

2016 Report on the Implementation of P.A. 295 Utility Energy Optimization Programs

In Compliance with Public Act 295 of 2008

Sally A. Talberg, Chairman
Norman J. Saari, Commissioner
Rachael A. Eubanks, Commissioner

MICHIGAN PUBLIC SERVICE COMMISSION
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

November 30, 2016



Table of Contents

Executive Summary.....	1
Introduction.....	1
Program Offerings.....	2
Energy Savings Targets.....	2
EO Surcharges and Program Funding.....	4
Program Benefits.....	4
Cost Effectiveness.....	5
Residential Bill Information on Estimated Monthly Savings.....	6
State Administrator: Efficiency United.....	6
Programs for Low Income Customers.....	6
Self-Directed EO Program.....	7
Financial Incentive Mechanism.....	8
MPSC Energy Optimization Collaborative.....	8
Michigan Energy Measures Database.....	9
Revenue Decoupling.....	9
Conclusion.....	9
Appendix A: 2014-2015 Energy Optimization Plan Filings.....	11
Appendix B: Energy Optimization Targets.....	12
Appendix C: Energy Optimization Program Funding.....	13

Executive Summary

Michigan's Energy Optimization (EO) standard, created under Public Act 295 of 2008 (PA 295 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 95 of the Act. Summaries of the report's major findings are as follows:

For 2015, Michigan utility providers successfully complied with the energy savings targets laid out in PA 295. Providers met a combined average of 121 percent of their electric energy savings targets and 117 percent of their natural gas energy savings targets – one percent of retail sales for electric providers, and 0.75 percent of retail sales for gas providers. EO programs across the state accounted for electric savings totaling over 1.1 million MWh (megawatt hours) and natural gas savings totaling over 4.58 million Mcf (thousand cubic feet) for program year 2015.

Utility providers spent \$262 million to operate the EO programs in 2015. This will result in lifecycle savings to customers of \$1.08 billion. For every dollar spent on EO programs in 2015, customers will realize benefits of \$4.35. EO resources were obtained at a cost of \$13.55 per MWh, which is significantly lower than the costs of supply side options. PA 295 requires that all programs meet the Utility System Resource Cost Test (USRCT). All programs offered during 2015 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 EO programs.

Introduction

In October 2008, Public Act 295 of 2008 was signed into law. Section 95(3)(e) of the Act requires that by November 30, 2009, and each year thereafter, the Michigan Public Service Commission (MPSC or Commission) is to submit to the standing committees of the Senate and House of Representatives with primary responsibility for energy and environmental issues, a report on the Commission's effort to implement energy conservation and energy efficiency programs or measures. The report may include any recommendations of the MPSC for energy conservation legislation.

Subpart B of PA 295 requires providers of electric or natural gas service to establish energy optimization (EO) programs for their customers. Annual energy savings targets for providers are specified in the Act. These targets ramped up to one percent of annual retail sales for electric providers and 0.75 percent of annual retail sales for natural gas providers in 2012. Targets shall be sustained for subsequent years. Providers are required to file plans with the Commission detailing the programs they will utilize to meet their annual energy savings goals. Regulated providers are allowed to fund their programs through Commission approved EO surcharges, but must demonstrate that the program costs are reasonable and prudent, as well as cost-effective according to a standardized cost-benefit analysis specified in the Act.

In 2015, there were 14 investor-owned natural gas, electric, or natural gas and electric combined utility providers (IOUs), 10 electric cooperatives, and 40 municipal electric utilities with EO plans, for a total of 64 natural gas and electric Energy Optimization Plans. A listing of case numbers and company

names can be found in [Appendix A](#). For the 2015 plan year, 50 of the 64 utilities in Michigan are formally coordinating the design and implementation of their EO programs in order to reduce administrative costs, create consistency among programs, and improve customer and contractor understanding of program offerings and administrative procedures. The remaining 14 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 coordinated utility providers' programs to improve customer and contractor participation.

