

Coldwater Board of Public Utilities Energy Optimization Annual Report for 2010 MPSC Case No. U-(15853)

Introduction

Pursuant to 2008 Public Act 295 (PA 295), the Coldwater Board of Public Utilities (CBPU) is filing this annual energy optimization (EO) report with the Michigan Public Service Commission (MPSC). This EO annual report consists of three sections:

- Section 1 will address the requirements under PA 295 Section 97, Subsections 1-3 and Section 71, Subsection 3 (i).
- Section 2 will summarize the EO programs implemented in 2010.
- Section 3 will provide additional information and goals for 2011 programs.

SECTION 1: PA 295 SECTION 97 SUBSECTIONS 1-3 REQUIREMENTS

Section 97 (1) Each provider shall submit to the commission an annual report that provides information relating to the actions taken by the provider to comply with the energy optimization standards.

The CBPU has taken the following actions to comply with the EO standards:

- Offered a full portfolio of energy optimization programs for both Residential & Business customer classes in 2010.
- Administration and implementation of the EO programs were the responsibility of CBPU personnel.
- Implementation of the Residential Low Income program (REAP).
- Provided education for both Residential and Business, implemented by CBPU personnel.
- The CBPU in effort to show community leadership in energy efficiency became an Energy Star Partner in 2010.

Section 97 (2) Annual reports under subsection (1) shall include the following: (a) The number of energy optimization credits that the provider generated during the reporting period. (b) Expenditures made in the past year and anticipated future expenditures to comply with this subpart. (c) Any other information that the commission determines necessary.

In the fall of 2009, the MPSC staff approved an interim report format for all the municipal utilities in Michigan. That interim report details the energy optimization credits generated, expenditures and surcharges collected from customers in the past year. The end of year interim report for 2010 can be found in Attachment A. Future expenditures for 2010 are expected to follow the EO Plan filing that was submitted and approved in 2009. Exceptions to that plan filing will be explained in Section 3 of this report.

Section 97 (3) Concurrent with the submission of each report under subsection (1), a municipally-owned electric utility shall submit a summary of the report to its customers in their bills with a bill insert, to its governing body, at its office and on its website.

The CBPU will submit a copy of this annual report to its Board of Directors, make it available at its office and on its website and a summary to its customers through the bill insert no later than July 30, 2011.

Section 71 (3)(i) Include a process for obtaining an independent expert evaluation of the actual energy optimization programs to verify the incremental energy savings from each energy optimization program for purposes of section 77.

VEIC was chosen as the evaluation contractor to verify the incremental gross energy savings for the 2010 EO program. That evaluation is attached to this report as Attachment B.

SECTION 2: SUMMARY OF EO PROGRAMS IMPLEMENTED IN 2010

Residential Low Income Services

In November of 2010 the CBPU developed and implemented a Residential Energy Assistance Program (REAP) to provide energy efficiency services to their low income customers. During the balance of 2010 fourteen households were served through the program. The table below summarizes the energy savings achieved and budget expenditures from the 2010 residential low income program compared to the 2010 EO Plan goals.

Low Income Program Summary

	2010 Goal	2010 Actual	Difference
Energy Savings (kWh)	47,077	25,888	21,189
Budget (\$)	\$30,800	\$4,543	\$26,257

Residential Solutions

Efficient Lighting Program

The CBPU partnered with The Home Depot for a CFL rebate program for CBPU customers. This program ran from January 1, 2010 through February 28, 2010. This was done through a rebate coupon mailed directly to CBPU customers and redeemed and tracked by The Home Depot.

The CBPU has a long standing CFL recycling program for our residential and commercial customers. This program was advertised through the CBPU website, newsletter and community bulletin board. The CBPU has also partnered with The Home Depot's recycling program.

Refrigerator/Freezer Turn-In and Recycling Program

The objective of this program was to produce long-term energy savings in the residential sector by removing operable, inefficient refrigerators and freezers from the power grid and recycling them in an environmentally safe manner. Target market is residential customers who have "second" or back-up units in their garage or basement. All units were required to be operable to participate in this program and each customer received a \$30 incentive for each unit recycled.

The CBPU selected JACO Environmental in December 2010 as the recycling subcontractor to provide comprehensive turn-key services. The program began in March 2010 and JACO was responsible for qualifying customers, scheduling and tracking unit pick-ups and processing incentive payments.

