CITY COUNCIL/ELECTRICAL ADVISORY COMMITTEE

August 12, 2015 – 6:00 p.m.
Regular Meeting

CITY COUNCIL
Marc Tall, Mayor
Ronald Beauchamp, Mayor Pro-Tem
Patricia Baribeau, Council Member
Michael Sattem, Council Member
Ralph Blasier, Council Member

ADMINISTRATION
James V. O'Toole, City Manager
Robert S. Richards, CMC, City Clerk
Ralph B.K. Peterson, City Attorney
Mike Furmanski, Electrical Superintendent
Melissa Becotte, City Controller

ELECTRICAL ADVISORY COMMITTEE
Tim Wilson, Chairperson
Ann Bissell, Vice Chairperson
Larry Arkens, Committee Member
Glendon Brown, Committee Member
John Anthony, Committee Member
Jack Mellinger, Committee Member
Vacant Seat

Escanaba City Council Chambers: 410 Ludington Street - Escanaba, MI 49829

Meeting Agenda
Wednesday, August 12, 2015

CALL TO ORDER
ROLL CALL
APPROVAL/ADJUSTMENTS TO THE AGENDA
CONFLICT OF INTEREST DECLARATION

PUBLIC HEARING (S)

1. **Energy Optimization and Renewable Energy Plans.**
Explanation: A public hearing will be conducted on the City of Escanaba Energy Optimization Plan and Renewable Energy Plan as required by Public Act 295, the Clean, Renewable, and Efficient Energy Act.

NEW BUSINESS

1. **Update - Electric Department –General Operations.**
Explanation: Electrical Superintendent Mike Furmanski will update the City Council, Electrical Advisory Committee, and Citizens of Escanaba on the current departmental activities.

2. **Update – Coal Supply Reconciliation.**
Explanation: Administration will update the City Council, Electrical Advisory Committee, and Citizens of Escanaba on the status to reconcile coal inventory.

3. **Discussion – Recommended Local Changes to Senate Bill 282.**
Explanation: Administration will lead a discussion on suggested changes to Senate Bill 282, a bill to regulate the siting and construction of certain electric transmission lines.

4. **Update – Power Plant Layup.**
Explanation: Administration will update the City Council, Electrical Advisory Committee, and the Citizens of Escanaba regarding the layup of the power plant recently completed by Pro Energy Services on behalf of the City of Escanaba.

5. **Update – Power Plant Sale.**
Explanation: The administration will update the City Council, Electrical Advisory Committee, and the Citizens of Escanaba regarding the sale of the plant.

GENERAL PUBLIC COMMENT
COMMISSION/STAFF COMMENT AND ANNOUNCEMENTS
ADJOURNMENT

The City of Escanaba will provide all necessary, reasonable aids and services, such as signers for the hearing impaired and audiotapes of printed materials being considered at the meeting to individuals with disabilities at the meeting/hearing upon five days notice to the City of Escanaba. Individuals with disabilities requiring auxiliary aids or services should contact the City of Escanaba by writing or calling City Hall at (906) 786-9402.

Respectfully Submitted,

James V. O'Toole
City Manager

OFFICIAL PROCEEDINGS
CITY COUNCIL
ELECTRICAL ADVISORY COMMITTEE
CITY OF ESCANABA, MICHIGAN
Special Joint Meeting
Wednesday, June 10, 2015

Pursuit to a meeting notice posted May 27, 2015, the meeting was called to order by the Mayor Marc D. Tall at 6:00 p.m. in the Council Chambers of City Hall located at 410 Ludington Street.

Present: Mayor Marc D. Tall, Council Members, Patricia A. Baribeau, Ronald J. Beauchamp, Ralph B. Blasier, and Michael R. Sattem.

Absent: None.

Present: Electrical Advisory Committee (EAC) Members: Chairperson Tim Wilson, John Mellinger, and Glendon Brown.

Absent: EAC Members Larry Arkens, Ann Bissell, John Anthony, One vacancy and Power Plant Liaison.

Also Present: City Manager James V. O'Toole, Electric Superintendent Mike Furmanski, Melissa Becotte, Pro Energy Services, Inc. Representative Charles Detiege, members of the public and media.

ADJUSTMENTS TO THE AGENDA

Blasier moved, Beauchamp seconded, **CARRIED UNANIMOUSLY**, to approve the Joint City Council & Electrical Advisory Committee Agenda as submitted.

CONFLICT OF INTEREST – None

UNFINISHED BUSINESS

Discussion – Senate Bill 282 and House Bill 4575 – Michigan Electric Infrastructure Act.

Council discussed Senate Bill 282 and House Bill 4575, bills which were designed to regulate the siting and construction of certain transmission lines; to prescribe powers and duties of certain state and local entities and officials; to create a board; to prescribe the board's powers and duties; and to provide for certain fees. Council directed Administration to prepare a Resolution in Opposition to Senate Bill 282 and House Bill 4575, and to have the Resolution distributed to all elected State Officials from the Upper Peninsula, all members of the House and Senate Subcommittees on Energy and Policy, all Upper Peninsula media outlets, and Governor Rick Snyder.

Upon motion made by Council Member Beauchamp, seconded by Council Member Baribeau, the following resolution was adopted:

A Resolution
In Opposition to
Senate Bill 282 and House Bill 4575

WHEREAS, Michigan lawmakers are proposing to form a review board for the purpose of evaluating the benefits of building electrical transmission facilities seeking to increase the transmission capacity between the Lower Peninsula and the Upper Peninsula of Michigan; and

WHEREAS, Legislation proposes that Michigan consumers pay for the cost of transmission facilities that are intended to reduce the congestion of moving power between the Lower Peninsula and the Upper Peninsula of Michigan, without regard for cost causation and allocation principals; and

WHEREAS, The U.P. Energy Shortfall is a result of generation retirements in the U.P. The current legislation assumes that interconnection of the peninsulas is the best solution without any consideration of available generation from the lower peninsula; and

WHEREAS, Current legislation disregards that many load centers in Wisconsin, Ohio, and Indiana are currently supplied with reliable, low cost power from another state, and transmission improvements have been made across state lines. Such legislation must acknowledge the potential for increased electrical rates by consumers not benefiting from the transmission additions; and

