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April 30, 2010

Mr. Robert G. Ozar
Manager, Energy Efficiency Section
Michigan Public Service Commission
P.O. Box 30221
Lansing, MI 48909

Re: Revised Energy Optimization Plan for WPPI Members

Utility Case Numbers	U-15848 – Baraga	U-15867 – L’Anse
	U-15855 – Crystal Falls	U-15872 – Negaunee
	U-15861 – Gladstone	U-15875 – Norway

Dear Mr. Ozar,

Last year, in compliance with 2008 Michigan Act 295, WPPI Energy’s six municipal members located in Michigan’s Upper Peninsula (Baraga, Crystal Falls, Gladstone, L’Anse, Negaunee and Norway) filed their Energy Optimization (EO) plans as participants in the Michigan Electric Cooperative Association’s (MECA) Upper Peninsula Energy Optimization Collaborative. The six municipalities filed their plans on April 3, 2009, and the Commission reviewed and approved those plans on July 1, 2009.

Section 71 (h) of PA 295 states that an electric provider shall “provide for the practical and effective administration of the proposed energy optimization programs”, and that “The commission shall allow providers flexibility in designing their energy optimization programs and administrative approach. A provider’s energy optimization programs, or any part thereof, may be administered, at the provider’s option, by the provider, alone or jointly with other providers, by a state agency, or by an appropriate experienced nonprofit organization selected after a competitive bid process.”

Exercising this option, the six municipalities elected to withdraw from the MECA Collaborative and self-implement their EO programs, utilizing the resources of WPPI Energy. To comply with the provisions of PA 295, the utilities are submitting the attached Energy Optimization plan for Commission review and approval.

Please contact me (phone - 608-834-4566, or email - mhodges@wppienergy.org) if you have any questions about the Plan.

Sincerely,

Michael M. Hodges
Program Coordinator

Attachment

Cc: Utility Managers

WPPI ENERGY
MICHIGAN MEMBER UTILITIES

Energy Optimization Programs



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Executive Summary

On October 6, 2008 Michigan Governor Jennifer M. Granholm signed into law the “Clean, Renewable and Efficient Energy Act”, 2008 PA 295, creating energy saving goals for all electric and gas utilities in Michigan. The Act requires electric utilities to implement energy efficiency programs that achieve energy savings of 0.3% of their energy sales in 2009, 0.5% in 2010, 0.75% in 2011 and 1.0% in 2012 and later years. The energy savings goals are based on previous years’ retail energy sales and are to be achieved through utility-sponsored energy efficiency programs. Spending for the programs is limited to 0.75% of retail revenues in 2009, 1.0% in 2010, and 1.5% in 2011 and 2.0% in 2012 and later years. The Act requires that energy efficiency programs will be available to all customer classes.

Municipal utilities were required to file their Energy Optimization (EO) plans with the Commission on or before April 3, 2009. The six Upper Peninsula municipalities represented in this document (Baraga, Crystal Falls, Gladstone, L’Anse, Negaunee and Norway), filed their plans with the Commission on April 3, 2009 as participants in the Michigan Electric Cooperative Association (MECA) Collaborative. The Commission reviewed and approved those plans on July 1, 2009. [Utility Case Numbers: Baraga: U-15848; Crystal Falls: U-15855; Gladstone: U-15861; L’Anse: U-15867; Negaunee: U-15872; Norway: U-15875]

Section 71 (h) of PA 295 states that an electric provider shall “Provide for the practical and effective administration of the proposed energy optimization programs”, and that “The commission shall allow providers flexibility in designing their energy optimization programs and administrative approach. A provider’s energy optimization programs, or any part thereof, may be administered, at the provider’s option, by the provider, alone or jointly with other providers, by a state agency, or by an appropriate experienced nonprofit organization selected after a competitive bid process.” Exercising this option, the six municipalities elected to depart from the MECA Collaborative and self-implement their EO programs, utilizing the resources of their wholesale power supplier, WPPI Energy.

Programs will be administered locally by each municipality, with marketing assistance and technical support provided by WPPI Energy. This joint action will deliver administrative efficiencies, allow local control and still provide customer value. This amended Energy Optimization Plan is for 2010 through 2011.

Introduction

WPPI Energy is a regional power company serving 51 customer-owned electric utilities in Wisconsin, Upper Michigan and Iowa. Through WPPI Energy, these public power utilities share resources and own generation facilities to provide reliable, affordable electricity to more than 192,000 homes and businesses.

WPPI Energy was created to provide members with a highly reliable, cost-competitive power supply for the long term and excellent services. WPPI Energy offers programs and services to help residential and business customers save energy, thereby protecting the environment, helping to keep customer bills down, and delaying the need for new, expensive plants.

The WPPI Energy portfolio of energy efficiency programs provides multiple options for its U.P. member utilities as they implement Energy Optimization (EO) programs in their communities. This menu of program and services has been developed with the guidance and endorsement of member advisory groups. Over the years, these members have carefully developed WPPI Energy into a resource that strengthens their local advantage and adds value for their communities.

A Commitment to Community

WPPI Energy takes very seriously its obligation as good stewards, helping to make our communities better places to live and work. This means protecting the environment while controlling costs and helping customers keep electric bills down for the long term. WPPI Energy is committed to helping customers save energy, and fostering the use of renewable energy resources that is crucial to our energy future.

WPPI is also committed to leading by example. WPPI has decreased energy consumption at its office facility by 15 percent and has challenged its members to do the same. During the past three years, WPPI Energy expanded its energy efficiency programs and increased its conservation program funding by more than 300 percent on a system-wide basis.

