

2023 Efficiency United

Annual Report



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Executive Summary

Michigan's Energy Waste Reduction (EWR) standard was created under Public Act 295. Public Act 342, known as the Clean and Renewable Energy and Energy Waste Reduction Act, amends Michigan's 2008 energy law, Act 295. Public Acts 341 and 342 of 2016 updated portions of the gas and electric provider energy efficiency programs (formerly known as energy optimization programs and now referred to as energy waste reduction programs) and created new requirements. Efficiency United is the brand name for EWR programs offered on behalf of participating providers or retail electric and natural gas services.

The MPSC selected Michigan Community Action (MCA) with CLEAResult as its primary implementation contractor, to administer Efficiency United EWR programs. MCA is a nonprofit state association, which provides programs and services, such as weatherization, to help income

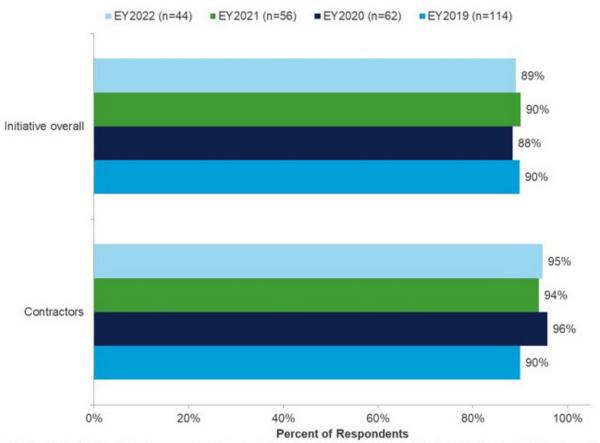
qualified individuals and families throughout the state achieve greater economic self-sufficiency and stability. MCA has extensive experience with administering grant funded weatherization and energy efficiency programs. The contract between the State of Michigan and MCA includes energy savings targets for each participating provider.

In 2023, Efficiency United delivered cost-effective energy savings garnering high levels of customer satisfaction. This was accomplished through the coordinated delivery of Income Qualified (IQ), residential and Commercial and Industrial (C&I) programs all offering multiple participation pathways for participating provider customers. Program representation maintained a strong physical presence across the various utility service territories engaging with trade allies and customers alike, participating in events to further promote Efficiency United.

Satisfaction

For each energy efficiency program and in each program year, DNV asked participants about their level of overall satisfaction with the program, using a five-point satisfaction scale where five meant "very satisfied" and one meant "very dissatisfied." The following figures show the percentage of respondents who gave each program a rating of four or five. High participant satisfaction with Efficiency United's program has remained strong through the 2023 program year.

Figure 1: Satisfaction With Contractors and the Income Qualified Program, EY 2020 to 2023



Note: Respondent satisfaction with the scheduling process and the length of time the contractors spent in participants' residences do not appear in this figure because they were only added in EY2022.

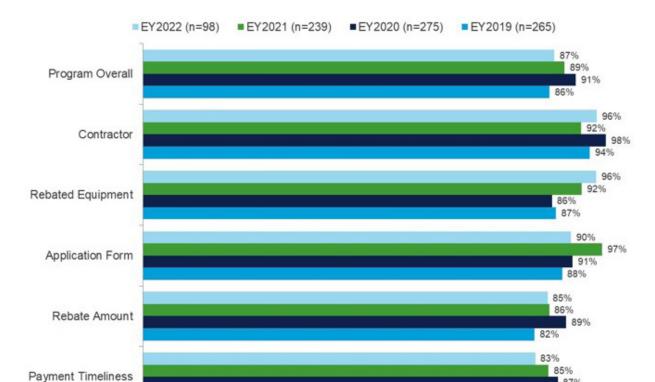


Figure 2: Satisfaction With HP Program Characteristics, EY 2020 to 2023

0%

Note: Satisfaction with the Application Form factors out respondents who said they did not fill out any applications or paperwork for their measure(s). Likewise, satisfaction with Payment Timeliness factors out those who said they did not know how long it took.

40%

Percent of Respondents Satisfied (4 or 5 on five-point scale)

20%

87%

100%

82%

80%

Gas Portfolio Achievements

Efficiency United Natural Gas Total Incentives

Class	2023 Incentive Budget	2022 Incentive Unspent	Total Available 2023 Incentive Budget	Incentive Spent	Incentive Remaining*	Incentive Spent (% Portfolio)
Income Qualified	\$268,455	-	\$268,455	\$236,031	\$32,424	17%
Residential	\$1,144,377	\$110,170	\$1,254,547	\$769,409	\$485,138	56%
Commercial and Industrial	\$548,379	\$60,603	\$608,982	\$359,032	\$249,950	26%
Total	\$1,961,210	\$170,773	\$2,131,983	\$1,364,472	\$767,511	100%

^{*}Remaining incentive funds will be carried forward into the 2023 EWR programs.

Efficiency United Natural Gas Total Implementation

Class	2023 Implementation Budget	Implementation Spent	Remaining	Implementation Spent (% Portfolio)
Income Qualified	\$178,970	\$178,970	-	13%
Residential	\$796,526	\$796,526	-	59%
Commercial and Industrial	\$381,691	\$381,691	-	28%
Total	\$1,357,187	\$1,357,187	-	100%

Efficiency United Natural Gas First-Year Therm Savings

Class	2023 Therm Target	Therms Achieved	% Achieved	% Portfolio
Income Qualified	92,456	50,831	55%	2%
Residential*	650,979	530,773	82%	25%
Commercial and Industrial	1,102,675	1,562,597	142%	73%
Total	1,846,110	2,144,201	116%	100%

The Appendix includes a detailed Efficiency United collection breakdown by utility.

Electric Portfolio Achievements

Efficiency United Electric Total Incentives

Class	2023 Incentive Budget	2022 Incentive Unspent	Total Available 2023 Incentive Budget	Incentive Spent	Incentive Remaining*	Incentive Spent (% Portfolio)
Income Qualified	\$168,037	-	\$168,037	\$136,260	\$31,777	11%
Residential	\$512,961	\$297,350	\$810,311	\$522,426	\$287,885	43%
Commercial and Industrial	\$1,159,109	\$856,142	\$2,015,251	\$568,832	\$1,446,419	46%
Total	\$1,840,107	\$1,153,492	\$2,993,599	\$1,227,518	\$1,766,081	100%

^{*}Remaining incentive funds will be carried forward into the 2023 EWR programs.

