

**Report on the Implementation of PA 295
As Amended by PA 342
2016 Utility Energy Waste Reduction Programs**

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MICHIGAN PUBLIC SERVICE COMMISSION
Department of Licensing and Regulatory Affairs
In compliance with Public Act 295 of 2008, as amended by Act 342 of 2016

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Executive Summary

Michigan's Energy Waste Reduction (EWR) standard, created under Public Act 295 of 2008 (PA 295), as amended by Public Act 342 of 2016 (PA 342 or the Act), requires all natural gas and electric utility providers in the state to implement programs to reduce overall energy usage by specified targets, in order to reduce the future cost of service to utility customers. This report complies with Section 97 of the Act. Program year 2016 remained consistent with the requirements of PA 295. The amendment of this Act by PA 342 did not take effect until April 20, 2017.

For 2016, the Michigan Public Service Commission (MPSC or Commission) approved 13 Energy Waste Reduction (EWR) (previously known as Energy Optimization) annual reconciliation case filings. The Commission received annual reports from 64 investor-owned, cooperative, and municipal utilities, and found them to be in compliance. Michigan utility providers have reached their annual required EWR targets each year, and often exceed the statutory requirement. Providers met a combined average of 128 percent of their electric energy savings targets and 125 percent of their natural gas energy savings targets. EWR programs across the state accounted for electric savings totaling over 1.19 million MWh (megawatt hours) and natural gas savings totaling over 5.24 million Mcf (thousand cubic feet) for program year 2016. As established in PA 295 and as amended by PA 342, energy waste reduction targets remain at 1.0 percent of retail sales for electric providers, and 0.75 percent of retail sales for gas providers. The amendment of this statute did increase the savings levels for purposes of awarding a financial incentive payment to rate regulated utilities who administer their own program beginning in April of 2017^[1].

Utility providers spent \$263 million to operate the EWR programs in 2016, which is estimated to result in lifecycle savings to customers of \$1.07 Billion. For every dollar spent on EWR programs in 2016, customers should expect to realize benefits of \$4.29. EWR resources were obtained at a cost of \$16.07 per MWh, which is significantly lower than the costs of traditional supply side options. PA 342 requires that all programs meet the Utility System

^[1]The amendment of the statute increased the annual energy saving targets of rate-regulated electric utilities for eligibility to earn a financial incentive, from 1.15% under PA 295 to 1.5 % under PA 342 and for rate-regulated gas utilities from .85% to 1.0%.

Resource Cost Test (USRCT). All programs offered during 2016 had a USRCT of 1.00 or greater. This means that the avoided supply side costs are greater than the total costs of administering and delivering the EWR programs.

Introduction

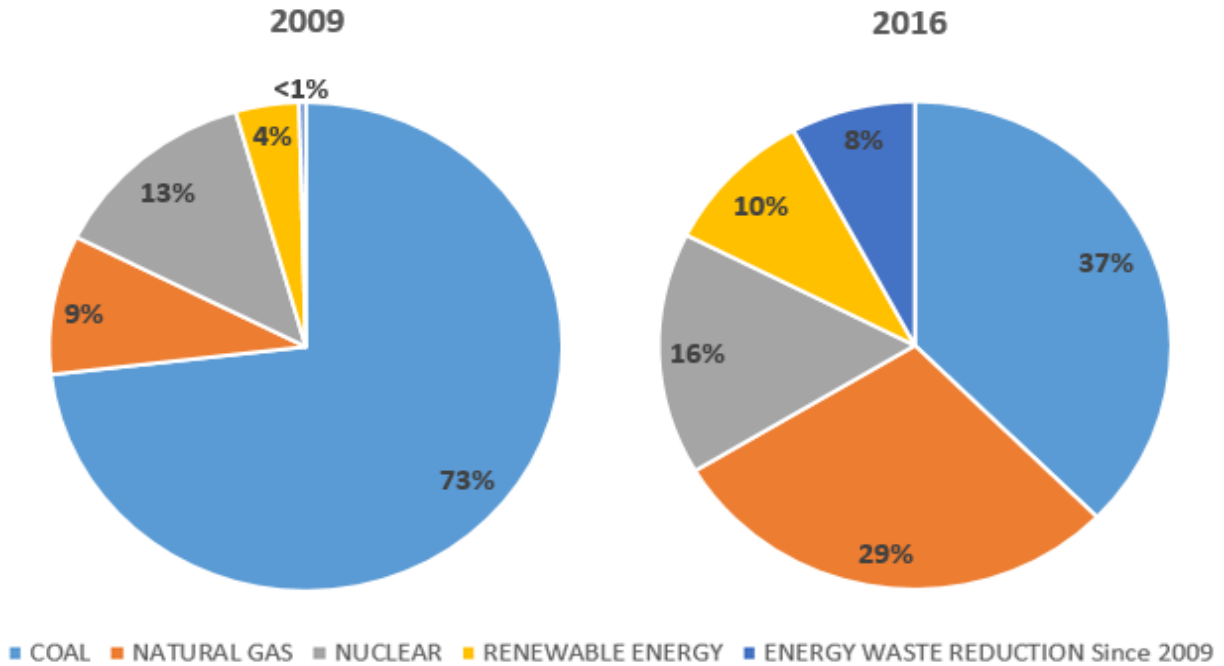
In October 2008, Public Act 295 of 2008 was signed into law. PA 295 was amended by Public Act 342 of 2016 in late December of 2016. PA 342 went into effect on April 20, 2017. Section 97(4) of the Act requires the Commission to submit to the standing committees of the Michigan Senate and House of Representatives with primary responsibility for energy issues an annual report that evaluates and determines whether Subpart C of the Act, which deals with energy waste reduction targets, has been cost-effective. The report may include any recommendations of the MPSC for energy waste reduction legislation.

