

Hillsdale Board of Public Utilities Energy Optimization Plan MPSC Case No. U-15865

Introduction

Pursuant to 2008 Public Act 295 (PA 295), the Hillsdale Board of Public Utilities (Hillsdale BPU) is filing this energy optimization (EO) plan with the Michigan Public Service Commission (MPSC). PA 295 requires each electric energy provider in Michigan to implement an energy optimization plan that reduces electric energy consumption. This EO Plan was developed in three sections:

- Section 1 will address each requirement under PA 295 Section 71, Subsection 3 (a-i).
- Section 2 will address the requirements under Attachment E of the MPSC Temporary Order U-15800
- Section 3 will furnish additional information under MPSC Temporary Order U-15800

SECTION 1: PA 295 SECTION 71 SUBSECTION 3 REQUIRMENTS

Section 71 (3) (a) The EO plan shall offer programs to each customer class including low income customers;

The table below shows the incremental savings in megawatt hours required for the Hillsdale BPU Energy Optimization programs.

<i>Savings is reported in Megawatt hours</i>			Total Savings Required MWH
Program Year	% Saving	Sales Year	
2008-2009	0.30%	2007	426,733
2010	0.50%	2009	714,069
2011	0.75%	2010	1,061,449
2012	1.0%	2011	1,401,564

The Hillsdale BPU Energy Optimization programs were developed to serve all customer classes including residential low income. The Hillsdale BPU's 2009 plan is based on allocating approximately 10% of its EO budget to low income program, 33% to residential, 45% to commercial and industrial, and 9% to evaluation and administration. Program allocations will be revised on an annual basis in order to continue meeting the goals under PA 295.

Shown in this filing are the first four years of EO programming for the Hillsdale BPU plan. The program portfolio is designed to simultaneously satisfy savings and budget goals. The Hillsdale BPU will continue its programming after 2012 consistent with 2008 PA 295. Programs that will be offered to each rate class are listed below and are categorized into Low

Income Services, Residential Solutions and Business Solutions. A detailed list of budget amounts and the associated kilowatt savings for each customer class can be found in Attachment A. A detailed description, with budgets, of the programs that will be offered to each rate class is included in Attachment B.

Residential Low Income Services

The Hillsdale BPU will spend 10% of the program budget on low income programs. Target market for this program is residential customers whose income is estimated to be below 200% of poverty level as defined by the U.S. Department of Health and Human Services. Services will be targeted to diverse segments of the population including those living in single family and multi-family buildings, home owners and renters, and to the extent possible – age and geographic diversity. This program provides funding to upgrade the electric energy efficiency of customers living on limited incomes. The Hillsdale BPU will work with the local weatherization or faith based agencies to leverage their funding by subsidizing the installation of cost-effective electric measures, thereby increasing the number of homes served through the program. The program will be marketed through utility bill inserts, the media and existing low-income community organizations and other partners.

Residential Solutions

The programs below will be available to all Hillsdale BPU Residential Class Customers – R1 and R2

- *Efficient Lighting Program*
- *Refrigerator/Freezer Turn-In and Recycling Program*
- *High-Efficiency Appliances and Electronics Program*
- *High-Efficiency HVAC Equipment*
- *Residential Education Services*

Business Solutions

The programs below will be available to all Hillsdale BPU commercial and industrial customers billed on: Small General Secondary, Medium General Secondary, Alternative C Rate, Large General Secondary, General Primary, Economic Development, Sub transmission Rate, and Street Lighting.

- *Commercial and Industrial Prescriptive Incentive Program*
- *Commercial and Industrial Custom Incentive Program*
- *Business Education Services*

Section 71 (3) (b) The EO plan shall specify the necessary funding levels;

In order to achieve the mandatory energy savings targets, the Hillsdale BPU Energy Optimization Plan will require the maximum spending as allowed in Section 89 (7) of Public Act 295. The estimated funding levels are shown in the table below.

<i>Expenditures Percentage of Retail Sales</i>			Total Spending
Program Year	% Spending	Sales Year	\$
2009	0.75%	2007	\$48,283
2010	1.00%	2008	\$116,893
2011	1.50%	2009	\$180,761
2012	2.0%	2010	\$242,253

Section 71 (3) (c) Describe how EO program costs will be recovered from customers;

All costs associated with the implementation of the Hillsdale BPU’s Energy Optimization Plan will be recovered consistent with Section 89 (2) of Public Act 295. Residential customers will be charged on a volumetric basis; primary and secondary customers will be charged on a per meter basis.

The costs for primary customers will not exceed 1.7% of total retail sales for that customer class and for residential and secondary will not exceed 2.2% of total retail sales for those customer classes. [PA 295 Section 89 (3)]

The Hillsdale BPU plans to assess monthly levelized surcharges to recover the cost of the proposed Energy Optimization programs. Levelizing energy optimization rates provide customers consistent rates over the EO program period. EO rates for 2009 would have been higher than levelized rates due to the condensed recovery period offered in 2009. Without levelizing rates customers would experience a decrease in the EO rate in 2010 with sharp increases in the remaining years. For residential customers, levelized rates were calculated by dividing total four year residential program costs and administrative costs by the projected residential kWh. Levelized secondary and primary rates were calculated by dividing each customer groups four year program costs and administrative costs by the projected number of billable meters.

Levelized Surcharges		2009-2012
Residential	Per kWh	\$0.00164

Secondary	Per meter	\$5.00
Primary	Per meter	\$147.00

Section 71 (3) (d) Ensure, to the extent feasible, that charges collected from a particular customer rate class are spent on EO programs for that rate class;

Charges for each customer class were developed based on the approximate percentage of programs budget allocations that will be offered for that customer class to the extent feasible.

Section 71 (3) (e) Demonstrate that proposed EO funding is sufficient to ensure achievement of EO savings standards;

The Hillsdale BPU Program Portfolio was prepared by Summit Blue and Wisconsin Energy Conservation Corporation (WECC) to outline goals, budgets, and programs that have the potential to achieve the targets identified in PA 295. The programs described in this plan were modeled based on typical measure characteristics used in similar “best practice” programs across the country, along with specific savings estimates from the new Michigan Deemed Savings Database.

Section 71 (3)(f) Specify whether electric energy savings will be based on weather normalized sales or the average megawatt hours of electricity sold by the provider annually during the previous 3 years to retail customers;

The incremental energy savings for the Hillsdale BPU Energy Optimization Plan will be calculated utilizing the average number of megawatt hours of electricity sold annually during the previous three years to retail customers.

Section 71 (3) (g) Demonstrate that the providers EO programs, excluding low income programs, are collectively cost-effective;

The Hillsdale BPU programs were designed to meet the cost effective tests as required under PA 295 Sec. 73 (2). The two primary tests that were used to determine if the programs are reasonable and prudent are the Utility System Resource Cost Test and the Cost of Conserved Energy. The definitions according to the California Standard Practices Manual for each of these tests are as follows.

Utility System Resource Cost Test (UCT)

The Utility System Resource Cost Test measures the net costs of an energy efficiency program as a resource option based on the costs incurred by the utility (including incentive costs) and excluding any net costs incurred by the participant. The benefits for the Utility System Resource Cost Test are the avoided supply costs of energy and demand, the reduction in transmission, distribution, generation, and capacity valued at marginal costs for the periods when there is a load reduction. The costs for the Utility System Resource Cost Test are the program costs incurred by the utility, the incentives paid to the customers, and the increased supply costs for the periods in which load is increased.

Cost of Conserved Energy (CCE)

The Cost of Conserved Energy is the average lifecycle cost of an efficiency measure or program expressed in cents per kWh saved over the life of the measures installed. The key benefit of calculating the Cost of Conserved Energy is to compare energy efficiency programs to energy supply options. This calculation places energy efficiency cost estimates at a level comparable to that for supply-side options.

A table of each program with the Utility Cost Test results and the estimated Cost of Conserved Energy is shown below.

Portfolio Category	Program	UCT Results	CCE Results*
	Low Income	N/A	N/A
Residential	Efficient Lighting	6.7	\$0.013
	Refrigerator/Freezer Recycling	2.9	\$0.030
	Efficient Appliances/Electronics	2.4	\$0.065
	Efficient HVAC Equipment	3.2	\$0.052
	Education Services	2.1	\$0.038
Business	Prescriptive Incentive Program	4.8	\$0.022
	Custom Incentive Program	7.9	\$0.014
	Education Services	2.1	\$0.038
Projected Annual Totals		5.0	\$0.021

*The Cost of Conserved Energy is the 10 year levelized \$/kWh.

