	$5,942.78	$0.00	$0.00	$0.00	$5,942.78
Retailer Co-op	$0.00	$0.00	$0.00	$0.00	$0.00
Residential Demand Response	$51,669.26	$34,808.71	$0.00	$0.00	$86,477.97
New Construction Program	$0.00	$0.00	$0.00	$0.00	$0.00
Business Program					
Efficiency: Equipment Replacement	$41,936.38	$0.00	$293,715.29	$0.00	$335,651.67
Direct Installed Lighting	$19,355.25	$18,000.00	$98,373.00	$0.00	$135,728.25
Existing Building Commissioning Incentive	$0.00	$0.00	$0.00	$0.00	$0.00
New Construction and Major Renovation Initiative	$0.00	$0.00	$0.00	$0.00	$0.00
Energy Audit	$3,225.88	$0.00	$4,508.10	$0.00	$7,733.98
Small Commercial Demand Response (part of the Residential program schedule)	$0.00	$0.00	$0.00	$0.00	$0.00
Demand Response 3 (part of the Industrial program schedule)	$0.00	$0.00	$0.00	$0.00	$0.00
Industrial Program					
Process & System Upgrades					
a) preliminary engineering study	$0.00	$0.00	$0.00	$0.00	$0.00
b) detailed engineering study	$0.00	$0.00	$0.00	$0.00	$0.00
c) program incentive	$16,776.33	$0.00	$0.00	$0.00	$16,776.33
Monitoring & Targeting	$2,960.53	$0.00	$0.00	$0.00	$2,960.53
Energy Manager	$0.00	$0.00	$0.00	$0.00	$0.00
Key Account Manager	$0.00	$0.00	$0.00	$0.00	$0.00
Efficiency Equipment Replacement Incentive (part of the C&I program schedule)	$0.00	$0.00	$0.00	$0.00	$0.00
Demand Response 3	$0.00	$0.00	$0.00	$0.00	$0.00
Home Assistance Program					
Home Assistance Program	$17,591.62	$14,550.00	$8,814.04	$0.00	$40,955.66
TOTAL SPENDING	$168,372.19	$67,358.71	$405,410.43	$0.00	$641,141.33

Table 10 below provides the cumulative spending levels at December 31, 2014 for each of the IESO contracted Province-Wide CDM programs. Each program is detailed by the Program Administration Budget (PAB), Participant Based Funding (PBF), Participant Incentives (PI) and Capability Building Funding (CBF).

Table 10: Midland PUC Cumulative Spending (2011-2014)