Program Offerings

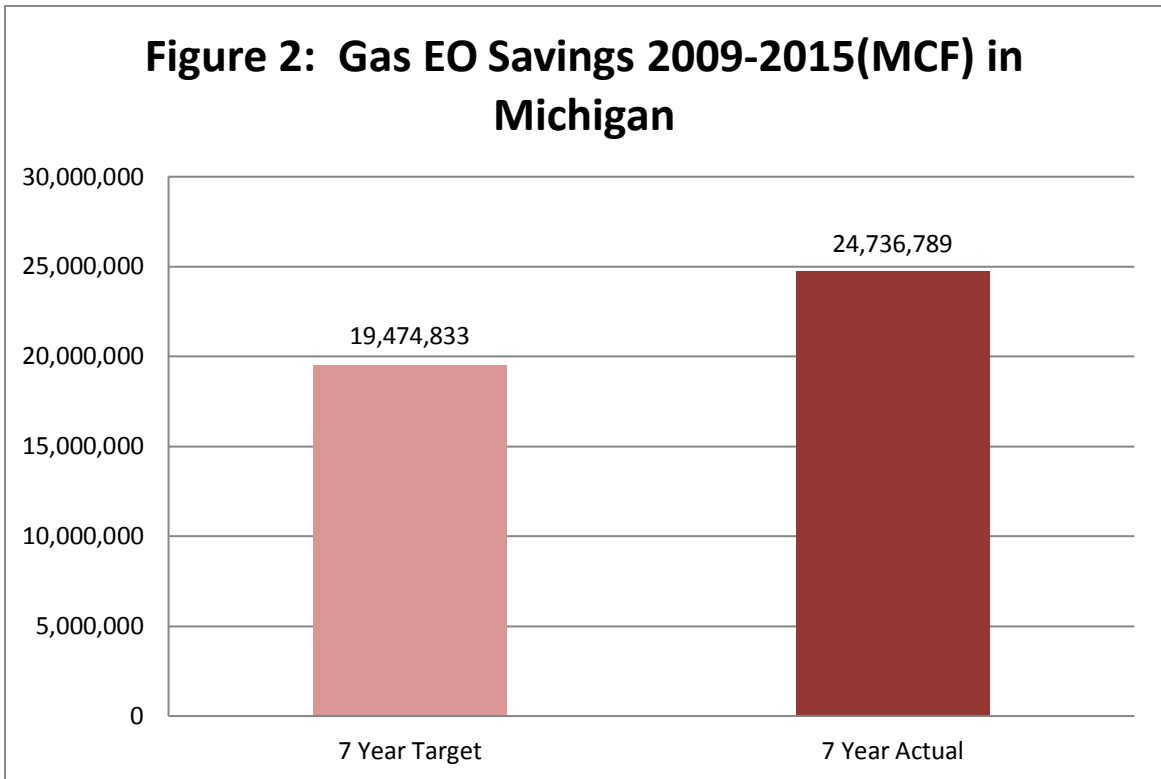
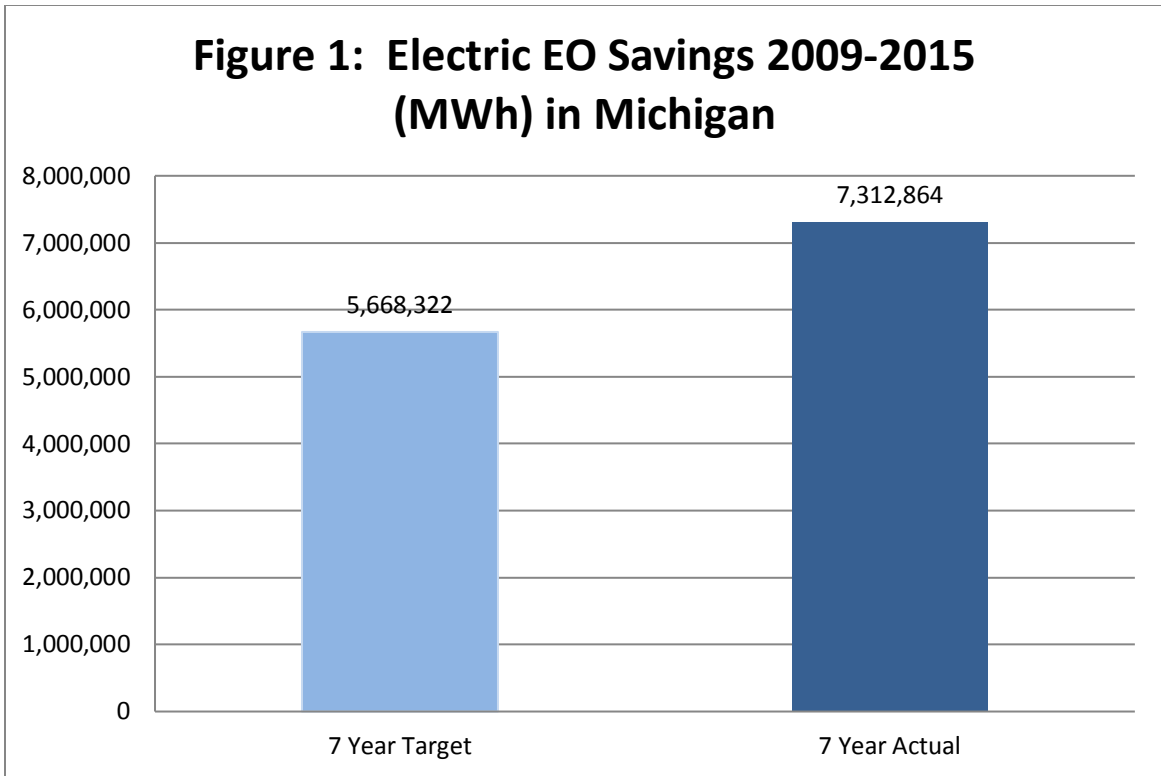
All natural gas and electric utility customers in Michigan are able to participate in energy efficiency programs offered by their local utility. In general, individual programs are divided into two broad categories: residential and commercial/industrial. Residential programs consist of five major categories: 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 295 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. These energy savings targets increased progressively over the four year period from 2009 to 2012 at which time they were fixed at one percent for electric utilities and 0.75 percent for natural gas utilities annually.

For 2015, Michigan utility providers successfully complied with the energy savings targets laid out in PA 295. Providers met a combined average of 121 percent of their electric energy savings targets and 117 percent of their natural gas energy savings targets. EO programs across the state accounted for one year electric savings totaling over 1.1 million MWh (megawatt hours) and natural gas savings totaling over 4.58 million Mcf (thousand cubic feet) for program year 2015.

For the seven year period of 2009 through 2015, EO program savings achieved for electric utility providers were 129 percent of the target. The target and actual electric savings for 2009 through 2015 are shown below in [Figure 1](#). EO program savings achieved for natural gas utility providers were 127 percent of the required target. The total statewide target and actual gas savings for 2009 through 2015 are shown in [Figure 2](#). For a detailed spreadsheet of energy savings targets and achieved energy savings by utility provider, see [Appendix B](#).