WHEREAS, SB 282 and HB 4575 does not take into account the many economic and technical barriers that stand in the way of making a case that more transmission would reduce electric rates for Michigan customers. Any proposed project would have to meet the threshold of having lower revenue requirements for the new transmission compared to the projected congestion and loss savings of an entity having the opportunity to contract for lower cost power in the lower peninsula; and

WHEREAS, MISO currently includes economic considerations in transmission planning studies and all stakeholders have the opportunity to provide input into the transmission planning process; and

WHEREAS, Current legislation prescribes the makeup of the Board, which limits the expertise needed for a board tasked with making decisions regarding complex matters; and

WHEREAS, The tasks assigned to the board are very complex, which will require technological expertise. The board will not likely have the expertise to conduct these studies on their own, thus consultants or staff will be required, with no mechanism described for who pays for these costs; and

BE IT RESOLVED: That the City of Escanaba, City Council, stands in opposition to Senate Bill 282 and House Bill 4575, bills attempting to regulate the siting and construction of

certain electric transmission lines; to prescribe powers and duties of certain state and local entities and officials; to create a board; to prescribe the board's powers and duties; and to provide certain fees for Michigan's long term electrical energy needs; and

THEREFORE BE IT RESOLVED, that a copy of this resolution be sent to all elected State Officials from the Upper Peninsula, to all members of the Senate and House Subcommittee's on Energy, all Upper Peninsula media outlets, and Governor Rick Snyder.

Upon a call of the roll, the vote was as follows:

Ayes: Beauchamp, Baribeau, Sattem, Blasier, Tall
Nays: None

RESOLUTION DECLARED ADOPTED.

NEW BUSINESS

Update - Electric Department –General Operations.

Electrical Superintendent Mike Furmanski updated the City Council, Electrical Advisory Committee and Citizens of Escanaba on the current departmental activities.

- Staff daily work was back to normal;
- Reviewed West Side Sub-Station check-list.

Update – Shutdown of Power Plant – Pro Energy Services, Inc.

Charles Detiege of Pro Energy Services, Inc. updated the City Council, Electrical Advisory Committee and Citizens of Escanaba on the status of the power plant shut down. (See Attachment – A)

Approval – Professional Services – Combustion Turbine Inspection.

Administration sought Council approval to hire Energis High Voltage Resources of Green Bay, WI to conduct an evaluation of the combustion turbine which was damaged on February 2, 2015 as part of the substation malfunction. The purpose of the evaluation was to obtain a cost estimate to repair.

NB-3 Blasier moved, Sattem seconded, to approve to hire Energis High Voltage Resources of Green Bay, WI to conduct an evaluation of the combustion turbine which was damaged on February 2, 2015 as part of the substation malfunction.

Upon a call of the roll, the vote was as follows:

Ayes: Blasier, Sattem, Beauchamp, Baribeau, Tall

Nays: None

MOTION CARRIED.

Approval – Mandated Fire Rated Clothing Purchase.

Administration sought Council approval to purchase fire rated clothing for departmental linemen from Aramark Uniform Services of Salem, NJ in an amount not to exceed $16,000. This purchase was not included in the current fiscal year budget but was being mandated by State law.

NB-4 Beauchamp moved, Blasier seconded, to purchase fire rated clothing for departmental linemen from Aramark Uniform Services of Salem, NJ in an amount not to exceed $16,000.

Upon a call of the roll, the vote was as follows:

Ayes: Beauchamp, Blasier, Baribeau, Sattem, Tall
Nays: None

MOTION CARRIED.

Approval – Professional Services – Power Plant Security

Administration sought Council approval to enter into a professional services agreement with Delta Force P.I. of Escanaba, MI in an amount not to exceed $36,000 for security services at the Power Plant property between June 15, 2015 and December 31, 2015. This service was not included in the current fiscal year budget. Council also asked for a report regarding the purchase of remote high end security cameras.

NB-5 Blasier moved, Beauchamp seconded, to enter into a professional services agreement with Delta Force P.I. of Escanaba, MI in an amount not to exceed $36,000 for security services at the Power Plant property between June 15, 2015 and December 31, 2015.

Upon a call of the roll, the vote was as follows:

Ayes: Blasier, Beauchamp, Sattem, Baribeau, Tall
Nays: None

MOTION CARRIED.

Discussion – Wholesale Power Purchase.

Electric Superintendent Mike Furmanski updated the Council on the City's existing wholesale power purchase contract and talked about future wholesale power rates. (See Attachment – B) During discussion, Mr. Furmanski recommended to extend the NextEra Contract from January 2017 through May 2020 at the blended rate of $55.86, and to do nothing with the capacity options at this time, but continue to review prices.

After further discussion, Beauchamp moved, Baribeau seconded, to extend the City of Escanaba NextEra Contract from January 1, 2017 through May 31, 2020, at the blended rate.

Upon a call of the roll, the vote was as follows:

Ayes: Beauchamp, Baribeau, Blasier, Sattem, Tall
Nays: None

MOTION CARRIED.

After further discussion, it was Council Consensus to do nothing with Capacity options at this time, but to continue reviewing prices and report back to Council.

Update – Power Plant Sale.

Manager O'Toole updated the City Council, Electrical Advisory Committee and the Citizens of Escanaba regarding the sale of the plant. He advised Term Sheet negotiations continued with Sterling Energy for the sale of the Power Plant. Two requests for proposals were received. Administration was continuing to review them.

GENERAL PUBLIC COMMENT

City resident, and Power Plant employee Don Racicot, commented on the Power Plant security issue recommending the security by individuals instead of security cameras. Mr. Racicot also commented on Sterling Energy term sheet.

Manager O'Toole stated negotiations with Sterling Energy never stopped regarding the sale of the City Power Plant. It has always been the City's desire to sell the Power Plant to someone who would continue to use the Power Plant to sell power and continue to employ the workers at the plant. Manager O'Toole further advised that if a final sale agreement with Sterling Energy was reached, a special Council Meeting would be scheduled.

COUNCIL/COMMITTEE, STAFF REPORTS – None

ADJOURNMENT

Hearing no further public comment, or further reports from the Electrical Advisory Committee or Council, the meeting adjourned at 6:55 p.m.