As customer-owned utilities, WPPI Energy and its members understand the direct connection between our mission to provide reliable electricity at affordable prices and the need for stewardship that protects our energy resources, the environment, and the economic well-being of our communities. We recognize stewardship as an underlying principle of the public power model. It's the way energy should be.

Summary of Energy Optimization Programs

Residential Programs

ENERGY STAR® Appliance Incentives

Customers receive financial incentives when they purchase qualifying ENERGY STAR refrigerators, clothes washers, dishwashers, room air conditioners and dehumidifiers.

Responsible Appliance Recycling

This program provides pickup and recycling services for customers with older inefficient appliances. The program conforms to the Environmental Protection Agency's (EPA) Responsible Appliance Disposal (RAD) Program requirements.

HVAC Incentives

Customers receive cash incentives when they purchase qualifying high efficiency furnaces, central air conditioners and electric water heaters, or when they have their central air conditioning system tuned up and inspected by a professional technician.

ENERGY STAR Lighting Incentives

Customers receive cash incentives when they purchase qualifying high efficiency furnaces, central air conditioners and electric water heaters.

Low Income Assistance

Income-eligible customers receive low-cost energy saving products (CFLs, water heater insulation, water-saving devices) and energy efficient appliances at no cost through this grant program.

Business Programs

Prescriptive Equipment Incentives

Business customers receive cash incentives when they upgrade their existing lighting, motors, HVAC, refrigeration and other selected equipment to qualifying high-efficiency systems.

Custom Equipment Incentives

The Efficiency Improvement Incentive helps businesses invest in efficiency improvements with financial assistance to defray the cost of energy efficiency projects. Customer incentives are customized to each specific efficiency project.

RFP for Energy Efficiency

The RFP for Energy Efficiency provides incentives via a competitive bid process for large efficiency projects.

Shared Savings Program

The Shared Savings Program provides up-front capital to advance energy efficiency improvements. Customers then repay the funding through installments on their monthly utility bill.

New Construction Design Assistance

This program provides assistance from energy efficiency consultants to improve the energy efficiency of non-residential new construction projects before they are built.

WPPI Support Programs

Home Energy Suite

The Home *Energy Suite* is an online tool that lets customers calculate the estimated cost of energy use in their homes.

National Theatre for Children

The National Theatre for Children is a live performance school program designed to educate young people on electrical safety, energy conservation and renewable energy.

The Local Circuit

The Local Circuit is a twice-yearly newsletter that informs customers about utility programs and services, energy efficiency, technology and industry information.

eco@home

eco@home is a digest-sized, 12-page bi-annual publication that moves readers to consume energy more efficiently, saving money and benefiting the environment.

GreenMax Home

The GreenMax Home initiative encourages homeowners build or remodel homes that use reliable, sustainable energy systems to produce as much energy as they consume, resulting in “net zero energy used.”

Renewable Energy Customer Incentives

This initiative encourages the installation of renewable energy technologies with financial grants of up to \$10,000 for qualifying wind, photovoltaic or solar domestic hot water systems.

Study Grants

This program helps offset the cost of studies that identify electrical energy savings and demand reductions.

Energy Management Services for Schools

This program provides technical guidance, expert support services and financial assistance to schools to assist them with managing their energy use and controlling costs in existing and planned school facilities.

RESIDENTIAL PROGRAMS

ENERGY STAR® Appliance Incentives

Program	ENERGY STAR Appliance Incentives
Objective	Customers receive financial incentives when they purchase qualifying ENERGY STAR refrigerators, clothes washers, dishwashers, room air conditioners and dehumidifiers.
Program Description	<p>ENERGY STAR qualified appliances use 10 to 50% less energy and water than standard models. This program is designed to increase the adoption of high efficiency ENERGY STAR products sold through retail markets. The incentives encourage customers to consider their benefits when making purchasing decisions.</p> <p>The ENERGY STAR Appliance Incentive provides market incentives and market support through retailers to build market share and usage of ENERGY STAR products. The program targets residential customers who purchase new appliances through local retail businesses.</p> <p>The program is designed to provide incentives to customers for the purchase and installation of products to reduce energy use in the home and information about other programs that encourage the installation of high efficiency equipment, such as lighting, room air conditioners, electronics, appliances and other ENERGY STAR labeled products.</p>
Eligible Measures	<p>Incentives are available for the following ENERGY STAR qualified products:</p> <ul style="list-style-type: none"> • Refrigerators - \$50 • Clothes Washers - \$50 • Dishwashers - \$25 • Dehumidifiers - \$15 • Room Air Conditioners - \$15
Implementation Strategy	The program is promoted through bill inserts, customer newsletters and communications with trade allies. Rebate forms will be available at the utility office or through participating retailers. Customers receive the incentive payment after they submit a sales invoice with appropriate documentation on equipment eligibility.

Responsible Appliance Recycling Program

Program	Responsible Appliance Recycling Program
Objective	This program provides pickup and recycling services for customers with older inefficient appliances. In addition to reducing the customers' energy costs, this program reduces landfill use through the recycling of useful refrigerator and freezer parts and recovery of dangerous PCBs and ozone-damaging CFCs.
Program Description	<p>The primary objective of the Responsible Appliance Recycling program is to eliminate old, inefficient appliances that would otherwise remain plugged in without the program and to provide a responsible, easy and hassle-free way for customers to dispose of those inefficient appliances.</p> <p>Recycling includes the recovery and disposal of the ODS foam blowing agent. The program meets the Environmental Protection Agency's (EPA) Responsible Appliance Disposal (RAD) Program requirements.</p> <p>The cost for pick up and recycling is paid for by the utility. A maximum of two appliances is allowed per customer.</p>
Eligible Measures	The program is available to all residential customers. There are no costs to the participant associated with this program for the recycling of inefficient "working" refrigerators, freezers, room air conditioners and dehumidifiers.
Customer incentive	In addition to the free appliance removal, some utilities may include a \$20 rebate/incentive paid to the customer for appliances turned in; maximum one \$20 incentive per customer.
Implementation Strategy	Member utilities promote the program with bill inserts, newspaper ads and newsletters. To participate, customers call a toll-free number or go online to schedule an appointment. Appliance Recycling Centers of America (ARCA) is the implementation contractor for this program.

