

Traverse City Light and Power Energy Optimization Annual Report for 2010 MPSC Case No. U-15884

Introduction

Pursuant to 2008 Public Act 295 (PA 295), Traverse City Light and Power (TCL&P) 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.

TCL&P has taken the following actions to comply with the EO standards:

- Filed a 4-year Energy Optimization plan with the MPSC on March 31, 2009 as required by PA 295.
- This EO plan was approved by the MPSC on July 1, 2009.
- Launched energy optimization programs for all customer classes in July, 2009.
- Overall administration of the EO programs was the responsibility of TCL&P personnel.
- In addition, an implementation contractor, Franklin Energy Inc., was selected to implement the HVAC/Efficient Appliance, Refrigerator/Freezer Turn-in and Recycling program, Business Prescriptive and Business Custom programs.
- Administration and implementation of the EO programs were the responsibility of TCL&P personnel.
- Contracted with the Traverse City Housing Commission and MCAAA to implement the Residential Low Income program.
- Educational outreach programs, including brochures and media placement, were implemented by TCL&P in-house personnel for both Residential and Business areas.
- Contracted with KEMA, Inc. for obtaining an independent expert evaluation for the verification of incremental energy savings for each energy optimization program.

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 2011 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.

TCL&P will submit a copy of this annual report to the TCL&P Board, to its customers through the bill insert and make it available on its website no later than August 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.

In December 2009, TCL&P, as part of the Michigan Public Power Agency's Energy Efficiency Work Group issued a Request for Proposal (RFP) to verify the incremental gross energy savings for each EO program for 2010. KEMA, Inc. was chosen as the evaluation contractor for these 24 municipal utilities. KEMA started collecting data in late November of 2010 and will complete the evaluation for each municipal under the RFP and that evaluation is attached to this report as Attachment B.

SECTION 2: SUMMARY OF EO PROGRAMS IMPLEMENTED IN 2010

Residential Low Income Services

TCL&P worked with the Michigan Community Action Agency Association (MCAAA), the Northwest Michigan Community Action Agency (NWMCAAA) and the Traverse City Housing Commission (TCHC) to achieve 2010 goals. MCAAA installed 299 compact fluorescent light bulbs (CFL) (\$3.50 each, total \$1,046.50) and one refrigerator (total \$389). TCHC installed one refrigerator (total \$455) and five 800 watt occupancy sensor wall switches (\$180 each, total \$900). The MDS database indicates 1,100 kWhrs savings for the replacement of an existing refrigerator with a new Energy Star refrigerator (total 2,200 kWhrs), 44.1 kWhrs savings for the replacement of an incandescent light bulb with a CFL (total 13,185 kWhrs) and 994 kWhrs savings for the installation of an occupancy sensor greater than 500 watts (total 4,970 kWhrs). All measures were installed for residents that met the low income requirements for PA 295. TCL&P exceeded the low income energy savings goal by 6,663 kWhrs.

Low Income Program Summary

	2010 Goal	2010 Actual	Difference
Energy Savings (kWh)	13,692	20,355	+6,663
Budget (\$)	8,900	2,790	-6,110

Residential Solutions

The programs below were made available to all TCL&P residential electric customers.

Efficient Lighting Program

TCL&P focused on the distribution of CFLs to our residential customers. TCL&P received a \$50,000 DELEG CFL distribution promotion grant for 2009 and 2010. Since grant funding was still available L&P distributed the CFL bulbs for free instead of providing discount coupons. Bulbs were provided to L&P customers at the billing center for those who filled out address and account number information. CFLs were also distributed at local energy workshops, community public forums, and events. A total of 5807 CFLs were distributed. In addition to this program \$2 discount coupons were used to promote LED holiday light strings. A total of 271 LED coupons (\$542) were redeemed for a MDS base of 2981 kWhrs.

TCL&P partnered with the Grand Traverse County solid waste department to set up CFL recycling opportunities for residential customers in 2010. These recycling bins are located in 5 different areas throughout the city and county.