Residential High Efficiency Appliance/HVAC Program

Despite its late start, the Residential High Efficiency Appliance/HVAC Program was widely participated in and a great success. Point of sale advertising and applications were created and made available at local retailers and HVAC dealers. Additionally, in 2010 the CBPU created a Trade Ally Program consisting not only of Tradesman, but of Vendors providing energy efficiency products to the local market.

Residential Low-Income Program

The CBPU launched our Residential Low-Income Program (REAP) in November of 2010. REAP is a Residential Energy Assistance Program designed specifically for CBPU customers whose household income falls under 200 percent of the poverty income, based on family size. A basic energy audit of the qualified applicant's home is performed, energy saving measures are then chosen and installed in their home. Participants benefit from the free installation of an energy saving kits which may include door weather stripping, compact fluorescent lights (CFL's), low-flow showerheads, faucet aerators, pipe insulation, water heater insulation and the free installation of a programmable thermostat. Additionally, participants may qualify for refrigerator replacement assistance, replacing their old inefficient refrigerator with a new Energy Star model.

Residential Education Services

One and a half percent of the EO budget was used on Residential education programs. These budget expenditures were used to communicate and educate customers on the benefits of energy efficiency, and load management. Budget funds for education are deemed to generate a proportional amount of the required energy savings for each program year in which the money is spent.

The CBPU Residential Education Program was implemented by in-house personnel, and is a carry-over of programs and services existing before the enactment of the energy optimization program. These programs include web-based information and energy audit program, demonstration projects with the energy bike to schools and civic organizations, hosting and participating in community events. Program updates and offerings are communicated on the local public access television station, local print and radio media and the CBPU website and newsletter.

In October the CBPU also held our annual Hallo-Green event. The annual event raises energy conservation awareness through education and energy efficiency gift bags. These re-usable gift bags consisted of CFL's, water saving devices and energy efficiency tip sheets. Participants were also eligible for many door prizes consisting of items such as: Programmable Thermostats, Smart Power Strips, Door weather-stripping, & Window insulation kits. A mercury thermometer trade-in program was also ran in conjunction with the event.

Residential Program Summary

Despite the late start of many program offerings, the 2010 residential program was extremely successful. The tables below summarize the energy savings achieved and budget expenditures from the 2010 residential programs compared to the 2010 EO Plan goals. The residential program energy savings goals were bundled together to achieve the 2010 goals. Any net shortages or excess kilowatt hours and budget expenditures from the 2010 programs will be carried over into the 2011 program goals.

Residential Energy Savings

Program	2010 kWh Goals	kWh Installed	Difference
Efficient Lighting	118,698	232,495	(113,797)
Refrigerator/Freezer Recycling	178,035	143,165	34,870
Efficient Appliances & HVAC	3,586	16,178	(12,592)
Electric Hot Water Heating Kits	45,924	0	45,924
Education Services	29,438	27,988	1,450
Pilot/Emerging Technology	15,140	0	15,140
Total	390,821	419,826	(29,005)

Residential Budget Summary

Program	2010 Budget	2010 Expenditures	Difference
Efficient Lighting	\$11,517	\$7,710	\$3,807
Refrigerator/Freezer Recycling	\$24,944	\$9,460	\$15,484
Efficient Appliances & HVAC	\$1,733	\$4,245	(\$2,512)
Electric Hot Water Heating Kits	\$5,409	\$0	\$5,409
Education Services	\$4,718	\$4,601	\$117
Pilot/Emerging Technology	\$2,445	\$0	\$2,445
Total	\$50,866	\$26,016	\$24,850

Business Solutions

Commercial and Industrial Prescriptive Incentive Program

The Prescriptive Incentive program provides incentives when replacing inefficient equipment with high-efficiency electric technologies on a one-for-one basis. These incentives address the first-cost barrier for customers by providing financial incentives averaging 20% to 40% of the incremental cost of purchasing qualifying technologies. The program was launched in 2010 and marketed through trade allies, presentations at various organizations, local events and the CBPU website. The majority of the incentives were for lighting upgrades.