Efficiency United Electric Total Implementation

Class	2023 Implementation Budget	Implementation Spent	Remaining	Implementation Spent (% Portfolio)
Income Qualified	\$112,025	\$112,025	-	9%
Residential	\$357,039	\$357,039	-	28%
Commercial and Industrial	\$804,319	\$804,319	-	63%
Total	\$1,273,382	\$1,273,382	-	100%

Efficiency United Electric First-Year kWh Savings

Class	2023 kWh Target	kWh Achieved	% Achieved	% Portfolio
Income Qualified	210,538	215,903	103%	1%
Residential*	3,979,290	7,722,881	194%	38%
Commercial and Industrial	13,280,172	12,530,596	94%	61%
Total	17,470,000	20,469,380	117%	100%

The Appendix includes a detailed Efficiency United collection breakdown by utility.



158 total participants

50,831 first-year net therm savings achieved

215,903 first-year net kWh savings achieved

\$372,291 incentives distributed

INCOME QUALIFIED

Class Overview

Program Design

The 2023 Efficiency United Income Qualified (IQ) Program was designed to provide income-constrained customers with low- to no-cost, energy-efficient equipment and home envelope upgrades. This was achieved by leveraging strategic partnerships and encouraging the braiding of multiple funding sources through a robust contractor networks, community-based organizations and public housing.

In 2023 the program was able to participate in market outreach opportunities and in-person events, including:

- In-person education
- Conferences
- Resource fairs
- Community presentations

Administered by CLEAResult, the program was able to achieve its energy savings and incentive investment objectives while creating a positive impact for income qualified customers across all Efficiency United utility territories.

Challenges and Risks

Economic and workforce impacts were felt throughout Michigan and often more severely in low-income residential communities. Rising costs of labor and materials proved a difficult challenge in balancing the level of participation while still achieving energy savings goals. In addition to material cost increases, Trade Allies experienced high turnover and labor shortages, making it difficult to complete projects and provide required documentation on a consistent and timely basis.

Manufactured Homes Initiative

The Efficiency United IQ Program continued to serve eligible customers through the Manufactured Homes Initiative (MHI) throughout the year. Energy efficiency enhancements provided to over 51 low-income residents living in manufactured homes included duct and air sealing, heating system tune-ups and direct install fixtures.

Multifamily

Through our partnership with housing commissions and local non-profit organizations, the IQ Program was able to leverage program funding with rental income and federal housing subsidies. Public housing improvements can include space- and water-heating upgrades, weatherization services and many direct installation items. By completing these cost-effective installations, multifamily properties can ensure that all residents are provided with an efficient and comfortable place to live. Multiple public housing and non-profit organizations participated in the 2023 IQ Program, including:

- Alpena Housing Commission
- Bessemer Housing Commission
- Iron Mountain and Kingsford Housing Commissions

Community Action Agency Collaboration

The 2023 IQ Program continued to work collaboratively with multiple community action agencies across the state, including Southwest Michigan CAA, Monroe County Opportunity Program, Northeast Michigan Community Services Agency, Gogebic-Ontonagon CAA among others. Through customer referrals, shared marketing and education, the program was able to provide a higher level of service to the income qualfied population within Efficiency United service territories.

Income Qualified Program Incentive Budgets

Provider	2023 Incentive Budget	Incentive Carryforward Remaining From Previous Years	Total Available Incentive Budget	Incentive Spent	% of Budget Spent (Based on 2023 Incentive Budget)	Remaining Incentive Budget*
			Electric Utilities			
Alpena	\$45,742	-	\$45,742	\$2,500	5%	\$43,242
UMERC - Electric	\$88,442	-	\$88,442	\$80,494	91%	\$7,948
Xcel Energy – Electric	\$33,853	-	\$33,853	\$53,266	157%	\$(19,413)
Total Electric	\$168,037	-	\$168,037	\$136,260	81%	\$31,777
			Natural Gas Utilities			
MGU	\$251,889	-	\$251,889	\$219,425	87%	\$32,464
UMERC - Gas	\$6,859	-	\$6,859	\$6,900	101%	\$(41)
Xcel Energy – Gas	\$9,706	-	\$9,706	\$9,706	100%	\$0
Total Natural Gas	\$268,455	-	\$268,455	\$236,031	88%	\$32,424

^{*}Incentive funds will be transferred from the residential class where overdraws are present.

Income Qualified Energy Savings

Provider	Number of Participants	Annual kWh/ Therms Goal	2023 kWh/ Therms Achieved	2022 Carryforward Savings	Total kWh/ Therms Achieved	% of Goal Achieved
			Electric Utilities			
Alpena	1	55,102	2,612	18,367	20,979	38%
UMERC - Electric	8	112,530	87,998	37,510	125,508	112%
Xcel Energy – Electric	27	42,905	69,416	-	69,416	162%
Total Electric	36	210,537	160,026	55,877	215,903	103%
		N	atural Gas Utilities			
MGU	116	91,393	22,510	27,646	50,156	55%
UMERC - Gas	2	238	440		440	185%
Xcel Energy – Gas	4	826	235	-	235	28%
Total Natural Gas	122	92,456	23,184	27,646	50,831	55%





ENERGY STAR® PROGRAM OVERVIEW

26,600 total participants

3,740

first-year net therm savings achieved

6,507,832

first-year net kWh savings achieved

\$436,825

incentives distributed

RESIDENTIAL

Class Overview

Class Achievements

Throughout 2023, the Efficiency United Residential Program provided various opportunities for participation in energy efficiency initiatives, encouraging investment through rebate and program opportunities.

This report will delve deeper into the following programs:

- ENERGY STAR Program
- Appliance Recycling Program
- Home Performance Initiatives
- Residential Education Program
- Residential Pilot Program

ENERGY STAR Program Overview

The ENERGY STAR Program delivered successful results and desirable customer satisfaction by way of instant rebate channels. Through partnership with retail locations across the service territory, point-of-purchase materials showcased incentive opportunities available to utility customers. These materials were supplemented with inperson engagement and education of retail store staff to ensure consistency of the offer.

The ENERGY STAR Program offered financial incentives for the purchase of the following products:

- LED light bulbs
- Handheld shower wand
- Showerheads
- Kitchen and bath aerators

The program also provided energy efficiency kits conveniently offering customers energy waste reduction opportunities without the need to leave their homes. Customers were sent direct mailers offering the energy kit and were invited to request a no-cost kit through a unique online URL. Customers were offered a choice between two different energy kits. One contained all interior measures, and the other had a mix of both interior and exterior measures. The program experienced high customer response and satisfaction through this initiative. The 2023 Residential ENERGY STAR Program delivered 5,743 kits.