Initiative	PAB	PBI	PI	CBF	TOTAL
Consumer Program					
Appliance Retirement	$13,382.78	$0.00	$0.00	$0.00	$13,382.78
Appliance Exchange	$9,621.39	$0.00	$0.00	$0.00	$9,621.39
HVAC Incentives	$25,665.82	$0.00	$0.00	$0.00	$25,665.82
Annual Coupons	$17,456.95	$0.00	$0.00	$0.00	$17,456.95
Bi-Annual Retailer Event	$25,621.57	$0.00	$0.00	$0.00	$25,621.57
Retailer Co-op	$0.00	$0.00	$0.00	$0.00	$0.00
Residential Demand Response	$75,681.74	$34,808.71	$0.00	$0.00	$110,490.45
New Construction Program	$7,496.14	$0.00	$0.00	$0.00	$7,496.14
Business Program					
Equipment Replacement	$115,773.96	$0.00	$650,866.26	$0.00	$766,640.22
Direct Installed Lighting	$43,402.52	$58,800.00	$253,348.25	$0.00	$355,550.77
Existing Building Commissioning Incentive	$2,841.72	$0.00	$0.00	$0.00	$2,841.72
New Construction and Major Renovation Initiative	$2,841.72	$0.00	$0.00	$0.00	$2,841.72
Energy Audit	$32,934.09	$0.00	$6,908.10	$0.00	$39,842.19
Small Commercial Demand Response	$2,841.72	$0.00	$0.00	$0.00	$2,841.72
Demand Response	$0.00	$0.00	$0.00	$0.00	$0.00
Industrial Program					
Process & System Upgrades					
a) preliminary engineering study	$3,446.20	$0.00	$0.00	$0.00	$3,446.20
b) detailed engineering study	$3,446.20	$0.00	$0.00	$0.00	$3,446.20
c) program incentive	$31,339.96	$0.00	$0.00	$0.00	$31,339.96
Monitoring & Targeting	$5,849.68	$0.00	$0.00	$0.00	$5,849.68
Energy Manager	$807.67	$0.00	$0.00	$0.00	$807.67
Key Account Manager ("KAM")	$0.00	$0.00	$0.00	$0.00	$0.00
Equipment Replacement Incentive	$0.00	$0.00	$0.00	$0.00	$0.00
Demand Response 3	$4,570.08	$0.00	$0.00	$0.00	$4,570.08
Home Assistance Program					
Home Assistance Program	$26,473.06	$19,650.00	$11,004.74	$0.00	$57,127.80
Pre 2011 Programs					
Electricity Retrofit Incentive Program	$0.00	$0.00	$62,610.00	$0	$62,610.00
High Performance New Construction	$0.00	$0.00	$0.00	$0.00	$0.00
Toronto Comprehensive	$0.00	$0.00	$0.00	$0,.00	$0.00
Multifamily Energy Efficiency Rebates	$0.00	$0.00	$0.00	$0.00	$0.00
Data Centre Incentive Program	$0.00	$0.00	$0.00	$0.00	$0.00
EnWin Green Suites	$0.00	$0.00	$0.00	$0.00	$0.00
Initiatives Not In Market					
Midstream Electronics	$0.00				$0.00
Midstream Pool Equipment	$0.00				$0.00
Demand Service Space Cooling	$0.00				$0.00
Demand Response 1	$0.00				$0.00
Home Energy Audit Tool	$0.00				$0.00
Total CDM Program Spending	**$451,494.96**	**$113,258.71**	**$984,737.35**	**$0.00**	**1,549,491.02**

4.4 Additional Comments

In 2014 the Roving Energy Manager's contract was renewed. This was a major accomplishment and benefit to maintain this resource for all CHEC LDCs. The ability of the Roving Energy Manager to work in a number of territories, develop and maintain relationships and to support the appropriate reporting has resulted in customers moving forward with projects to the benefit of the LDCs.

The coupon program has seen renewed pick up in 2014 which has added to the overall target achievement. While this 3 to 4 fold increase in activity in coupons is welcomed it is recognized that this level of activity earlier in the program would have greatly increased the cumulative kWh achieved. Customer uptake when offered opportunity for savings on energy conservation measures illustrates the awareness which has been generated in this sector. Moving forward more diverse programs will be required in the residential sector to maintain the interest and savings.

Applications for the ERII program remained strong over 2014. This sector and the supporting consultants and contractors appear to have incorporated the retrofit program into many of their activities. The ability to maintain a working relationship with customers offering a consistent program has assisted to maintain a profile for the program and interest in the sector.

The Direct Install Lighting has experienced some success over 2014 with the addition of LED lights. In many instances however the impact of the change has been tempered by the number of customers who have previously participated. Where there was early participation by the sector the ability to engage was impacted.

5 Combined CDM Reporting Elements

5.1 Progress Towards CDM Targets

Table 11 and Table 12 below provide an overview of the progress made against the MW target and the GWh target as set out in Midland PUC's license. From the summary tables below, Midland PUC fell short of the MW savings by 11.6% and exceeded the GWh savings by 25.4%.

Table 11: Midland PUC Net Peak Demand Savings at the End User Level (MW)

Implementation Period	Annual (MW)			
	2011	2012	2013	2014
2011 – Verified by IESO	1.6	0.2	0.2	0.2
2012 – Verified by IESO		0.7	0.2	0.2
2013 – Verified by IESO			1.1	0.2
2014			0.1	1.5
Verified Net Annual Peak Demand Savings in 2014:				**2.1**
Midland PUC 2014 Annual CDM Capacity Target:				**2.4**
Verified Portion of Peak Demand Savings Target Achieved (%):				**88.4%**

Table 12: Midland PUC Net Energy Savings at the End-User Level (GWh)