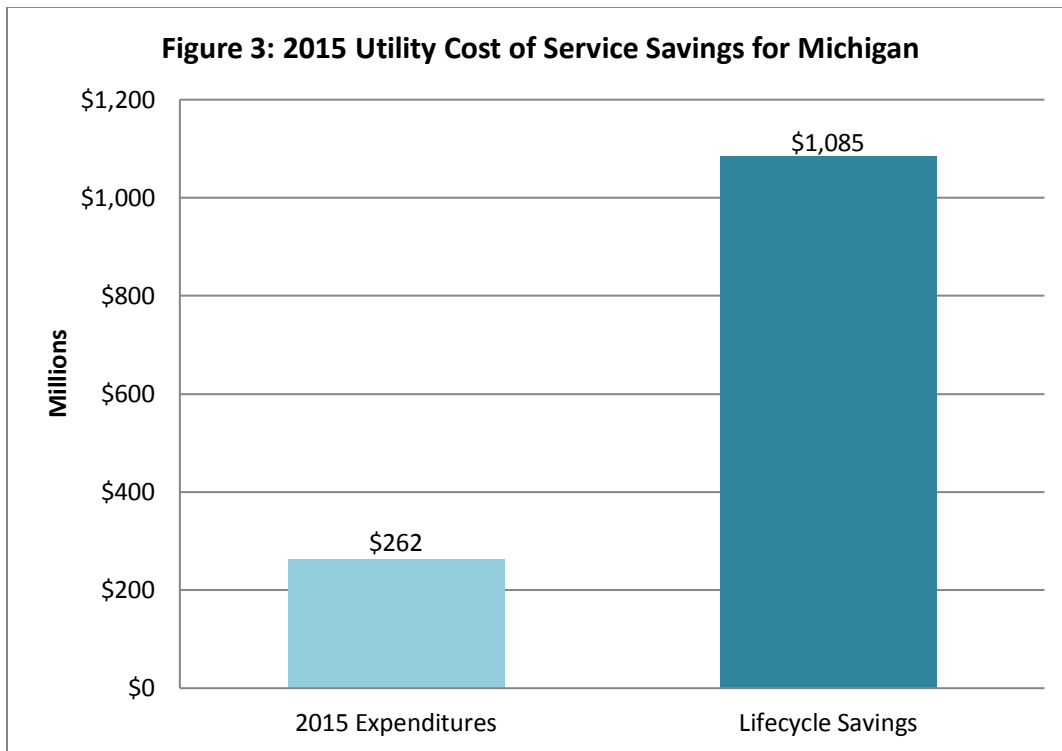
EO Surcharges and Program Funding

Section 71 of PA 295 requires utilities to specify necessary funding levels for the activities being proposed. Commission-regulated utility providers are able to recover their EO program expenditures through a customer surcharge approved by the Commission. Under Section 89 of PA 295, surcharges approved by the Commission are assessed on either an energy usage basis or on a per meter basis. Residential customers pay based on their energy usage. The average residential customer pays approximately \$1 to \$2 per month. Generally, the larger, primary electric or natural gas transportation customer's EO surcharge is based on a per meter charge. Funding information by utility is included in *Appendix C*.

Program Benefits

In 2015, aggregate EO 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 \$1.08 Billion. For every dollar spent on EO programs in 2015, customers should expect to realize benefits of \$4.35. Data provided to the Commission in EO provider annual reports indicate that EO resources were obtained at a statewide levelized cost of \$13.55/MWh, significantly cheaper than supply side options such as new natural gas combined cycle generation at \$56.40/MWh (Source: [U.S. Energy Information Administration Annual Energy Outlook 2016](#)).

The benefits of the EO 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 EO program. The net present value of utility cost of service savings for EO expenditures statewide is shown in *Figure 3*.



Electric EO programs not only delay the need for building new generation, they 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 EO programs also result in hundreds of millions of dollars in fuel cost savings that would have otherwise been spent in order to import energy into Michigan. EO programs also increase demand for equipment and installations from local businesses. In addition, the benefits flowing to Michigan utility customers via the EO program should help reduce utility uncollectible expenses and lower operating costs for Michigan businesses and institutions.

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 295 requires providers to meet the Utility System Resource Cost Test (USRCT). As defined in section 13 of PA 295, the USRCT standard is met for an investment in energy optimization 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 optimization program.

All of the utilities met the cost effectiveness test, with a USRCT score of 1.00 or greater. Providers who chose to use the state administrator did not have to meet this requirement but the state administrator was contractually required to do so.

Section 97 of PA 295 requires the Commission to evaluate and determine whether the energy optimization standards have been cost-effective. The levelized cost of conserved energy for the energy optimization programs in Michigan is \$13.55/MWh, which is lower than other sources of energy supply. This was weighted by the life cycle energy savings, extrapolated through 2029, expected from the companies' Energy Optimization Programs.

Residential Bill Information on Estimated Monthly Savings

Section 45 of PA 295 describes information that a provider shall report to the residential customer on the monthly customer bill. Subsection (5)(c) requires 'An estimated monthly savings, expressed in dollars and cents, for that customer to reflect the reduction in the monthly energy bill produced by the energy optimization program under this act'. The Commission has calculated the following statewide average monthly electric and natural gas savings estimates for use by small providers in lieu of company specific estimates:

The average electric residential customer is expected to save \$5.07 each month of the Energy Optimization program life.

The average natural gas residential customer is expected to save \$5.57 each month of the Energy Optimization program life.