89 total participants

239 first-year net therm savings achieved

3,989 first-year net kWh savings achieved

\$2,425 incentives distributed

RESIDENTIAL

ENERGY STAR® Appliance Rebate Program

Through the Efficiency United ENERGY STAR Appliance Rebate Program, customers accessed mail-in rebate opportunities for a variety of qualifying energy-efficient appliances. Program representatives educated retailer employees to help them understand program guidelines and how to encourage consumer purchases of high-efficiency appliances. Marketing materials were also updated and replenished to further empower retailer employees as program ambassadors.

2023 Rebated Appliances

- Clothes washer
- Clothes dryer
- Dishwasher
- Dehumidifier

ENERGY STAR Program Overview

Provider	Number of Participants	Incentive Spent	2022 Carryforward Savings	Bulbs From 2021 & 2022	2023 kWh/ Therms Achieved	Total kWh/ Therms Achieved	2023 Annual kWh/Therms Goal	% of Savings Goal Achieved
			Ele	ectric Utilities				
Alpena	10,066	\$124,348	154,368	419,953	1,454,014	2,028,335	463,104	438%
UMERC - Electric	11,785	\$214,898	24,708	774,187	2,364,532	3,163,427	2,213,513	143%
Xcel Energy – Electric	4,683	\$95,987	-	217,736	1,098,334	1,316,070	590,374	223%
Total Electric	26,534	\$435,233	179,076	1,411,876	4,916,880	6,507,832	3,266,991	199%
			Natu	ıral Gas Utilities	;			
MGU	59	\$1,523	3,396	-	261	3,656	11,225	33%
UMERC - Gas	1	\$50	-	-	8	8	339	2%
Xcel Energy - Gas	6	\$20	-	-	76	76	633	12%
Total Natural Gas	66	\$1,593	3,396	-	344	3,740	12,197	31%

Appliance Recycling Program

1/9 total participants

894,286

first-year net kWh savings achieved

\$20,480 incentives distributed

Program Design

The 2023 Appliance Recycling Program offered two convenient ways for participating utility customers to remove older inefficient appliances off the power grid. These included drop-off events and in-home collection of refrigerators, mini-refrigerators, freezers, room air conditioners and dehumidifiers.

Participation was generated through multiple channels, including direct mail flyers, advertising through partner organizations, outreach events, the Efficiency United website, and member utility websites. The following incentives were provided per recycled unit at no cost to the customer:

- \$50 refrigerator or freezer
- \$20 room air conditioner or dehumidifier
- \$15 mini-refrigerator

Notable Activities

There were three drop-off events throughout the year in Iron Mountain, Ironwood and Alpena Michigan. The events were advertised to local customers in the weeks leading up to the events and led to very successful participation. To cross-promote additional program offerings the drop-off events were scheduled to coincide with the Day of Energy Savings events. Additionally, energy savings kits were offered to any participant that had not received one in the past two years. There was a total of 3 home pickup routes scheduled to run in a concurrent timeframe as the drop-off events. Overall, 179 eligible units were recycled during the program year.

Appliance Recycling Program Overview

Provider	Number of Participants	Incentive Spent	2022 Carryforward Savings	2023 kWh/ Therms Achieved	Total kWh/ Therms Achieved	2023 Annual kWh/Therms Goal	% of Savings Goal Achieved
			Electric U	tilities			
Alpena	52	\$6,120	20,541	44,323	64,864	61,624	105%
UMERC - Electric	82	\$9,885	737,838	62,873	800,711	74,124	1080%
Xcel Energy – Electric	45	\$4,475	-	28,711	28,711	88,040	33%
Total Electric	179	\$20,480	758,379	135,907	894,286	223,787	400%

4,227 total participants

495,054

first-year net therm savings achieved

195,068

first-year net kWh savings achieved

\$765,672

incentives distributed

RESIDENTIAL

Home Performance Program

The Home Performance Program provides residential customers with educational resources and rebates for energy-efficient home improvements.

The 2023 program offered rebates on:

- Air and duct sealing
- ENERGY STAR® certified products (such as air purifiers, clothes dryers, room A/Cs and TVs)
- Heating and cooling systems
- Heating and cooling add-ons (such as boiler reset controls, thermostats, ECM fans and pumps)
- Insulation
- Water heaters
- Windows and doors

Additional services offered through the Home Performance Program included:

- Contractor Network
- Home Energy Assessment
- Manufactured Home Initiative

Contractor Network

The Efficiency United Energy Waste Reduction Program continued to maintain an open network of participating contractors in 2023. Utilizing an open network allows participating customers to work with familiar contractors and for applications to be submitted by customer or contractor which boosts the ease of participation.

Modifications to the Michigan Energy Measures Database (MEMD) in 2023 not only affected saving and rebate levels, it also prompted change to the contractor network and how the program interacts with the network. An emphasis was placed on engagement through the recruitment of weatherization contractors resulting in adding seventeen newly engaged insulation and air sealing contractors.

The entirety of the Efficiency United contractor network is composed of highly skilled HVAC, weatherization, plumbing and building science experts across the service territories of Efficiency United participating utilities. The team helps nurture these relationships by:

- Serving as a single point of contact for all program needs
- Training contractors on program opportunities and new energy-efficient technologies
- Providing market differentiation and energy efficiency sales training
- Providing timely updates regarding applications, rebates, and bonus opportunities
- Incorporating contractor feedback into program design

The contractor outreach team continues to be highly focused on maintaining direct and personal connections with contractors.

2023 Contractor Engagement

Utility	In-Person Contractor Visits	Unique Contractor Touchpoints
Alpena	12	34
MGU	31	183
UMERC	87	132
XCEL	28	91

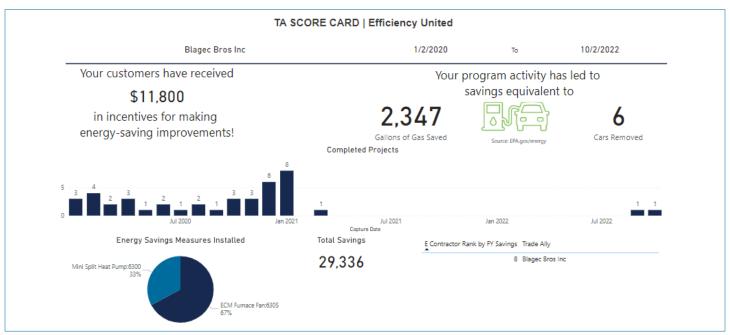
To enhance program understanding and awareness, participating contractors received quarterly newsletters highlighting measures of seasonal importance, available bonuses and measure education.