Section 71 (3) (h) Provide for practical and effective administration of the EO programs;

The overall administration of the Hillsdale BPU's Energy Optimization Plan will be the responsibility of Hillsdale BPU personnel.

The roles and responsibilities of the implementation contractors will be as follows:

- a) Contract financial planning and budgeting,
- b) Proposing and providing delivery plans, implementation schedules/timelines, and milestones for each program,
- c) Data tracking/reporting,
- d) Trade ally recruitment, enrollment, training, technical seminars, workshops, and application completion support,
- e) Strategy and implementation planning/updates with Hillsdale BPU energy programs staff,
- f) Communicate and coordinate marketing efforts with Hillsdale BPU Marketing team,
- g) Call center – coordinate customer interactions with Hillsdale BPU call center staff, contractor to set up single telephone number to manage customer/trade ally questions/concerns,
- h) Provide incentive processing services,
- i) Implement a system for quality control and verification to ensure rebates paid out are for actual measures installed at the appropriate efficiency levels,
- j) Monitor customer satisfaction and implement a system for tracking complaints and satisfactory resolutions,
- k) Assist Hillsdale BPU with Michigan Public Service Commission data requests and explanations including participation (as requested) with any stakeholder meetings,
- l) Coordination with Hillsdale BPU Evaluation, Measurement and Verification (EM&V) contractor.

The Hillsdale BPU will make use of experienced Hillsdale BPU in-house personnel who will assure quality and compliance by providing oversight, guidance and direction to the outside implementation contractors. It will also work with the implementation contractors who have qualified and experienced staff with the technical capabilities and data tracking systems necessary to deliver the programs effectively. This combination will assure effective and efficient program administration.

Section 71 (3) (i) include a process for obtaining independent expert evaluation of the actual EO savings;

The Hillsdale BPU will be contracting with an independent third-party for the expert evaluation of the EO programs on an annual basis. This contractor will be responsible for verifying the incremental gross energy savings from each EO program and will be responsible for an annual report of such findings.

SECTION 2: REQUIREMENTS UNDER ATTACHMENT E of MPSC Temporary Order U-15800

MPSC Attachment E Section 3 (a) Plan Elements;

Energy Optimization Plan Development Methodology

In February of 2009, Hillsdale BPU in cooperation with Michigan Municipal Electric Association (MMEA) contracted with Summit Blue and Wisconsin Energy Conservation Corporation (WECC) to prepare a portfolio of reliable and cost effective energy efficiency programs for implementation starting in 2009.

The Hillsdale BPU's 2009 – 2012 Energy Optimization Program Portfolio outlines goals, budgets and programs that are designed to achieve the 4-year energy conservation targets identified in Michigan legislation Public Act 295 (PA 295). The programs in this plan were modeled based on typical measure characteristics used in similar "best practice" programs across the country, along with specific savings estimates from the new Michigan Deemed Savings Database. The programs were modeled using a cost/benefit analysis tool that provides results from several stakeholder perspectives. Specifically, the programs were selected based on the following objectives:

- To provide electric energy savings for residential and commercial/industrial customers through a portfolio of proven "best practice" energy efficiency programs that is cost effective from a Utility System Resource Cost perspective;
- To develop program designs that can achieve the required energy savings goals within the specified budget caps identified in PA 295;
- To outline a program ramp-up schedule that allows for a rapid start up of quality programs with high savings potential;
- To recommend potential opportunities to leverage program funding with other state, regional, and national efforts.

The Hillsdale BPU's Energy Optimization plan implementation strategy is to utilize existing market channels as the most efficient means to drive resource acquisition efforts while maximizing program spillover and sustainable market transformation effects. The programs in the portfolio work closely with market providers in the utility's service territory to educate them on the benefits of selling high efficiency products and services and to assist them in marketing

those benefits to their customers. This approach has been proven to induce positive spillover impacts.

The programs are designed to minimize free-ridership by motivating trade allies and customers to (1) pursue projects that they would otherwise not have implemented, 2) pursue these projects sooner than they otherwise would have, or 3) implement equipment/measures at a higher efficiency level than they otherwise would have.

Incentives are only offered on measures that exceed current codes and standards and are often “tiered” to encourage customers to implement the highest level of efficiency available.

Savings estimates for all measures are based on information in the Michigan Deemed Savings Database, including both weather-sensitive and non weather-sensitive measures. The eQuest model was used to assist in developing the baseline market profiles. The Summit Blue DSM Resource Assessment Model was used to estimate achievable potential for the utility’s service area.

A spreadsheet model was used to conduct the benefit-cost analysis, using the Hillsdale BPU’s projected avoided costs. The model calculates benefit-cost results for each of the major and nationally-defined perspectives: Participant Test, Rate Impact Test, Total Resource Cost Test, and the Utility System Resource Cost Test, as well as the Cost of Conserved Energy.

MPSC Attachment E Section 1 (e) Plan Requirements;

Other cost-effective tests were utilized to determine cost effectiveness of the Hillsdale BPU programs and the definitions of those tests according to the California Standard Practices Manual are:

Total Resource Cost Test (TRC)

The Total Resource Cost Test measures the net costs of an energy efficiency program as a resource option based on the total costs of the program, including both the participants' and the utility's costs. This test represents the combination of the effects of a program on both the customers participating and those not participating in a program. The benefits calculated in the Total Resource Cost Test are the avoided supply costs, the reduction in transmission, distribution, generation, and capacity costs valued at marginal cost for the periods when there is a load reduction. The costs in this test are the program costs paid by both the utility and the participants. Thus all equipment costs, installation, operation and maintenance, and administration costs, no matter who pays for them, are included in this test. For DSM programs, those that pass the TRC test with a ratio of greater than 1 is viewed as beneficial to the utility and its customers because the savings in electric costs outweigh the DSM costs.

Participant Test (PCT)

The Participants Test is the measure of the quantifiable benefits and costs to the customer due to participation in a program. The benefits of participation in a demand-side program include

the reduction in the customer's utility bill and any incentive paid by the utility. The costs to a customer of program participation are all out-of-pocket expenses incurred as a result of participating in a program, plus any increases in the customer's utility bill.

The Ratepayer Impact Measure Test (RIM)

The Ratepayer Impact Measure (RIM) test measures what happens to customer bills or rates due to changes in utility revenues and operating costs caused by the program. This test indicates the direction and magnitude of the expected change in customer bills or rate levels. The benefits calculated in the RIM test are the savings from avoided supply costs. The costs for this test are the program costs incurred by the utility; the incentives paid to the participant, and decreased revenues for any periods in which load have been decreased.

A table with the multiple cost-effectiveness tests required for each program is shown below:

Portfolio Category	Program	Utility System Resource Cost Test	Total Resource Cost Test	Participant Test	Rate Impact Measure
	Low Income	N/A	N/A	N/A	N/A
Residential	Efficient Lighting	6.7	4.5	4.6	0.9
	Refrigerator/Freezer Recycling	2.9	3.1	No Cost	0.8
	Efficient Appliances/Electronics	2.4	1.4	1.2	1.0
	Efficient HVAC Equipment	3.2	1.7	1.9	1.2
	Education Services	2.1	2.1	No Cost	0.7
Business					
	Prescriptive Incentive Program	4.8	2.1	3.0	1.1
	Custom Incentive Program	7.9	3.1	2.8	1.3
	Education Services	2.1	2.1	No Cost	0.7
Projected Annual Totals		5.0	2.6	2.7	1.1

MPSC Attachment E Section 3 (b-f) Plan Elements;

b) The EO portfolio summary (MPSC Table 2) can be found in Attachment A and a summary of each program (MPSC Table 1) is shown in Attachment B. Savings estimates for all measures are based on the Michigan Deemed Savings Database. The Hillsdale BPU will reserve twenty percent of overall budget (by customer class) which will ensure program

flexibility and allow for reallocation of funding to other programs that are more cost-effective or where technology or market participation impacts require additional resources.

c)

d) Three percent of the EO budget will be used on education programs. These budget expenditures will communicate and educate customers on the benefits of energy efficiency, conservation and load management. Budget funds for education will be deemed to generate a proportional amount of the required energy savings for each program year in which the money is spent. Hillsdale BPU programs are designed to include an education component for both the Residential and Business customers.

e) The Hillsdale BPU Plan includes a residential low income program and costs for this program will be recovered from residential customer rate class.

f) The Hillsdale BPU has set aside no more than eight percent of program budget for program evaluation, measurement and verification activities to determine actual program energy savings.