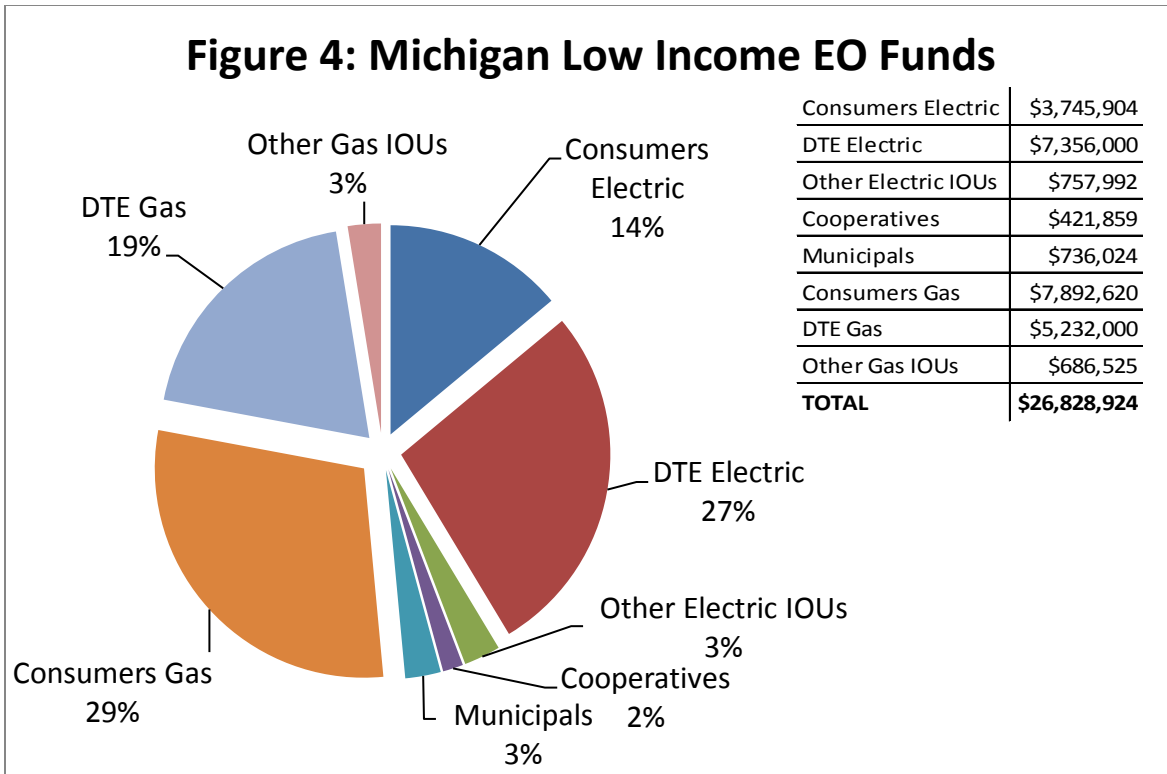
State Administrator: Efficiency United

Section 91 of PA 295 created an option for electric and natural gas providers to offer energy optimization services 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 operates under the name of Efficiency United (EU). Services and offerings are similar to, and coordinated with, those of other providers. Although EU program services are specifically exempt from meeting the PA 295 energy savings targets, equivalent contractual targets were imposed and reached each year since 2009.

Programs for Low Income Customers

Sections 71, 89, and 93 of PA 295 require utilities to offer EO programs for each customer class, including low income residential. All customer classes must contribute proportionally to low income program costs based on their allocation of the utility's total EO budget. Low income EO programs are excluded from the requirement to meet the cost-benefit test. Approximately 10% of the total 2015 EO program expenditures were allocated to income qualified customers. Most Michigan customers at or below 200% of the federal poverty level qualify for these programs. The contribution to low income program costs by Michigan utilities in 2015 is shown in *Figure 4*.



Self-Directed EO Program

Under Section 93 of PA 295, large electric customers that meet certain eligibility requirements may create and implement a customized EO plan, and thus be exempt from paying an EO surcharge except for a portion of income qualified program costs. Electric customer eligibility to participate in the self-directed EO 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 EO program has continued to drop, with 20 customers self-directing in 2015, 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
DTE Electric	26	26	13	7	6	6	6
Consumers Energy	30	30	16	13	11	9	7
Efficiency United	9	11	10	6	6	6	5
Cooperatives	3	3	4	3	3	2	1
Municipals	9	9	4	3	3	1	1
TOTAL	77	79	47	32	29	24	20

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)
DTE Electric	12,486	18,488	7,835	9,535	6,115	6,084	5,749
Consumers Energy	8,515	12,343	7,404	7,118	5,936	5,062	4,899
Efficiency United	5,196	14,568	20,808	30,654	24,515	23,903	2,152
Cooperatives	899	1,498	1,442	1,262	813	533	72
Municipals	2,006	3,343	606	500	450	Not Available	1,136
TOTAL	29,102	50,240	38,095	49,069	37,829	35,582	14,008

Financial Incentive Mechanism

Section 75 of PA 295 allows Commission-regulated utilities to request a financial incentive 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 2009-2015 are listed in *Table 3*.

Table 3: Utility Performance Incentives Awarded or Anticipated through 2015

Program Year	Consumers Energy Electric & Gas	DTE Energy - Electric	DTE Energy - Gas	Indiana Michigan Power Co.	SEMCO Energy Inc.	Annual Total
2009	\$5,685,305	\$3,008,829	\$913,374	n/a	n/a	\$9,607,508
2010	\$8,483,795	\$6,200,000	\$2,400,000	n/a	n/a	\$17,083,795
2011	\$14,593,977	\$8,400,000	\$3,400,000	n/a	n/a	\$26,393,977
2012	\$17,327,620	\$10,400,000	\$4,300,000	n/a	n/a	\$32,027,620
2013	\$17,530,000	\$10,562,411	\$3,848,020	n/a	n/a	\$31,940,431
2014	\$17,322,230	\$12,716,895	\$3,617,094	\$618,074	\$780,795	\$35,055,088
2015*	\$17,700,000	\$13,100,000	\$3,600,000	\$759,727	\$933,725	\$36,093,452
Total	\$98,642,927	\$64,388,135	\$22,078,488	\$1,377,801	\$1,714,520	\$188,201,871

*Anticipated

MPSC Energy Optimization Collaborative

In Case Numbers U-15805 and U-15806, the Commission directed the MPSC Staff to establish a statewide energy optimization 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 energy optimization plans for all providers, offers

program evaluation and support, and develops any necessary redesign improvements to energy efficiency programs. Program Design and Implementation, and Program Evaluation workgroups continued to meet throughout 2015, as well as the Michigan Energy Measures Database Technical Subcommittee.