Efficiency United Gas Scorecard

The Trade Ally Scorecard continued to be utilized in 2023 to provide contractors with additional opportunities and insights into their impact on the community.



Efficiency United Electric Scorecard



Home Energy Assessments

In the framework of the 2023 Home Performance Program, we extended an invitation for Complimentary Home Energy Assessments (HEAs). This initiative serves as an initial stride towards enhancing energy efficiency and provides an excellent opportunity for homeowners to gain insights into their home's energy consumption dynamics.

During an HEA, a Building Performance Institute certified analyst conducts a comprehensive visual assessment, evaluating the home's appliances, envelope, and mechanical systems. The analyst engages in a discussion about the occupants' energy behaviors, aiming to achieve a holistic understanding of the home's current energy needs and usage patterns.

For eligible customers, the analyst installs upgrades at no charge, including high-efficiency showerheads, aerators, water heater pipe insulation, LED light bulbs, and a carbon monoxide detector. These enhancements contribute to both energy savings and improved safety.

Upon completion of the assessment, customers receive a detailed report encompassing the analyst's recommendations, along with information about available rebates and program offerings. To further incentivize the implementation of recommended improvements, the program continues to provide a one-time bonus of up to \$200 upon the completion of a qualifying improvement. This ongoing commitment underscores our dedication to supporting homeowners in their journey towards sustainable and energy-efficient living.

Manufactured Home Initiative (MHI)

Since its inception in 2015, the MHI program has been committed to providing complimentary, energy-saving upgrades to residents of manufactured homes. Manufactured homes, encompassing factory-built, prefabricated housing, mobile homes, and residences within mobile home communities have been the focus of our efforts.

In addition to employing traditional demand generation methods, the program organized and hosted community barbecues, fostering a sense of unity among community members. These events served as platforms for individuals to discover the program's benefits and share their experiences. Through collaborative efforts, the program and property managers worked seamlessly to deliver no-cost upgrades to enhance the energy efficiency of residents' homes.

Based on a customer's eligibility, they may receive:

- Air sealing
- Duct system repair and sealing
- Furnace tune-up
- High-efficiency showerheads and faucet aerators
- Water heater pipe insulation
- Carbon monoxide detectors

Marketing and Outreach

The Efficiency United Residential Program team utilizes a proactive engagement approach to build upon the current contractor and customer base. While Efficiency United's market outreach strategy is based on a strong contractor network, proactive engagement remains a priority with contractors and customers. Due to a trend in rising costs associated with supplier/distributor counter days and other contractor-facing events weighed against the benefits of such events, the outreach team opted to place additional emphasis on individual contractor outreach while remaining engaged in event opportunities to build program awareness. In 2023 the Market Outreach team attended:

- Five customer-facing program promotion and education events
- Three contractor-facing program promotion and education events
- Three Day of Energy Savings multiple-day events
- Michigan Habitat for Humanity Conference
- One educational heat pump contractor online seminar with on-demand viewing availability





Event	Date(s)	Location
Ironwood Community Development Lunch	January 25th, 2023	Ironwood, MI
Monroe County Home Builders Association Home Improvement Show	February 24th - 26th, 2023	Monroe, MI
Michigan Habitat for Humanity Homes Conference	February 21st - 23rd, 2023	Roscommon, MI
Upper Peninsula Builders Show	March 10th - March 12th, 2023	Marquette, MI
Forslund Building Supply Products Show	April 26th, 2023	Ironwood, MI
Menominee Landlord Association Presentation	May 16th, 2023	Menominee, MI
UMERC WE Energies Day Of Energy Savings Event	June 7th - June 8th, 2023	Iron Mountain, MI
Heat Pumps for Cold Weather Climates Education Webinar	June 14th, 2023	Virtual and On Demand
Xcel Energy Day Of Energy Savings Event	July 20th - 21st, 2023	Ironwood, MI
Alpena Power Day Of Energy Savings Event	August 24th - 25th, 2023	Alpena, MI
Lake Superior Leadership Academy Presentations	September 7, 2023	Ishpeming, MI

Home Performance Program Overview

Provider	Number of Participants	Incentive Spent	2022 Carryforward Savings	2023 kWh/ Therms Achieved	Total kWh/ Therms Achieved	2023 Annual kWh/Therms Goal	% of Savings Goal Achieved
			Electric Uti	lities			
Alpena	32	\$17,843	32,362	30,491	62,852	42,933	146%
UMERC - Electric	32	\$16,257	86,877	23,693	110,570	47,769	231%
Xcel Energy – Electric	27	\$15,666	-	21,645	21,645	62,625	35%
Total Electric	91	\$49,766	119,239	75,829	195,068	153,326	127%
			Natural Gas l	Jtilities			
MGU	3,939	\$681,381	178,740	302,701	481,441	535,395	90%
UMERC - Gas	50	\$11,250	-	3,838	3,838	14,265	27%
Xcel Energy - Gas	147	\$23,275	-	9,776	9,776	29,646	33%
Total Natural Gas	4,136	\$715,906	178,740	316,314	495,054	579,306	85%



1,530 kits distributed

22,303 first-year therm savings achieved

125,695 first-year kWh savings achieved

RESIDENTIAL

Education Program

Program Design

Efficiency United continued its partnership with the National Energy Foundation (NEF) to deliver its Residential Education Program in 2023. The Think! Energy® Program encouraged teachers and their students to think, talk, and take action to save energy for the future. This past year, interactive in-person and virtual classroom presentations were facilitated by a NEF presenter.

Utility collaboration continued with UPPCO, SEMCO ENERGY Gas Company, Consumers Energy and DTE Energy, enabling the program to reach a larger number of schools.

Program Offerings

The Take Action Kit distributed to students varied by program, but all contained energy-saving upgrades and activity suggestions along with installation instructions. Included through NEF offerings are a teacher portal to track grant progress and distribute downloadable materials. NEF incorporated various teacher webinars to provide tips before starting the program.