Commercial and Industrial Custom Incentive Program

The objective of the Custom Incentive Program is to affect the installation of site-specific and unique energy efficiency technologies and process improvements (that do not fit the parameters of the Prescriptive Program) by business customers that would not have done so in the absence of the program. This program was launched in 2010 and was marketed through the same channels as the Prescriptive Program.

Business Education Services

One and a half percent of the EO budget was used on Business education programs. These budget expenditures communicated and educated customers on the benefits of energy efficiency, conservation and load management. Budget funds for education are deemed to generate a proportional amount of the required energy savings for each program year in which the money is spent. The CBPU Business Education program will be implemented by in-house personnel in 2011.

Business Program Summary

Due to the fact that the business programs often require a significant investment from the customer, and due to the economic conditions in Michigan, the business programs will be more aggressively marketed in 2011 with the hope that they will be more successful.

The tables below details the energy savings and the budget expenditures for the 2010 business programs compared to the 2010 EO Plan goals. Any net shortages or excess energy goals or budget expenditures from the 2010 programs will be carried over into the 2011 program goals.

Business Energy Savings Summary

Program	kWh Goals	kWh Installed	Difference
Prescriptive Incentive	1,520,466	854,668	665,798
Custom Incentive	332,747	58,785	273,962
Business Education	35,972	0	35,972
Pilot/Emerging Technology	15,140	0	15,140
Totals	1,904,325	933,453	970,872

Business Budget Summary

Program	2010 Budget	2010 Expenditures	Difference
Prescriptive Incentive	\$208,998	\$102,205	\$106,793
Custom Incentive	\$47,915	\$3,233	\$44,682
Education Services	\$5,738	\$0	\$5,738
Pilot/Emerging Technology	\$2,445	\$0	\$2,445
Total	\$265,096	\$99,998	\$165,098

SECTION 3: ADDITIONAL INFORMATION AND 2010 EO PROGRAMS

This section provides additional information to 2010 programs and a summary of the 2011 Energy Optimization programs.

Recovery of Costs from Customers

Energy Optimization surcharges are shown in the table below:

Levelized Surcharges		2009-2012
Residential	Per kWh	\$0.00252
Secondary 1	Per meter	\$3.76
Secondary 2	Per meter	\$27.44
Primary 1	Per meter	\$200.60
Primary 2	Per meter	\$613.63
Unmetered Lighting	Per fixture	\$0.27

Coordination of Energy Optimization Programs;

The CBPU has and will continue to meet with other utilities and agencies regarding the coordination of programs. In addition, the CBPU has participated in the EO Collaborative meetings hosted by MPSC through our membership in Michigan Municipal Electric Association (MMEA).

New Energy Optimization Programs for 2011

Through its affiliation with American Municipal Power (AMP), the CBPU plans to evaluate participating in the Efficiency \$mart program. The CBPU plans to launch the following new programs in 2011, in addition to the 2010 programs identified previously in this report that were delayed to a 2011 implementation:

- Energy Efficiency training and workshops
- Electric Water Heating Kits
- Business Education
- Business Pilot/Emerging Technology Programs
- Residential Pilot/Emerging Technology Programs

Summary of Energy Optimization Programs for 2011

The table below shows: a) applicable revisions/adjustments from the 2010 programs; b) 2011 Plan Filing goals and 3) the revised energy savings and expenditure goals for 2011 programs.