MPSC Attachment E Section 4 Self-Directed Energy Optimization Plan for Electric Customers;

The Hillsdale BPU has no customers that would qualify for the self-directed option as outlined in P.A. 295.

SECTION 3: ADDITIONAL INFORMATION

Comment Proceedings;

The Hillsdale BPU will provide an opportunity for public comments on the Energy Optimization Plan. A Public Hearing will be held on Monday April 6, 2009 at 7:00 PM in the City Council Chambers located at 97 North Broad Street, Hillsdale, Michigan 49242. Public comments that are not submitted with the Energy Optimization filing will be submitted to the MPSC prior to June 2, 2009.

Coordination of Energy Optimization Programs;

The Hillsdale BPU has and will continue to meet with other utilities and agencies regarding the coordination of programs.

Hillsdale's Energy Optimization Program Portfolio Table 1

Portfolio Category	Program Portfolio	USRCT Results	CCE Results	2009		2010		2011		2012	
				Gross First Year kWh Savings	Program Budget	Gross First Year kWh Savings	Program Budget	Gross First Year kWh Savings	Program Budget	Gross First Year kWh Savings	Program Budget
Residential	Low Income Services	N/A	N/A	7,385	\$ 4,800	18,000	\$ 11,700	27,769	\$ 18,050	37,231	\$ 24,200
	Efficient Lighting	6.7	\$ 0.013	65,118	\$ 5,409	97,677	\$ 8,113	122,097	\$ 12,368	158,726	\$ 16,078
	Refrigerator/Freezer Turn-In & Recycling	2.9	\$ 0.030	62,689	\$ 8,569	94,034	\$ 13,321	117,542	\$ 18,497	176,313	\$ 28,685
	Efficient Appliances/Electronics	2.4	\$ 0.065		\$ -	3,830	\$ 1,804	5,745	\$ 2,940	9,192	\$ 4,763
	Efficient HVAC Equipment	3.2	\$ 0.052		\$ -	2,368	\$ 1,538	3,552	\$ 2,475	5,683	\$ 3,960
	Educational Services	2.1	\$ 0.038	6,394	\$ 720	10,704	\$ 1,755	15,920	\$ 2,708	21,017	\$ 3,630
	Program Savings-2008	N/A	N/A	108,486							
	Subtotal - Residential Solutions			250,071	\$ 19,498	226,612	\$ 38,231	292,625	\$ 57,037	408,161	\$ 81,316
Commercial & Industrial	Prescriptive Incentive Program	4.8	\$ 0.022	115,268	\$ 15,825	366,753	\$ 50,537	587,905	\$ 81,011	724,886	\$ 99,887
	Custom Incentive Program	7.9	\$ 0.014	55,000	\$ 7,920	110,000	\$ 15,840	165,000	\$ 23,760	247,500	\$ 35,640
	Educational Services	2.1	\$ 0.038	6,394	\$ 720	10,704	\$ 1,755	15,920	\$ 2,708	21,017	\$ 3,630
	Subtotal - Business Solutions			176,662	\$ 24,465	487,456	\$ 68,132	768,824	\$ 107,479	993,403	\$ 139,157
Total Program Portfolio				426,733	\$ 43,963	714,069	\$ 106,363	1,061,449	\$ 164,516	1,401,564	\$ 220,473
Portfolio-Level Costs	Utility Program Administration				\$ 2,400		\$ 5,850		\$ 9,025		\$ 12,100
	Evaluation (EM&V)				\$ 1,920		\$ 4,680		\$ 7,220		\$ 9,680
	Subtotal - Utility Admin/Evaluation				\$ 4,320		\$ 10,530		\$ 16,245		\$ 21,780
Projected Annual Totals		5.0	\$ 0.021	426,733	\$ 48,283	714,069	\$ 116,893	1,061,449	\$ 180,761	1,401,564	\$ 242,253

Hillsdale's Proposed Energy Optimization Programs – Table 2

Residential Programs

Program Element	Services for Residential Customers with Limited Incomes
Objective	<ul style="list-style-type: none"> • Provide recommendations, financial assistance and education to customers with limited income to assist them in reducing their electric energy use and managing their utility costs. • Coordinate low-income services with other utilities and with local weatherization providers in order to provide comprehensive assistance at lower administrative costs.
Target Market	Residential customers whose income is estimated to be below 200% of poverty level. Services will be targeted to diverse segments of the population including those living in single family and multi-family buildings, home owners and renters, and to the extent possible – age and ethnic diversity.
Program Duration	Start-up in Summer 2009. Services for customers with limited income will be an ongoing element of the program portfolio.
Program Description	Services for customers with limited income will be closely coordinated with the local weatherization agency and other applicable State and utility programs. In an ongoing effort, the utility intends to work with the agency responsible for implementing the Federal LIHEAP program to leverage their funding by subsidizing the installation of cost-effective electric measures, thereby increasing the number of homes served through the program.
Eligible Measures	Cost effective electric measures that will be permissible for this program include CFL's, refrigerator replacement, furnaces with high-efficiency motors, and weatherization measures that can reduce central air-conditioning use.
Implementation Strategy	Coordination with the local weatherization agency to subsidize the installation of cost-effective electric measures.
Marketing Strategy	Marketing will be closely coordinated with the local weatherization agency and the utility's implementation contractor. Key elements of the marketing strategy include: <ul style="list-style-type: none"> • Targeted outreach through local agencies • Posters in municipal buildings and at local community events
Milestones in 2009	<p>February-March: Develop Energy Optimization Plan</p> <p>April: File Energy Optimization Plan with MPSC</p> <p>April-May: Select program implementation contractor</p> <p>July: Launch program</p>
EM&V Requirements	Evaluation activity will focus on verification of installation and estimates of deemed savings.
Estimated Participation	Participation levels to be determined.

Estimated Budget	Annual Budgets			
	2009	2010	2011	2012
	\$4,800	\$11,700	\$18,050	\$24,200
Savings Targets	Energy Savings (Gross Annual kWh)			
	2009	2010	2011	2012
	7,385	18,000	27,769	37,231

Residential Programs

Program Element	Residential Efficient Lighting Program															
Objective	Produce long-term annual energy savings in the residential sector by increasing the market share of high-efficiency lighting products sold through retail sales channels.															
Target Market	All residential customers purchasing bulbs and fixtures through retail sales channels. Residential rental property owners and customers living in rental properties are also eligible.															
Program Duration	Start-up in July 2009 and will be an ongoing element of the program portfolio.															
Program Description	The Residential Lighting Program will be closely coordinated with other statewide utility initiatives in order to ensure that residential customers across the State have consistent opportunities and motivation to purchase high efficiency lighting products at local retailers. Customer incentives facilitate the increased purchase of high-efficiency products while in-store support makes provider participation easier.															
Eligible Measures	<p>Measures include: CFL's, Energy Star Lighting Fixtures, Energy Star Ceiling Fans and LED Holiday lights. Estimated gross energy savings:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: left;"><i>Measure</i></th> <th style="text-align: left;"><i>Eligibility</i></th> <th style="text-align: left;"><i>Gross Annual kWh Savings/ Unit</i></th> </tr> </thead> <tbody> <tr> <td>CFL</td> <td>Energy Star</td> <td>44.1</td> </tr> <tr> <td>Fixture</td> <td>Energy Star</td> <td>78</td> </tr> <tr> <td>Ceiling Fan</td> <td>Energy Star</td> <td>78</td> </tr> <tr> <td>LED Holiday Lights</td> <td></td> <td>11</td> </tr> </tbody> </table>	<i>Measure</i>	<i>Eligibility</i>	<i>Gross Annual kWh Savings/ Unit</i>	CFL	Energy Star	44.1	Fixture	Energy Star	78	Ceiling Fan	Energy Star	78	LED Holiday Lights		11
<i>Measure</i>	<i>Eligibility</i>	<i>Gross Annual kWh Savings/ Unit</i>														
CFL	Energy Star	44.1														
Fixture	Energy Star	78														
Ceiling Fan	Energy Star	78														
LED Holiday Lights		11														
Implementation Strategy	<ul style="list-style-type: none"> • Planning coordination with other utilities: The utility's implementation contractor will work closely with other appropriate Michigan utilities to coordinate incentive levels, marketing materials, and market provider outreach. • Manufacturer/retailer recruitment for buy-down component: The utility's implementation contractor will work closely with other Michigan utilities to solicit manufacturer/retailer participation for the mark-down component of the program. • Retailer recruitment, education and outreach: The utility's implementation contractor will recruit local retailers for participation in the coupon components of the program. • Incentive processing: The utility's implementation contractor will manage prompt processing of retailer/customer incentive payments. • Bulb recycling: The utility's implementation contractor will deploy recycling bins for bulb collection at all participating retailers. Retailers will be given training on proper sealing, labeling, and transportation for the bins. 															