Residential Education Program Overview

Provider	Incentive Spent	2023 kWh/Therms Achieved
	Electric Utilities	
Alpena	\$4,515	20,307
UMERC - Electric	\$9,000	79,824
Xcel Energy - Electric	\$3,433	25,563
Total Electric	\$16,948	125,695
	Natural Gas Utilities	
MGU	\$35,639	20,805
UMERC - Gas	\$883	484
Xcel Energy – Gas	\$1,288	1,014
Total Natural Gas	\$37,810	22,303



\$14,100 total incentives spent

9,675
first-year therm savings achieved

first-year kWh savings achieved

RESIDENTIAL

Moderate Income Pilot Program

Moderate Income (MI) customers tend to have lower participation in efficiency programs:

- They are ineligible to participate in established income qualified programs and typically lack the disposable income to participate in residential rebate offerings.
- This represents an underserved segment with potential to achieve gas and electric savings through a combination of the right incentive values and targeted outreach.

The Moderate Income Pilot targets Efficiency United customers in 6 counties, offering smart home measures depending on a customer's fuel type. Measures may be combined with Michigan Saves financing options:

- Gas measures: Wi-Fi thermostat, high-efficiency furnace, and high efficiency water heater
- Electric measures: Wi-Fi thermostat, heat pump, and high efficiency water heater

The value of the Moderate Income Pilot is a streamlined process for Moderate Income households to upgrade to high-efficiency equipment, receive enhanced incentives, no-cost thermostat and financing options.





209 total participants

1,562,597

first-year net therm savings achieved

12,530,596

first-year net kWh savings achieved

\$927,864

incentives distributed

COMMERCIAL & INDUSTRIAL

Class Overview

Class Achievements

The Efficiency United Commercial & Industrial (C&I) Programs provide rebates, incentives, and technical assistance to encourage the adoption of high-efficiency equipment among commercial customers. The programs operate on an Energy Advisor model that offers customers the necessary expertise to help them develop projects and a streamlined approach to achieve rebates on completed projects. Energy Advisors are also assigned to work very closely with the Trade Allies who serve Efficiency United customers. A total of 209 customers completed Efficiency United C&I Prescriptive and Custom projects in 2023. Efficiency United continues to offer a variety of program opportunities to its diverse C&I customer base, including:

- Prescriptive and Custom Program
- Education Program
- Commercial Pilot Program

Commercial & Industrial Program Incentive Budgets

Provider	2023 Incentive Budget	Incentive Carry forward Remaining from Previous Years	Total Available Incentive Budget	Incentive Spent	% of Budget Spent (Based on 2023 Incentive Budget)	Remaining Incentive Budget
			Electric Utilities			
Alpena	\$151,790	-	\$151,790	\$62,168	41%	\$89,622
UMERC - Electric	\$897,775	\$745,214	\$1,642,989	\$488,484	30%	\$1,154,505
Xcel Energy – Electric	\$109,545	\$110,928	\$220,473	\$18,180	8%	\$202,293
Total Electric	\$1,159,109	\$856,142	\$2,015,251	\$568,832	28%	\$1,446,419
			Natural Gas Utilities			
MGU	\$509,631	-	\$509,631	\$337,752	66%	\$171,879
UMERC - Gas	\$16,532	\$29,978	\$46,510	\$10,546	23%	\$35,964
Xcel Energy – Gas	\$22,216	\$30,625	\$52,841	\$10,735	20%	\$42,106
Total Natural Gas	\$548,379	\$60,603	\$608,982	\$359,033	59%	\$249,949

Commercial & Industrial Energy Savings

Provider	Number of Participants	Annual kWh/Therms Goal	2023 kWh/ Therms Achieved	2022 Carryforward Savings	Total kWh/ Therms Achieved	% of Goal Achieved
			Electric Utilities			
Alpena	28	3,385,085	2,013,520	1,128,362	3,141,882	93%
UMERC - Electric	75	8,698,200	6,326,750	2,899,400	9,226,150	106%
Xcel Energy - Electric	13	1,196,887	162,565	-	162,565	14%
Total Electric	116	13,280,172	8,502,834	4,027,762	12,530,596	94%
		N	atural Gas Utilities			
MGU	78	1,024,837	937,632	310,014	1,247,646	122%
UMERC - Gas	2	47,887	293,599	-	293,599	613%
Xcel Energy - Gas	9	29,950	21,352	-	21,352	71%
Total Natural Gas	89	1,102,675	1,252,583	310,014	1,562,597	142%



160 total participants

1,479,176

first-year net therm savings achieved

11,900,466

first-year net kWh savings achieved

\$816,557

incentives distributed

COMMERCIAL & INDUSTRIAL

Prescriptive and Custom Program

Overview

Efficiency United's C&I Prescriptive and Custom Program provides incentives for high-efficiency equipment upgrades in non-residential facilities. The program offers predetermined rebates usually associated with one-for-one retrofits as well as custom offerings that allow customers to take a more unique and innovative look at energy efficiency and customize it to their specific needs.

Outreach and Customer Engagement

As in previous years, the direct-to-customer energy advisor outreach model was utilized to create and build relationships generating new opportunities identified through customers and Trade Allies. The purpose of the Energy Advisor is to:

- Elevate program awareness levels
- Build and nurture customer and Trade Ally relationships
- Educate customers utilizing extensive measure knowledge
- Assist with measure and project identification
- Drive forward projects utilizing efficient equipment

Energy Advisors also provide assistance to customers and Trade Allies to resolve engineering and technical issues. Utilizing energy efficiency and knowledge of the customer base, these advisors continued to serve as conduits between all invested parties and the Efficiency United C&I Program in 2023 ensuring that communication is flowing

between all invested parties, working towards boosting participation of large commercial and industrial managed accounts along with small and medium-size businesses.

Direct-to-customer outreach is typically performed through in-person meetings and with Energy Advisors commonly traveling to customer and Trade Ally locations several days per week. In 2023 Energy Advisors completed a total of 344 customer site visits and identified 216 opportunities with Efficiency United customers. Energy Advisors also participated in the events listed below to raise program awareness, educate customers and promote participation.

Q2 – Special initiative that provided an energy assessment and no-cost lighting upgrades to a property owned by the Menominee Housing Authority.

Q2/Q3 – Special initiative for small businesses in XCEL's service areas. "Main" street businesses received energy assessments and no-cost efficiency upgrades through coordination by a single contractor.