2010 Energy Optimization Program Portfolio

Program Portfolio	2010 Revisions		2011 Plan Filing Goals		2011 Revised Goals	
	kWh Savings Revisions	Budget Revisions	Gross First Year kWh Savings	Program Budget	Gross First Year kWh Savings	Program Budget
Low Income Services	21,189	\$27,288	45,969	\$29,880	67,158	\$57,148
Efficient Lighting	(113,797)	\$3,907	134,611	\$13,584	20,314	\$17,491
Refrigerator/Freezer Recycling	34,870	\$15,484	148,363	\$23,364	183,233	\$39,845
Efficient Appliances & HVAC	(12,592)	(\$2,512)	5,379	\$2,812	(7,213)	\$300
Electric Hot Water Heating Kits	45,924	\$5,409	45,924	\$5,955	91,848	\$11,910
Educational Services	1,450	\$117	34,103	\$5,603	35,553	\$5,720
Pilot/Emerging Technology	15,140	\$2,445	15,140	\$2,445	30,280	\$4,890
Subtotal - Residential Solutions	(7,816)	\$52,138	429,489	\$83,643	421,673	\$193,781
Prescriptive Incentive Program	645,798	\$106,793	1,526,120	\$209,774	2,171,916	\$315,557
Custom Incentive Program	273,962	\$44,682	299,472	\$43,124	573,434	\$67,805
Educational Services	35,972	\$5,738	34,103	\$5,603	70,075	\$11,241
Pilot/Emerging Technology	15,140	\$2,445	15,140	\$2,445	30,280	\$4,890
Subtotal - Business Solutions	970,872	\$159,658	1,874,835	\$260,946	2,845,707	\$420,604
Total Program Portfolio	963,056	\$211,796	2,304,324	\$344,589	3,267,380	\$614,385
CBPU Program Administration		\$11,939		\$18,675		\$30,614
Evaluation (EM&V)		\$13,070		\$14,940		\$28,010
Subtotal - Admin/Evaluation		\$25,009		\$33,615		\$58,624

Appendix A

Coldwater Board of Public Utilities (U-15853)
Annual Energy Optimization Report
December, 2010

	Current Period	Year to Date
Revenue		
Net Revenue	348,302.60	348,302.60
Expenditures		
All Programs (excluding Low Income)	138,870.40	138,870.40
Low Income Programs	<u>3,311.55</u>	<u>3,311.55</u>
Total Expenditures	142,181.95	142,181.95
Over(Under) Collection	<u>206,120.65</u>	<u>206,120.65</u>
Energy Optimization Credits Generated		
All Programs (excluding low income)	1,353,278.76	1,353,278.76
Low Income Programs	<u>25,888.30</u>	<u>25,888.30</u>
Total Energy Optimization Credits	<u>1,379,167.06</u>	<u>1,379,167.06</u>

Surcharge Billed			
Residential	\$	0.00252	per kWh
Secondary 1 - Rate B	\$	3.76	per Meter
Secondary 2 - Rate C	\$	27.44	per Meter
Primary 1 - Rate D	\$	200.60	per Meter
Primary 2 - Rate D2	\$	613.63	per Meter
Unmetered Lighting	\$	0.27	per Fixture
Self Directed	\$	-	-

To the best of our knowledge Coldwater Board of Public Utilities (U-15853) has met the requirements of Public Act 295 regarding the Energy Optimization Program during the reporting period indicated above.

By 

Date 5/19/2011

Coldwater Board of Public Utilities (U-15853)
Annual Energy Optimization Report
December, 2010

	Commercial and Industrial							EO Credits Generated (kWh)	
	Residential	Secondary 1 - Rate B	Secondary 2 - Rate C	Primary 1 - Rate D	Primary 2 - Rate D2	Unmetered Lighting	Self Directed		Total
Revenue									
Billed Revenue	100,365	43,257	58,639	117,953	22,091	5,998	-	348,303	
Less Revenue Tax	-	-	-	-	-	-	-	-	
Net Revenue	100,365	43,257	58,639	117,953	22,091	5,998	-	348,303	
Expenses									
Residential									
Efficient Lighting	7,710	-	-	-	-	-	-	7,710	232,495
Refrigerator/Freezer Turn-in & Rec	9,460	-	-	-	-	-	-	9,460	143,165
Efficient Appliances & HVAC	4,245	-	-	-	-	-	-	4,245	16,178
Electric Hot Water Heating Kits	-	-	-	-	-	-	-	-	-
Educational Services	4,601	-	-	-	-	-	-	4,601	27,988
Pilot/Emerging Technology	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
Total Residential Programs	26,016	-	-	-	-	-	-	26,016	419,826
Commercial and Industrial									
Prescriptive Incentive Program	-	18,908	24,427	48,343	8,687	1,840	-	102,205	874,668
Custom Incentive Program	-	598	773	1,529	275	58	-	3,233	58,785
Educational Services	-	-	-	-	-	-	-	-	-
Pilot/Emerging Technology	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
Total C&I Programs	-	19,506	25,200	49,872	8,962	1,898	-	105,438	933,453
Administration	1,157	1,115	1,441	2,852	512	109	-	7,186	
Evaluation	37	36	46	91	16	3	-	230	
Low Income Programs	533	514	664	1,314	236	50	-	3,312	25,888
Total Expense/EO Credits	27,743	21,171	27,351	54,129	9,727	2,060	-	142,182	1,379,167
Over(Under) Collection	72,621	22,086	31,288	63,823	12,363	3,938	-	206,121	