In 2016, there were 6 natural gas investor-owned utilities (IOU), 8 electric investor-owned utilities, 10 electric cooperatives, and 40 municipal electric utilities with approved plans, for a total of 64 natural gas and electric EWR Plans. A listing of case numbers and company names can be found in [Appendix A](#). For the 2016 program year, 55 of the 64 utilities in Michigan are formally coordinating the design and implementation of their EWR programs through a collaborative process in order to reduce administrative costs, create consistency among programs, and improve customer and contractor understanding of program offerings and administrative procedures. The remaining 9 utilities independently administer their own programs. To the extent feasible, the utility providers that independently administer their programs try to align with the program design offered by the collaborated utility providers' programs to improve customer and contractor participation.

PA 342 provided guidance on the continuation of EWR programs, including maintaining annual energy savings targets of 1.0% for electric providers and 0.75% for natural gas providers. PA 342 also allows for higher financial incentives to be approved for electric utilities that exceed savings targets, promoting annual energy savings targets of up to 1.5%. In addition, Sec. 1 (3) of PA 342 provides that, as a goal, not less than 35% of this state's electric needs should be met through a combination of energy waste reduction and renewable energy by 2025, if the investments in energy waste reduction and renewable energy are the most reasonable means of meeting an

electric utility's energy and capacity needs relative to other resource options. *Figure 1*, below, shows that in 2009, EWR combined with renewable energy provided less than 5% of our State's resources. Those resources now make up for 18% of our State's needs.

Figure 1: MI Energy Resource



Program Offerings

All natural gas and electric utility customers in Michigan are able to participate in energy efficiency programs offered by their local utility. New programs and emerging technologies are continuously being introduced as pilot programs which enable utilities to phase in the implementation of new programs, expand existing programs and offer new features. In general, individual programs are divided into two broad categories: residential and commercial/industrial. Residential programs consist of five major categories: lighting; heating, ventilating and air conditioning (HVAC); weatherization; energy education; and pilot programs. Commercial/Industrial offerings include prescriptive and custom programs. Prescriptive programs provide rebates for specific equipment replacement such as lighting, boilers, pumps, and compressors. Custom programs generally provide a rebate per kWh of electricity savings or per Mcf of natural gas savings for a comprehensive system or industrial process improvement.

Energy Savings Targets

Section 77 of PA 342 provides annual energy savings targets for electric and natural gas utilities. The minimum savings targets are based upon a percentage of calendar-year retail sales for each utility – 1.0% for electric utilities, and 0.75% for natural gas utilities. Utility providers successfully complied with the energy savings targets laid out in the Act. Providers met a combined average of 128 percent of their electric energy savings targets and 125 percent of their natural gas energy savings targets. EWR programs across the state accounted for annual electric savings totaling over 1.19 million MWh (megawatt hours) and an annual natural gas savings totaling over 5.24 million Mcf (thousand cubic feet) for program year 2016. Energy waste reduction expenditures of \$263 million equate to a lifetime savings benefit of \$1.068 billion. For a detailed spreadsheet of energy savings targets and achieved energy savings by utility provider, see [Appendix B](#). Because in 2016 electric EWR programs and measures had an average measure life of 12.86 years, the lifetime savings realized for those programs and measures equates to 17,350,150 MWh. The average measure life of gas programs and measures was 12.45 years. This equates to 72,138,825 Mcf savings over the life of those programs and measures.

EWR Surcharges and Program Funding

Section 71 (4)(b) of PA 342 requires utilities to specify necessary funding levels for the activities being proposed. Commission-regulated utility providers are able to recover their EWR program expenditures through a customer surcharge approved by the Commission. Section 89 of PA 342, allows utility providers to recover all costs associated with their EWR programs. Surcharges approved by the Commission are assessed on either an energy usage basis or a per meter basis. Residential customers are charged based on their energy usage. The average electric residential customer pays around \$2 per month for the EWR surcharge. Generally, commercial and industrial electric or natural gas customer EWR surcharges are based on a per meter charge. Funding information by utility is included in [Appendix C](#).

Program Benefits

In 2016, aggregate EWR program expenditures of \$262 million by all natural gas and electric utilities in the state are estimated to result in lifecycle savings to customers of \$1.07 Billion. For every dollar spent on EWR programs in 2016, customers should expect to realize benefits of \$4.29. Data provided to the Commission in EWR provider annual reports indicate that EWR resources were obtained at a statewide levelized cost of \$16.07/MWh, compared to supply side options such as new natural gas combined cycle generation of around \$55/MWh.¹

The benefits of the EWR program will flow through to customers over the mean lifecycle of all efficiency projects implemented by customers during the year. The direct benefits are in the form of reduced utility cost of service for production or purchase of electricity, or purchases of natural gas, which would otherwise be recovered in utility rates. These savings represent the avoided cost to utilities due to lower energy usage, and are calculated based on the energy savings identified for individual energy efficiency measures as reflected in the Michigan Energy Measures Database. Over the long run, the cumulative reduction in customer demand for electricity is expected to result in the deferral or reduction in the need to build new electric generation plants, the cost of which is allocated to all customers, whether or not they have participated in the EWR program.

EWR programs also reduce emissions of environmental pollutants from existing generation. Fossil fuel generation plants in particular emit sulfur dioxide, nitrous oxides, mercury, other air toxics and particulate matter. Both the electric and natural gas EWR programs also result in hundreds of millions of dollars in fuel cost savings that would have otherwise been spent to import energy into Michigan. EWR programs also increase demand for equipment and installations from local businesses. In addition, the benefits flowing to Michigan utility customers via the EWR program should help reduce utility uncollectible expenses and lower operating costs for Michigan businesses and institutions. Other non-monetary benefits for Michigan residents include increased comfort and safety in their homes and businesses.