Michigan Energy Measures Database

Measurement and verification are essential tools in improving Energy Optimization 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 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 295 requires the Commission to establish revenue decoupling mechanisms (RDMs) upon request by those natural gas utilities that have implemented an Energy Optimization program. A gas utility must file a request for an RDM, although 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 Gas and Consumers Energy.

Conclusion

Energy Optimization programs have seen many successes due to continued efforts by utilities and their EO contractors and implementation allies. The 2015 program year is no exception, with utilities meeting or exceeding energy savings targets.

The year 2015 was a biennial review year and all of the utilities filed at least a 2 year plan. The updated plans show that the savings goals can be met with cost effective programs. The work of the EO Collaborative and the ongoing pilots and evaluation activities provide strong support for the evolution of the EO programs. The EO programs continue to attract a wide range of customers from low income residential to large scale industrial customers. The declining number of customers who choose to self-direct also suggests that large customers are finding value in the programs.

Customer benefits are a key outcome of the EO programs. 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 bills. Other benefits, such as reduced emissions and fuel cost savings, provide value to all customers. The EO programs have led to the creation of new jobs in Michigan, by process contractors and by installation contractors. EO programs have also prompted the increasing availability of higher efficiency equipment such as LED lighting for homes and businesses.

The Commission will continue to explore ways to improve the savings and the cost effectiveness of the programs for large and small utilities and to ensure the programs meet the needs of all customers.

2014 -2015 Energy Optimization Plan Filings - Appendix A

2014 - 2015 EO Plan Filings		
COMPANY	Plan Case #	Group
Electric IOUs		
1 Alpena Power Company	U-17350	Efficiency United
2 Consumers Energy Company	U-17351	Independent
3 DTE - Energy Electric	U-17352	Independent
4 Indiana Michigan Power Company	U-17353	Independent
5 Northern States Power Company-Wisconsin	U-17354	Efficiency United
6 Upper Peninsula Power Company	U-17355	Efficiency United
7 Wisconsin Public Service Corporation	U-17356	Efficiency United
8 Wisconsin Electric Power Company	U-17357	Efficiency United
Co-ops		
9 Alger Delta Cooperative Electric Association	U-17367	MI Electric Coop. Assoc.
10 Bayfield Electric Cooperative	U-17368	Efficiency United
11 Cherryland Electric Cooperative	U-17369	Independent
12 Cloverland Electric Cooperative	U-17364	MI Electric Coop. Assoc.
13 Great Lakes Energy Cooperative	U-17370	MI Electric Coop. Assoc.
14 Midwest Energy Cooperative	U-17365	MI Electric Coop. Assoc.
15 Ontonagon Co. Rural Electrification Assoc.	U-17371	MI Electric Coop. Assoc.
16 Presque Isle Electric and Gas Co-op	U-17372	MI Electric Coop. Assoc.
17 Thumb Electric Cooperative	U-17366	MI Electric Coop. Assoc.
18 Tri-County Electric Cooperative	U-17373	MI Electric Coop. Assoc.
Municipals		
19 Village of Baraga	U-17381	Efficiency United
20 City of Bay City	U-17382	MI Public Power Agency
21 City of Charlevoix	U-17383	MI Public Power Agency
22 Chelsea Department of Electric and Water	U-17384	MI Public Power Agency
23 Village of Clinton	U-17385	Independent
24 Coldwater Board of Public Utilities	U-17386	Independent
25 Croswell Municipal Light & Power Department	U-17387	MI Public Power Agency
26 City of Crystal Falls	U-17388	Efficiency United
27 Daggett Electric Department	U-17389	MI Electric Coop. Assoc.
28 City of Dowagiac	U-17391	MI Public Power Agency
29 City of Eaton Rapids	U-17392	MI Public Power Agency
30 City of Escanaba	U-17393	MI Electric Coop. Assoc.
31 City of Gladstone	U-17394	Efficiency United
32 Grand Haven Board of Light and Power	U-17395	MI Public Power Agency
33 City of Harbor Springs	U-17396	Efficiency United
34 City of Hart Hydro	U-17397	MI Public Power Agency
35 Hillsdale Board of Public Utilities	U-17398	Efficiency United
36 Holland Board of Public Works	U-17399	MI Public Power Agency
37 Village of L'Anse	U-17400	Efficiency United
38 Lansing Board of Water & Light	U-17401	Independent
39 Lowell Light and Power	U-17402	MI Public Power Agency
40 Marquette Board of Light and Power	U-17403	MI Electric Coop. Assoc.
41 Marshall Electric Department	U-17404	Independent
42 Negaunee Department of Public Works	U-17405	Efficiency United
43 Newberry Water and Light Board	U-17406	MI Electric Coop. Assoc.
44 Niles Utility Department	U-17407	MI Public Power Agency
45 City of Norway	U-17408	Efficiency United
46 City of Paw Paw	U-17409	MI Public Power Agency
47 City of Petoskey	U-17410	MI Public Power Agency
48 City of Portland	U-17411	MI Public Power Agency
49 City of Sebawaing	U-17412	Independent
50 City of South Haven	U-17413	MI Electric Coop. Assoc.
51 City of St. Louis	U-17414	MI Public Power Agency
52 City of Stephenson	U-17415	MI Electric Coop. Assoc.
53 City of Sturgis	U-17416	MI Public Power Agency
54 Traverse City Light & Power	U-17417	MI Public Power Agency
55 Union City Electric Department	U-17418	Independent
56 City of Wakefield	U-17419	Independent
57 Wyandotte Department of Municipal Service	U-17420	MI Public Power Agency
58 Zeeland Board of Public Works	U-17421	MI Public Power Agency
Gas IOUs		
59 Consumers Energy Company(filing joint w/electric)	U-17351	Independent
60 DTE - Energy Gas	U-17358	Independent
61 Michigan Gas Utilities Corporation	U-17360	Efficiency United
62 Northern States Power Co-Wisc.(filing joint w/elec)	U-17361	Efficiency United
63 SEMCO Energy, Inc.	U-17362	Independent
64 Wisconsin Public Serv. Corp.(filing jointly w/elec)	U-17363	Efficiency United