	<table border="1"> <thead> <tr> <th><i>Measure</i></th> <th><i>Eligibility</i></th> <th><i>Incentive per Unit</i></th> </tr> </thead> <tbody> <tr> <td>CFL</td> <td>Energy Star</td> <td>\$1.50</td> </tr> <tr> <td>Fixture</td> <td>Energy Star</td> <td>\$15.00</td> </tr> <tr> <td>Ceiling Fan</td> <td>Energy Star</td> <td>\$15.00</td> </tr> <tr> <td>LED Holiday Lights</td> <td></td> <td>\$3.00</td> </tr> </tbody> </table>	<i>Measure</i>	<i>Eligibility</i>	<i>Incentive per Unit</i>	CFL	Energy Star	\$1.50	Fixture	Energy Star	\$15.00	Ceiling Fan	Energy Star	\$15.00	LED Holiday Lights		\$3.00
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CFL	Energy Star	\$1.50														
Fixture	Energy Star	\$15.00														
Ceiling Fan	Energy Star	\$15.00														
LED Holiday Lights		\$3.00														
Marketing Strategy	<p>The program will primarily be marketed through displays and materials at participating retailers. Materials will employ a strong consumer education component emphasizing the benefits of high-efficiency lighting products (lifetime dollar savings, energy savings, longer life, safety, appropriate light quality, etc.) Marketing materials will leverage the ENERGY STAR brand, which enjoys a high level of consumer recognition and favorable associations. Key elements of the marketing strategy include:</p> <ul style="list-style-type: none"> • Point-of-purchase displays • Cooperative advertising with retailers 															
Milestones in 2009	<p>February-March: Develop Energy Optimization Plan April: File Energy Optimization Plan with MPSC April-May: Select program implementation contractor July: Launch program</p>															
EM&V Requirements	<p>Deemed savings values were based on documented values from the Michigan Statewide Deemed Savings Database (as identified by MPSC Order U-15800.) Evaluation activity will focus on verification of installation and estimates of deemed savings.</p>															
Estimated Participation	<table border="1"> <thead> <tr> <th colspan="4">Participation (in Units of Installed Measures)</th> </tr> <tr> <th>2009</th> <th>2010</th> <th>2011</th> <th>2012</th> </tr> </thead> <tbody> <tr> <td>1,519</td> <td>2,279</td> <td>2,848</td> <td>3,703</td> </tr> </tbody> </table>	Participation (in Units of Installed Measures)				2009	2010	2011	2012	1,519	2,279	2,848	3,703			
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Residential Programs

Program Element	Residential Refrigerator/Freezer Turn-In and Recycling Program									
Objective	Produce long-term annual 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	Residential customers who are currently operating older, inefficient refrigerators and/or freezers either as primary or secondary units.									
Program Duration	Start-up in July 2009 and will be an ongoing element of the program portfolio.									
Program Description	The average household replaces a refrigerator every ten years. However, many of the refrigerators being replaced are still functioning, so they often become backup appliances – energy guzzlers in basements and garages – or sold in a used-market. The Turn-In Program will be established to target those “second” refrigerators and freezers, providing the dual benefit of cutting energy consumption and keeping the appliances out of the used-market.									
Eligible Measures	<p>The measures listed below have been specified for planning purposes. Deemed savings values were based on documented values from the Michigan Statewide Deemed Savings Database (as identified by MPSC Order U-15800.) The utility will revise eligible measures as needed in accordance with current market conditions, technology development, EM&V results, and program implementation experience.</p> <table border="1" data-bbox="532 1192 1479 1402"> <thead> <tr> <th data-bbox="540 1199 889 1255"><i>Measure</i></th> <th data-bbox="889 1199 1182 1255"><i>Eligibility</i></th> <th data-bbox="1182 1199 1471 1255"><i>Gross Annual kWh Savings/ Unit</i></th> </tr> </thead> <tbody> <tr> <td data-bbox="540 1283 889 1325">Recycled Refrigerator</td> <td data-bbox="889 1283 1182 1325">Operable unit</td> <td data-bbox="1182 1283 1471 1325">1,672</td> </tr> <tr> <td data-bbox="540 1346 889 1388">Recycled Freezer</td> <td data-bbox="889 1346 1182 1388">Operable unit</td> <td data-bbox="1182 1346 1471 1388">1,551</td> </tr> </tbody> </table>	<i>Measure</i>	<i>Eligibility</i>	<i>Gross Annual kWh Savings/ Unit</i>	Recycled Refrigerator	Operable unit	1,672	Recycled Freezer	Operable unit	1,551
<i>Measure</i>	<i>Eligibility</i>	<i>Gross Annual kWh Savings/ Unit</i>								
Recycled Refrigerator	Operable unit	1,672								
Recycled Freezer	Operable unit	1,551								
Implementation Strategy	<ul style="list-style-type: none"> • Planning coordination with other utilities: The utility’s implementation contractor will work closely with other appropriate Michigan utilities to coordinate incentive levels, eligibility requirements, marketing materials, and selection of a recycling contractor. • Turn-key appliance pick-up/recycling: The utility’s implementation contractor will select a qualified recycling service subcontractor to provide comprehensive, turn-key implementation services from eligibility verification and scheduling of pick-ups to proper disposal and recycling of turned-in appliances. • Incentive coordination and processing: The utility’s implementation contractor will coordinate prompt processing of incentive payments. <p><i>Incentives for this program will be \$20 per unit.</i></p>									
Marketing Strategy	All marketing materials will carry a strong consumer education message emphasizing the cost of operating older, inefficient appliances, the benefits of early replacement with ENERGY STAR qualified models, and the importance of proper disposal and recycling of older units. Marketing materials will leverage the ENERGY STAR brand, which enjoys									

	<p>a high level of consumer recognition and favorable associations. Key elements of the marketing strategy include:</p> <ul style="list-style-type: none"> • Website links to EPA’s new “ENERGY STAR Recycle My Old Fridge Campaign” at www.recyclemyoldfridge.com. Includes calculators to estimate savings. • Point-of-purchase displays • Cooperative advertising with retailers • Posters in municipal buildings 												
<p>Milestones in 2009</p>	<p>February-March: Develop Energy Optimization Plan April: File Energy Optimization Plan with MPSC April-May: Select program implementation contractor July: Launch program</p>												
<p>EM&V Requirements</p>	<p>Evaluation activity will focus on verification of installation and estimates of deemed savings.</p>												
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62,689	94,034	117,542	176,313										