¹Source: [U.S. Energy Information Administration Annual Energy Outlook 2016](#)

Cost Effectiveness

There are many ways to calculate the cost effectiveness of utility energy efficiency programs. Simply stated, the overall benefits should outweigh the overall costs. PA 342 requires providers to meet the Utility System Resource Cost Test (USRCT or UCT). As defined in Section 13 (d) of PA 342, the USRCT standard is met for an investment in energy waste reduction if, on a life cycle basis, the total avoided supply-side costs to the provider, including representative values for electricity or natural gas supply, transmission, distribution, and other associated costs, are greater than the total costs to the provider of administering and delivering the energy waste reduction program.

Section 97 (4) of PA 342 requires the Commission to evaluate and determine whether the energy waste reduction programs were cost-effective on an overall portfolio level. All of the utilities program portfolios passed the cost effectiveness test, with a USRCT score of 1.00 or greater. In fact, the electric utility providers collectively had an average UCT score of 4.9, while the gas utility providers averaged a score of 3.9.

State Administrator: Efficiency United

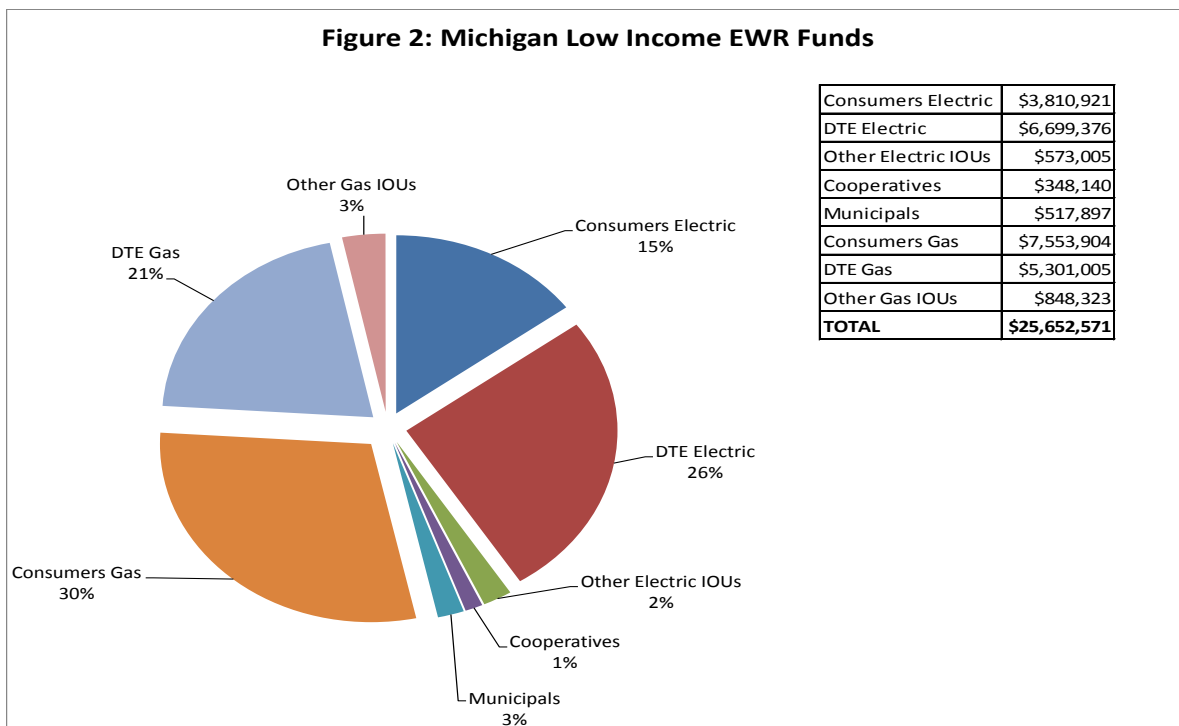
Section 91 of PA 342 created an option for electric and natural gas providers to offer energy waste reduction services collectively through a program administrator. Section 91(6) requires the administrator to be a ‘qualified nonprofit organization’ selected by the MPSC through a competitive bid process. To fund the program the administrator is paid directly by the participating providers using funds collected from customers.

Michigan Community Action (MCA) is under contract as the State Administrator and its team of contractors operate under the name of Efficiency United (EU). This contract runs through December 31, 2021. Services and offerings are similar to, and coordinated with, those of other providers around the State. Although EU program services are specifically exempt from meeting the requirements of PA 342 energy savings targets, equivalent contractual targets and goals were imposed. The EU program has successfully been able to provide programs and achieve savings target equivalent to those implemented by independent utility providers. Since 2009, the EU team has effectively tackled many obstacles due to the expanse range of service providers across both the Lower and Upper Peninsulas of the state. The EU program has been able to implement

successful measures to help a unique customer base under the budget constraints established in the Act.

Programs for Low Income Customers

Sections 71 (4) (g), 89 (4), and 93 (5) (c) of PA 342 relate to EWR program offerings for low income residential customers. All customer classes must contribute proportionally to low income program costs based on their allocation of the utility’s total EWR budget. Low income EWR programs are excluded from the requirement to meet the cost-benefit test. In 2016, just over approximately 10% of the total 2016 EWR program expenditures were allocated to income qualified customers. Most Michigan customers at or below 200% of the federal poverty level qualify for these programs. Implementation of these programs generate different challenges. The uniqueness of homes and multi-family housing, along with the funding necessary to achieve savings for these customers requires the utilities to continually assess and redesign the program offerings. The contribution and savings to low income program costs by Michigan utilities in 2016 is shown in *Figure 2*.



Self-Directed EWR Program

Under Section 93 of PA 342, large electric customers that meet certain eligibility requirements may create and implement a customized EWR plan, and thus be exempt from paying a EWR surcharge except for a portion of income qualified program costs. Electric customer eligibility to participate in the self-directed EWR plans is determined by the customer’s annual peak demand. The Act allows customers with at least 1 MW aggregated annual peak demand in the preceding year at all of the customer’s sites within a service provider’s territory to participate. The number of customers enrolled to self-direct their own EWR program has continued to drop, with 18 customers self-directing in 2016, as shown in *Table 1*. Reported energy savings for these self-directed large commercial and industrial customers are summarized in *Table 2*.