Respectfully submitted,

Robert S. Richards
City Clerk

Approved: _____
Marc D. Tall, Mayor

Shutdown Update

Items	Complete
Drained Boilers with Drum Doors open	100%
Drain turbine oil from reservoirs – Steam Turbines	100%
Remove coal from bunkers - 682 tons total	100%
Clean ash from the boilers, precipitators, and ash silo	100%
Drain Condensate, Feedwater, Make-up & Bearing Water	100%
Drain Deaerator, Feedwater heaters (shell & tube bundles)	100%
Drain Permeate lines and tank	100%
Drain Hotwells and Air ejector float traps	100%
Drain all sight glasses, transmitters and float traps	100%
Remove, drain, and clean all Chemical tanks and lines.	100%
Ensure circulating water lines are drain, barricade discharge	100%
Secure all access point on all buildings, Protect lower level windows from breakage, Repair all broken windows, seal up all building penetrations (pigeon/rodent control). Place "Warning Signage", ie Building contains Asbestos, Lead, Arsenic, etc. at all entry points.	90%
Asbestos & Mercury Switches Removed	90%
Isolate DC power – open breakers, remove batteries	75%
Open all breakers, (rack-out)	75%
Tools & office equipment moved to central and secured location.	50%
Remove contents from lube oil storage room, pump waste oil storage tank, Remove hazardous liquid products, boiler chemicals, water treatment chemicals	50%
Mobile equipment will be moved to Electric and Public works locaton -	0%
Relocate Station Records and Equipment files to a secure location	0%
Remove lower section of Precipitator ladders	0%
Shut off water to Station, Pump House, ensure fire hydrants are charged	0%
Pump Septic tank, Office Bathroom Sump, Combustion Turbine in ground Sump Tanks	0%
Drain Station water lines, domestic, service & fire protection	0%
Remove Permeate Tank Ladder	0%
Drain domestic water heaters	0%
Terminate Phone Service	0%
Plug all Floor Drains including floor trenches	0%

Maintain Substation cable vault sump pump until sale status is determined	?
Isolate AC power to Station (alternative power source for fuel transfer station, vault sump pump)	?

Combustion Turbine was left alone per City Instruction.	100%

Wholesale Power Discussion

June 10, 2015

1

Components of Wholesale Power

- Energy
- Capacity
- Transmission
- MISO
- Other Costs – SSR, MIRECs, Dispatch

2

- Energy and Capacity
  - 2 components we have some control on
  - Little control over other 3 components
- NextEra
  - Market based rate, guaranteed price
  - Short term contracts
  - Longer term hedges available
- GLU
  - Mix of contracts, plus DA/RT MISO market
  - Mix includes long and short term contracts
  - Prices are not guaranteed

3

- Energy
  - Currently 80% of wholesale power costs
  - Currently under contract with NextEra
    - Fixed price, full requirements to Escanaba
      - $57.10 thru Dec 2016
      - $52.32 for C/Y 2017
      - $54.94 for C/Y 2018
      - $59.00 indicative for Jan 2019 – May 2020
  - Other options
    - NextEra
      - Full requirements to hubs
      - Blocks of energy to Escanaba
      - Blocks of energy to hubs
    - Great Lakes Utilities
      - Power pool
      - Mixed contracts and market

4

- Capacity
  - Currently buying from Great Lakes Utilities
    - 15/16 $0.41 under contract
      - $172,200
    - 16/17 $0.61 under contract
      - $256,200
  - Indicative prices much higher
    - 17/18 and beyond are $3+
      - $1,260,000 @ $3.00/kw-mo
      - $1,386,000 @ $3.30/kw-mo

5

- Transmission
  - ATC
- MISO
  - Market costs
- Other Costs
  - SSR costs

6

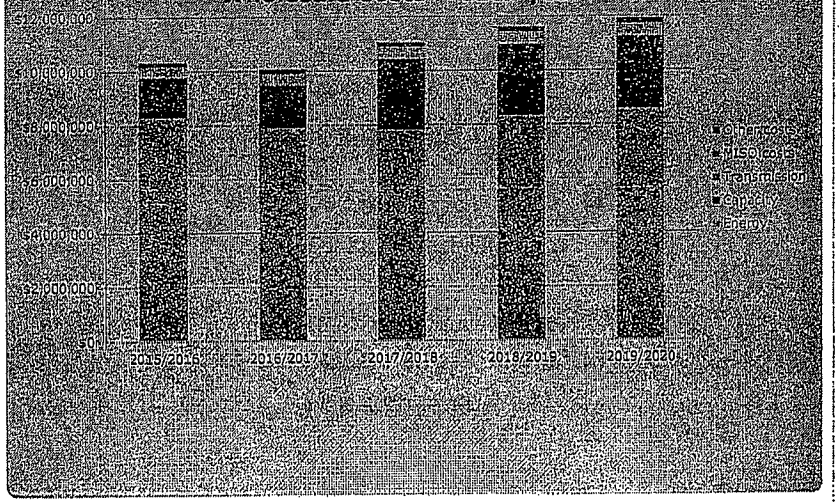
5 year projections buying energy a year at a time

17 @ $52.32, 18 @ $54.94, 19/20 @ $59.00

	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
Energy	$8,308,050	$7,902,348	$7,834,933	$8,338,363	$8,584,500
Capacity	$172,200	$256,200	$1,260,000	$1,260,000	$1,260,000
Transmission	$1,285,000	$1,310,700	$1,336,914	$1,363,652	$1,390,925
MISO costs	$400,000	$420,000	$441,000	$463,050	$486,203
Other costs	$170,250	$173,655	$177,128	$180,671	$184,284
Wholesale Total	$10,335,500	$10,062,903	$11,049,975	$11,605,735	$11,905,912
Other Dept Costs	$2,935,214	$2,993,918	$3,053,797	$3,114,873	$3,177,170
Total Budget	$13,270,714	$13,056,821	$14,103,771	$14,720,608	$15,083,082