Implementation Period	Annual (GWh)				Cumulative (GWh)
	2011	2012	2013	2014	2011-2014
2011 – Verified by IESO	1.0	0.9	0.9	0.8	3.6
2012 – Verified by IESO		1.1	1.1	1.0	2.9
2013 – Verified by IESO		0.0	1.4	1.4	2.8
2014		0.1	0.63	3.5	4.2
Verified Net Cumulative Energy Savings 2011-2014:					**13.6**
Midland PUC 2011-2014 Cumulative CDM Energy Target:					**10.8**
Verified Portion of Cumulative Energy Target Achieved (%):					**125.4%**

5.2 Variance from Strategy

Table 13 below identifies the results attained by Midland PUC in each year during 2011 – 2014, the assigned targets and includes both actual and forecast targets. Midland PUC achieved 2.39 MWh or 88.4% of its demand target and 13.568 or 125.4% of its energy saving target for the period of 2011 – 2014. Although it fell short of its demand target, the reasons have been outlined earlier in this report. Midland PUC was unable to recover from the loss of one of its DR 3 participants and could not make up the shortfall. It has been successful in exceeding its energy savings target and expects to continue this trend as it transitions into the new CFF for 2015 – 2020. Midland PUC hopes the momentum it has gained with the increased number of companies that have participated in the various saveONenergy programs will continue, in order to expand its conservation efforts into the future.

Table 13: Midland PUC Annual Milestone – Contribution to 2014 Target

Midland Power

Annual Milestone - Contribution to 2014 Target

	2011 Original Strategy Projection		Actual 2011 Results		2012 Revised Strategy Projection		Actual 2012 Results		2013 Revised Strategy Projection		Actual 2013 Results		2014 Revised Strategy Projection		Actual 2014 Results		Revised Total Projected Reduction		Contribution to Target	
Category - Consumer	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
Provincial Programs																				
Appliance Retirement	10	240,123	4	130,098	4	55,272	5	76,666	6	68,789	3	23,335	2	11,668	4	13,194	14	241,767	16	243,293
Instant Discounts (Rebates)	3	354,213	3	240,292	2	160,742	2	101,068	2	107,161	2	59,506	2	29,753	12	185,493	9	430,619	19	586,359
HVAC Discounts (Rebates)	25	157,567	23	179,095	24	123,855	21	109,072	28	86,359	16	57,545	8	15,844	23	43,486	68	361,556	83	389,198
Demand Response	36	175,391	0	0	0	0	0	0	77	261,794	0	0	2	0	99		2	0	99	0
Midstream Incentives	0	3,700	0	0	0	0	0	0	0	1,850	0	0	0	0			0	0	0	0
New Construction	3	27,122	0	0	0	0	0	0	4	20,238	0	0	0	0			0	0	0	0
Low Income	0	0	0	0	0	0	0	5,207	5	44,900	1	27,693	1	8,775	4	17,650	1	41,675	5	50,550
Provincial Consumer Total	78	958,117	30	549,485	30	339,869	28	292,013	123	591,091	22	168,079	15	66,040	142	259,823	94	1,075,617	222	1,269,400
OEB Approved Programs																				
General Consumer		0	0	0	0	0	0	0						0			0	0	0	0
Low Income		0	0	0	0	0	0	0					1	8,775			1	8,775	0	0
OEB Approved Programs Total	0	0	0	0	0	0	0	0	0	0	0	0	1	8,775	0	0	1	8,775	0	0
Consumer Program Total	78	958,117	30	549,485	30	339,869	28	292,013	123	591,091	22	168,079	16	74,815	142	259,823	95	1,084,392	222	1,269,400