Table 1: Number of Michigan Self-Directed Large Commercial and Industrial Customers

Provider	2009 Customers	2010 Customers	2011 Customers	2012 Customers	2013 Customers	2014 Customers	2015 Customers	2016 Customers
DTE Electric	26	26	13	7	6	6	6	6
Consumers Energy	30	30	16	13	11	9	7	7
Efficiency United	9	11	10	6	6	6	5	5
Cooperatives	3	3	4	3	3	2	1	0
Municipals	9	9	4	3	3	1	1	Not Available
TOTAL	77	79	47	32	29	24	20	18

Table 2: Reported Energy Savings for Michigan Self-Directed Large Commercial and Industrial Customers

Provider	2009 Reported Energy Reduction (MWh)	2010 Reported Energy Reduction (MWh)	2011 Reported Energy Reduction (MWh)	2012 Reported Energy Reduction (MWh)	2013 Reported Energy Reduction (MWh)	2014 Reported Energy Reduction (MWh)	2015 Reported Energy Reduction (MWh)	2016 Reported Energy Reduction (MWh)
DTE Electric	12,486	18,488	7,835	9,535	6,115	6,084	5,749	5,434
Consumers Energy	8,515	12,343	7,404	7,118	5,936	5,062	4,899	5,816
Efficiency United	5,196	14,568	20,808	30,654	24,515	23,903	2,152	3,876
Cooperatives	899	1,498	1,442	1,262	813	533	72	0
Municipals	2,006	3,343	606	500	450	Not Available	1,136	Not Available
TOTAL	29,102	50,240	38,095	49,069	37,829	35,582	14,008	15,126

Financial Incentive Mechanism

Section 75 of PA 342 allows Commission-regulated utilities to request a financial incentive payment for exceeding the energy savings targets in a given year. There are currently 4 utilities that have obtained a financial incentive mechanism. The actual and anticipated incentives awarded for program years 2009-2016 are listed in *Table 3*.

Table 3: Utility Financial Incentive Payments Awarded through 2016

Program Year	Consumers Energy Electric	Consumers Energy Gas	DTE Energy - Electric	DTE Energy - Gas	Indiana Michigan Power Co.	Semco Energy Inc.	Annual Total
2009	\$3,323,612	\$2,361,693	\$3,008,829	\$913,374	n/a	n/a	\$9,607,508
2010	\$5,076,731	\$3,407,064	\$6,200,000	\$2,400,000	n/a	n/a	\$17,083,795
2011	\$7,281,670	\$7,312,307	\$8,400,000	\$3,400,000	n/a	n/a	\$26,393,977
2012	\$10,027,210	\$7,282,721	\$10,400,000	\$4,300,000	n/a	n/a	\$32,009,931
2013	\$10,364,556	\$7,166,544	\$10,562,411	\$3,848,020	n/a	n/a	\$31,941,531
2014	\$11,231,840	\$6,090,390	\$12,716,895	\$3,617,094	\$618,074	\$780,795	\$35,055,088
2015	\$11,426,037	\$6,277,944	\$13,100,000	\$3,600,000	\$759,727	\$933,725	\$36,097,433
2016	\$11,582,390	\$6,640,135	\$13,300,000	\$3,700,000	\$579,101	\$1,197,815	\$36,999,441
Total	\$70,314,046	\$46,538,798	\$77,688,135	\$25,778,488	\$1,956,902	\$2,912,335	\$225,188,704

MPSC Energy Waste Reduction Collaborative

In Case Numbers U-15805 and U-15806, the Commission directed the MPSC Staff to establish a statewide energy waste reduction collaborative which requires the participation of all natural gas and electric providers and offers the opportunity for a variety of additional stakeholders to participate. A key goal reached by the collaborative was the reduction of the extent and cost of the formal contested hearing process through stakeholder consensus and industry peer review of standards and procedures. The collaborative identifies recommendations for improving EWR plans for all providers, offers program evaluation and support, and develops any necessary redesign improvements to energy efficiency programs. Selective members of this group meet to serve as the Michigan Energy Measures Database Technical Subcommittee.

Michigan Energy Measures Database

Measurement and verification are essential tools in improving Energy Waste Reduction programming. In 2009, Michigan began with a foundation database of projected energy savings that was derived from other states' experience. By incorporating data derived from Michigan weather stations, program implementation, and specialized evaluation studies, the database evolved into the Michigan Energy Measures Database (MEMD).

The objective of the MEMD is to provide users with accurate information on energy savings associated with technologies or measures that could be used in energy efficiency programs. The MEMD is also used to prioritize the allocation of funding toward these possible measures. For this critical function, it is important to utilize Michigan-specific data in the MEMD. Thus, under the direction of Commission Staff, stakeholders are participating in monthly collaborative meetings developing recommendations to update this database. The collaborative has developed an annual process for selecting the highest priority measures to update with Michigan specific data. For the selected measures, field studies are undertaken in customer homes and businesses using data collection equipment, such as light loggers and sub-metering, and engineering analysis to obtain reliable measurement of the actual energy consumption.

Revenue Decoupling

PA 341 of 2016 requires the Commission to approve an appropriate revenue decoupling mechanism (RDM) for an electric utility with less than 200,000 customers in this state, that adjusts for decreases in actual sales compared to the projected levels used in that utility's most recent rate case that are the result of implemented energy waste reduction, conservation, demand-side programs, and other waste reduction measures. Indiana Michigan Power Company requested an RDM in the company's most recent rate case, U-18370, which at the time of this report is still pending before the Commission.

PA 342 requires the Commission to establish an RDM upon request by those natural gas utilities that have implemented an Energy Waste Reduction program. The Commission may authorize an alternative mechanism that it deems to be in the public interest. There are currently two natural gas utilities that have a decoupling mechanism, DTE Energy Gas and Consumers Energy.