HVAC Incentives

Program	HVAC Incentives
Objective	The Residential HVAC Incentives is designed to encourage residential customers to improve the efficiency of their existing HVAC equipment or purchase energy efficient Products when they replace old, worn-out equipment.
Program Description	<p>Without regular maintenance, a central air conditioning unit can lose up to 5 percent of its original efficiency for each year of operation. For example, a 12.0 Seasonal Energy Efficiency Ratio (SEER) unit purchased just a few years ago may now be functioning with the efficiency of a 9.0 SEER unit. In addition, dirty coils and filters on an air conditioner will reduce its ability to dehumidify properly.</p> <p>Many local heating and cooling service technicians offer special prices in the spring and early summer on central air conditioner tune-ups and inspections. Through periodic air conditioner tune-ups, homeowners can reduce their summer energy bills and improve comfort. Because air conditioners contribute a significant portion of the summer peak demand, this program also provides direct value to the utility.</p> <p>When consumers shop for replacement equipment, barriers often exist to the adoption of energy-efficient products, including lack of investment capital, competition for funds with other home investments or amenities, lack of awareness/knowledge about the benefits and costs of energy efficiency measures, lack of education and skills of the contractor, and technology performance uncertainties.</p> <p>If the equipment is replaced without efficiency in mind, the opportunity to make these improvements is lost until many years later when the equipment fails. This program is designed to help overcome these market barriers and encourage greater adoption of energy-efficient HVAC and water heating equipment in the residential market.</p>
Eligible Measures	<p>This program is limited to existing homeowners. New construction customers are not eligible. Eligible measures include:</p> <ul style="list-style-type: none"> • Existing Air Conditioner Tune-up - \$25 Air conditioning unit must be no larger than 5 tons, not received a tune-up within the last three years. Qualifying inspections and tune-ups must include all items listed in the following 12-point checklist and must be performed by a professional heating and cooling service technician. <ul style="list-style-type: none"> - Check and clean condensing unit coils - Check wiring and connections - Check coolant level - Check system operating pressures and temperatures against manufacturers specification - Check condensate pump and drain line - Check thermostat - Inspect air filter and replace if necessary - Check compressor contacts - Check belts and drives - Clean and adjust controls

	<ul style="list-style-type: none"> - Lubricate moving parts and clean indoor fan - Check voltage <ul style="list-style-type: none"> • New Central Air Conditioners <ul style="list-style-type: none"> - SEER 14 - \$50 - SEER 15 - \$100 - SEER 16 or higher - \$150 • ECM Blower on Furnace (new or retrofit) - \$250 • Electric Water Heater (0.93 EF or greater; when replacing an existing electric water heater - \$50
Implementation Strategy	<p>The program is promoted through bill inserts, customer newsletters and communications with trade allies. Customers receive incentive payments after the project is complete and they submit a sales invoice with supporting documentation on the installed equipment.</p>

ENERGY STAR® Lighting Incentives

Program	ENERGY STAR® Lighting Incentives
Objective	The ENERGY STAR Lighting Incentive helps educate consumers about compact fluorescent lighting technology.
Target Market	The ENERGY STAR Lighting Incentive is available to any residential retail customer of a participating WPPI Energy member utility.
Program Description	<p>Compact fluorescent lamps (CFLs) labeled with the ENERGY STAR logo save time, money and energy. While CFLs cost more to purchase, they pay for themselves quickly because they use 75% less energy than standard incandescent bulbs, and last 10 times longer.</p> <p>Through this program, utilities distribute compact fluorescent lamps to customers at various times during the year, providing an opportunity to try an Energy Star-labeled CFL at no cost. The promotion also encourages additional purchases by promoting Energy Star Cash Back Rewards for qualifying lighting products at participating local retailers.</p> <p>Providing CFL bulbs and nightlights to customers encourages their adoption and provides an easy way to engage customers in energy efficiency practices. It is expected over time as the products become more widely accepted and prices are reduced, that the incentives can be reduced or eliminated, since the products will be commonly preferred by customers.</p>
Eligible Measures	<p>ENERGY STAR CFLs and nightlights are distributed at no charge. Customers who purchase the following qualifying products CFLs are eligible for the following cash incentives:</p> <ul style="list-style-type: none"> • ENERGY STAR CFLs and nightlights - \$1.50 • LED Holiday lights - \$3.50
Implementation Strategy	Utilities designate a promotional period (e.g., one to two weeks in the spring, during utility open houses, Public Power Week or other community events) where customers can come in to the utility office and choose one of four CFL bulbs: 15, 20, 25 and 30-Watt sizes. Customers also receive information about the CFL and LED technology, appropriate applications and places to purchase additional products that receive rebates.