% of MWH Sales	0.30%			0.50%			0.75%			1%			1%			1%			1%			
	2009 Target	2009 Actual	% Achieved	2010 Target	2010 Actual	% Achieved	2011 Target	2011 Actual	% Achieved	2012 Target	2012 Actual	% Achieved	2013 Target	2013 Actual	% Achieved	2014 Target	2014 Actual	% Achieved	2015 Target	2015 Actual	% Achieved	
Electric IOUs																						
1	Alpena	973	16	2%	2,586	3,859	149%	2,419	3,453	143%	3,244	4,251	131%	3,219	5,352	166%	3,597	6,770	188%	3,305	6,030	182%
2	Consumers Energy	107,939	145,118	134%	178,509	251,187	141%	255,039	353,006	138%	333,360	409,353	123%	335,498	473,045	141%	332,200	466,000	140%	331,877	353,398	106%
3	DTE Energy Electric	160,000	203,000	127%	227,153	402,995	177%	477,000	519,000	109%	455,000	611,000	134%	471,000	614,000	130%	534,000	794,399	149%	485,300	620,700	128%
4	Indiana Michigan	9,159	197	2%	24,110	25,157	104%	22,427	21,626	96%	29,403	30,999	105%	28,743	34,572	120%	28,877	37,634	130%	28,549	35,021	123%
5	UP Power	2,509	350	14%	6,750	6,357	94%	6,363	7,749	122%	8,272	9,494	115%	8,137	11,195	138%	8,142	10,514	129%	8,308	19,676	237%
6	Wisconsin Electric	8,414	44	1%	21,614	21,722	100%	19,800	20,745	105%	26,358	26,499	101%	26,709	28,492	107%	29,916	31,706	106%	4,436	8,071	182%
7	WPSCorp	876	2	0%	2,271	2,474	109%	2,093	2,529	121%	2,739	3,018	110%	2,734	3,466	127%	2,832	3,398	120%	2,855	3,672	129%
8	XCEL Energy	413	0	0%	1,100	1,407	128%	1,031	1,473	143%	1,378	2,074	151%	1,385	1,833	132%	1,400	1,753	125%	1,402	3,200	228%
Subtotal Electric IOUs		290,283	348,727	120%	464,093	715,158	154%	786,172	929,580	118%	859,755	1,096,689	128%	877,425	1,171,955	134%	940,964	1,352,174	144%	866,032	1,049,768	121%
Electric Cooperatives																						
9	Alger Delta	303	22	7%	486	732	151%	448	225	50%	588	658	112%	582	678	116%	574	442	77%	573	729	127%
10	Bayfield	1	0	0%	2	3	150%	14	19	138%	2	2	118%	2	3	150%	2	2	109%	2	2	100%
11	Cherryland	791	751	95%	1,777	2,037	115%	2,699	3,889	144%	3,751	3,798	101%	3,661	3,667	100%	3,840	4,712	123%	3,957	4,367	110%
12	Cloverland/Edison S.	589	46	8%	1,610	1,760	109%	1,502	532	35%	8,149	7,365	90%	8,073	9,548	118%	7,933	8,337	105%	7,929	8,692	110%
13	Great Lakes	4,265	286	7%	10,327	11,765	114%	9,887	5,002	51%	13,240	10,341	78%	13,302	19,479	146%	13,231	13,550	102%	13,210	13,694	104%
14	Midwest	1,618	234	14%	4,390	5,377	122%	4,377	2,191	50%	5,875	5,152	88%	5,905	6,880	117%	5,905	5,951	101%	6,038	6,328	105%
15	Ontonagon	160	5	3%	210	211	100%	189	212	112%	247	253	102%	248	678	273%	247	182	74%	248	387	156%
16	Presque Isle	886	34	4%	1,917	2,621	137%	1,785	1,286	72%	2,362	1,981	84%	2,357	3,176	135%	2,336	2,251	96%	2,329	2,392	103%
17	Thumb	529	64	12%	1,714	1,315	77%	1,121	663	59%	1,507	1,689	112%	1,512	1,784	118%	1,523	1,094	72%	1,534	1,696	111%
18	Tri-County	1,092	262	24%	2,425	5,223	215%	2,337	254	11%	3,121	2,483	80%	3,135	3,852	123%	3,160	3,461	110%	3,152	3,197	101%
Subtotal Electric Coops		10,234	1,704	17%	24,858	31,044	125%	24,359	14,274	59%	38,842	33,722	87%	38,777	49,745	128%	38,751	39,982	103%	38,972	41,484	106%
Municipals																						
19	Baraga	60	97	162%	84	7	8%	226	185	82%	188	191	102%	184	233	127%	187	338	181%	187	319	171%
20	Bay City	896	715	80%	1,473	2,251	153%	1,937	2,317	120%	2,860	3,037	106%	3,124	3,044	97%	3,374	4,012	119%	3,058	3,937	129%
21	Charlevoix	203	79	39%	450	262	58%	678	423	62%	603	643	107%	608	693	114%	324	550	170%	405	602	149%