Residential Programs

Program Element	Residential High-Efficiency Appliances and Electronics Program																		
Objective	Produce long-term annual energy savings in the residential sector by promoting high-efficiency appliances and electronics. Initially the program will promote high-efficiency clothes washers and the early retirement and recycling of older, inefficient room air-conditioners and dehumidifiers and replacement with ENERGY STAR units.																		
Target Market	Residential customers purchasing new clothes washers and customers who are currently operating older, inefficient room air-conditioners and dehumidifiers. Residential rental property owners are also eligible.																		
Program Duration	Start-up in 2010. This will be an ongoing element of the program portfolio.																		
Program Description	<p>This program will provide incentives to customers to encourage them to replace their older, inefficient dehumidifiers and room air-conditioners with high-efficiency ENERGY STAR qualified units. Since the retail market share of ENERGY STAR dehumidifiers and room air-conditioners is high, this program focuses instead on rewarding early replacement of older units that are still functioning. The program will partner with a local retailer to sponsor special turn-in events at which customers receive a rebate toward the purchase of a new ENERGY STAR qualified dehumidifier and/or room air conditioner when they turn in a functioning used unit. Customers also receive a rebate for turning in a functioning unit even if they are not purchasing a new one. Turned-in units will be collected at each event and transported for appropriate recycling.</p> <p>The program will also provide incentives for clothes washers that meet the highest efficiency standards (CEE Levels 2 & 3). This initiative will be coordinated with the local natural gas utility so that the electric utility pays a portion of the incentive based on the estimated % of customers with electric water heating and the natural gas utility pays a portion of the incentive based on the estimated % of customers with gas water heating. In future years, the program may target other cost-effective options for high-efficiency appliances and electronics.</p>																		
Eligible Measures	<p>The measures listed below have been specified for planning purposes. Deemed savings values were based on documented values from the Michigan Statewide Deemed Savings Database (as identified by MPSC Order U-15800.) The utility will revise eligible measures as needed in accordance with current market conditions, technology development, EM&V results, and program implementation experience</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th><i>Measure</i></th> <th><i>Eligibility</i></th> <th><i>Gross Annual kWh Savings/ Unit</i></th> </tr> </thead> <tbody> <tr> <td>Clothes Washer</td> <td>CEE Level 2</td> <td>322</td> </tr> <tr> <td>Clothes Washer</td> <td>CEE Level 3</td> <td>372</td> </tr> <tr> <td>Room AC Purchase</td> <td>ENERGY STAR</td> <td>42</td> </tr> <tr> <td>Room AC Turn-in</td> <td>Operable unit</td> <td>113</td> </tr> <tr> <td>Dehumidifier Purchase</td> <td>ENERGY STAR</td> <td>84.1</td> </tr> </tbody> </table>	<i>Measure</i>	<i>Eligibility</i>	<i>Gross Annual kWh Savings/ Unit</i>	Clothes Washer	CEE Level 2	322	Clothes Washer	CEE Level 3	372	Room AC Purchase	ENERGY STAR	42	Room AC Turn-in	Operable unit	113	Dehumidifier Purchase	ENERGY STAR	84.1
<i>Measure</i>	<i>Eligibility</i>	<i>Gross Annual kWh Savings/ Unit</i>																	
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Room AC Purchase	ENERGY STAR	42																	
Room AC Turn-in	Operable unit	113																	
Dehumidifier Purchase	ENERGY STAR	84.1																	

	Dehumidifier Turn-in	Operable unit	139																					
Implementation Strategy	<ul style="list-style-type: none"> • Planning coordination with other utilities: The utility's implementation contractor will work closely with other appropriate Michigan utilities to coordinate incentive levels, eligibility requirements, marketing materials, and retailer outreach. • Retailer recruitment, education and outreach. The utility's implementation contractor will utilize a field representative to facilitate the recruitment of a host retailer(s) including determining the volume of units by retailer to meet the program's unit goal. • Incentive coordination and processing: The utility's implementation contractor will coordinate the delivery of rebate coupons and materials to participating retailers and will manage prompt processing of incentive payments. • Appliance turn-in and recycling: The utility's implementation contractor will work with the host retailer(s) to coordinate the logistics of the turn-in component of the promotion. The contractor will also coordinate the collection, transportation and recycling of turned-in units through the municipal waste management services or through a private recycling firm. <table border="1"> <thead> <tr> <th>Measure</th> <th>Eligibility</th> <th>Incentive per Unit</th> </tr> </thead> <tbody> <tr> <td>Clothes Washer</td> <td>CEE Level 2</td> <td>\$50</td> </tr> <tr> <td>Clothes Washer</td> <td>CEE Level 3</td> <td>\$50</td> </tr> <tr> <td>Room AC Purchase</td> <td>ENERGY STAR</td> <td>\$15</td> </tr> <tr> <td>Room AC Turn-in</td> <td>Operable unit</td> <td>\$20</td> </tr> <tr> <td>Dehumidifier Purchase</td> <td>ENERGY STAR</td> <td>\$15</td> </tr> <tr> <td>Dehumidifier Turn-in</td> <td>Operable unit</td> <td>\$20</td> </tr> </tbody> </table>			Measure	Eligibility	Incentive per Unit	Clothes Washer	CEE Level 2	\$50	Clothes Washer	CEE Level 3	\$50	Room AC Purchase	ENERGY STAR	\$15	Room AC Turn-in	Operable unit	\$20	Dehumidifier Purchase	ENERGY STAR	\$15	Dehumidifier Turn-in	Operable unit	\$20
Measure	Eligibility	Incentive per Unit																						
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Marketing Strategy	<p>All marketing materials will carry a strong consumer education message emphasizing the cost of operating older, inefficient appliances and the benefits of early replacement with ENERGY STAR qualified models (lifetime dollar savings, energy savings, lower noise, etc.). Marketing materials will leverage the ENERGY STAR brand, which enjoys a high level of consumer recognition and favorable associations. Key elements of the marketing strategy include:</p> <ul style="list-style-type: none"> • Point-of-purchase displays • Cooperative advertising with retailers • Posters and Outside banner for turn-in events 																							
Milestones	<p>February-March: Develop Energy Optimization Plan April: File Energy Optimization Plan with MPSC April-May: Select program implementation contractor July 2010: Launch program</p>																							
EM&V Requirements	Evaluation activity will focus on verification of installation and estimates of deemed savings.																							
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Estimated Budget	Annual Budgets			
	2009	2010	2011	2012
		\$1,804	\$2,940	\$4,763
Savings Targets	Energy Savings (Gross Annual kWh)			
	2009	2010	2011	2012
		3,830	5,745	9,192

Residential Programs

Program Element	Residential High-Efficiency HVAC Equipment																
Objective	Produce long-term annual energy savings in the residential sector by promoting the purchase and installation of high-efficiency heating and cooling equipment.																
Target Market	Residential customers installing new central AC units and/or furnaces.																
Program Duration	Start-up in 2010. This will be an ongoing element of the program portfolio.																
Program Description	<p>The High-Efficiency Equipment program will promote heating and cooling technologies that can reduce electric energy use. Initially the program will focus on the promotion of high-efficiency central air-conditioning and premium efficiency furnaces that have high-efficiency motors (electrically commutated motors – ECMs). ECM motors save electric energy during the heating and cooling seasons.</p> <p>Although federal efficiency standards for central air-conditioning have recently increased, there are still opportunities to promote units that exceed the current standards and thus achieve additional energy savings. The program will provide incentives for high-efficiency central air-conditioners when installed along with an ECM furnace.</p> <p>Since the primary type of heating system in the utility’s service area is natural gas forced air, this program hopes to closely coordinate with the local natural gas provider so that incentives can be coordinated on units that have the high-efficiency motors. As the program matures, additional emphasis may be placed on quality installation and appropriate sizing to further enhance energy savings.</p>																
Eligible Measures	<p>The measures listed below have been specified for planning purposes. Deemed savings values were based on documented values from the Michigan Statewide Deemed Savings Database (as identified by MPSC Order U-15800.) The utility will revise eligible measures as needed in accordance with current market conditions, technology development, EM&V results, and program implementation experience.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 25%; text-align: center;"><i>Eligibility</i></th> <th style="width: 25%; text-align: center;"><i>Gross Annual kWh Savings/ Unit</i></th> </tr> </thead> <tbody> <tr> <td>Central AC</td> <td style="text-align: center;">SEER 14</td> <td style="text-align: center;">405</td> </tr> <tr> <td>Central AC</td> <td style="text-align: center;">SEER 15</td> <td style="text-align: center;">435</td> </tr> <tr> <td>Central AC</td> <td style="text-align: center;">SEER16</td> <td style="text-align: center;">328</td> </tr> <tr> <td>Furnace with ECM motor</td> <td style="text-align: center;">ECM motor</td> <td style="text-align: center;">773</td> </tr> </tbody> </table>			<i>Eligibility</i>	<i>Gross Annual kWh Savings/ Unit</i>	Central AC	SEER 14	405	Central AC	SEER 15	435	Central AC	SEER16	328	Furnace with ECM motor	ECM motor	773
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Furnace with ECM motor	ECM motor	773															