7

Wholesale Costs – each year



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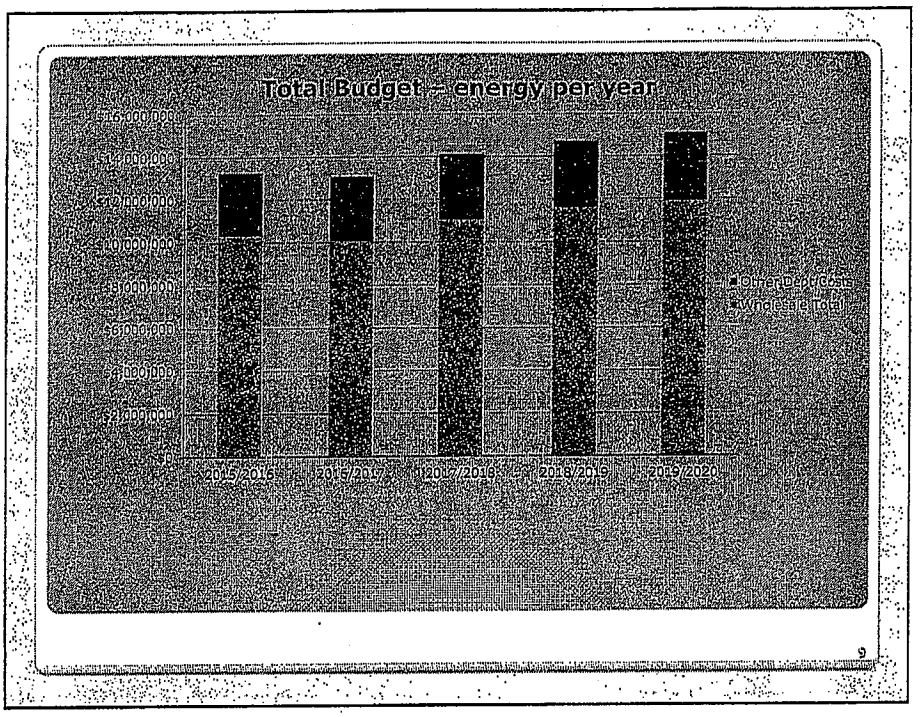
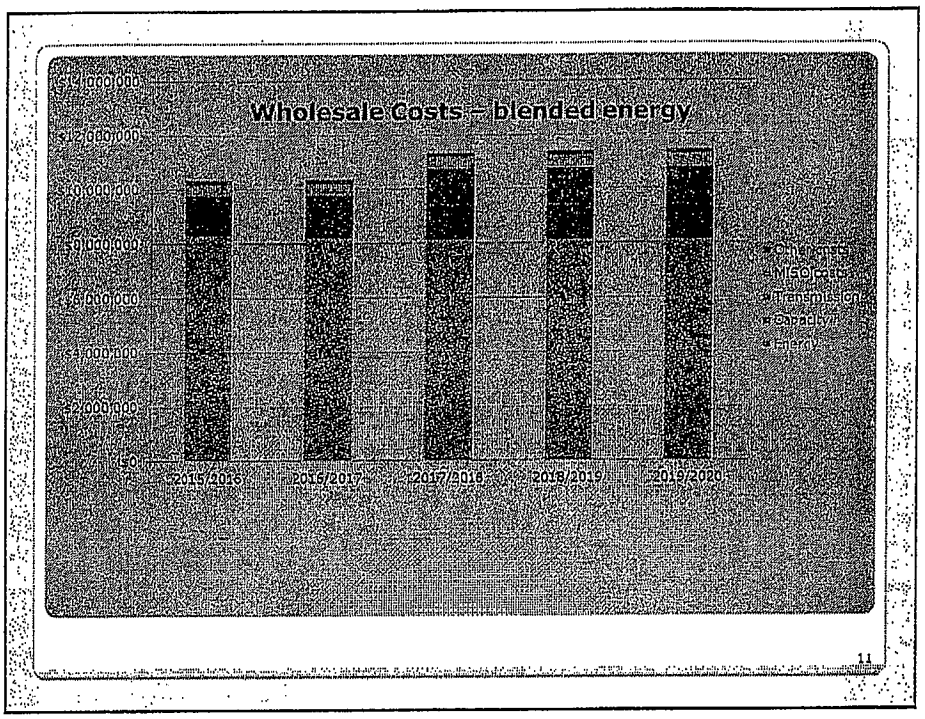
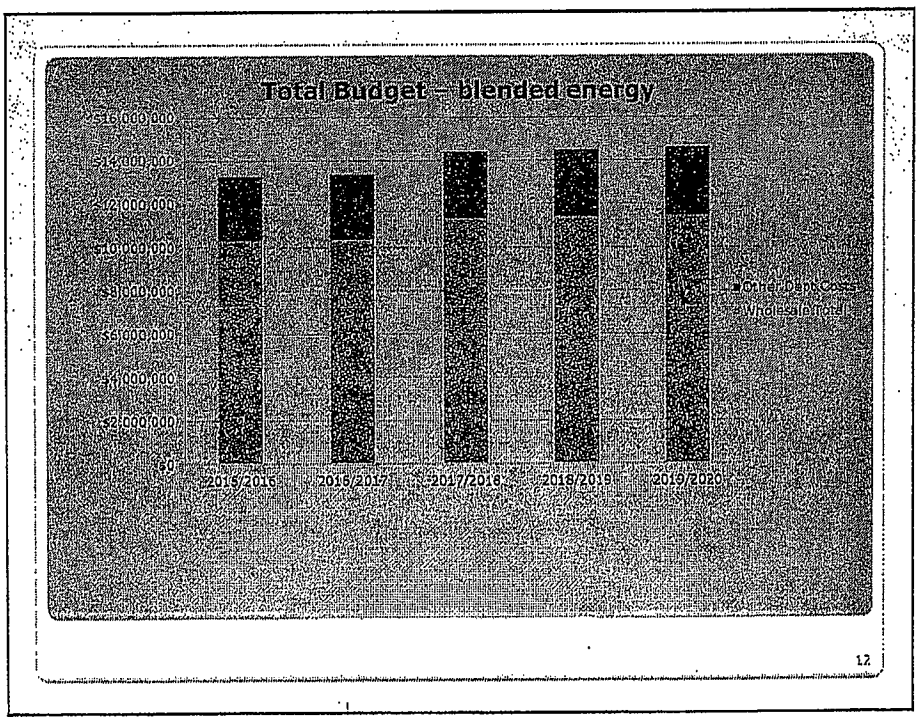