Annual Milestone - Contribution to 2014 Target

	2011 Original Strategy Projection		Actual 2011 Results		2012 Revised Strategy Projection		Actual 2012 Results		2013 Revised Strategy Projection		Actual 2013 Results		2014 Revised Strategy Projection		Actual 2014 Results		Revised Total Projected Reduction		Contribution to Target	
Category - Commercial & Institutional	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
Provincial Programs																				
Existing Building Retrofits – Medium and Large Buildings	69	847,566	71	1,901,895	98	1,225,260	147	2,030,768	321	1,056,877	184	2,440,214	424	3,250,815	302	2,287,388	827	9,623,692	705	8,660,265
Existing Building Retrofits – Small Buildings	30	664,209	73	917,147	20	420,225	48	563,302	46	217,156	21	148,800	65	223,320	79	301,383	206	1,852,569	220	1,930,632
Small Commercial Demand Response	3	6,776	0	0	0	0	0	0	7	10,048			0	0			0	0	0	0
Demand Response 1 & 3	0	0	72	2,813	0	7,113	0	1,051	0	0	1	979	0	0	-19	0	73	4,842	54	4,842
Provincial Commercial & Inst. Total	103	1,518,550	216	2,821,855	118	1,652,598	195	2,595,121	374	1,284,081	206	2,589,993	489	3,474,135	362	2,588,771	1,106	11,481,103	979	10,595,739
OEB Approved Programs																				
Retrofits																	0	0	0	0
New Construction																	0	0	0	0
OEB Approved Programs Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial & Inst. Total	103	1,518,550	216	2,821,855	118	1,652,598	195	2,595,121	374	1,284,081	206	2,589,993	489	3,474,135	362	2,588,771	1,106	11,481,103	979	10,595,739

Annual Milestone - Contribution to 2014 Target

	2011 Original Strategy Projection		Actual 2011 Results		2012 Revised Strategy Projection		Actual 2012 Results		2013 Revised Strategy Projection		Actual 2013 Results		2014 Revised Strategy Projection		Actual 2014 Results		Revised Total Projected Reduction		Contribution to Target	
Category - Industrial	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
Program Name																				
Industrial Accelerator	0	0	0	0	0	0	0	0	0	0			0	0			0	0	0	0
Industrial Equipment Replacement	14	343,392	0	0	180	2,287,974	0	0	14	171,696			0	0			0	0	0	0
Demand Response 1	0	3	0	0	0	0	0	0	0	3			0	0			0	0	0	0
Demand Response 3	0	6	1,309	76,826	0	39,786	-872	10,519	0	6	371	18,400	0	0	0	0	808	105,745	808	105,745
Provincial Industrial Total	14	343,401	1,309	76,826	180	2,327,760	-872	10,519	14	171,705	371	18,400	0	0	0	0	808	105,745	808	105,745
OEB Approved Programs																				
A	0	0	0	0	0	0	0	0	0	0			0	0			0	0	0	0
B	0	0	0	0	0	0	0	0	0	0			0	0			0	0	0	0
OEB Approved Programs Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Industrial Total	14	343,401	1,309	76,826	180	2,327,760	-872	10,519	14	171,705	371	18,400	0	0	0	0	808	105,745	808	105,745

	2011 Original Strategy Projection		Actual 2011 Results		2012 Revised Strategy Projection		Actual 2012 Results		2013 Revised Strategy Projection		Actual 2013 Results		2014 Revised Strategy Projection		Actual 2014 Results		Revised Total Projected Reduction		Contribution to Target	
CDM Strategy Total	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
Program Total	195	2,820,068	1,555	3,448,166	328	4,320,227	-649	2,897,652	511	2,046,877	599	2,776,472	505	3,548,950	504	2,848,594	2,009	12,671,240	2,009	11,970,884
2010 Contribution			8	184,232				393									8	184,625	8	184,625
Adjustments to Verified Final Results							-4	2,353			2	18,875			98	1,391,043	-2	21,228	96	1,412,271
Adjusted Total	195	2,820,068	1,563	3,632,398	328	4,320,227	-653	2,900,398	511	2,046,877	601	2,795,347	505	3,548,950	602	4,239,637	2,014	12,877,093	2,113	13,567,780
															Target to Achieve		2,390	10,820,000		

	2011 Original Strategy Projection		Actual 2011 Results		2012 Revised Strategy Projection		Actual 2012 Results		2013 Revised Strategy Projection		Actual 2013 Results		2014 Revised Strategy Projection		Actual 2014 Results		Revised Total Projected Reduction		Contribution to Target	
Percentage of Target	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
	8.1%	26.1%	65.4%	33.6%	13.7%	39.9%	-27.3%	26.8%	21.4%	18.9%	25.1%	25.8%	21.1%	32.8%	25.2%	39.2%	84.3%	119.0%	88.4%	125.4%

6 Conclusion

Over the course of 2014, Midland PUC has achieved an incremental 1.5 MW in peak demand savings and 3.5 GWh in energy savings.