Implementation Strategy	<ul style="list-style-type: none"> • Planning coordination with other utilities: The utility's implementation contractor will work closely with other appropriate Michigan utilities to coordinate incentive levels, eligibility requirements, marketing materials, and contractor outreach. • Contractor recruitment, education and outreach. The utility's implementation contractor will utilize a field representative to facilitate the recruitment of local HVAC contractors to participate in the program. • Application processing: The utility's implementation contractor will coordinate processing of all rebate applications. <table border="1" data-bbox="537 457 1380 693"> <thead> <tr> <th>Measure</th> <th>Eligibility</th> <th>Tentative Incentive per Unit</th> </tr> </thead> <tbody> <tr> <td>Central AC</td> <td>SEER 14</td> <td>\$150</td> </tr> <tr> <td>Central AC</td> <td>SEER 15</td> <td>\$100</td> </tr> <tr> <td>Central AC</td> <td>SEER16</td> <td>\$250</td> </tr> <tr> <td>Furnace with ECM motor</td> <td>ECM motor</td> <td>\$350</td> </tr> </tbody> </table>	Measure	Eligibility	Tentative Incentive per Unit	Central AC	SEER 14	\$150	Central AC	SEER 15	\$100	Central AC	SEER16	\$250	Furnace with ECM motor	ECM motor	\$350
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Central AC	SEER 14	\$150														
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Central AC	SEER16	\$250														
Furnace with ECM motor	ECM motor	\$350														
Marketing Strategy	The HVAC Equipment program will be primarily marketed through local contractors, the most direct influencers of customer purchase decisions. Contractors will receive educational materials to share with their customers as well as access to cooperative advertising dollars. Marketing materials will be coordinated with the local natural gas provider.															
Milestones	<p>February-March: Develop Energy Optimization Plan April: File Energy Optimization Plan with MPSC April-May: Select program implementation contractor July 2010: Launch program</p>															
EM&V Requirements	Evaluation activity will focus on verification of installation and estimates of deemed savings.															
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Energy Savings (Gross Annual kWh)																
2009	2010	2011	2012													
	2,368	3,552	5,683													

Residential Programs

Program Element	Residential Education Services												
Objective	<ul style="list-style-type: none"> • To develop broad consumer awareness of the benefits of energy conservation and efficiency. • To provide educational materials and services that motivate customers to participate in the utility's energy optimization programs and to motivate behavior change that can further reduce energy consumption. 												
Target Market	All residential customers												
Program Duration	Start-up in July 2009. Will be an ongoing element of the program portfolio.												
Program Description	In addition to the Residential Solutions programs, the utility plans to implement educational outreach initiatives to build and expand consumer awareness of energy efficiency and energy conservation opportunities.												
Eligible Measures	Not applicable for this program.												
Implementation Strategy	<p>The following types of initiatives will be considered for implementation:</p> <ul style="list-style-type: none"> • Develop, produce, and distribute energy efficiency tips and information about the energy efficiency portfolio through bill inserts and newsletters. • Work with local Chamber of Commerce, Mayor's office, municipal government agencies and other civic organizations to distribute educational material promoting the benefits of energy conservation and efficiency. Make presentations at their constituent meetings and other joint ventures. • Provide energy education/awareness booths at scheduled community fairs and trade shows. 												
Marketing Strategy	See implementation strategy for a list of marketing activities.												
Milestones in 2009	<p>February-March: Develop Energy Optimization Plan April: File Energy Optimization Plan with MPSC April-May: Select program implementation contractor July: Launch program</p>												
EM&V Requirements	None at this time.												
Estimated Participation	To be determined.												
Estimated Budget	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th colspan="4">Annual Budgets</th> </tr> <tr> <th>2009</th> <th>2010</th> <th>2011</th> <th>2012</th> </tr> </thead> <tbody> <tr> <td>\$720</td> <td>\$1,755</td> <td>\$2,708</td> <td>\$3,630</td> </tr> </tbody> </table>	Annual Budgets				2009	2010	2011	2012	\$720	\$1,755	\$2,708	\$3,630
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Savings Targets	Energy Savings (Gross Annual kWh)			
	2009	2010	2011	2012
	6,394	10,704	15,920	21,017

Business Programs

Program Element	Commercial Prescriptive Incentive Program
Objective	<p>There are two primary objectives for the Commercial Prescriptive Incentive Program:</p> <ol style="list-style-type: none"> 1) Increase the market share of a targeted group of commercial high-efficiency electric technologies sold through market channels. 2) Increase the installation rate of a targeted group of high-efficiency electric technologies in commercial facilities by businesses that would not have done so in the absence of the program.
Target Market	<p>All business customers are eligible to participate in the Commercial Prescriptive Incentive Program when they purchase qualifying equipment. However, the program will utilize a targeted outreach strategy to influence specific markets.</p> <ol style="list-style-type: none"> 1) Market Providers (wholesalers, distributors, contractors, and retail stores that will promote the qualifying technologies) 2) High-impact/high-need customer sectors (such as schools, municipal buildings, hospitals, food service, and hospitality)
Program Duration	<p>Start-up in July 2009. The Prescriptive Incentive Program will be an ongoing element of the program portfolio.</p>
Program Description	<p>The program will affect the purchase and installation of high-efficiency technologies through a combination of market push and pull strategies that stimulate market demand while simultaneously increasing market provider investment in stocking and promoting them.</p> <p>The program will increase demand by educating business customers about the energy and money saving benefits associated with efficient products and equipping market providers to communicate those benefits directly to their customers. To address the first-cost barrier for customers, the program will utilize financial incentives (i.e. cash-back mail-in rebates) averaging 20% to 40% of the incremental cost of purchasing qualifying technologies.</p> <p>The program will stimulate market provider investment in stocking and promoting efficient products through a targeted outreach effort. The implementation contractor will employ field sales representatives to proactively train and equip market providers to convey the energy and money saving benefits to consumers. Further, the existence of cash-back incentives will elevate efficiency to a competitive issue that will naturally motivate market providers to stock and promote targeted products.</p>
Eligible Measures	<p>The Prescriptive Incentive Program targets measures where the unit energy savings can be reliably predicted and therefore standard per-measure savings (“deemed savings”) and incentive levels can be established. This simplifies the application process and reduces administrative costs. The measures, savings and incentive levels listed below have been specified for planning purposes only. Deemed savings values were based on documented values from the Michigan Statewide Deemed Savings Database (as identified by MPSC Order U-15800.) The utility will revise eligible measures and incentive levels as needed in accordance with current market conditions, technology development, EM&V results, and program implementation experience. Table below shows both energy savings and proposed incentive levels.</p>

Measure	Incentive per Unit	Electrical Energy Savings/ Unit (kWh)
Lighting		
Central lighting Control	\$600.00	11,500
Daylighting Controls - Automatic stepped, minimum 3 lighting levels	\$900.00	14,800
Occupancy Sensors - ≤ 500 Watts	\$30.00	397
Occupancy Sensors - > 500 Watts	\$50.00	994
Occupancy Sensors or Multi-level Switching	\$600.00	8,000
Exterior Bi-Level Control W/ override 150-1000W HID	\$125.00	743
Sports Field Hi-Low Control	\$175.00	149
CFL ≤30 Watts - Replaces Incandescent	\$2.00	202
CFL High Wattage > 31Watts - Replaces Incandescent	\$5.00	202
CFL Fixture - Replaces Incandescent Fixture	\$22.00	342
CFL Reflector Flood Lamps - Replaces incandescent reflector flood lamps	\$5.00	147
T8 4ft 1 lamp	\$7.50	48
T8 4ft 2 lamp	\$9.00	70
T8 4ft 3 lamp	\$16.50	129
T8 4ft 4 lamp	\$19.50	140
T8 8ft 1 lamp	\$10.50	40
T8 8ft 2 lamp	\$13.50	74
T8 2ft 1 lamp	\$7.50	29
T8 2ft 2 lamp	\$9.00	37
T8 2ft 3 lamp	\$9.30	74
T8 2ft 4 lamp	\$12.00	81
T8 3ft 1 lamp	\$7.50	40
T8 3ft 2 lamp	\$9.00	37
T8 3ft 3 lamp	\$12.75	44
T8 3ft 4 lamp	\$18.00	74
T5 1L (w/electronic ballast) replacing T12	\$10.50	44
T5 2L replacing T12	\$15.00	44
T5 3L replacing T12	\$18.00	99
T5 4L replacing T12	\$21.00	88
T5 HO 1L replacing T12	\$12.00	55
T5 HO 2L replacing T12	\$16.50	70
T5 HO 3L replacing T12	\$19.50	92
T5 HO 4L replacing T12	\$22.50	191
T8 LW HP 1L-4 ft	\$6.00	29
T8 LW HP 2L-4 ft	\$9.00	48
T8 LW HP 3L-4 ft	\$15.00	62
T8 LW HP 4L-4 ft	\$18.00	92
T8 HO 8 ft 1 Lamp	\$18.00	92
T8 HO 8 ft 2 Lamp	\$24.00	184
T12 8ft 1 lamp retrofit to HPT8 T8 4ft 2 lamp	\$15.00	67
T12 8ft 2 lamp retrofit to HPT8 T8 4ft 4 lamp	\$22.50	49
T12HO 8ft 1 lamp retrofit to HPT8 T8 4ft 2 lamp	\$20.00	174
T12HO 8ft 2 lamp retrofit to HPT8 T8 4ft 4 lamp	\$30.00	293
HPT8 4ft 1 lamp, T8 to HPT8	\$4.00	19