5 year projections, blended rate
Jan 2017 – May 2020 @ $55.86

	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
Energy	$8,308,050	$8,202,805	$8,127,630	$8,127,630	$8,127,630
Capacity	$172,200	$256,200	$1,260,000	$1,260,000	$1,260,000
Transmission	$1,285,000	$1,310,700	$1,336,914	$1,363,652	$1,390,925
MISO costs	$400,000	$420,000	$441,000	$463,050	$486,203
Other costs	$170,250	$173,655	$177,128	$180,671	$184,284
Wholesale Total	$10,335,500	$10,363,360	$11,342,672	$11,395,003	$11,449,042
Other Dept Costs	$2,935,214	$2,993,918	$3,053,797	$3,114,873	$3,177,170
Total Budget	$13,270,714	$13,357,278	$14,396,469	$14,509,876	$14,626,212

10


Wholesale Costs – blended energy
$14,000,000
$12,000,000
$10,000,000
$8,000,000
$6,000,000
$4,000,000
$2,000,000
$0
2015/2016
2016/2017
2017/2018
2018/2019
2019/2020
Other Costs
MISO Costs
Transmission
Capacity
Energy
11


Total Budget – blended energy
$16,000,000
$14,000,000
$12,000,000
$10,000,000
$8,000,000
$6,000,000
$4,000,000
$2,000,000
$0
2015/2016
2016/2017
2017/2018
2018/2019
2019/2020
Other Rate Costs
Wholesale Costs
12

- Assumptions used
  - Energy 145,500 Mwh/yr, Capacity 35 MW/yr
  - 2% annual increase for most other costs
  - 5% annual increase for MISO costs
- Impacts to rates – yearly purchases

	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
% Increase		-1.61%	8.02%	4.37%	2.46%

- Impact to rates – blended

	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
% Increase		0.65%	7.78%	0.79%	0.80%

13

- Energy Options
  - Do nothing – keep getting future prices
  - GLU Power Pool
    - Have a GLU rep at the July meeting
  - Extend the NextEra contract
- Capacity Options
  - Do nothing – keep getting prices
  - Buy all future capacity needs
  - Buy some future capacity needs

14

Blended Costs of energy

	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
Energy	$8,308,050	$8,173,099	$8,076,705	$8,076,705	$8,076,705
Capacity	$172,200	$256,200	$1,260,000	$1,260,000	$1,260,000
Transmission	$1,285,000	$1,310,700	$1,336,914	$1,363,652	$1,390,925
MISO costs	$400,000	$420,000	$441,000	$463,050	$486,203
Other costs	$170,250	$173,655	$177,128	$180,671	$184,284
Wholesale Total	$10,335,500	$10,333,654	$11,291,747	$11,344,078	$11,398,117
Other Dept Costs	$2,935,214	$2,993,918	$3,053,797	$3,114,873	$3,177,170
Total Budget	$13,270,714	$13,327,572	$14,345,544	$14,458,951	$14,575,287
	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
% increase		0.43%	7.64%	0.79%	0.80%

Annual cost of energy

	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
Energy	$8,308,050	$7,902,348	$7,834,933	$8,267,068	$8,462,280
Capacity	$172,200	$256,200	$1,260,000	$1,260,000	$1,260,000
Transmission	$1,285,000	$1,310,700	$1,336,914	$1,363,652	$1,390,925
MISO costs	$400,000	$420,000	$441,000	$463,050	$486,203
Other costs	$170,250	$173,655	$177,128	$180,671	$184,284
Wholesale Total	$10,335,500	$10,062,903	$11,049,975	$11,534,440	$11,783,692
Other Dept Costs	$2,935,214	$2,993,918	$3,053,797	$3,114,873	$3,177,170
Total Budget	$13,270,714	$13,056,821	$14,103,771	$14,649,313	$14,960,862
	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
% increase		-1.61%	8.02%	3.87%	2.13%

P.H #1
CC/EPC
8/12/15

ESCANABA
ELECTRIC DEPARTMENT

RENEWABLE ENERGY PLAN
U-16611

June, 2015

- Based on this Renewable Energy Plan (REP) the Escanaba Electric Department (City) will have the required Renewable Energy Credits (RECs) for the REP time period of 2015-2029 thereby complying with PA 295.

- The primary source of RECs comes from the purchase of RECs from other sources.

- The City periodically enters into discussions with developers of renewable energy generation project. It is possible that a future source of RECs will be acquired through a specific project either owned by the City or through some other type of business arrangement with the developer.

- Earlier REPs estimated the cost of RECs for years 2012 -2015 at a cost higher than actual transacted costs. This situation caused a temporary overcharging of the City's customers. Therefore, the City stopped charging surcharges and used the surplus to purchase additional RECs or apply to future renewable energy projects. The City will not assess any more surcharges until the surplus is gone.

- The City has chosen to use the Cost of RECs method of calculating the incremental cost of compliance rather than the Transfer Price method.

- The City will not exceed the renewable energy surcharge caps specified in PA 295.

- The financial impact of this REP is expected to be minimized for the City's customers.

- The City will comply with Section 45 and 51 of PA 295 which refers to methods of notification to customers charges, if any, for costs associated with its REP.

PH #1
CC/EAC
8/17/15

City of Escanaba Utility Office

In cooperation with the Michigan Electric Utility Association

Energy Optimization Plan

2016-2019

Program Descriptions

City of Escanaba Utility Office

Energy Optimization Plan

Program Descriptions

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• Overview

Twelve utilities have come together to work collaboratively via the MECA EO Collaborative under the leadership of the Michigan Electric Cooperative Association (MECA) to develop their Energy Optimization (EO) Plan in compliance to the "Clean, Renewable and Efficient Energy Act" (PA 295) and fulfillment of regulated utility regulation.

The energy efficiency programs in this 2016-2019 EO Plan are designed to help member/customer/customers use energy more efficiently. Programs focus on major electric energy using devices such as cooling, heating, lighting, appliances, building and energy management systems, and high use commercial and industrial equipment. The EO portfolio of programs offers a wide variety of options for members/customers of all member/customer classes, including residential income qualified, to participate in EO programs.

The primary goals of the programs are to save energy use in a cost effective manner and encourage members/customers to use more high efficient equipment thus achieving market transformation to more efficient energy use. Besides encouraging members/customers to use less energy with higher efficient equipment, the programs also encourages the wise use of energy.

There are four components to the energy efficiency programs.

- Incentives
- Education and information
- Promotion
- Direct assistance

Each component is designed to complement the others to optimize program performance and delivery.