Low Income Assistance

Program	Low Income Assistance
Objective	The Low Income Assistance Program is designed to reduce the electricity use of income-eligible homeowners through targeted efficiency improvements to their existing home at no cost to them.
Target Market	Income-qualified homeowners with household incomes at or below 200% of Federal Poverty guidelines.
Program Description	<p>Upon determination of income eligibility, weatherization specialists will conduct an energy assessment of the home to determine savings opportunities and install the items during the visit or arrange for replacement via participating contractors. Installed measures may include:</p> <ul style="list-style-type: none"> • Up to 5 CFL bulbs in each home. • Low-cost water-saving devices (aerators and shower heads, blankets and pipe wrap) • ENERGY STAR Clothes Washer • ENERGY STAR Refrigerator • Installation of a high efficiency ECM motor when replacing a gas furnace. • Other miscellaneous energy-saving opportunities identified by the installer and approved by the participating utility. <p>In addition, the agency will provide energy education materials where appropriate.</p>
Implementation Strategy	Member utilities will refer customers to the implementation contractor, Michigan Energy Options which will verify income eligibility, conduct the energy audit and arrange for installation of eligible equipment. When possible, the agency will leverage its other program resources to assist the customer and improve the efficiency of their home.
Marketing Strategy	To the extent possible, this program will be target marketed to eligible customers by utility personnel. For general marketing campaigns, the program will be promoted with bill inserts, newspaper ads and newsletters and handout materials at the utility office.

BUSINESS PROGRAMS

Prescriptive Equipment Incentives

Program	Prescriptive Efficient Incentive
Objective	The Prescriptive Efficient Incentive is designed to encourage commercial and industrial (C&I) customers to install energy-efficient measures in existing and new facilities.
Program Description	<p>The Prescriptive Efficient Incentive Program provides financial incentives to business customers for the installation of energy-efficient equipment. Prescriptive incentives are available on proven technologies that effectively reduce demand and energy use for customers. Prescriptive incentive amounts for each technology are based on typical energy savings from similar installations.</p> <p>The program is designed to provide incentives to facility owners and operators for the installation of high efficiency equipment and controls. The program is also designed to overcome market barriers and encourage greater adoption of energy efficiency measures in the C&I market. Through engagement and education with the market participants and through customer incentives to reduce upfront costs, the risks to energy efficiency system implementation are reduced and the rewards from the savings will become more apparent thus increasing adoption.</p>
Eligible Measures	<p>Lighting Incentives for:</p> <ul style="list-style-type: none"> • Compact Fluorescent Fixtures and Lamps (CFLs) • High Performance T8 Fluorescent Lighting Systems - (CEE Qualified Lamps and Ballasts) • Reduced Wattage T8 Fluorescent Lighting Systems • High Bay Fluorescent Fixtures • Other Efficient Lighting Technologies <ul style="list-style-type: none"> - Pulse Start Metal Halide fixtures - Occupancy Sensors - LED Exit Signs <p>Non-Lighting Incentives for:</p> <ul style="list-style-type: none"> • Central Packaged and Split System Air Conditioning and Air Source Heat Pumps (including Rooftop Units) • Air and Water-Cooled Chillers • Variable Frequency Drives • High Efficiency Premium Motors • Miscellaneous Equipment <ul style="list-style-type: none"> - Vending Equipment Controllers - ENERGY STAR® Refrigerators and Ice Machines - Pre-rinse Sprayers
Implementation Strategy	The program is promoted through bill inserts, customer newsletters and communications with trade allies. Before proceeding with an efficiency improvement project, the customer must complete a pre-approval application and attach all contractor or vendor quotes, equipment spec sheets or other project plan information and submit to the Utility. Funding is available on a first-come, first-served basis.

Custom Equipment Incentives

Program	Custom Efficiency Improvement Incentive
Objective	Most businesses have the opportunity to lower their energy costs and increase comfort or productivity through energy efficiency measures. However, not all businesses have the resources to make these improvements a reality. The Efficiency Improvement Incentive is designed to help businesses invest in efficiency improvements.
Target Market	All commercial and industrial customers are eligible for this program.
Program Description	<p>OVERVIEW Efficiency Improvement Incentives help businesses implement cost-effective energy efficiency projects that otherwise would not be completed. Qualifying projects receive incentive payments based on the technology and amount of on-peak demand and energy they reduce. The incentives are distributed upon verification of project completion.</p> <p>AVAILABLE INCENTIVES Study grants and project implementation incentives are available to help customers identify and cost-effective energy efficiency projects that otherwise would not be completed.</p> <p>Custom-prepared incentives for projects are determined based on a calculation of utility peak demand reduction, energy savings and customer payback for the specific proposed project. Customized incentives are used where prescriptive incentives are not practical.</p>
Eligible Measures	<p>Eligible projects include any new electrical energy-saving or demand-reducing measure that will result in lasting impacts for the facility and the utility and that meet minimum efficiency requirements set by the program. Previously installed or retrofitted measures do not qualify.</p> <p>QUALIFYING MEASURES To qualify, measures must meet minimum efficiency requirements. Eligible measures include, but are not limited to:</p> <ul style="list-style-type: none"> · Lighting · HVAC · Motors and drives · Compressed air systems · Electric chillers · Food service measures · Agricultural process equipment · Specialty measures (e.g., anti-condensate heater controls, LED refrigerated case lighting, guest room energy management controls, PC network management, vending machine controls)