The overall results achieved in 2011-2014 are 2.1 MW in peak demand savings and 13.6 GWh in energy savings, which represent 88.4% and 125.4% of Midland PUC's 2014 target, respectively. These results are representative of the considerable effort expended by Midland PUC, in cooperation with other LDCs, customers, channel partners and stakeholders to overcome many operational and structural issues that limited program effectiveness across all market sectors.

The successful relationships built within the 2011-2014 CDM program term will assist in future CDM program savings. Despite continuing improvements to existing programs, Midland PUC faces challenges going forward in the new CFF. As a smaller LDC, and as a member of the CHEC Group, our efforts remain focused on fully utilizing the appropriate IESO Province-Wide Programs for our community. With the current slate of available IESO Programs and the scheduled rollout of its new framework on Jan 1, 2016, Midland PUC expects it will be challenging to achieve the targets. New measures and programs will need to be created in order to achieve the targets. However, Midland PUC remains committed to promoting the conservation programs and providing assistance in order to assist customers in participating in the saveONenergy programs, thereby enabling Midland PUC to achieve its 2015 – 2020 CFF targets.

Future reports on Conservation First will be provided by Midland PUC to IESO who will in turn report annually to the OEB.

Appendix A: Initiative Descriptions

Residential Program

APPLIANCE RETIREMENT INITIATIVE (Exhibit D)

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

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

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

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

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

Additional detail is available:

- Schedule B-1, Exhibit D. Available on IESO's extranet;
- saveONenergy website https://saveonenergy.ca/Consumer/Programs/Appliance-Retirement.aspx.

In Market Date: January, 2011

APPLIANCE EXCHANGE INITIATIVE (Exhibit E)

Target Customer Type(s): Residential Customers

Initiative Frequency: Spring and Fall

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

Description: This initiative involves appliance exchange events. Exchange events are held at local retail locations and customers are encouraged to bring in their old room air conditioners (AC) and dehumidifiers in exchange for coupons/discounts towards the purchase of new energy efficient equipment. Window ACs were discontinued from the program in 2013.

Targeted End Uses: Window air conditioners and portable dehumidifiers

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

Additional detail is available:

- Schedule B-1, Exhibit C. Available on IESO's extranet;
- saveONenergy website https://saveonenergy.ca/Consumer.aspx.

In Market Date: May 1,2011

HVAC INCENTIVES INITIATIVE (Exhibit B)

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

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

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

Targeted End Uses: Central air conditioners and furnaces

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

Additional detail is available:

- Schedule B-1, Exhibit B. Available on IESO's extranet;
- saveONenergy website https://saveonenergy.ca/Consumer.aspx.

In Market Date: May 1, 2011

CONSERVATION INSTANT COUPON INITIATIVE (Exhibit A)

Target Customer Type(s): Residential Customers

Initiative Frequency: Year round

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

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

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

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

Additional detail is available:

- Schedule B-1, Exhibit A. Available on IESO's extranet;
- saveONenergy website https://saveonenergy.ca/Consumer.aspx.

In Market Date: May 1, 2011

BI-ANNUAL RETAILER EVENT INITIATIVE (Exhibit C)

Target Customer Type(s): Residential Customers

Initiative Frequency: Bi-annual events

Objective: The objective of this initiative is to provide instant point of purchase discounts to individuals at participating retailers for a variety of energy efficient products.

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

Targeted End Uses: As per the Conservation Instant Coupon Initiative

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

Additional detail is available:

- Schedule B-1, Exhibit C. Available on IESO's extranet;
- saveONenergy website https://saveonenergy.ca/Consumer.aspx.