The EO Plan is designed to cost-effectively achieve the energy savings goals within the spending limits as defined in the PA 295. Programs have been designed to achieve annual energy savings goals of 1% of the utility's energy sales within a budget of 2% (1.7% C&I, 2.2% Residential) of retail electric revenues. This is a 4-year EO Plan and is design to achieve 4-year energy savings goals within the 4-year budget.

The energy efficiency programs portfolio is cost effective using the Utility System Resource Cost Test (USRCT).

Programs are available to all members/customers that pay an EO surcharge on their energy bill.

- Within our Residential Program, members/customers will be provided:
    - Incentives to purchase measures such as high efficient lighting and energy efficient appliances.

  - Incentives for retiring old, working, and inefficient appliances (refrigerators, freezers) that consume some of the highest loads in the home.
  - Information for conducting an in-home energy survey that will include an energy efficiency kit if the survey is completed.

- For all Commercial and Industrial (C&I) members/customers, programs include a sufficient number of measures and are flexibility so that all businesses can take advantage of a variety of energy efficiency offerings.

- The Residential Income Qualified Program enables the utility to efficiently and effectively serve this member/customer segment.

Energy Optimization educational programs are designed to communicate to and educate members/customers on the benefits of energy efficiency, conservation and load management. The budget for the educational program is 3% of the cost to implement programs. The program will be deemed to generate saving proportional to the program expenditure.

Energy Optimization pilot programs are designed to investigate future energy optimization program development and to assess emerging technologies. The budget for the pilot program is 5% of the cost to implement programs. The program will be deemed to generate saving proportional to the program expenditure.

Energy Optimization Plan (2016-2019)

Residential Programs

• Residential Program

Residential Income Qualified Services Program

Program	Residential Income Qualified Services Program
Objective	The objective of the Residential Income Qualified Services Program is to reduce electricity use and lower electric bills of income qualified homeowners through improvements to their existing home at no cost to them. These installations will be made through existing income qualified weatherization agencies. The measures installed will include additional measures not normally installed in the agency weatherization program, making energy savings and bill reduction even greater for income qualified families. The second objective of the program will be to increase the installation of high efficiency equipment in income qualified rental properties. Other channels of installation include direct install in multifamily income qualified households and the installation of self-installed measures in energy efficiency kits through local income qualified services agencies.
Target Market	All income qualified households that are qualified by service or advocacy groups as being at or below 200 percent federal guidelines are eligible for the program.
Program Duration	January 1, 2016 through December 31, 2019.
Program Description	A significant barrier for this member/customer group is lack of funds to make needed improvements to their homes and appliances that would save electricity and money. There is also a lack of awareness and knowledge as to the ways that they can improve their homes. For the income qualified service providers and advocacy organizations there is a lack of money to serve all the income qualified homeowners in need of these services. There is also a lack of funds for electric technologies that could improve the home's energy usage. This program is designed to help overcome these barriers and improve energy efficiency for this specific member/customer group who has large energy needs and a large potential for savings. The Residential Income Qualified Services Program consists of

multiple components targeting specific segments of the income qualified market. The program is delivered at no cost to the member/customer through multiple channels to effectively reach the income qualified members/customers. Each channel will deliver a slightly different set of energy saving measures that will be effective for that particular segment of income qualified members/customers. These channels include:

Weatherization - Delivered through the federal Department of Energy (DOE) Weatherization Grantees (usually Community Action agencies).

Energy efficiency kits - Delivered by the implementation contractor in partnership with the local electric utility and food pantries.

Energy efficiency kits - Program delivered through Head Start agencies during a regularly scheduled home visit.

Home Energy Base Load Services – Program is a direct install program and depending on the needs of the home includes lighting, water, appliances and a power strip.

Refrigerator Replacement – Delivered through partnership with building owners. Includes power strip and lighting.

Rehab Partnership - Delivered through local and county Rehab and Habitat for Humanity programs. Program provides for high efficiency equipment.

Emergency Heating System ECM Upgrade - Delivered as an add-on service through HVAC contractors when a new furnace is installed in an emergency for income qualified members/customers.

In addition to direct energy savings assistance, the program also provides technical information, education and support to income qualified service or advocacy organizations so they can understand and comply with the program requirements and provide additional energy efficiency support. This support will include educational materials where appropriate.

MECA EO Collaborative Members may elect to expand the assistance to income qualified members/customers by working jointly with the natural gas providers to co-fund additional home weatherization projects. These projects will be targeted at redevelopment projects and/or income qualified neighborhoods where at least 75% of the residents are income qualified.

	Recognizing that some income qualified members/customers live in manufactured homes, additional support for this member/customer segment may be provided in coordination with the Manufactured Home component of the Audit/Weatherization Program.
Eligible Measures	The technologies to be included within this program are: • CFL and LED bulbs • Smart strip plug outlet • Hot water saving measures • ECM motors on gas furnace replacements • ENERGY STAR® refrigerator, air conditioning, dehumidifier • Heat pump water heater • Co-fund building shell measures and programmable thermostats that save electric energy from reduced air conditioning usage in homes that have central air conditioners. Technologies included in the program will change over time. Measures may be added or removed based on market response, technology availability and changes in efficiency standards. Technologies must be cost-effective, passing the Utility System Resource Cost Test individually, to be included.
Implementation Strategy	With assistance from MECA, the MECA EO Collaborative Members will provide program management and oversight, tracking and reporting oversight, and regulatory review. The Residential Income Qualified Services Program will be delivered through the existing approved Weatherization Providers and third parity contractor. These Community Action Agencies already have a delivery mechanism established with a long running program. By utilizing these agencies, MECA EO Collaborative Members can cost-effectively deliver these needed services without duplicating efforts. The work of the third party contractor will provide energy efficiency measures in homes that would not otherwise be served. Funds for the program will be provided to the Community Action Agencies. There will be a budgeted amount for the program provided to each agency to use according to MECA EO Collaborative Members' guidelines. These funds will cover the total cost of the measure plus

	installation. For the program expansion beyond the CAA delivery channel, the implementation contractor will have day to day implementation responsibility including education and training, application, verification, technical support, member/customer support, and marketing, jointly with the MECA EO Collaborative Member. The third party contractor will also be responsible for developing community relationships in support of this expanded program. The implementation contractor will expand the program as needed by providing direct install measures in income qualified multifamily housing and self-installed energy efficiency kits through income qualified support agencies.
Marketing Strategy	Promotional materials will be developed as needed for each participating agency. The marketing and communications strategy for the CAA weatherization assistance will be designed to help the agencies recruit participants and explain the MECA EO Collaborative Member's portion of the program. As this is an existing program for the Weatherization Providers and since it has a limited and targeted audience based on income, there will be limited additional promotion by MECA EO Collaborative Members. The marketing and communications plan may include: • Public relations materials. • Display boards that describe the benefits and features of the program including Community Action Agency contact information. • These display boards will be available for various public awareness events and will be placed in locations supporting the income qualified community. • Newsletters and magazines will include general information about all energy efficiency programs and will be used to feature special stories and solicit participation in this program. • Informational content on the MECA EO Collaborative Member website providing program information.