RFP for Energy Efficiency

Program	RFP for Energy Efficiency
Objective	The RFP for Energy Efficiency seeks large efficiency projects that reduce annual total energy consumption by 150,000 kilowatt-hours or more, and/or projects that will reduce the on-peak electrical demand by at least 25 kilowatts from 1PM to 4PM during the months of June, July, and August.
Target Market	<p>The program is designed to encourage investment by large commercial and industrial utility customers in energy efficient improvements. Up to \$250,000 of incentive funding is available for each bid cycle.</p> <p>The program is open to all commercial, industrial, and institutional power customers.</p>
Program Description	<p>The Request-For-Proposals (RFP) for Energy Efficiency Program was designed to increase the magnitude of cost-effective energy improvement projects that large power customers can accomplish.</p> <p>The program is structured to use a request-for-proposal format, and enables large commercial and industrial customers to bid for funds and secure their own level of funding needed to advance selected efficiency improvement projects.</p> <p>The RFP for Energy Efficiency Program is an alternative approach to utility incentives. It allows customers the flexibility to determine how best to meet their financial requirements while maintaining their eligibility for other incentive programs.</p>
Implementation Strategy	<p>To participate, customers must complete and submit a Bid Application Form along with the following:</p> <p>Project Background A detailed description of the proposed project, including background detailing how the project was chosen (e.g. energy audits, planned maintenance upgrades, efficiency management plan).</p> <p>Statement of Need A description of how the requested incentive is necessary to support the customer's financial goals. It may include ROI, corporate hurdle, high risk, project payback, or other barriers.</p> <p>Vendor Proposal A copy of the vendor proposal for the project, including a description of the equipment to be installed, technical details with copies of manufacturer specifications, and total cost of the project.</p> <p>Estimate of Savings An estimate of the electrical demand and energy savings. Estimates of savings</p>

	<p>include a detailed examination of the baseline energy use and projected energy and demand reductions, as well as a plan for verification of saving after project completion. Documentation of a baseline condition is required.</p> <p>Project Timeline A projected schedule that shows necessary management and budget approval dates, vendor contract negotiations, engineering and design, equipment delivery and installation, and project completion.</p>
<p>Eligible Measures</p>	<p>Projects that reduce annual energy consumption by 150,000 kWh or more and/or reduce site electrical demand by 25 kW or more during the on-peak hours of 1 PM to 4 PM, Monday through Friday, during the months of June, July, and August.</p>

Shared Savings Program

Program	Shared Savings Program
Objective	The Shared Savings Program provides up-front capital to advance energy efficiency improvements.
Target Market	Customers who defer energy cost reduction measures because of “first-cost” barriers.
Program Description	<p>Customers may receive a loan of up to \$50,000 for qualifying energy efficiency improvements, which are then repaid through installments on the monthly utility bill. Often the payments are less than the energy cost savings, resulting in a positive cash flow for the customer. Funding can range from \$2,500 to \$50,000, based on the cost and energy savings potential of the project.</p> <p>Projects may include any new electrical energy-saving or demand-reducing measure that results in lasting impacts for the facility.</p>
Eligible Measures	<p><u>Customer Eligibility</u> Customers who have three years of established utility bill-payment history and pass a comprehensive credit review.</p> <p><u>Project eligibility</u></p> <ul style="list-style-type: none"> • Proposed equipment must meet minimum efficiency requirements. • Projects must, at a minimum, reduce electric use and/or electric demand for the duration of the repayment period (60 months). • Projects cannot be implemented (including any engineering and/or equipment purchases) prior to the written execution of an agreement between the customer and utility. • Previously installed or retrofitted measures do not qualify. <p><u>Terms and conditions</u></p> <ul style="list-style-type: none"> • Funding is equal to the project energy savings over 60 months less any prescriptive incentives or other outside funding. Total combined funding will not exceed the project cost. • Repayment occurs over a 60-month period. • Payments include a 2 percent APR service fee, compounded monthly. • Project funding can range from \$2,500 to \$50,000 based on the cost and energy savings potential of the energy efficiency improvements.

New Construction Design Assistance

Program	New Construction Design Assistance
Objective	The New Construction Design Assistance program seeks to capture energy savings by encouraging the design and construction of buildings as integrated systems. Opportunities for energy savings are identified by simulating incremental efficiency improvements in lighting, HVAC and other building systems.
Target Market	New construction projects and major renovations to existing buildings. The program provides assistance from energy efficiency consultants to improve the energy efficiency of non-residential new construction projects before they are built.
Program Description	<p>A construction project is the ideal time to design and build for energy efficiency, peak load reduction, improved systems performance and greater comfort. The New Construction Design Assistance program assists prospective building owners and developers, design professionals and construction contractors in delivering high performance buildings that will achieve these benefits.</p> <p>Financial incentives may be provided to owners of accepted projects; these incentives are intended to overcome barriers that would otherwise prevent the installation of efficiency measures. Technical assistance services and design incentives can also be provided to design team members to help offset the cost of advanced designs. Services may include facilitation in the design process, reviewing plans and construction documents, assisting with research and product selections, modeling energy saving options, and verifying installation and operation of measures. Prescriptive financial incentives may be available for individual technology upgrades.</p>
Eligibility	<p>Open to all non-residential electric customers that are planning for new buildings, additions, multi-family residential new buildings or major “gut” renovations that meet state energy code.</p> <p>The program is also open to education, manufacturing, municipal buildings, institutional buildings, retail, owner-occupied offices and owners interested in LEED certification.</p>
Implementation Strategy	<p><u>Targeted education, information and outreach.</u> Information on integrated design practices and its energy-saving benefits will be provided directly to participants through the program. Presentations will describe the opportunities for — and benefits of —incorporating energy-efficient design strategies into new building construction. Target audiences include community governing bodies, owners, developers and architectural and engineering professionals.</p> <p><u>Technical assistance during the building design process.</u> Facilitation services will be provided early in the design process, helping owners and design teams to identify and select energy-saving and demand-reduction measures and strategies to incorporate into the construction project. Activities may include participation in design meetings, providing energy saving ideas and design strategies, estimating financial incentives, reviewing plans and construction documents, identifying</p>

LEED compliance strategies, and assisting the design team and owners with research and product selections. Projects receive the greatest benefit if design assistance is started in the schematic design phase or earlier.