Commercial & Industrial Prescriptive and Custom Program Overview

Customer Awareness & Education Events	Timeline - Start	Location	Utility Customers Supported
Ironwood Community Development Lunch	January 25th, 2023	Ironwood, MI, USA	Xcel Energy - Electric, Xcel Energy - Gas
Forslund Building Supply Products Show	April 26th, 2023	Ironwood, MI, USA	Xcel Energy - Electric, Xcel Energy - Gas
Marquette Builders Exchange Annual Meeting and Social	May 4th, 2023	Marquette, MI, USA	UMERC (WPS) - Gas, UMERC - (We Energies) Electric, Xcel Energy - Electric, Xcel Energy - Gas
Lake Superior Leadership Academy Spring 2023	May 5th, 2023	Ishpeming, MI, USA	UMERC (WPS) - Gas, UMERC - (We Energies) Electric, Xcel Energy - Electric, Xcel Energy - Gas
Werner Electric Iron Mountain Counter Day	July 25th, 2023	Iron Mountain, MI, USA	UMERC (WE Energies)- Electric
Lake Superior Leadership Academy Fall 2023	September 7th, 2023	Ishpeming, MI, USA	UMERC (WPS) - Gas, UMERC - (We Energies) Electric, Xcel Energy - Electric, Xcel Energy - Gas

Challenges

Each year, there are expected and unexpected variables that impact project activity. We are largely past the challenges that evolved from the pandemic, though labor supply disruptions still ripple through the available workforce. For 2023, we found that despite the overall state economy being fairly strong, some community's economies continue to lose ground compared to others. In particular, those communities without a local or nearby significant industrial plant generate far fewer projects for the program and, anecdotally, appear to have much less overall economic activity. In other words, the wealth gap between urban and many rural economies is growing. With this, we find that in some communities, project activity continues to diminish despite the opportunities and very healthy rebates to provide project assistance.

In addition, like prior years, we continue to see the trend of customers foregoing large capital projects in favor of operations and maintenance (O&M) projects. This has been a multi-year trend for most Efficiency United programs. As capital has increased in cost over the last 12 months, customers are continuing to focus on O&M projects compared to capital projects.

To contend with these challenges, Efficiency United offered select bonuses and special initiatives in targeted service areas. These included bonuses for specific measures and a small business initiative offering audits and direct installation of lighting and other measures at no cost to the customer. Collectively, these bonuses and the initiative were critical for engaging customers and generating program energy savings in a cost-effective manner.

2023 Utility Achievements Overview

Provider	Number of Participants	Incentive Spent	2022 Carryforward Savings	2023 kWh/ Therms Achieved	Total kWh/ Therms Achieved	2023 Annual kWh/Therms Goal	% of Savings Goal Achieved
			Electric l	Jtilities			
Alpena	13	\$54,221	1,128,362	1,921,872	3,050,234	3,230,838	94%
UMERC - Electric	58	\$437,273	2,899,400	5,854,772	8,754,172	8,102,024	108%
Xcel Energy - Electric	11	\$11,477	-	96,060	96,060	1,101,136	9%
Total Electric	82	\$502,971	4,027,762	7,872,704	11,900,466	12,433,999	96%
			Natural Ga	s Utilities			
MGU	68	\$292,851	310,014	855,647	1,165,661	942,850	124%
UMERC - Gas	1	\$10,000	-	292,163	292,163	44,056	663%
Xcel Energy - Gas	9	\$10,735	-	21,352	21,352	27,554	77%
Total Natural Gas	78	\$313,586	310,014	1,169,162	1,479,176	1,014,461	146%

Education Program

32,181

first-year net therm savings achieved

278,942

first-year net kWh savings achieved

\$43,614

incentives distributed

The C&I Program annually allocates funds to pay for education initiatives for customers and Trade Allies. In 2023, this budget was used for technical assistance studies, in-person trainings, assessments for retrocommissioning, and to promote on-demand digital-based training.

Funds were allocated in early 2023 to provide detailed. audit-based technical assistance to customers to better understand their energy usage and to define efficiency upgrade opportunities. Four studies were completed during the year. The first was a compressed air system audit for an Upper Peninsula manufacturer; the second was a comprehensive audit for a large public education facility, also in the Upper Peninsula. The third was an investment in electric submetering capabilities at a Lower Peninsula manufacturer, and the final study was at a major medical facility to help assess their steam boiler replacement options. The audits and the submetering investment helped the respective customers by providing granular information and data to help them invest in efficiency improvements. The in-person training events offered formal and informal opportunities for customers to learn about new technologies, discuss their pain points, and find collaborative solutions. The three events held in 2023 focused on steam systems and boiler efficiency improvements and featured local subject matter experts. These smaller-scale events have proved to be a costeffective approach due to their low cost and quality interactions. Education events that the C&I Program team developed and/or participated in are listed in the following table.

The final education initiative in 2023 was the promotion of Efficiency United's education webinar and slide deck library. These training materials cover both electric and natural gas measures and are easily accessible online.

Education Events	Date	Location	Utility Customers Supported
Armstrong Steam Training - Education	April 21st, 2023	Three Rivers, MI, USA	MGU - Gas
Heat Pumps for Cold Weather Climates Webinar	June 14th, 2023	Virtual and On Demand	Xcel Energy - Electric, UMERC (We Energies) - Electric, Alpena Power - Electric
Armstrong University Two Day Seminar	June 20th - 21st, 2023	Three Rivers, MI, USA	MGU - Gas
Monroe Trade Ally Education Workshop	September 12th, 2023	Monroe, MI, USA	MGU - Gas
Promotion of Education Webinar Library	Throughout 2023	Targeted digital ads	MGU, XCEL, UMERC, Alpena

Commercial & Industrial Education Program Overview

Provider	Incentive Spent	2023 kWh/Therms Achieved	
	Electric Utilities		
Alpena	\$4,196	48,397	
UMERC - Electric	\$21,330	223,566	
Xcel Energy - Electric	\$704	6,979	
Total Electric	\$26,230	278,942	
	Natural Gas Utilities		
MGU	\$16,838	30,745	
UMERC - Gas	\$546	1,436	
Xcel Energy - Gas	-	-	
Total Natural Gas	\$17,384	32,181	

Pilot Program

51, 240

first-year net therm savings achieved

351,188

first-year net kWh savings achieved

\$67,694

incentives distributed

Efficiency United's C&I Pilot Program has been oriented toward technology demonstration efforts to test new equipment in "real world" situations and perform verification of the energy savings. For 2023, the pilot programs for both the electric and gas portfolios continued the "new technology" path and also invested in testing retro-commissioning measures to quantify savings opportunities at customer locations and determine the steps required to achieve these savings. In early 2023, the following pilot initiatives were proposed to be undertaken during the program year:

- Compressed Air O+M (Electric Utilities)
- Gas Absorption Heat Pumps (Gas Utilities)
- Hydronic Boiler Water Additive (Gas Utilities)

Due to lack of availability by contractors, the Compressed Air O+M initiative was scaled back, and activities were limited to a customer location in Alpena. As an alternative initiative, the program invested in retro-commissioning work to better define the available opportunities and the requirements to achieve savings. Four different public education (K-12) facilities and one assisted living facility participated in this initiative, and all are in the Upper Peninsula.