Milestones

Major milestones	Date
Energy Optimization Plan filed with MPSC	8/15
Implementation contract signed	11/15
Energy Optimization Plan approved by MPSC	11/15
Program implementation begins	1/16

EM&V

MECA will coordinate the impact evaluation of the MECA EO Collaborative Members' Programs. The evaluation will include a certification of energy savings and will leverage knowledge gained from the evaluation of similar utility energy efficiency programs in Michigan. Data collection processes for the certification of energy savings will be reviewed by an independent third party evaluation contractor.

The electric energy impact study will reliably estimate the program's gross annual kWh savings over the effective useful life of the energy efficient equipment installations funded by the program.

The MECA EO Collaborative Members intends to add or eliminate measures from the program based on cost-effectiveness, market acceptance and standard practice.

Residential High Efficiency Products Program

Program	Residential High Efficiency Products Program
Objective	The primary objective of the program is to increase the adoption of high efficiency products by influencing manufacturers and retailers to promote and stock high efficiency residential lighting and appliances through retail markets. The premise is that through market support of retailers, these products will have more member/customer exposure and better placement in the store. The sales force will also be more aware of the product and promote it more often to members/customers. It is expected that over time, as the product gets more widely accepted in the market and prices are reduced, the MECA EO Collaborative Member can lower the incentive since the product will be more commonly adopted by their members/customers.
Target Market	All residential members/customers who are looking to save energy (and reduce energy bills) and are not completely committed to energy efficient lighting and appliance products and who might purchase high efficiency products through retail stores or on-line are eligible for the program. The secondary target audience consists of retailers and manufacturers of energy efficient electrical products that can benefit from stocking, promoting, and selling high efficient alternatives. Appliance and lighting retailers are key to the success of this program.
Program Duration	January 1, 2016 through December 31, 2019.
Program Description	Certain barriers exist to the adoption of energy efficiency products, including lack of financial resources, competition for funds with other household budget items, lack of awareness/knowledge about the benefits and costs of energy efficiency products, difficulty of finding retailers carrying the products, and energy saving performance uncertainties. This program is designed to help overcome these market barriers and encourage greater adoption of energy efficiency products used in the market. Having a simple program structure and incentive schedule provides members/customers with certainty and ease of use regarding the incentives they will receive for installing a

wide variety of energy efficiency products.

The Residential High Efficiency Products program benefits are primarily distributed to participating utility members/customers through in-store markdowns and mail-in rebates, online stores, and over-the-counter sales at local participating EO Collaborative Member office locations. Program implementation is retailer-based for lighting and appliance measures. Field services offer localized support to retail stores leading to an increase of store associate awareness and member/customer participation. Stores in EO Collaborative Member territories offer localized measure distribution for utilities that choose to opt-in to the offering. No-cost measure opportunities (through special events, office offerings, or other avenues) will be implemented to support specific utility outreach activities with their members/customers and for specific, limited situations.

The program provides incentives and marketing support to retailers and manufacturers resulting in an expanded market share and purchasing frequency of high-efficiency products. Store-level support from management and associates create awareness of the benefits of, and combined with member/customer incentives, demand for eligible products.

The program is designed to:

- Influence the purchase of energy-efficient products by lowering the cost of energy saving lighting and appliances for utility members/customers.
- Educate members/customers on the benefits of energy-efficient products as well as help them buy the "right product for the right application."
- Display in-store point-of-purchase (POP) marketing to identify benefits of the EO program, eligible measures, and drive the purchase of energy-efficient products.
- Drive awareness of the program using POP, educational documents, and websites.
- Offer convenience for members/customers to participate by offering instant incentive-based savings on the

measure's upfront and operating cost for the duration of the measure's life.

- Provide flexibility to adjust the speed of kWh saved by changing stock keeping unit (SKU) offerings, incentives, and eligible retail locations when necessary.
- Analyze the use of incentive funds against measure type and kWh savings for maximum savings impact from funding.

The program design consists of two primary and two secondary approaches. The two primary approaches are retailer markdown for lighting measures, and mail-in rebate for appliances and fixtures. EO stores and no-cost measures are also offered in select participating utility jurisdictions as secondary approaches.

- Retailer Markdown - primarily for CFL and LED bulbs; delivered through in-store and on-line retail environments
  - Provide immediate savings for members/customers in retail stores by marking down the price of the product on shelf.
  - Include a broad mix of quality high efficiency products pre-screened and approved by implementing contractor's technical lighting manager.
- Mail-in Application - for select home appliances, fixtures, and other measures not included in markdown programs
  - Provide an avenue for members/customers to receive cash-back when they purchase high-efficient appliances included in the program.
  - This approach is cross-promoted in the retail store environment as well as through websites, events, and bill stuffers.
- EO Storefronts (Utility option)
  - The utility may offer low-cost energy-efficient products for sale in their office to provide a high-touch member/customer experience as well as

	convenience for their member/customer to enjoy the program benefits. • No-cost Measures o No-cost measures are delivered by individual utilities using a defined order process to enable tracking and distribution of measures. The products to be included will vary over time as new high efficiency and ENERGY STAR® products are developed or existing products become widely adopted and no longer need incentives to encourage purchase.
Eligible Measures	The following measures are selected to provide a wide breadth of eligible measures to members/customers. Technologies that will be included in the program may change over time. The ENERGY STAR® and high efficiency technologies for this Plan may include: • ENERGY STAR® CFL bulbs (various sizes) • ENERGY STAR® CFL specialty bulb • ENERGY STAR® CFL high wattage bulb • ENERGY STAR® CFL indoor/outdoor; 1- or 2-bulb fixture • ENERGY STAR® ceiling fan with CFL or LED light • ENERGY STAR® CFL outdoor fixture • ENERGY STAR® LED down light kit • ENERGY STAR® LED replacement lamp • ENERGY STAR® LED outdoor fixture • Advanced power strip • ENERGY STAR® room air conditioner • ENERGY STAR® dehumidifier • ENERGY STAR® clothes washer • Clothes Dryer w/moisture sensor • ENERGY STAR® refrigerator