Conclusion

Energy Waste Reduction programs continue to be cost-effective and provide benefits to all utility customers, due to the efforts of providers, EWR contractors and implementation allies. The cost of reducing energy waste is much lower than other energy resources. Customers who participate in the program directly benefit by seeing reduced energy use and lower bills. Other benefits, such as reduced emissions and fuel cost savings, provide value to all Michigan customers. And, while not quantified, there may be additional benefits from EWR investments such as local job creation and improved comfort and safety in buildings.

The Commission continues to explore ways to improve the savings and increase benefits of the programs for large and small utilities and to adapt the scope of the programs to meet the needs of all customers. The utilities and other stakeholders maintain an active pursuit of better and more efficient EWR plans. The Commission makes no recommendations for legislation at this time.

EWR Plan Filings				
COMPANY	2016-2017	2018-2019	Group	
	Biennial Plan Dockets	Biennial Plan Dockets		
Electric IOUs				
1	Alpena Power Company	U-17770	U-18260	Efficiency United
2	Consumers Energy Company	U-17771	U-18261	Independent
3	DTE - Energy Electric	U-17772	U-18262	Independent
4	Indiana Michigan Power Company	U-17773	U-18263	Independent
5	Northern States Power Company-Wisconsin	U-17774	U-18264	Efficiency United
6	Upper Peninsula Power Company	U-17775	U-18265	Efficiency United
7	Wisconsin Public Service Corporation	U-17776	U-18266	Efficiency United
8	Wisconsin Electric Power Company	U-17777	U-18267	Efficiency United
Co-ops				
9	Alger Delta Cooperative Electric Association	U-17778	U-18271	MI Electric Coop. Assoc.
10	Bayfield Electric Cooperative	U-17779	U-18272	Efficiency United
11	Cherryland Electric Cooperative	U-17780	U-18273	Independent
12	Cloverland Electric Cooperative	U-17781	U-18274	MI Electric Coop. Assoc.
13	Great Lakes Energy Cooperative	U-17782	U-18275	MI Electric Coop. Assoc.
14	Midwest Energy Cooperative	U-17783	U-18276	MI Electric Coop. Assoc.
15	Ontonagon Co. Rural Electrification Assoc.	U-17784	U-18277	MI Electric Coop. Assoc.
16	Presque Isle Electric and Gas Co-op	U-17785	U-18278	MI Electric Coop. Assoc.
17	Thumb Electric Cooperative	U-17786	U-18279	Independent
18	Tri-County Electric Cooperative	U-17787	U-18280	MI Electric Coop. Assoc.
Municipals				
19	Village of Baraga	U-17381	U-18281	Efficiency United
20	City of Bay City	U-17382	U-18282	MI Public Power Agency
21	City of Charlevoix	U-17383	U-18283	MI Public Power Agency
22	Chelsea Department of Electric and Water	U-17384	U-18284	MI Public Power Agency
23	Village of Clinton	U-17385	U-18285	Independent
24	Coldwater Board of Public Utilities	U-17386	U-18286	Independent
25	Croswell Municipal Light & Power Department	U-17387	U-18287	MI Public Power Agency
26	City of Crystal Falls	U-17388	U-18288	Efficiency United
27	Daggett Electric Department	U-17389	U-18289	MI Electric Coop. Assoc.
28	City of Dowagiac	U-17391	U-18291	Efficiency United
29	City of Eaton Rapids	U-17392	U-18292	MI Public Power Agency
30	City of Escanaba	U-17393	U-18293	MI Electric Coop. Assoc.
31	City of Gladstone	U-17394	U-18294	Efficiency United
32	Grand Haven Board of Light and Power	U-17395	U-18295	MI Public Power Agency
33	City of Harbor Springs	U-17396	U-18296	Efficiency United
34	City of Hart Hydro	U-17397	U-18297	MI Public Power Agency
35	Hillsdale Board of Public Utilities	U-17398	U-18298	Efficiency United
36	Holland Board of Public Works	U-17399	U-18299	MI Public Power Agency
37	Village of L'Anse	U-17400	U-18300	Efficiency United
38	Lansing Board of Water & Light	U-17401	U-18301	Independent
39	Lowell Light and Power	U-17402	U-18302	MI Public Power Agency
40	Marquette Board of Light and Power	U-17403	U-18303	MI Electric Coop. Assoc.
41	Marshall Electric Department	U-17404	U-18304	Independent
42	Negaunee Department of Public Works	U-17405	U-18305	Efficiency United
43	Newberry Water and Light Board	U-17406	U-18306	MI Electric Coop. Assoc.
44	Niles Utility Department	U-17407	U-18307	MI Public Power Agency
45	City of Norway	U-17408	U-18308	Efficiency United
46	City of Paw Paw	U-17409	U-18309	MI Public Power Agency
47	City of Petoskey	U-17410	U-18310	MI Public Power Agency
48	City of Portland	U-17411	U-18311	MI Public Power Agency
49	City of Sebawaing	U-17412	U-18312	Independent
50	City of South Haven	U-17413	U-18313	MI Electric Coop. Assoc.
51	City of St. Louis	U-17414	U-18314	MI Public Power Agency
52	City of Stephenson	U-17415	U-18315	MI Electric Coop. Assoc.
53	City of Sturgis	U-17416	U-18316	MI Public Power Agency
54	Traverse City Light & Power	U-17417	U-18317	MI Public Power Agency
55	Union City Electric Department	U-17418	U-18318	Independent
56	City of Wakefield	U-17419	U-18319	Independent
57	Wyandotte Department of Municipal Service	U-17420	U-18320	MI Public Power Agency
58	Zeeland Board of Public Works	U-17421	U-18321	MI Public Power Agency
Gas IOUs				
59	Consumers Energy Company(filing joint w/electric)	U-17771	U-18261	Independent
60	DTE - Energy Gas	U-17788	U-18268	Independent
61	Michigan Gas Utilities Corporation	U-17789	U-18269	Efficiency United
62	Northern States Power Co-Wisc.(filing joint w/elec)	U-17774	U-18264	Efficiency United
63	SEMCO Energy, Inc.	U-17790	U-18270	Independent
64	Wisconsin Public Serv. Corp.(filing jointly w/elec)	U-17776	U-18266	Efficiency United