Coldwater Board of Public Utilities (U-15853)
 Budget to Actual Comparison, EO Program Expenditures
 December, 2010

	Actual Year-to-Date	Budget	Budget to Actual	Percentage of Budget
Residential				
Efficient Lighting	7,710	11,617	3,907	66.37%
Refrigerator/Freezer Turn-In & Rec	9,460	24,944	15,484	37.92%
Efficient Appliances & HVAC	4,245	1,733	(2,512)	244.95%
Electric Hot Water Heating Kits	-	5,409	5,409	0.00%
Educational Services	4,601	4,718	117	97.52%
Pilot/Emerging Technology	-	2,445	2,445	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
Total Residential	26,016	50,866	24,850	51.15%
Commercial and Industrial				
Prescriptive Incentive Program	102,205	208,998	106,793	48.90%
Custom Incentive Program	3,233	47,915	44,682	6.75%
Educational Services	-	5,738	5,738	0.00%
Pilot/Emerging Technology	-	2,445	2,445	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
Total Commercial and Industrial	105,438	265,096	159,658	39.77%
Administration	7,186	19,125	11,939	37.57%
Evaluation	230	13,300	13,070	1.73%
Low Income	3,312	30,600	27,288	10.82%
Total Program Expenditures	142,182	378,987	236,805	37.52%

Coldwater Board of Public Utilities (U-15853)
 Budget to Actual Comparison, EO Credits (kWh)
 December, 2010

	Actual Year-to-Date	Budget	Budget to Actual	Percentage of Budget
Residential				
Efficient Lighting	232,495	118,698	(113,797)	195.87%
Refrigerator/Freezer Turn-In & Rec	143,165	178,035	34,870	80.41%
Efficient Appliances & HVAC	16,178	3,586	(12,592)	451.13%
Electric Hot Water Heating Kits	-	45,924	45,924	0.00%
Educational Services	27,988	29,438	1,450	95.07%
Pilot/Emerging Technology	-	15,140	15,140	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
Total Residential	419,826	390,821	(29,005)	107.42%
Commercial and Industrial				
Prescriptive Incentive Program	874,668	1,520,466	645,798	57.53%
Custom Incentive Program	58,785	332,747	273,962	17.67%
Educational Services	-	35,972	35,972	0.00%
Pilot/Emerging Technology	-	15,140	15,140	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
-	-	-	-	0.00%
Total Commercial and Industrial	933,453	1,904,325	970,872	49.02%
Low Income	25,888	47,077	21,189	54.99%
Total EO credits	1,379,167	2,342,223	963,056	58.88%

Appendix B



**Savings Verification for 2010 Energy Optimization Program
Coldwater Board of Public Utilities**

Coldwater Board of Public Utilities (CBPU) provided the following documentation, which was reviewed by Vermont Energy Investment Corporation:

- Coldwater 2010 EO REPORT Final_08112010.xlsx (dated 4/28/11)
- Michigan Master Measure Database.xls
- 2010 EOP Residential.xls revised.xls (dated 4/28/11)
- revised 2010 EOP Commercial & Industrial.slx (dated 4/28/11)
- 2010 REAP Installs (individual client files for 14 low-income clients)
- Summary Sheet.pdf (calculated savings on custom air compressor project)

Based on this documentation, plus the CBPU Energy Optimization Plan, dated 4/3/09, MPSC Case No. U150853, the savings claims listed below were reviewed and verified, as consistent with the deemed savings in the Michigan Energy Measures Database and custom engineering calculations for a single custom commercial project:

<u>Residential</u>	
Efficient Lighting	232,495 kwh
Refrigerators & Freezers	143,165 kwh
HVAC & Appliances	16,178 kwh
<u>Commercial</u>	
Prescriptive	874,668 kwh
Custom	58,785 kwh
<u>Low Income</u>	25,888 kwh

Completed by
VERMONT ENERGY INVESTMENT CORPORATION
May 5, 2011