Building energy modeling.

The program can provide detailed analysis of high performance building design, showing the impact on a building's energy usage as it relates to changes in the architectural design, orientation, floor plan layout, building envelope construction, HVAC systems and equipment, and lighting. Energy simulation may involve a single technology, an end-use system or a whole-building integrated design analysis. Results from the energy simulation may be used to calculate financial incentives. Varying levels of analysis and simulation will be provided as appropriate by project, and incentives will be available for those design firms capable of doing their own modeling.

WPPI ENERGY SUPPORT PROGRAMS

The following programs are administered by WPPI Energy, supported through wholesale power rates, and are available to all customers served by WPPI member utilities.

Home *Energy Suite*

Program	Home <i>Energy Suite</i>
Objective	<p>Residential customers look to their energy providers for information on energy efficiency and energy savings, and view their energy providers as the expert. An online resource to help residential customers lower their energy bills and save money is a useful service.</p> <p>Home<i>EnergySuite</i>[™] provides customers with Internet access to the energy answers they seek and provides one-stop-shopping for the residential customer's energy information needs.</p>
Program Description	<p>Home<i>EnergySuite</i> gives customers the opportunity to conduct a self analysis on their home and review scenarios that will help them save energy and money.</p> <p>Home<i>EnergySuite</i> is an online interface that includes the Home <i>Energy</i> Calculator, Residential Energy Systems Library, Kids Korner, specialty calculators and more. The online analysis is free.</p>
Implementation Strategy	<p>WPPI member utilities promote the Home<i>EnergySuite</i> to residential customers throughout the year via mailings and personal interaction.</p> <p>Member utilities without a web presence refer customers to the WPPI Energy site to use the resources of the Home<i>EnergySuite</i>.</p>

National Theatre for Children

Program	National Theatre For Children
Objective	The National Theatre for Children is a live performance school program designed to educate young people on electrical safety, energy conservation and renewable energy.
Target	Elementary grades K-6.

Market	
Program Description	<p>National Theatre for Children is a Minneapolis-based performance troupe presenting live theatre in schools on behalf of sponsoring organizations. The organization is dedicated to educating young people on important and timely energy-related topics. Combined with printed curriculum materials and teacher guides, their imaginative and customized presentations effectively reach the students, teachers and parents.</p> <p>The NTC tour takes place annually throughout WPPI Energy member communities. The cost of the performance is underwritten by the local utility.</p>

The Local Circuit

Program	The Local Circuit
Objective	To provide residential and commercial customers with timely information on utility programs and services as well as energy efficiency, technology and industry information.
Program Description	<p>Many customers have an interest in saving energy. The Local Circuit newsletter is a bi-annual publication that keeps customers informed on current energy issues and available member programs and services. The publication is distributed to customers in WPPI Energy communities twice yearly in May and September.</p> <p>The Local Circuit reaches more than 190,000 customers in Wisconsin, Iowa and Upper Michigan. There are no costs to customers to receive the publication.</p>

eco@home

Program	eco@home
Objective	To provide residential customers with timely information on energy efficiency, technology and industry information.
Program Description	<p>eco@home is a digest- sized, 12-page bi-annual publication that moves readers to consume energy more efficiently saving money and benefiting our environment. Each article informs, inspires and motivates households to action with practical ideas, often at low or no cost.</p> <p>eco@home reaches more than 190,000 customers in Wisconsin, Iowa and Upper Michigan. There are no costs to customers to receive the publication.</p>

GreenMax Home Program

Program	GreenMax Home Program
Objective	<p>The GreenMax Home initiative encourages homeowners to build or remodel homes that use reliable, sustainable energy systems.</p> <p>The home designs and occupant lifestyles required to achieve net zero energy use must be replicable and appropriate for a mass market, community-based setting.</p>
Target Market	Residential customers who are in the planning stage of building a new home or remodeling an existing home. Only homes built in the utility service area are eligible for funding.
Program Description	A GreenMax Home is a home that has the potential to produce as much energy as it uses in a year. The project supports the design and lifestyle choices that move a home from "highly efficient" to "net zero." A net zero energy home (NZEH) has the potential to produce as much energy as it uses, through energy-efficient construction techniques and the use of renewable energy systems. To the greatest extent possible, the energy consumption (heating, cooling and electrical) of the home is provided by renewable energy sources.
Customer Incentive	Program funding shares the incremental cost of building a NZEH or remodeling a home to bring it to net zero. WPPI Energy will offer technical assistance and will measure the home's energy and environmental impacts following project completion. Since homeowners gain direct benefits from living in a GreenMax Home, they are expected to pay a portion of the incremental cost.
Implementation Strategy	<p>Proposals from individuals, builders or architects interested in building a net zero home are submitted to WPPI Energy through member utilities.</p> <p>One or more proposals are selected to receive funding from WPPI Energy to cover part of the incremental cost of designing and building a NZEH over the cost of constructing a conventional house.</p> <p>The home designs and occupant lifestyles required to achieve net zero energy status must be replicable and appropriate for a mass market, community-based setting.</p> <p>WPPI Energy documents the building process, measures energy and environmental impacts and publicizes the findings.</p> <p>Homeowners are asked to share the house for a few tours and to be spokespeople for the technology and lifestyle choices.</p> <p>Upon completion of the home WPPI will monitor the home and its occupant's energy use for at least one year to ensure all energy consumption and production goals were met.</p>