Energy Optimization Program Targets - Appendix B

% of MWH Sales		1%			1%			1%			1%			1%		
	2012 Target	2012 Actual	% Achieved	2013 Target	2013 Actual	% Achieved	2014 Target	2014 Actual	% Achieved	2015 Target	2015 Actual	% Achieved	2016 Target	2016 Actual	% Achieved	
Electric IOUs																
1	Alpena	3,244	4,251	131%	3,219	5,352	166%	3,597	6,770	188%	3,305	6,030	182%	3,399	4,544	134%
2	Consumers Energy	333,360	409,353	123%	335,498	473,045	141%	332,200	466,000	140%	331,877	353,398	106%	361,730	397,426	110%
3	DTE Energy Electric	455,000	611,000	134%	471,000	614,000	130%	534,000	794,399	149%	485,300	620,700	128%	433,400	631,000	146%
4	Indiana Michigan	29,403	30,999	105%	28,743	34,572	120%	28,877	37,634	130%	28,549	35,021	123%	16,571	20,035	121%
5	UP Power	8,272	9,494	115%	8,137	11,195	138%	8,142	10,514	129%	8,308	19,676	237%	8,197	10,653	130%
6	Wisconsin Electric	26,358	26,499	101%	26,709	28,492	107%	29,916	31,706	106%	4,436	8,071	182%	5,765	8,199	142%
7	WPSCorp	2,739	3,018	110%	2,734	3,466	127%	2,832	3,398	120%	2,855	3,672	129%	2,775	3,183	115%
8	XCEL Energy (NSPC)	1,378	2,074	151%	1,385	1,833	132%	1,400	1,753	125%	1,402	3,200	228%	1,407	2,615	186%
Subtotal Electric IOUs		859,755	1,096,689	128%	877,425	1,171,955	134%	940,964	1,352,174	144%	866,032	1,049,768	121%	833,244	1,077,655	129%
Electric Cooperatives																
9	Alger Delta	588	658	112%	582	678	116%	574	442	77%	573	729	127%	692	943	136%
10	Bayfield	2	2	118%	2	3	150%	2	2	109%	2	2	100%	2	2	106%
11	Cherryland	3,751	3,798	101%	3,661	3,667	100%	3,840	4,712	123%	3,957	4,367	110%	3,957	4,607	116%
12	Cloverland/Edison S.	8,149	7,365	90%	8,073	9,548	118%	7,933	8,337	105%	7,929	8,692	110%	6,806	8,912	131%
13	Great Lakes	13,240	10,341	78%	13,302	19,479	146%	13,231	13,550	102%	13,210	13,694	104%	13,728	16,637	121%
14	Midwest	5,875	5,152	88%	5,905	6,880	117%	5,905	5,951	101%	6,038	6,328	105%	6,129	6,745	110%
15	Ontonagon	247	253	102%	248	678	273%	247	182	74%	248	387	156%	265	327	123%
16	Presque Isle	2,362	1,981	84%	2,357	3,176	135%	2,336	2,251	96%	2,329	2,392	103%	2,498	3,083	123%
17	Thumb	1,507	1,689	112%	1,512	1,784	118%	1,523	1,094	72%	1,534	1,696	111%	1,500	1,500	100%
18	Tri-County	3,121	2,483	80%	3,135	3,852	123%	3,160	3,461	110%	3,152	3,197	101%	3,338	4,145	124%
Subtotal Electric Coops		38,842	33,722	87%	38,777	49,745	128%	38,751	39,982	103%	38,972	41,484	106%	38,915	46,901	121%
Municipals																
19	Baraga	188	191	102%	184	233	127%	187	338	181%	187	319	171%	188	305	162%
20	Bay City	2,860	3,037	106%	3,124	3,044	97%	3,374	4,012	119%	3,058	3,937	129%	2,407	2,407	100%
21	Charlevoix	603	643	107%	608	693	114%	324	550	170%	405	602	149%	416	416	100%
22	Chelsea	366	479	131%	738	893	121%	591	768	130%	874	889	102%	946	946	100%
23	Clinton	213	203	95%	227	241	106%	202	208	103%	210	235	112%	191	191	100%
24	Coldwater	2,589	2,104	81%	2,589	2,056	79%	2,887	3,317	115%	2,858	3,694	129%	3,385	3,385	100%
25	Crosswell	357	489	137%	355	199	56%	288	307	107%	336	327	97%	364	364	100%
26	Crystal Falls	164	191	116%	162	325	201%	162	408	252%	162	259	160%	163	446	274%
27	Dagget Electric Co.	15	26	181%	14	16	114%	12	16	129%	12	46	383%	11	16	145%
28	Detroit PLD	865	592	68%	0	0	0	0	0	0	0	0	0	0	0	0
29	Dowagiac	417	538	129%	634	745	118%	660	927	140%	648	1,006	155%	651	1,427	219%
30	Eaton Rapids	455	607	133%	331	830	251%	267	905	339%	239	194	81%	591	591	100%
31	Escanaba	1,428	1,338	94%	1,471	1,614	110%	1,266	1,294	102%	1,419	1,499	106%	1,397	1,801	129%