Electric - Compressed Air O+M

This initiative was an extension of the 2021 and 2022 compressed air pilot, which evaluated energy savings from find-and-fix leak audits for compressed air systems under 50 horsepower. This was undertaken as the existing MEMD measure for compressed air audits for larger (greater than 50 horsepower) compressed air systems, which is relatively uncommon in the Efficiency United service areas. This 2021/2022 pilot work resulted in the submission of a modified work paper to extend the existing measure to these smaller compressed air systems, which

will be beneficial for many Efficiency United commercial customers. It is understood that the MEMD changes for this measure from the 2021/2022 pilot work will be effective for program year 2024.

For 2023, the program invested in a deeper analysis of operations and maintenance (O+M) opportunities for compressed air systems as customers rarely have good insight into the operating costs of their compressed air systems and usage. With that, they tend to undervalue opportunities to reduce compressed air usage or system leaks. This initiative struggled to recruit contractors to provide the auditing services and the ambitious scope had to be scaled back. One customer participated and the work scope included a system audit, an air study, installation of a no-loss drain system for the compressed air tank, and a leak survey. Overall, the pilot investment provided meaningful information to the customer.

Electric + Gas - Retro-Commissioning (RCx)

This initiative was focused on creating more definition on RCx opportunities at customer locations (typically with existing Building/Energy Management Systems) and defining what steps and documentation are required to achieve savings using prescriptive RCx measures. The program team does see RCx as an opportunity to deliver program savings particularly as lighting upgrade savings are phased-out due to baseline changes. Four different public education (K-12) facilities and one assisted living facility participated in this initiative, and all are in the Upper Peninsula. These customers will continue to be closely worked with to implement specific recommended RCx measures in early 2024. In addition, RCx in general offers a wide range of pathways for potential savings that could be offered on a custom basis as well.

Commercial & Industrial Pilot Program Overview

Provider	Incentive Spent	2023 kWh/Therms Achieved
	Electric Utilities	
Alpena	\$3,750	43,251
UMERC - Electric	\$29,881	248,412
Xcel Energy - Electric	\$6,000	59,525
Total Electric	\$39,631	351,188
	Natural Gas Utilities	
MGU	\$28,063	51,240
UMERC - Gas		-
Xcel Energy - Gas	-	-
Total Natural Gas	\$28,063	51,240

Gas - Hydronic Boiler Water Additive

This initiative began testing a boiler water additive that claims to increase the efficiency of hydronic boilers by as much as 10 percent through improved heat transfer properties. Many customer satisfaction safeguards were put in place for this initiative including a several month boiler water testing protocol to ensure the participating customer locations had quality boiler water chemistry and that no leaks were identified in the hydronic loops. This process disqualified several potential sites. Due to the complexity of coordinating the multiple contractors and the property owners, this initiative was limited to the Lower Peninsula. Sites were selected for not only their water chemistry but also their metering and verification qualities. At the end of 2023, 3 sites with 5 boilers were participating and all had the boiler water additive installed.

Gas - Gas Absorption Heat Pump

The second pilot promoted the installation and metering of natural gas absorption heat pumps (GAHP). This equipment works along the same principles of an airsource heat pump but uses a small natural gas engine to drive the heat pump. GAHP technology can provide heating, cooling, and domestic hot water for HVAC applications—all at efficiencies (in most weather conditions) higher than electric heat pumps and condensing gas-fired equipment. The program is seeing additional manufacturers entering the marketplace, which should drive further innovations and lower prices.

Outreach occurred throughout the year to customers and Trade Allies, and one Lower Peninsula customer is in the process of implementing a GAHP HVAC system.

Marketing

In 2023, Efficiency United continued to build its arsenal of content for both Residential and C&I programs. Marketing focused on creating collateral about rebates and offers in each of the programs through fact sheets, direct mail and flyers. They also tested out for the first time paid search, Meta and LinkedIn ads which were well received in order to target specific utility customers. Lastly, they continued to partner with EU utilities on customer facing newsletters and direct mail in order to better reach customers and promote cost-saving rebates.

Moving forward, marketing efforts will focus on expanding partnerships and communication efforts at the local levels to drive interest and participation.

Tax Incentive Handout



Postcard



Commercial and Industrial Collateral



Build Your Energy Efficiency Expertise

efficiency with the Efficiency United Energy Waste Reduction (EWR) Tool Library. The Tool Library has easy-to-use tools to check equipment and building envelope efficiencies, and you can borrow the tools at no cost.

- Dent Power Meters
- Reed AC Clamp Meter
- · HOBO 4-Channel Analog Data Logger
- Onset Current Transformers (CT)
- · Exair Ultrasonic Leak Detector UE Systems Ultrasonic Leak Detector

These tools are available for short-term lending and come with instructions on how to use them, along with best practices.

Contact your Efficiency United EWR Energy Advisor to discuss your needs and timeline.

- 2. Complete and sign a request form. Once we receive your request, the tool will be hand-delivered o
- 3. Once you finish using the tool, either alert your Energy
- Advisor so that they can pick it up or ship the tool back using the prepaid shipping label provided by the program.

Testing results

You can work with your Efficiency United EWR Energy Advisor to determine what your testing results mean and how the Efficiency United EWR Program can assist.



Questions?

Contact your Energy Advisor. Ready to request a tool now? Follow the OR code to access

Centur == Tony Conley 517:214.4866 anthony.conley@CLEAResult.com

*Nygaard Associates, LLC is an authorized representative of the Efficiency United EWR Program.





Gas Absorption Heat Pump (GAHP) Pilot



What is GAHP?

Gas absorption heat pump (GAHP) technology combines the advantages of the two most common heating technologies: the condensing boiler and the electric heat pump. Similar to a gas boiler, the gas absorption heat pump is a device able to supply high temperature hot water (µto 1 40°F) both for heating and domestic hot water (µto) production. In addition, some GAHP models can also provide simultaneous chilled water down to 40°F. Similar to an air source electric heat pump, GAHP is able to recover energy from the air or water sources which increases the system efficiencies.



Commercial and Industrial customers are invited to explore this technology, GAHP equipment can be a good fit for HVAC with low temperature (less than 140°F) hydronic loop temperatures, process operations with high hot water demands, or for new construction applications.