In Market Date: May 1, 2011

RETAILER CO-OP

Target Customer Type(s): Residential Customers

Initiative Frequency: Year Round

Objective: Hold promotional events to encourage customers to purchase energy efficiency measures (and go above-and-beyond the traditional Bi-Annual Coupon Events).

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

Targeted End Uses: As per the Conservation Instant Coupon Initiative

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

In Market Date: Not in market in 2014 due to lack of retailer participation

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 IESO air coverage driving builders to their LDC for additional information.

Additional detail is available:

- Schedule B-1, Exhibit C. Available on IESO's extranet;

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

In Market Date: June 1, 2011

RESIDENTIAL DEMAND RESPONSE PROGRAM (Schedule B-3)

Target Customer Type(s): Residential and Small Commercial Customers

Initiative Frequency: Year round

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

Description: In ***peaksaver*** PLUS® participants are eligible to receive a free programmable thermostat or switch, including installation. Participants also receive access to price and real-time consumption information on an In Home Display (IHD).

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

Delivery: LDC's recruit customers and procure technology

Additional detail is available:

- Schedule B-1, Exhibit C. Available on IESO's extranet;
- saveONenergy website https://saveonenergy.ca/Consumer.aspx.

In Market Date: April 1, 2013

C&I Program

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

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

Initiative Frequency: Year round

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

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

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

Delivery: LDC delivered.

Additional detail is available:

- Schedule C-2. Available on IESO's extranet;
- saveONenergy website https://saveonenergy.ca/Business/Program-Overviews/Retrofit-for-Commercial.aspx.

In Market Date: March 1, 2011

Lessons Learned:

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 $1,500 to eligible owners and tenants of small commercial, institutional and agricultural facilities and multi-family buildings, for the purpose of achieving electricity and peak demand savings.

Description: The Direct Installed Lighting Initiative targets customers in the General Service <50kW account category. This Initiative offers turnkey lighting and electric hot water heater measures with a value up to $1,500 at no cost to qualifying small businesses. In addition, standard prescriptive incentives are available for eligible equipment beyond the initial $1,500 limit.

Target End Uses: Lighting and electric water heating measures

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

Additional detail is available:

- Schedule C-3. Available on IESO's extranet;
- saveONenergy website https://saveonenergy.ca/Business.aspx.

In Market Date: June 1, 2011

EXISTING BUILDING COMMISSIONING INCENTIVE INITIATIVE (Schedule C-6)

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

Initiative Frequency: Year round

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

Description: This Initiative offers Participants incentives for the following:

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

Targeted End Uses: Chilled water systems for space cooling

Delivery: LDC delivered.

Additional detail is available:

- Schedule C-6. Available on IESO's extranet;
- saveONenergy website https://saveonenergy.ca/Business/Program-Overviews/Existing-Building-Commissioning.aspx.

In Market Date: July, 2011

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

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

Initiative Frequency: Year round

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

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

Targeted End Uses: New building construction, building modeling, lighting, space cooling, ventilation and other Measures

Delivery: LDC delivers to customers and design decision makers.

Additional detail is available:

- Schedule C-4. Available on IESO's extranet;
- saveONenergy website https://saveonenergy.ca/Business/Program-Overviews/New-Construction.aspx.

In Market Date: July, 2011

ENERGY AUDIT INITIATIVE (Schedule C-1)

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

Initiative Frequency: Year round

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

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

Targeted End Uses: Various

Delivery: LDC delivered.

Additional detail is available:

- Schedule C-1. Available on IESO's extranet;
- saveONenergy website https://saveonenergy.ca/Business/Program-Overviews/Audit-Funding.aspx.

In Market Date: May, 2011

Industrial Program

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

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

Initiative Frequency: Year round

Objectives: The objectives of this initiative are to:

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

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

a) $200/MWh of annualized electricity savings

b) 70% of projects cost

c) A one year pay back

Targeted End Uses: Process and systems

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

Additional detail is available:

- Schedule D-1. Available on IESO's extranet;
- saveONenergy website https://saveonenergy.ca/Business.aspx.

In Market Date: November 1, 2011

MONITORING & TARGETING INITIATIVE (Schedule D-2)

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

Initiative Frequency: Year round

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

Description: This initiative offers customers funding for the installation of a 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: Process and systems

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

Additional detail is available:

- Schedule D-2. Available on IESO's extranet;
- saveONenergy website https://saveonenergy.ca/Business.aspx.