22	Chelsea	266	409	154%	365	359	98%	696	1,221	175%	366	479	131%	738	893	121%	591	768	130%	874	889	102%
23	Clinton	146	173	118%	113	113	100%	161	164	102%	213	203	95%	227	241	106%	202	208	103%	210	235	112%
24	Coldwater	865	37	4%	2,342	1,379	59%	2,342	1,409	60%	2,589	2,104	81%	2,589	2,056	79%	2,887	3,317	115%	2,858	3,694	129%
25	Crosswell	110	247	225%	133	230	173%	188	180	96%	357	489	137%	355	199	56%	288	307	107%	336	327	97%
26	Crystal Falls	50	718	1436%	60	459	765%	88	92	105%	164	191	116%	162	325	201%	162	408	252%	162	259	160%
27	Dagget Electric Co.	5	7	140%	12	19	158%	11	19	167%	15	26	181%	14	16	114%	12	16	129%	12	46	383%
28	Detroit PLD	2	2	100%	1,587	224	14%	2,986	2,286	77%	865	592	68%	0	0	0%	0	0	0%	0	0	0%
29	Dowagiac	239	52	22%	547	521	95%	543	766	141%	417	538	129%	634	745	118%	660	927	140%	648	1,006	155%
30	Eaton Rapids	154	61	40%	347	298	86%	449	470	105%	455	607	133%	331	830	251%	267	905	339%	239	194	81%
31	Escanaba	427	0	0%	1,212	1,171	97%	1,104	1,072	97%	1,428	1,338	94%	1,471	1,614	110%	1,266	1,294	102%	1,439	1,499	106%
32	Gladstone	97	407	420%	182	267	147%	308	136	44%	328	412	126%	321	341	106%	325	406	125%	325	379	117%
33	Grand Haven	873	921	105%	1,373	1,591	116%	1,878	2,211	118%	2,223	1,912	86%	2,674	3,198	120%	1,712	2,298	134%	2,160	2,993	139%
34	Harbor Springs	112	150	134%	171	167	98%	290	248	86%	358	369	103%	375	409	109%	375	572	153%	379	427	113%
35	Hart	115	101	88%	196	193	98%	299	140	47%	394	265	67%	421	562	133%	309	461	149%	276	339	123%
36	Hillsdale	429	415	97%	726	1,216	167%	536	643	120%	1,275	1,508	118%	1,212	1,572	130%	1,205	1,562	130%	1,193	1,790	150%
37	Holland	3,089	3,382	109%	4,849	5,481	113%	6,477	7,762	120%	7,948	8,116	102%	9,821	10,934	111%	10,399	10,861	104%	10,173	12,865	126%
38	L'Anse	42	123	293%	79	10	13%	162	600	370%	137	174	127%	132	166	126%	127	213	168%	122	601	493%
39	LBWL	6,831	6,972	102%	11,165	11,524	103%	15,877	17,587	111%	19,280	23,147	120%	18,363	26,757	146%	18,011	23,094	128%	20,521	30,150	147%
40	Lowell	180	289	161%	226	269	119%	432	578	134%	483	503	104%	548	444	81%	688	697	101%	675	827	123%
41	Marquette	872	0	0%	2,534	3,198	126%	2,435	1,827	75%	3,098	2,912	94%	3,199	3,827	120%	2,403	2,861	119%	3,070	3,185	104%
42	Marshall	357	363	102%	579	835	144%	605	1,129	187%	537	868	162%	725	1,039	143%	746	756	101%	1,039	859	83%
43	Negaunee	67	274	409%	92	85	92%	199	116	58%	217	256	118%	221	317	143%	222	271	122%	226	398	176%
44	Newberry	17	0	0%	148	124	84%	144	155	108%	192	243	127%	140	206	147%	129	141	109%	199	243	122%
45	Niles	440	234	53%	802	718	90%	1,122	1,052	94%	1,287	1,003	78%	1,496	1,233	82%	1,328	1,401	105%	1,223	1,281	105%
46	Norway	94	120	128%	159	76	48%	317	313	99%	300	386	128%	294	1,128	384%	293	501	171%	292	361	124%
47	Paw Paw	116	109	94%	201	115	57%	373	177	47%	480	450	94%	458	497	109%	344	1,747	508%	22	463	2105%
48	Petoskey	232	880	379%	404	599	148%	809	477	59%	1,080	839	78%	1,116	688	62%	1,907	1,870	98%	1,114	1,308	117%
49	Portland	107	103	96%	182	210	115%	240	155	65%	362	332	92%	372	366	98%	298	318	107%	343	563	164%
50	Sebewaing	125	531	425%	158	995	630%	203	305	150%	311	1,017	327%	163	716	439%	223	676	303%	223	714	320%
51	South Haven	411	423	103%	688	610	89%	1,135	909	80%	1,312	1,582	121%	1,315	1,425	108%	1,347	2,437	181%	1,342	2,525	188%
52	St. Louis	120	77	64%																		