How does it benefit the consumer?

- How does it benefit the consultion.

 Low operating costs due to high efficiencies.

 Lower carbon footprint compared to other electric and natural gas options Refrigerant used by GAHP equipment has zero Global Warming Potential (GWP)
 - Only single-phase power required for operation · Efficiencies up to 125 percent for most periods of the year

Cost/Incentive overview

Cosumicentive overview

The Efficiency Dirited GAHP Pilot can pay for a significant percentage of the project costs. Specific measurement and verification requirements would be included to assesse energy savings of the GAHP equipment. GAHP equipment does have a higher capital cost than conventional equipment—but has a much more attractive life-cycle cost than traditional equipment.



· Michigan Gas Utilities · LIMERC - WPS

Xcel Energy

Contact your Energy Advisor by scanning the QR code or email info@efficiencyunited.com for more information.



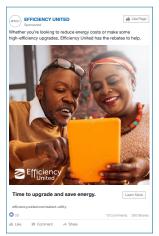
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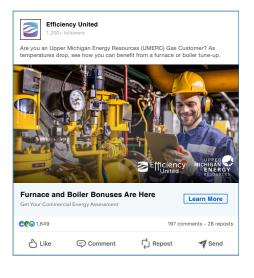


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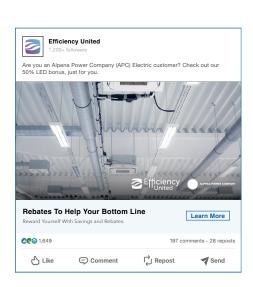
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Quality Check Process

Efficiency United continued its focus on ensuring that energy projects are achieving the proposed energy savings through a rigorous quality assurance system for all of its programs.

For residential programs, Efficiency United performs on-site and virtual verification of equipment and upgrade installations and phone interviews with randomly selected participants. Results from this QA/QC process are regularly shared with program teams to recognize areas of excellence and identify opportunities for improvement. Participation in the quality control process is voluntary; however, Efficiency United achieved its 5 percent inspection target of approved projects annually across all of the Efficiency United service territories.

Commercial and industrial projects are visited by an Energy Advisor to confirm installation of the project. Nearly all custom projects are visited in-person or virtually, and prescriptive projects receive verification from an Energy Advisor as necessary. All projects with scale or complexity receive a pre- and post-installation inspection to ensure measure eligibility and savings accuracy. These inspection visits also provide an opportunity for the Energy Advisor to develop and/ or maintain a relationship with the customer to assist them on the next steps of their energy efficiency journey. For unique or complex custom projects, the program collaborates with the evaluator, DNV, for a third-party review of the savings calculation.

COMMERCIAL & INDUSTRIAL

Appendix

Total Available Budget: All Classes

Provider	Total Collection for Program Year 2023	MCA Administration Spending Cap (7%)	DNV Evaluation Spending Cap (4%)	Income Qualified Spending Requirement (12%)	Pilot Program Spending Cap (5%)	Education Program Spending Cap (3%)	Remaining Programs Spending Cap	Total Collection for Program Year 2023
				Electric Utilities				
Alpena	\$635,308	\$44,472	\$25,412	\$76,237	\$31,765	\$19,059	\$438,363	\$635,308
UMERC - Electric	\$2,392,819	\$167,497	\$95,713	\$147,403	\$119,641	\$71,785	\$1,790,780	\$2,392,819
Xcel Energy – Electric	\$470,175	\$32,912	\$18,807	\$56,421	\$23,509	\$14,105	\$324,421	\$470,175
Total Electric	\$3,498,302	\$244,881	\$139,932	\$280,061	\$174,915	\$104,949	\$2,553,564	\$3,498,302
				Natural Gas Utilities				
MGU	\$3,498,463	\$244,892	\$139,939	\$419,816	\$174,923	\$104,954	\$2,413,939	\$3,498,463
UMERC - Gas	\$95,265	\$6,669	\$3,811	\$11,432	\$4,763	\$2,858	\$65,733	\$95,265
Xcel Energy – Gas	\$134,809	\$9,437	\$5,392	\$16,177	\$6,740	\$4,044	\$93,018	\$134,809
Total Natural Gas	\$3,728,537	\$260,998	\$149,141	\$447,424	\$186,427	\$11,856	\$2,572,691	\$3,728,537

Total Implementation Budget: By Class

Provider	Income Qualified Implementation Budget	Residential Implementation Budget	Commercial & Industrial Implementation Budget	Total Implementation Budget	Total Implementation Collection	Total Implementation Budget Remaining
			Electric Utilities			
Alpena	\$30,495	\$95,106	\$105,651	\$231,252	\$231,252	\$0
UMERC - Electric	\$58,961	\$189,604	\$622,420	\$870,986	\$870,986	\$0
Xcel Energy – Electric	\$22,568	\$72,328	\$76,247	\$171,144	\$171,144	\$0
Total Electric	\$112,025	\$357,039	\$804,319	\$1,273,382	\$1,273,382	\$0
			Natural Gas Utilities			
MGU	\$167,926	\$750,793	\$354,721	\$1,273,441	\$1,273,441	\$0
UMERC - Gas	\$4,573	\$18,597	\$11,507	\$34,676	\$34,676	\$0
Xcel Energy – Gas	\$6,471	\$27,136	\$15,463	\$49,070	\$49,070	\$0
Total Natural Gas	\$178,970	\$796,526	\$381,691	\$1,357,187	\$1,357,187	\$0

Total Energy Savings Achieved: All Classes

Provider	Total Participants	2023 Annual kWh/ Therm Goals	Self-Directed	Total Goal*	Total Savings Achieved*	% of Goal Achieved
Electric Utilities						
Alpena	10,182	2,605,000	1,457,000	4,062,000	5,339,220	131%
UMERC - Electric	11,985	10,113,000	1,246,000	11,359,000	13,506,190	119%
Xcel Energy – Electric	4,798	2,049,000	-	2,049,000	1,623,969	79%
Total Electric	26,965	14,766,999	2,703,000	17,469,999	20,469,380	117%
Natural Gas Utilities						
MGU	4,197	1,718,330	-	1,718,330	1,811,689	105%
UMERC - Gas	58	64,020	-	64,020	298,369	466%
Xcel Energy – Gas	173	63,760	-	63,760	34,142	54%
Total Natural Gas	4,428	1,846,110	-	1,846,110	2,144,201	116%

^{*}Includes Special Pilots.