HPT8 4ft 2 lamp, T8 to HPT8	\$6.00	31
HPT8 4ft 3 lamp, T8 to HPT8	\$10.00	35
HPT8 4ft 4 lamp, T8 to HPT8	\$12.00	52
HPT8 4ft 1 lamp, T12 to HPT8	\$6.00	63
HPT8 4ft 2 lamp, T12 to HPT8	\$8.00	82
HPT8 4ft 3 lamp, T12 to HPT8	\$12.00	145
HPT8 4ft 4 lamp, T12 to HPT8	\$16.00	170
LW HPT8 4ft 1 lamp, T8LWT8	\$6.00	29
LW HPT8 4ft 2 lamp, T8LWT8	\$9.00	48
LW HPT8 4ft 3 lamp, T8LWT8	\$15.00	62
LW HPT8 4ft 4 lamp	\$18.00	92
High Bay T5 HO 3L	\$80.00	449
High Bay T5 HO 4L	\$96.00	882
High Bay T5 HO 6L	\$150.00	374
High Bay T5 HO 6L (double fixture replacing 1000w HID)	\$300.00	1,456
High Bay T8 F32 4L	\$75.00	616
High Bay T8 F32 6L	\$80.00	961
High Bay T8 F32 8L	\$100.00	649
High Bay T8 F32 8L (double fixture replacing 1000W HID)	\$200.00	2,005
High Bay CFL 42W 8L	\$75.00	345
Metal Halide (MH), Electronic Ballast, Pulse Start (retrofit only)	\$75.00	430
LED HE Exterior - replaces \leq 175W Induction HID (retrofit only)	\$120.00	268
LED HE Exterior - replaces 175-250W Induction HID (retrofit only)	\$150.00	409
LED HE Exterior - replaces 250-400W Induction HID (retrofit only)	\$180.00	706
LED HE Garage - replaces \leq 175W Induction HID (retrofit only)	\$120.00	611
LED HE Garage - replaces 175-250W Induction HID (retrofit only)	\$150.00	936
LED HE Garage - replaces 250-400W Induction HID (retrofit only)	\$180.00	1,614
LED Exit Lighting - (retrofit only)	\$12.50	201
LED Traffic Signal	\$25.00	275
LED Pedestrian Signals	\$50.00	150
HVAC		
A/C <65 MBh, \geq 14.0SEER or \geq 11.6 EER	\$150.00	369
A/C 65-134 MBh, \geq 11.5 EER	\$400.00	1,008
A/C 135-239 MBh, \geq 11.5 EER	\$800.00	2,916
A/C 240-759 MBh, \geq 10.5 EER	\$1,000.00	3,222
Heat Pump <65 MBh, \geq 14.0SEER or \geq 11.6 EER	\$130.00	220
Heat Pump 65-134 MBh, \geq 11.5 EER	\$400.00	639
Heat Pump 135-239 MBh, \geq 11.5 EER	\$700.00	774
Heat Pump 240-759 MBh, \geq 10.5 EER	\$900.00	1,386
Air Cooled Chiller	\$8,000.00	29,565
Water Cooled Chiller < 150 ton	\$2,000.00	15,120
Water Cooled Chiller 150 - 300 ton	\$9,200.00	45,540
Water Cooled Chiller > 300 ton	\$40,000.00	198,000
Motors		
Motor $1 \leq X < 5$ HP	\$40.00	113

	Motor $7.5 \leq X < 20$ HP	\$104.00	408
	Motor $25 \leq X < 100$ HP	\$275.00	1,056
	Motor $125 \leq X < 250$ HP	\$720.00	2,435
Drives			
	Drive 1.5 HP	\$90.00	1,623
	Drive 2 HP	\$120.00	2,165
	Drive 3 HP	\$180.00	3,246
	Drive 5 HP	\$300.00	5,357
	Drive 7.5 HP	\$450.00	8,116
	Drive 10 HP	\$600.00	10,713
	Drive 15 HP	\$900.00	16,232
	Drive 20 HP	\$1,200.00	21,643
	Drive 25 HP	\$1,500.00	27,054
	Drive 30 HP	\$1,800.00	32,465
	Drive 40 HP	\$2,400.00	43,286
	Drive 50 HP	\$3,000.00	54,108
	Drive - Planning Purposes	\$2,500.00	78,269
Food Service			
	Vending Equipment Controller	\$50.00	800
	ENERGY STAR Commercial Solid Door Refrigerators < 20ft3	\$125.00	905
	ENERGY STAR Commercial Solid Door Refrigerators 20 to 48 ft3	\$250.00	1,069
	ENERGY STAR Commercial Solid Door Refrigerators > 48ft3	\$450.00	1,361
	ENERGY STAR Commercial Solid Door Freezers less than 20ft3	\$75.00	520
	ENERGY STAR Commercial Solid Door Freezers 20 to 48 ft3	\$200.00	507
	ENERGY STAR Commercial Solid Door Freezers > 48ft3	\$350.00	483
	ENERGY STAR Ice Machines less than 500 lbs	\$300.00	1,652
	ENERGY STAR Ice Machines 500 to 1000 lbs	\$450.00	2,695
	ENERGY STAR Ice Machines more than 1000 lbs	\$1,000.00	6,048
	ENERGY STAR Steam Cookers 3 Pan	\$450.00	11,188
	ENERGY STAR Steam Cookers 4 Pan	\$600.00	12,159
	ENERGY STAR Steam Cookers 5 Pan	\$750.00	13,139
	ENERGY STAR Steam Cookers 6 Pan	\$900.00	15,170
	ENERGY STAR Hot Holding Cabinets Half Size	\$350.00	1,788
	ENERGY STAR Hot Holding Cabinets Three Quarter Size	\$400.00	2,832
	ENERGY STAR Hot Holding Cabinets Full Size	\$600.00	5,278
	ENERGY STAR Fryers	\$225.00	983
	Griddle - cooking efficiency = 0.70	\$300.00	1,637
	Convection Ovens - cooking efficiency = 0.70	\$300.00	2,262
	Combination Ovens - cooking efficiency = 0.60	\$1,500.00	18,432
	Pre Rinse Sprayers - < 1.6 gpm	\$25.00	1,396
	Anti Sweat Heater Controls	\$100.00	1,489
Implementation Strategy	<ul style="list-style-type: none"> • Planning coordination with other utilities: The utility's implementation contractor will work closely with other appropriate Michigan utilities to coordinate incentive levels, eligibility requirements, marketing materials, and outreach. • Outreach to market providers. The implementation contractor will inform and recruit 		

	<p>participating market providers. Outreach will include orientation meetings and conducting in-person visits aimed at training and equipping market providers to communicate program information to customers. The Contractor will ensure that providers have an updated stock of program materials. Key market providers that will be targeted include:</p> <ul style="list-style-type: none"> • Lighting distributors, wholesalers, • HVAC distributors and retail contractors • Motors/compressed air vendors • Food service equipment distributors and retailers • Engineering firms <ul style="list-style-type: none"> • <i>Outreach to targeted customers.</i> The implementation contractor will personally contact energy managers and decision makers within the targeted customer sectors. The Contractor will assist business customers in determining whether the prescriptive incentives or the custom approach would be most appropriate for their operations. The utility’s customer service representatives may also assist with outreach within the course of their regular contacts with business customers.
<p>Marketing Strategy</p>	<p>The Commercial Prescriptive Incentive Program will employ the following marketing strategies:</p> <ul style="list-style-type: none"> • <i>Engage market providers.</i> Outreach and training will be provided to a targeted group of providers that have business motivations for promoting Prescriptive Incentives to their customers. • <i>Directly market to targeted customers.</i> Depending on potential budget limitations, the utility may decide to initially pursue a very targeted marketing strategy with business customers to ensure that the program isn’t over-subscribed. Initial targeted customer sectors might include schools, municipal office buildings, retail, food service, and lodging.
<p>Milestones in 2009</p>	<p>February-March: Develop Energy Optimization Plan April: File Energy Optimization Plan with MPSC April-May: Select program implementation contractor July: Launch program</p>
<p>EM&V Requirements</p>	<p>The utility’s implementation contractor will be responsible for implementing the following types of measurement and verification activities to facilitate the utility’s third-party evaluation work:</p> <ul style="list-style-type: none"> • Collect and track all customer, measure installation, and incentive data. • Verify that each product on which incentives are paid meets the prescribed efficiency standards using third party databases (e.g. ENERGY STAR, GAMA, ARI). Products that cannot be verified using a credible third party database will be considered on a case-by-case basis; product performance information will be requested from the contractor or manufacturer and efficiency will be verified by a qualified engineer. • Conduct on-site inspections of 2% to 5% of equipment for which customers receive incentives to verify that products were installed and that the model and serial numbers match those provided on the incentive claim. Any inconsistencies will be researched and the resolution recorded. Market providers associated with inconsistencies will receive follow up inspections on projects that they are associated with.
<p>Estimated Participation</p>	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>Participation (in Units of Installed Measures)</p> </div>