Renewable Energy Customer Incentives

Program	Renewable Energy Customer Incentives
Objective	This program provides financial assistance to customers who install renewable energy systems, with a goal to increase the use of renewable energy technologies in residential and small businesses. These projects can increase acceptance of renewable energy and encourage others in the community to install systems of their own.
Program Description	<p>The Renewable Energy Customer Incentive offers rebates of up to \$10,000 to customers who install qualifying wind, photovoltaic or solar domestic hot water systems. Rebates are available for the following technologies:</p> <ul style="list-style-type: none"> • Solar domestic hot water systems with electricity as the backup fuel, including installation of new systems or repair of existing systems that are inoperable • Solar thermal systems where electricity is the primary heating fuel • Photovoltaic (PV) systems • Small-scale wind energy systems of less than 20 kilowatts (kW) <p>In addition, cash rebates are available for feasibility studies that will help customers determine whether a renewable energy system installed at their site will operate effectively. The program reimburses customers for 75 percent of the site survey costs, up to a maximum reimbursement of \$375.</p>
Eligibility	<p>The Renewable Energy Incentive is available to electric customers served under a residential or general commercial rate.</p> <p><u>PROJECT ELIGIBILITY</u></p> <ul style="list-style-type: none"> • Solar domestic water heating systems. New solar water heater installations that replace or supplement an existing domestic hot water service are eligible. The rebate on qualifying systems will be \$30 per square foot of collector area for systems with electricity as the backup water heating fuel, or \$25 per square foot of collector area for systems with propane or natural gas as the backup water heating fuel. Maximum incentive is capped at the lesser amount of \$3,500 or 35 percent of the project cost. • Solar thermal heating systems. New solar heating installations that supplement the building's primary electric space heating system are eligible. Propane and natural gas space heating systems are not eligible. Electric space heating must provide more than 50 percent of the building's space heating needs. • Photovoltaic (PV) systems. Rack-mounted or building-integrated PV systems, rated at 20 kW or less, are eligible. Rebates on qualifying systems will be based on estimated annual energy production as follows: <ul style="list-style-type: none"> • New construction — \$3 per kilowatt-hour (kWh)

	<p>Existing buildings — \$2.50 per kWh for NABCEP-certified dealers*, \$2 per kWh for non-NABCEP-certified dealers</p> <p>The maximum incentive is capped at \$10,000.</p> <ul style="list-style-type: none"> • Small-scale wind systems. Eligible projects include installed wind-energy systems rated at 20 kW or less. If installed for grid connection, the local electric utility must approve system interconnections prior to installation. The rebate on qualifying systems is 25 percent of the system cost; incentive is capped at \$10,000. • Existing systems. Customers with existing inoperable renewable energy systems can receive a rebate of up to 50 percent of the repair cost for their existing solar domestic water heating, PV or small-scale wind system. The maximum incentive is \$2,500. <p><u>TERMS AND CONDITIONS</u></p> <ul style="list-style-type: none"> • Participants will be responsible for the total cost of their renewable energy system, less the financial assistance provided by the utility. • Customers must submit their proposed system prior to project commencement for eligibility evaluation. Customers with accepted projects will receive confirmation from the utility. Customers will then have five months to complete their project to receive their rebate. <p>* Certification of Solar PV Installers is a voluntary process offered by the North American Board of Certified Energy Practitioners (NABCEP) to individuals who have met specific qualifications.</p>
<p>Implementation Strategy</p>	<p>The program is promoted through bill inserts, customer newsletters and communications with trade allies. Customers receive incentive payments after the project is complete and inspected and they submit a sales invoice with appropriate documentation on the installed equipment.</p>

Study Grants

Program	Study Grants
Objective	This program helps offset the cost of studies that identify electrical energy savings and demand reductions. The goal is to encourage energy efficiency and conservation projects at customer facilities.
Target Market	Customer facilities with an electrical peak demand exceeding 200 kilowatts (kW).
Program Description	<p>Study grants provide funding for studies that provide customers with estimated project costs and estimated energy-saving benefits from the specified electrical efficiency improvements. An eligible study is conducted by a third-party contractor of the customer's choice.</p> <p>Examples of eligible studies include compressed air surveys, pump analyses, process evaluations, energy efficiency project feasibility studies and other specialized technology reviews.</p> <p>Study grant funding may also be used to contract technical services such as energy audit support, technical design review, equipment or process energy analyses, or other specific project support.</p>
Eligibility	Customer facilities with a peak demand exceeding 200 kilowatts (kW) are eligible for study grants. Public school facilities are also eligible regardless of building load.
Implementation Strategy	To apply for a technical study grant, applicants obtain a study proposal from their selected third-party contractor and submit a copy to the utility. If the proposal clearly demonstrates that electrical energy efficiency improvements will be evaluated, the utility will send a letter to the applicant to document the request and reserve the grant funding. Upon completion of the study, a copy of the results and a copy of the invoiced study are submitted to the utility. The grant is then issued to the electric customer in the form of a check payment or a credit on the customer's utility bill.