32	Gladstone	328	412	126%	321	341	106%	325	406	125%	325	379	117%	324	391	121%
33	Grand Haven	2,223	1,912	86%	2,674	3,198	120%	1,712	2,298	134%	2,160	2,993	139%	1,903	1,903	100%
34	Harbor Springs	358	369	103%	375	409	109%	375	572	153%	379	427	113%	377	426	113%
35	Hart	394	265	67%	421	562	133%	309	461	149%	276	339	123%	371	371	100%
36	Hillsdale	1,275	1,508	118%	1,212	1,572	130%	1,205	1,562	130%	1,193	1,790	150%	1,186	1,905	161%
37	Holland	7,948	8,116	102%	9,821	10,934	111%	10,399	10,861	104%	10,173	12,865	126%	8,153	8,153	100%
38	L'Anse	137	174	127%	132	166	126%	127	213	168%	122	601	493%	120	204	170%
39	LBWL	19,280	23,147	120%	18,363	26,757	146%	18,011	23,094	128%	20,521	30,150	147%	16,469	16,469	100%
40	Lowell	483	503	104%	548	444	81%	688	697	101%	675	827	123%	534	534	100%
41	Marquette	3,098	2,912	94%	3,199	3,827	120%	2,403	2,861	119%	3,070	3,185	104%	3,016	3,528	117%
42	Marshall	537	868	162%	725	1,039	143%	746	756	101%	1,039	859	83%	1,050	1,050	100%
43	Negaunee	217	256	118%	221	317	143%	222	271	122%	226	398	176%	227	585	258%
44	Newberry	192	243	127%	140	206	147%	129	141	109%	199	243	122%	175	177	101%
45	Niles	1,287	1,003	78%	1,496	1,233	82%	1,328	1,401	105%	1,223	1,281	105%	1,258	1,258	100%
46	Norway	300	386	128%	294	1,128	384%	293	501	171%	292	361	124%	287	503	175%
47	Paw Paw	480	450	94%	458	497	109%	344	1,747	508%	22	463	2105%	49	49	100%
48	Petoskey	1,080	839	78%	1,116	688	62%	1,907	1,870	98%	1,114	1,308	117%	924	924	100%
49	Portland	362	332	92%	372	366	98%	298	318	107%	343	563	164%	142	142	100%
50	Sebewaing	311	1,017	327%	163	716	439%	223	676	303%	223	714	320%	228	228	100%
51	South Haven	1,312	1,582	121%	1,315	1,425	108%	1,347	2,437	181%	1,342	2,525	188%	1,348	1,609	119%
52	St. Louis	378	365	97%	379	241	64%	411	397	97%	389	504	130%	261	261	100%
53	Stephenson	60	68	113%	51	75	147%	37	37	100%	59	92	156%	61	61	100%
54	Sturgis	2,215	2,798	126%	1,557	1,911	123%	1,595	2,189	137%	1,750	2,073	118%	1,955	1,955	100%
55	Traverse City	2,543	4,109	162%	2,157	2,797	130%	2,826	3,437	122%	2,802	2,733	98%	3,387	3,387	100%
56	Union City	139	125	90%	164	142	87%	172	173	101%	149	176	118%	130	130	100%
57	Wakefield	52	52	100%	130	61	47%	130	48	37%	130	61	47%	130	130	100%
58	Wyandotte	2,495	2,500	100%	1,707	1,981	116%	1,503	1,295	86%	1,607	1,698	106%	1,800	1,800	100%
59	Zeeland	2,601	1,484	57%	4,101	5,619	137%	2,132	2,790	131%	2,438	3,410	140%	2,191	2,191	100%
Subtotal Municipals		62,605	68,233	109%	64,049	79,541	124%	61,417	76,557	125%	64,649	86,025	133%	58,766	62,619	107%
Statewide Electric Totals		961,202	1,198,644	125%	980,251	1,301,241	133%	1,041,132	1,468,713	141%	969,653	1,177,277	121%	930,925	1,187,175	128%
% of MCF Sales																
		0.75%			0.75%			0.75%			0.75%			0.75%		
	2012 Target	2012 Actual	% Achieved	2013 Target	2013 Actual	% Achieved	2014 Target	2014 Actual	% Achieved	2015 Target	2015 Actual	% Achieved	2016 Target	2016 Actual	% Achieved	
Gas Companies																
1	Consumers Energy	1,844,899	2,378,978	129%	1,765,915	2,173,124	123%	1,810,552	2,400,000	133%	1,915,363	2,091,625	109%	2,207,235	2,542,174	115%
2	DTE - Gas	894,701	1,186,000	133%	1,240,000	1,436,000	116%	1,305,000	1,554,995	119%	1,178,300	1,479,900	126%	1,301,103	1,619,825	124%
3	MGU	219,898	262,259	119%	216,038	259,722	120%	210,757	344,998	164%	219,141	265,212	121%	232,450	381,219	164%
4	SEMCO Energy	409,480	417,774	102%	402,944	523,683	130%	394,464	543,646							