In Market Date: September 1, 2011

ENERGY MANAGER INITIATIVE (Schedule D-3)

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

Initiative Frequency: Year round

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

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

Targeted End Uses: Process and systems

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

Additional detail is available:

- Schedule D-3. Available on IESO's extranet;
- saveONenergy website https://saveonenergy.ca/Business.aspx.

In Market Date: September 24, 2012

KEY ACCOUNT MANAGER (KAM) (Schedule D-4)

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

Initiative Frequency: Year round

Objective: This initiative offers LDCs the opportunity to access funding for the employment of a KAM in order to support them in fulfilling their obligations related to the PSUI.

Description: This initiative provides LDCs the opportunity to utilize a KAM to assist their customers. The KAM is considered to be a key element in assisting the consumer in overcoming traditional barriers related to energy management and help them achieve savings since the KAM can build relationships and become a significant resource of knowledge to the customer.

Targeted End Uses: Process and systems

Delivery: LDC delivered

Additional detail is available:

- ScheduleD-4. Available on IESO's extranet.

In Market Date: Not in market in 2014, LDC does not qualify

DEMAND RESPONSE 3 (Schedule D-6)

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

Initiative Frequency: Year round

Objective: This initiative provides for Demand Response ("DR") payments to contracted participants to compensate them for reducing their electricity consumption by a pre-defined amount during a DR event.

Description: Demand Response 3 ("DR3") is a demand response initiative for commercial and industrial customers, of 50 kW or greater to reduce the amount of power being used during certain periods of the year. The DR3 Initiative is a contractual resource that is an economic alternative to procurement of new generation capacity. DR3 comes with specific contractual obligations requiring participants to reduce their use of electricity relative to a baseline when called upon. This Initiative makes payments for participants to be on standby and payments for the actual electricity reduction provided during a demand response event. Participants are scheduled to be on standby approximately 1,600 hours per calendar year for possible dispatch of up to 100 hours or 200 hours within that year depending on the contract.

Targeted End Uses: Commercial and Industrial Operations

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

Additional detail is available:

- Schedule D-6. Available on IESO's extranet;
- saveONenergy website https://saveonenergy.ca/Business.aspx

In Market Date: January 2011

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

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

Target Customer Type(s): Income Qualified Residential Customers

Initiative Frequency: Year Round

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

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

Targeted End Uses: End use measures based on results of audit (i.e., CFL bulbs)

Delivery: LDC delivered.

Additional detail is available:

- Schedule E. Available on IESO's extranet.

In Market Date: November,2012

Appendix B: **Pre-2011 Programs**

ELECTRICITY RETROFIT INCENTIVE PROGRAM

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

Initiative Frequency: Year Round

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

Description: The Equipment Replacement Incentive Program (ERIP) offered financial incentives to customers for the upgrade of existing equipment to energy efficient equipment. This program was available in 2010 and allowed customers up to 11 months following Pre-Approval to complete their projects. As a result, a number of projects Pre-Approved in 2010 were not completed and in-service until 2011. The electricity savings associated with these projects are attributed to 2011.

Targeted End Uses: Electricity savings measures

Delivery: LDC Delivered

HIGH PERFORMANCE NEW CONSTRUCTION

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

Initiative Frequency: Year round

Objective: The High Performance New Construction Initiative provided incentives for new buildings to exceed existing codes and standards for energy efficiency. The Initiative uses both a prescriptive and custom approach and was delivered by Enbridge Gas under contract with the IESO (and subcontracted to Union Gas), which ran until December 2010.

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

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

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

MULTIFAMILY ENERGY EFFICIENCY REBATES

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

Initiative Frequency: Year round

Objective: Improve energy efficiency of Multi-unit building

Description: IESO'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 IESO contracted with GreenSaver to deliver the MEER Initiative outside of the Toronto Hydro service territory. Activities delivered in Toronto were contracted with the City of Toronto.

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

Targeted End Uses: Electricity saving measures

Delivery: IESO contracted with Greensaver