Energy Management Services For Schools

Program	Energy Management Services For Schools
Objective	The Energy Managements Services for Schools Program provides technical guidance, expert support services and financial assistance to improve the management of energy use and control costs in existing and planned school facilities.
Target Market	Public and private schools served by the utility.
Program Description	<p><u>Strategic Energy Planning</u> The utility will help the school district prioritize potential energy efficiency projects, develop project specifications and implement the measures. To qualify, the school board must review the results of the audit, commit to improve district energy efficiency and adopt an energy efficiency policy. Funding for strategic energy planning will be limited to \$3,000 per district.</p> <p>Upon adoption of an energy efficiency policy, the district will be eligible for double the normal financial incentives for projects with an eight-year or less simple payback, computed using our Efficiency Improvement Incentive guidelines. Funding of up to \$15,000 is available to match incentive funding from the Efficiency Improvement Incentive program. Total incentives are capped at 60 percent of the project cost.</p> <p><u>Energy Education</u> Any district qualifying for the strategic energy plan consultation will also be eligible for energy education assistance. The utility will work with interested teachers to develop curriculum activities that emphasize energy management at the school and energy efficiency applications in homes and businesses. Funding will be limited to \$1,000 per district.</p> <p><u>ENERGY STAR Rating</u> A district that qualifies for an ENERGY STAR award on one or more of its buildings may apply for a grant to pay for the Professional Engineer (PE) services needed to certify the rating. The PE grant will provide up to \$500 per building. The district will receive public relations assistance in order to celebrate their success and educate the community about their efforts.</p> <p><u>New Building Energy Design</u> For districts planning to add school buildings, New Construction Design Assistance is available (see Page 22). This service predicts energy use and analyzes options for heating, cooling, ventilating and lighting (including day-lighting design).</p>
Eligibility	<p>All public and private schools are eligible for this program.</p> <p>To benefit from the Energy Management Services for Schools Program, the school district must commit to an initial assessment of their electric energy usage and provide energy consumption histories for all other fuels, such as gas and fuel oil.</p> <p>The participating school district must agree to administrative-level discussions of energy efficiency analyses and energy management activities. This may also include a written</p>

	<p>commitment from the school district to incorporate energy management in job descriptions, in administrative policies and budgets, and into the curriculum by promoting training for appropriate teachers. There may be some additional time commitment and/or costs to the school district for staff involvement in coordinating energy management activities.</p>
<p>Implementation Strategy</p>	<p>PROGRAM SEQUENCE</p> <p><u>Energy Benchmark</u> Participating school districts, with utility assistance, will be required to obtain an energy efficiency rating for each of their school buildings using the Portfolio Manager on the ENERGY STAR® web site. Upon successful completion of the rating process, the district will be eligible to receive \$500 per school benchmarked; this funding can be spent on specific energy-efficient tools and products.</p> <p><u>Comprehensive Audits, Training and Re-commissioning</u> For each building rated, the district is eligible for a comprehensive energy audit. To qualify, the district administrator or delegate, with WPPI and member utility assistance, must present the efficiency rating results to the district school board. The audit funding is limited to \$3,000 per district. If the district selects their own auditor, the grant will be limited to 50 percent of the auditor’s fee up to a maximum of \$3,000.</p> <p>Upon completion of an audit on at least one school facility, the district will be eligible for one \$500 scholarship to send the person responsible for facilities to Building Operator Certification training.</p> <p>Also upon completion of the audit, the district will be eligible for an incentive for re-commissioning services on selected building energy systems. Funding will be limited to 50 percent of the commissioning cost up to \$10,000 per district.</p>

Appendix

Energy Saving Goals

Each municipal utility has an annual energy saving goal and surcharge limitation established by the legislation. Below is a summary of the energy saving goals and spending caps for each municipal utility for each year of the plan.

City Name	Year	Energy Saving Goal (MWh)	Spending Cap
Baraga	2009	59	\$ 15,818
	2010	100	\$ 21,210
	2011	150	\$ 35,150
	Plan Total	309	\$ 72,178
Crystal Falls	2009	51	\$ 12,578
	2010	84	\$ 16,900
	2011	124	\$ 26,125
	Plan Total	259	\$ 55,603
Gladstone	2009	98	\$ 25,230
	2010	161	\$ 36,682
	2011	239	\$ 60,613
	Plan Total	498	\$ 122,525
L'Anse	2009	42	\$ 11,198
	2010	65	\$ 14,680
	2011	88	\$ 24,266
	Plan Total	195	\$ 50,144
Negaunee	2009	65	\$ 20,880
	2010	103	\$ 32,735
	2011	144	\$ 56,445
	Plan Total	312	\$ 110,060
Norway	2009	92	\$ 23,828
	2010	157	\$ 33,511
	2011	240	\$ 55,828
	Plan Total	489	\$ 113,167

ENERGY OPTIMIZATION PROGRAM BUDGETS

	2010					2011				
	Spending Cap (1% of revenue)	Residential Programs	Business Programs	Low Income Programs	Total Energy Savings Goal (MWh)	Spending Cap (1.5% of revenue)	Residential Programs	Business Programs	Low Income Programs	Total Energy Savings Goal (MWh)
Baraga	\$ 21,210	\$ 8,203	\$ 10,314	\$ 2,057	100	\$ 35,150	\$ 13,594	\$ 17,092	\$ 3,410	150
Crystal Falls	\$ 16,900	\$ 9,133	\$ 5,621	\$ 1,639	84	\$ 26,125	\$ 14,118	\$ 8,690	\$ 2,534	124
Gladstone	\$ 36,682	\$ 22,865	\$ 9,159	\$ 3,558	161	\$ 60,613	\$ 37,781	\$ 15,134	\$ 5,879	239
L'Anse	\$ 14,680	\$ 5,998	\$ 6,818	\$ 1,424	65	\$ 24,266	\$ 9,914	\$ 11,270	\$ 2,354	88
Negaunee	\$ 32,735	\$ 22,262	\$ 6,316	\$ 3,175	103	\$ 56,445	\$ 38,386	\$ 10,890	\$ 5,475	144
Norway	\$ 33,511	\$ 20,771	\$ 8,484	\$ 3,251	157	\$ 55,828	\$ 34,604	\$ 14,134	\$ 5,415	240
		\$ 89,231	\$ 46,711	\$ 15,105	670		\$ 148,397	\$ 77,209	\$ 25,067	985

Total 2010 EO Budget \$ 151,047

Total 2011 EO Budget \$ 250,673