Utilities	Annual Funding				
	2009-2011	2012	2013	2014	2015
Electric IOUs					
1 Alpena	\$711,512	\$510,504	\$456,435	\$586,815	\$420,528
2 Consumers	\$104,546,754	\$67,369,007	\$69,097,040	\$74,900,000	\$76,200,000
3 DTE Energy Electric	\$117,539,193	\$69,600,000	\$74,900,000	\$84,779,297	\$87,100,000
4 Indiana Michigan	\$5,432,573	\$4,420,319	\$4,517,294	\$4,120,487	\$5,064,846
5 UP Power	\$2,555,556	\$1,967,085	\$1,834,617	\$1,626,752	\$1,491,437
6 Wisconsin Electric	\$983,889	\$931,154	\$883,440	\$820,905	\$727,502
7 WPSCorp	\$553,620	\$381,404	\$409,687	\$714,535	\$309,185
8 Xcel Energy Electric	\$299,179	\$234,475	\$203,557	\$222,747	\$230,593
Subtotal Electric IOUs	\$232,622,276	\$145,413,948	\$152,302,070	\$167,771,538	\$171,544,091
Electric Coops					
9 Alger Delta	\$201,039	\$148,468	\$155,303	\$150,910	\$183,629
10 Bayfield	\$1,043	\$866	\$1,271	\$638	\$719
11 Cherryland	\$439,729	\$174,515	\$329,623	\$344,215	\$289,921
12 Cloverland/Edison Sault	\$1,327,578	\$904,920	\$1,273,334	\$1,080,115	\$1,147,541
13 Great Lakes	\$2,656,920	\$1,503,475	\$2,142,034	\$1,849,764	\$1,858,446
14 Midwest	\$1,327,889	\$841,983	\$929,834	\$1,049,336	\$1,137,178
15 Ontonagon	\$122,508	\$45,447	\$52,279	\$43,648	\$42,246
16 Presque Isle	\$707,182	\$313,565	\$425,955	\$346,051	\$364,501
17 Thumb	\$375,517	\$227,833	\$254,229	\$234,950	\$299,744
18 Tri-County	\$814,853	\$378,650	\$443,333	\$493,557	\$499,903
Subtotal Electric Coops	\$7,974,258	\$4,539,722	\$6,007,195	\$5,593,184	\$5,823,828
Municipals					
19 Baraga	\$42,794	\$48,700	\$42,490	\$39,737	\$37,467
20 Bay City	\$779,774	\$469,307	\$479,666	\$578,296	\$700,192
21 Charlevoix	\$124,543	\$68,757	\$78,900	\$63,353	\$94,145
22 Chelsea	\$174,424	\$72,410	\$36,909	\$108,690	\$127,311
23 Clinton	\$15,365	\$9,465	\$11,949	\$9,391	\$16,245
24 Coldwater	\$329,201	\$536,800	\$536,000	\$301,048	\$265,514
25 Croswell	\$74,315	\$43,500	\$57,029	\$84,861	\$38,081
26 Crystal Falls	\$82,466	\$43,440	\$43,059	\$55,740	\$33,006
27 Daggett	\$3,199	\$2,469	\$1,993	\$1,875	\$1,852
28 Detroit PLD	\$527,650	\$141,860			
29 Dowagiac	\$179,237	\$66,347	\$113,166	\$113,643	\$121,180
30 Eaton Rapids	\$99,978	\$67,040	\$86,412	\$84,448	\$58,887
31 Escanaba	\$271,926	\$191,237	\$211,714	\$160,238	\$265,300
32 Gladstone	\$106,122	\$79,460	\$61,598	\$70,807	\$54,825
33 Grand Haven	\$601,512	\$228,811	\$173,729	\$370,376	\$376,155
34 Harbor Springs	\$80,329	\$43,205	\$64,774	\$56,859	\$47,197
35 Hart Hydro	\$65,815	\$38,926	\$68,214	\$74,927	\$51,966
36 Hillsdale	\$218,169	\$214,108	\$196,493	\$201,931	\$191,637
37 Holland	\$2,056,460	\$1,066,505	\$1,265,403	\$1,472,659	\$1,072,065
38 L'Anse	\$37,661	\$31,114	\$22,350	\$25,586	\$28,353
39 LBWL	\$5,457,314	\$3,260,845	\$3,612,207	\$3,537,494	\$3,878,490
40 Lowell	\$147,825	\$63,247	\$92,874	\$136,862	\$74,326
41 Marquette	\$701,097	\$488,019	\$468,288	\$403,665	\$500,865
42 Marshall	\$137,457	\$55,902	\$74,234	\$84,910	\$74,853
43 Negaunee	\$93,777	\$65,940	\$54,094	\$45,694	\$40,818
44 Newberry	\$43,332	\$31,159	\$34,013	\$16,728	\$32,887
45 Niles	\$300,065	\$129,103	\$120,312	\$222,279	\$190,805
46 Norway	\$98,179	\$72,560	\$81,451	\$65,792	\$55,267
47 Paw Paw	\$64,413	\$55,998	\$24,638	\$79,359	\$70,204
48 Petoskey	\$170,584	\$96,140	\$24,929	\$167,240	\$174,399
49 Portland	\$80,819	\$41,497	\$60,388	\$57,832	\$65,519
50 Sebewaing	\$119,312	\$43,577	\$79,772	\$54,616	\$61,591
51 South Haven	\$281,730	\$260,203	\$224,941	\$240,518	\$226,012
52 St. Louis	\$86,583	\$53,446	\$66,106	\$73,664	\$60,509
53 Stephenson	\$16,467	\$7,799	\$8,055	\$6,854	\$8,738
54 Sturgis	\$462,458	\$242,340	\$230,663	\$316,200	\$332,581
55 Traverse City	\$865,596	\$612,250	\$394,329	\$460,846	\$387,710
56 Union City	\$18,295	\$11,577	\$12,738	\$9,679	\$25,187
57 Wakefield	\$18,908	\$6,186	\$10,525	\$5,596	\$19,062
58 Wyandotte	\$714,828	\$238,925	\$205,254	\$346,719	\$346,202
59 Zeeland	\$618,228	\$285,371	\$420,021	\$405,471	\$392,449
Subtotal Municipals	\$16,368,207	\$9,585,545	\$9,851,680	\$10,612,483	\$10,599,852
Subtotal Statewide Electric	\$256,964,741	\$159,539,215	\$168,160,945	\$183,977,204	\$187,967,771
Gas Companies					
60 Consumers	\$87,207,089	\$48,148,786	\$47,776,959	\$40,600,000	\$41,900,000
61 DTE Energy Gas	\$48,112,540	\$28,600,000	\$25,600,000	\$24,113,957	\$24,000,000
62 MGU	\$5,308,430	\$3,671,084	\$3,471,355	\$2,563,990	\$2,269,607
63 SEMCO Energy	\$10,285,456	\$6,242,032	\$7,363,011	\$5,469,134	\$5,930,748
64 WPSCorp	\$169,938	\$91,685	\$98,743	\$77,633	\$78,803
65 Xcel Energy Electric	\$218,623	\$109,531	\$112,867	\$102,188	\$101,642
Subtotal Statewide Gas	\$151,302,076	\$86,863,118	\$84,422,935	\$72,926,902	\$74,280,800
Total Gas and Electric	\$408,266,817	\$246,402,333	\$252,583,880	\$256,904,107	\$262,248,571