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 \$60 incentive for each unit recycled.

Franklin Energy selected JACO Environmental as the recycling subcontractor to provide comprehensive turn-key services. JACO was responsible for qualifying customers, scheduling and tracking unit pick-ups and processing incentive payments. The number of units that were picked up in 2010 was 96. The goal was 68.

HVAC/Efficient Appliance Program

Franklin Energy managed this program for residential customers who purchased qualified Energy Star window air conditioners and dehumidifiers, ECMs for home furnace and whole house air conditioners. KWhr savings equaled 8,522 and \$1,550 dollars were spent to achieve these program savings.

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 TCL&P Residential Education Program was implemented by in-house personnel. The benefits of energy savings through the use of CFLs, Energy Star appliances, energy audits, recycling old inefficient appliances, and changing life style habits was communicated to residential customers through energy workshops, seminars, billing inserts, newspaper ads, radio ads, TV ads, and web site information. A professional marketing firm was used for media coverage. The maximum KWhr and dollar reporting for this category is 1.5% of the program total. That equates to 24454 kWhrs and \$3338. However, a total of \$33,246 was spent on education for 2010, which would equate to 243,556 kWhrs.

Pilot Emerging Technology

L&P installed 50W LED lamps on pedestrian walkway poles. These replaced 100 W HPS lamps. The initial phase was successful so a total of 175 old lights were replaced with LEDs. Each light change out saves 76 w or 388 kWhrs a year. Although this did expand beyond the pilot phase, 67,900 kWhrs were saved at a capital cost of \$40,381.

Residential Program Summary

Overall the 2010 residential programs were 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 excess kilowatt hours saved from the 2010 programs will be carried over into the 2011 program goals.

Residential Energy Savings

Program kWhrs	2010 kWh Goals	kWh Installed	Difference
Efficient Lighting	2121	2981	+860
CFLs-State Grant	177282	255508	+78226
Refrigerator/Freezer Recycling	112060	158213	+46153
HVAC Efficient Appliance	10012	8522	(1490)
Education Services	24454	24454	0
Pilot Emerging Technology	16303	67900	+51597
Total	342232	517578	175346

Residential Budget Summary

Program \$\$	2010 Budget	2010 Expenditures	Difference
Efficient Lighting	\$1176	\$542	(\$634)
CFLs-State Grant	0	0	0
Refrigerator/Freezer Recycling	19163	19163	0
HVAC Efficient Appliance	5730	4397	(1333)
Education Services	3338	3338	0
Pilot Emerging Technology	2225	2225	0
Total	31632	29665	(1967)

Business Solutions

The programs below were made available to all TCL&P commercial and industrial customers.

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 marketed through trade allies, presentations at various organizations, local events and the TCL&P website. The majority of the incentive payments were for lighting upgrades. The number of customers who participated (completed applications) in the Prescriptive program was 26 for 2010.

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 marketed through the same channels as the Prescriptive Program. The number of completed applications for the Custom program was 5 in 2010.

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 TCL&P Business Education program was implemented by in-house personnel. The benefits of energy savings through more efficient lighting or prescriptive, non-prescriptive, and custom measures was communicated to the commercial customers through energy workshops, seminars, billing inserts, newspaper ads, radio ads, TV ads, trade ally meetings, and web site information. The maximum kWhr and dollar reporting for this category is 1.5% of the program total. That equates to 24454 kWhrs and \$3338. However, a total of \$33,246 was spent on education for 2010, which would equate to 243,556 kWhrs.

Pilot Emerging Technology

L&P installed 150W LED lamp replacements on local street lights. These replaced 250 W HPS lamps. The initial phase was successful so a total of 270 old lights were replaced with LEDs. Each light change out saves 168 w or 858 kWhrs a year. Although this did expand beyond the pilot phase, 231,660 kWhrs were saved at a capital cost of \$170,640.