	2009	2010	2011	2012
	523	1,664	2,668	3,289
Estimated Budget	Annual Budgets			
	2009	2010	2011	2012
	\$15,825	\$50,537	\$81,011	\$99,887
Savings Targets	Energy Savings (Gross Annual kWh)			
	2009	2010	2011	2012
	115,268	366,753	587,905	724,886

Business Programs

Program Element	Commercial/Industrial Custom Incentive Program
Objective	Affect the installation of site-specific and unique energy efficiency technologies and process improvements (that do not fit the parameters of the prescriptive incentive program) by business customers that would not have done so in the absence of the program.
Target Market	<p>The Custom Incentive Program will be available to all commercial and industrial customers. The program will serve all customer requests, but the utility will work with its implementation contractor to identify a select group of customers whose operations could most benefit from a custom approach. Target markets could include:</p> <ul style="list-style-type: none"> • Large manufacturing facilities • Hospitals • Schools • Lodging/hospitality
Program Duration	Start-up in July 2009. The Custom Incentive Program will be an ongoing element of the program portfolio.
Program Description	<p>The utility is interested in providing a seamless set of energy efficiency services to its business customers. Over the long term, the Custom Incentive Program will allow the utility to develop and enhance the assistance they can provide to businesses with unique opportunities – including industrial process improvements, emerging technologies, and new facility design and/or modernization.</p> <p>The Custom Incentive Program helps customers and market providers identify more complex energy savings projects, analyze the economics of each project, and complete a customized incentive grant application. If additional budget is available, the program could also approve and co-fund a limited number of investment-grade audits and/or feasibility studies to assess opportunities and motivate the customer to take action.</p>
Eligible Measures	The Custom Incentive Program identifies unique measures for each participant, so specific savings and incentives are determined when the project is specified. Any cost-effective electrical measure that is not covered by the Prescriptive Incentive Program is potentially eligible.
Implementation Strategy	<p>Key elements of the implementation strategy include:</p> <ul style="list-style-type: none"> • Outreach to targeted customers. The utility’s implementation contractor will work closely with the utility to identify and conduct face-to-face meetings with key end-use customers to recruit their participation. The contractor will target decision makers within the customer’s organization including: energy managers, facility managers, financial and operations managers, chief engineer and facility/property managers, maintenance supervisors, and building operators. • Outreach to key influencers. The implementation contractor’s energy advisor(s) will work to generate awareness of the Custom Incentive Program through presentations and seminars with appropriate trade associations (ASHRAE, BOMA, school administrators,

	<p>etc.).</p> <ul style="list-style-type: none"> • Outreach to market providers. The energy advisor(s) will also conduct in person visits to key market providers at their place of business to recruit their support in providing referrals of custom incentive projects. • Technical assistance: The implementation contractor’s energy advisors will provide engineering support to identify and analyze the cost-effectiveness of energy saving opportunities. The energy advisor will work with the customer and/or market provider to complete custom engineering calculations that assess the energy savings potential, payback horizon, project eligibility, and incentive amount. If the project is deemed eligible, the advisor will assist the customer or market provide in completing a Custom Incentive grant application. • Quality assurance: Incentive applications will be subject to a quality assurance review by program technical staff to ensure accuracy of savings estimates and incentive calculations. • Verification: The implementation contractor will provide on-site verification for a specified % of completed projects. 															
Marketing Strategy	<p>The marketing strategy for the Custom Incentive Program is a very direct networking approach with trade groups, business associations, and key customers. The program will affect the purchase and installation of efficient technologies or implementation of process improvements by working directly with :</p> <ul style="list-style-type: none"> • Key end-use customers, and • Market providers – to identify potential energy savings projects, analyze the economics of each project, and complete an incentive grant application. <p>This strategy for prospecting for projects is highly dependent upon referrals and networking with trade allies and utility staff to identify projects.</p>															
Milestones in 2009	<p>February-March: Develop Energy Optimization Plan April: File Energy Optimization Plan with MPSC April-May: Select program implementation contractor July: Launch program</p>															
EM&V Requirements	<p>To facilitate accurate measurement and verification the utility will collect the following information on each incentive transaction:</p> <ul style="list-style-type: none"> • Business customer data (e.g. name, address, telephone, e-mail) • Installation data (e.g. address, date, contactor) • Complete project and measure information (e.g. quantity, model, serial number, efficiency and payback calculations) • Transaction data (e.g. invoice, measure cost, purchase date) 															
Estimated Participation	<table border="1" data-bbox="522 1577 1386 1696"> <thead> <tr> <th colspan="5">Participation</th> </tr> <tr> <th></th> <th>2009</th> <th>2010</th> <th>2011</th> <th>2012</th> </tr> </thead> <tbody> <tr> <td>Number of custom projects</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table>	Participation						2009	2010	2011	2012	Number of custom projects	N/A	N/A	N/A	N/A
Participation																
	2009	2010	2011	2012												
Number of custom projects	N/A	N/A	N/A	N/A												

Estimated Budget	Annual Budgets			
	2009	2010	2011	2012
	\$7,920	\$15,840	\$23,760	\$35,640
Savings Targets	Energy Savings (Gross Annual kWh)			
	2009	2010	2011	2012
	55,000	110,000	165,000	247,500

Business Programs

Program Element	Commercial & Industrial Educational Services															
Objective	<ul style="list-style-type: none"> To develop broad business awareness of the benefits of energy conservation and efficiency. To provide educational materials and services that motivate business customers to participate in the utility's energy optimization programs and to motivate energy management practices that can further reduce energy consumption. 															
Target Market	All commercial and industrial customers.															
Program Duration	Start-up in July 2009. Educational services will be an ongoing element of the program portfolio.															
Program Description	<ul style="list-style-type: none"> In addition to the Business Solutions programs, the utility plans to implement educational outreach initiatives to build and expand the business customer's awareness of the benefits of efficient energy management. 															
Eligible Measures	Not applicable for this program.															
Implementation Strategy	<p>The following types of initiatives will be considered for implementation:</p> <ul style="list-style-type: none"> Develop, produce, and distribute energy efficiency tips, fact sheets and case studies that promote the benefits of energy efficiency. Work with the Chamber of Commerce, Mayor's office, municipal government agencies and other civic organizations to promote the energy optimization programs. Participate in Rebuild Michigan seminars in the area. 															
Marketing Strategy	See implementation strategy for a list of marketing activities.															
Milestones in 2009	<p>February-March: Develop Energy Optimization Plan April: File Energy Optimization Plan with MPSC April-May: Select program implementation contractor July: Launch program</p>															
EM&V Requirements	None at this time.															
Estimated Participation	To be determined.															
Estimated Budget	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th colspan="4">Annual Budgets</th> </tr> <tr> <th>2009</th> <th>2010</th> <th>2011</th> <th>2012</th> </tr> </thead> <tbody> <tr> <td>\$720</td> <td>\$1,755</td> <td>\$2,708</td> <td>\$3,630</td> </tr> </tbody> </table>				Annual Budgets				2009	2010	2011	2012	\$720	\$1,755	\$2,708	\$3,630
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2009	2010	2011	2012													
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Savings Targets	Energy Savings (Gross Annual kWh)			
	2009	2010	2011	2012
	6,394	10,704	15,920	21,017