Energy Optimization Program Funding - Appendix C

Utilities	Annual Funding				
	2012	2013	2014	2015	2016
Electric IOUs					
1 Alpena	\$510,504	\$456,435	\$586,815	\$420,528	\$513,109
2 Consumers	\$67,369,007	\$69,097,040	\$74,900,000	\$76,200,000	\$77,215,930
3 DTE Energy Electric	\$69,600,000	\$74,900,000	\$84,779,297	\$87,100,000	\$77,553,234
4 Indiana Michigan	\$4,420,319	\$4,517,294	\$4,120,487	\$5,064,846	\$4,063,867
5 UP Power	\$1,967,085	\$1,834,617	\$1,626,752	\$1,491,437	\$2,322,238
6 Wisconsin Electric	\$931,154	\$883,440	\$820,905	\$727,502	\$990,325
7 WPSCorp	\$381,404	\$409,687	\$714,535	\$309,185	\$389,509
8 Xcel Energy Electric	\$234,475	\$203,557	\$222,747	\$230,593	\$309,010
Subtotal Electric IOUs	\$145,413,948	\$152,302,070	\$167,771,538	\$171,544,091	\$163,357,222
Electric Coops					
9 Alger Delta	\$148,468	\$155,303	\$150,910	\$183,629	\$208,101
10 Bayfield	\$866	\$1,271	\$638	\$719	\$928
11 Cherryland	\$174,515	\$329,623	\$344,215	\$289,921	\$395,000
12 Cloverland/Edison Sault	\$904,920	\$1,273,334	\$1,080,115	\$1,147,541	\$1,275,349
13 Great Lakes	\$1,503,475	\$2,142,034	\$1,849,764	\$1,858,446	\$2,891,565
14 Midwest	\$841,983	\$929,834	\$1,049,336	\$1,137,178	\$1,415,088
15 Ontonagon	\$45,447	\$52,279	\$43,648	\$42,246	\$69,691
16 Presque Isle	\$313,565	\$425,955	\$346,051	\$364,501	\$527,833
17 Thumb	\$227,833	\$254,229	\$234,950	\$299,744	\$350,181
18 Tri-County	\$378,650	\$443,333	\$493,557	\$499,903	\$685,770
Subtotal Electric Coops	\$4,539,722	\$6,007,195	\$5,593,184	\$5,823,828	\$7,819,506
Municipals					
19 Baraga	\$48,700	\$42,490	\$39,737	\$37,467	\$45,612
20 Bay City	\$469,307	\$479,666	\$578,296	\$700,192	\$483,679
21 Charlevoix	\$68,757	\$78,900	\$63,353	\$94,145	\$70,024
22 Chelsea	\$72,410	\$36,909	\$108,690	\$127,311	\$137,078
23 Clinton	\$9,465	\$11,949	\$9,391	\$16,245	\$20,269
24 Coldwater	\$536,800	\$536,000	\$301,048	\$265,514	\$306,179
25 Croswell	\$43,500	\$57,029	\$84,861	\$38,081	\$43,031
26 Crystal Falls	\$43,440	\$43,059	\$55,740	\$33,006	\$47,160
27 Daggett	\$2,469	\$1,993	\$1,875	\$1,852	\$2,356
28 Detroit PLD	\$141,860				
29 Dowagiac	\$66,347	\$113,166	\$113,643	\$121,180	\$144,912
30 Eaton Rapids	\$67,040	\$86,412	\$84,448	\$58,887	\$81,125
31 Escanaba	\$191,237	\$211,714	\$160,238	\$265,300	\$200,334
32 Gladstone	\$79,460	\$61,598	\$70,807	\$54,825	\$85,959
33 Grand Haven	\$228,811	\$173,729	\$370,376	\$376,155	\$460,912
34 Harbor Springs	\$43,205	\$64,774	\$56,859	\$47,197	\$68,435
35 Hart Hydro	\$38,926	\$68,214	\$74,927	\$51,966	\$55,703
36 Hillsdale	\$214,108	\$196,493	\$201,931	\$191,637	\$277,790
37 Holland	\$1,066,505	\$1,265,403	\$1,472,659	\$1,072,065	\$972,127
38 L'Anse	\$31,114	\$22,350	\$25,586	\$28,353	\$30,659
39 LBWL	\$3,260,845	\$3,612,207	\$3,537,494	\$3,878,490	\$4,292,040
40 Lowell	\$63,247	\$92,874	\$136,862	\$74,326	\$108,249
41 Marquette	\$488,019	\$468,288	\$403,665	\$500,865	\$436,013
42 Marshall	\$55,902	\$74,234	\$84,910	\$74,853	\$57,394
43 Negaunee	\$65,940	\$54,094	\$45,694	\$40,818	\$64,540
44 Newberry	\$31,159	\$34,013	\$16,728	\$32,887	\$26,285
45 Niles	\$129,103	\$120,312	\$222,279	\$190,805	\$185,144
46 Norway	\$72,560	\$81,451	\$65,792	\$55,267	\$73,599
47 Paw Paw	\$55,998	\$24,638	\$79,359	\$70,204	\$89,558
48 Petoskey	\$96,140	\$24,929	\$167,240	\$174,399	\$160,906
49 Portland	\$41,497	\$60,388	\$57,832	\$65,519	\$74,887
50 Sebewaing	\$43,577	\$79,772	\$54,616	\$61,591	\$61,395
51 South Haven	\$260,203	\$224,941	\$240,518	\$226,012	\$194,657
52 St. Louis	\$53,446	\$66,106	\$73,664	\$60,509	\$64,676
53 Stephenson	\$7,799	\$8,055	\$6,854	\$8,738	\$12,503
54 Sturgis	\$242,340	\$230,663	\$316,200	\$332,581	\$309,302
55 Traverse City	\$612,250	\$394,329	\$460,846	\$387,710	\$500,689
56 Union City	\$11,577	\$12,738	\$9,679	\$25,187	\$17,623
57 Wakefield	\$6,186	\$10,525	\$5,596	\$19,062	\$19,062
58 Wyandotte	\$238,925	\$205,254	\$346,719	\$346,202	\$269,562
59 Zeeland	\$285,371	\$420,021	\$405,471	\$392,449	\$353,324
Subtotal Municipals	\$9,585,545	\$9,851,680	\$10,612,483	\$10,599,852	\$10,904,752
Subtotal Statewide Electric	\$159,539,215	\$168,160,945	\$183,977,204	\$187,967,771	\$182,081,480
Gas Companies					
60 Consumers	\$48,148,786	\$47,776,959	\$40,600,000	\$41,900,000	\$44,267,568
61 DTE Energy Gas	\$28,600,000	\$25,600,000	\$24,113,957	\$24,000,000	\$24,990,245
62 MGU	\$3,671,084	\$3,471,355	\$2,563,990	\$2,269,607	\$3,673,563
63 SEMCO Energy	\$6,242,032	\$7,363,011	\$5,469,134	\$5,930,748	\$7,985,431
64 WPSCorp	\$91,685	\$98,743	\$77,633	\$78,803	\$112,999
65 Xcel Energy Electric	\$109,531	\$112,867	\$102,188	\$101,642	\$146,690
Subtotal Statewide Gas	\$86,863,118	\$84,422,935	\$72,926,902	\$74,280,800	\$81,176,496
Total Gas and Electric	\$246,402,333	\$252,583,880	\$256,904,107	\$262,248,571	\$263,257,976