Business Program Summary

The business programs were well received by our customers. The tables below details the energy savings and the budget expenditures for the 2010 business programs compared to the 2010 EO Plan goals. Any excess energy goals from the 2010 programs will be carried over into the 2011 program goals.

Business Energy Savings Summary

Program kWhrs	kWh Goals	kWh Installed	Difference
Prescriptive Incentive	565706	1196167	630461
Custom Incentive	186314	222206	35892
Business Education	24454	24454	0
Pilot Emerging Technology	16303	231,660	215357
Totals	792777	1674487	881710

Business Budget Summary

Program \$\$	2010 Budget	2010 Expenditures	Difference \$
Prescriptive Incentive	89414	117793	28379
Custom Incentive	37960	26517	-11443
Education Services	3338	3338	0
Pilot Emerging Technology	2225	2225	0
Total	\$132937	\$149873	\$16936

SECTION 3: ADDITIONAL INFORMATION AND 2010 EO PROGRAMS

This section provides additional information to 2009 programs and a summary of the 2010 Energy Optimization programs.

Recovery of Costs from Customers

TCL&P did not collect surcharges in 2010, as previously filed, and at this time may or may not collect customer surcharges in 2011.

Levelized Surcharges		2009-2012
Residential	Per kWh	
Secondary 1	Per meter	
Secondary 2	Per meter	
Primary	Per meter	

Coordination of Energy Optimization Programs;

TCL&P has and will continue to meet with other utilities and agencies regarding the coordination of programs. In addition, TCL&P 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

TCL&P plans to launch the following new additional programs in 2011. These programs will be added to the existing portfolio of programs that were launched in 2010.

- Residential Appliances and HVAC (This a combination of the Efficient Appliances/Electronic and HVAC Equipment program listed in the 2009 Plan filing. Due to limited budgets in both these programs the energy savings goals and the budgets will be blended together to ensure savings goals are met. This revision was approved for municipal utilities by the MPSC staff in the fall of 2009.)

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.

2011 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	6663		24,062	15,640	17399	15640
CFLs State Grant	78226					
Efficient Lighting	860		203,389	19,800	135661(a)	19800
Refrigerator/Freezer Recycling	46153		202,752	31,931	156599	31931
Efficient Appliances & HVAC	(1490)		15017	9283	15017 (b)	9283
Multi-Family In-Unit Efficiency						
Educational Services			36392	5865	36392	5865
Pilot/Emerging Technology			<u>48523</u>	7820	<u>48523</u>	7820
Subtotal - Residential Solutions			530,135		409,591	
Multi-Family Common-Area						
Prescriptive Incentive Program	630461		1,395,691	191,815		
Custom Incentive Program	35892		417,121	60,065		
<u>P&C Incentive Program Combined</u>			<u>1,812,812</u>	251,880	1,209,146(c)	251,880
Educational Services			<u>36,392</u>	5,865	36,392	5,865
Pilot/Emerging Technology			<u>48,523</u>	7,820	<u>48,523</u>	7,820
Subtotal - Business Solutions						
Total Program Portfolio			1,897,727		1,294,061	
L&P Program Administration				19,550		19,550
Evaluation (EM&V)				15,640		15,640
Subtotal - Admin/Evaluation				35,190		35,190

(a): $203389 \times 33.3\% = 67728$; $78226 + 860 = 79086$; $203389 - 67728 = 135661$; $79086 - 67728 = 11358$ kWhrs savings achieved but can't be counted.

(b): The HVAC program did not reach the kWhr savings goal by 1490 kWhrs. Since the overall residential savings goals were exceeded the 1490 kWhrs will not be added to 2011.

(c): Since Prescriptive and Custom Incentive Programs can be quite similar in nature, these program totals will be combined for 2011. The 2010 combined prescriptive and custom program kWhr savings exceeded the revised Attachment A filing by 62,687 kWhrs, even accounting for the 33.3% carryover; $1812812 \times 33.3\% = 603666$; $630461 + 35892 = 666353$; $666353 - 603666 = 62687$ kWhrs achieved but can't be counted.