	• ENERGY STAR® dishwasher • ENERGYSTAR® TV • LED Holiday Lights Measures will be added or removed based on market response, technology availability and changes in ENERGY STAR® standards. Technologies must be cost-effective, passing the Utility System Resource Cost Test individually, to be included.
Implementation Strategy	With assistance from MECA, the MECA EO Collaborative Member will provide program management and oversight, vendor referrals, tracking and reporting oversight, and regulatory review. Through the MECA EO Collaborative the implementation contractor will provide turn-key implementation services including education and training, application and incentive processing, incentive payments, tracking, verification, technical support, member/customer support, and marketing, jointly with the MECA EO Collaborative Member. The Residential High Efficiency Products program is delivered through retail markdown, online stores, and mail-in rebates. Secondary channels include the EO Collaborative Member storefront and available no-cost items. ***Retail Markdown*** Retail channels provide a variety of eligible lighting products; therefore, expanding member's/customer's awareness of standard and specialty lighting options. Members/customers are educated on the benefits of high efficiency products, and are able to make measure comparisons between high efficiency and non-efficient products in the store. The implementation contractor will support retailers and manufacturers with this program including in-field training and marketing/promotion support. The program will recruit the participation of new retailers, including key appliance retailers like Sears, Best Buy, Home Depot, Lowes, and any other local retailers for appliances, as well as independently owned hardware stores, local drug stores, and specialty stores. The implementation contractor will also target on-line retail program options available for utility members/customers.

	When possible the program will coordinate with neighboring utility EO retail programs. Participation "sharing" will be determined using member/customer demographic data from the retail store. In addition to the retail outlets, the program will include an online offering of high efficiency measures. The online retail offering will be available to any MECA EO Collaborative Member. *Appliance/ Equipment Rebates* Mail-in application forms are available online and distributed by field service representatives in specific retail channels when approved by store management.
Marketing Strategy	The marketing and communications strategy will be designed to inform members/customers of the availability and benefits of the program and how they can participate in the program. The strategy will include outreach to key partners and trade allies including the retailer community, relevant trade associations and other parties of interest in the market. An important part of the marketing plan will be content and functionality on the MECA EO Collaborative Member's website, which will direct members/customers to information about the program. *Marketing Approach* Marketing materials for energy efficiency products to notify and educate potential participants and partners about high efficiency products and rebates include informational print collateral, in-store point-of-purchase signage and advertising. All pieces are co-branded with ENERGY STAR® whenever possible. Other marketing activities will include public outreach events and a store-finder website tool that enables members/customers to easily search participating retailers. The implementing contractor will provide retailer training and collaboration to promote the High Efficiency Products program. The messaging for the High Efficiency Products program will focus on energy savings, money saved over time, quality products and in-store rebates (for applicable products). *Outreach Approach* Outreach will be provided by the implementing contractor through several outlets:

- The contractor will maintain regular communication with trade allies and retailers.
- The contractor's energy advisor provides technical assistance and site visits.
- The relationship the utility has with their members/customers will be leveraged.

The program will support events throughout the year (as budgets allow), such as trade shows, community gatherings and utility events.

The contractor's field staff promotes the EO program to trade allies, manufacturers, retailers and other relevant organizations located in and around the utility's service territory. Utility representatives build relationships with trade allies and encourage them to promote the program to their members/customers.

Other marketing activities will include:

- Public relations materials.
- Brochures that describe the benefits and features of the program including program application forms and processes. The brochures will be available for various public awareness events (presentations, seminars etc.).
- Bill inserts, bill messages and email messages.
- Newsletters and magazines will include general information about all energy efficiency programs and will be used to feature special stories and solicit participation in this program.
- MECA EO Collaborative Member's website content providing program information resources, contact information, downloadable application forms, and links to other relevant service and information resources.
- Member/customer representatives trained to promote the program to their members/customers.
- Presence at conferences and public events used to increase general awareness of the program and distribute program promotional materials.

Milestones

Major milestones	Date
Energy Optimization Plan filed with MPSC	8/15
Implementation contract signed	11/15
Energy Optimization Plan approved by MPSC	11/15
Program implementation begins	1/16

EM&V

MECA will coordinate the impact evaluation of the MECA EO Collaborative Members' Programs. The evaluation will include a certification of energy savings and will leverage knowledge gained from the evaluation of similar utility energy efficiency programs in Michigan. Data collection processes for the certification of energy savings will be reviewed by an independent third party evaluation contractor.

The electric energy impact study will reliably estimate the program's gross annual kWh savings over the effective useful life of the energy efficient equipment installations funded by the program.

The MECA EO Collaborative Members intends to add or eliminate measures from the program based on cost-effectiveness, market acceptance and standard practice.

Residential Appliance Recycling Program

Program	Residential Appliance Recycling Program
Objective	The objective of the Residential Appliance Recycling Program is to produce cost-effective, long-term annual energy savings and demand reduction by removing from the utility grid operable, inefficient appliances in an environmentally safe manner and to prevent those appliances from being resold in the secondary used appliance market. In addition, the program will be designed to educate members/customers on the cost of keeping an inefficient unit in operation and raise awareness of ENERGY STAR® appliances and how much those appliances can save members/customers.
Target Market	All residential members/customers are eligible for the program. The primary target market will be those with working second and third refrigerators and freezers, inefficient room air conditioners (room ACs) and inefficient dehumidifiers.
Program Duration	January 1, 2016 through December 31, 2019.
Program Description	The Appliance Recycling Program will produce cost-effective long-term annual energy savings in the residential market by removing operable, inefficient refrigerators, freezers, room air conditioners (room ACs) and dehumidifiers from the utility grid in an environmentally safe manner. Older room ACs, refrigerators, freezers and dehumidifiers can be some of the least efficient electrical appliances in the home. Often these older inefficient appliances are used when they are not functioning properly and as a result, they use electricity very inefficiently. A certified recycling agency will be responsible for the recycling process of dismantling the refrigerators, freezers, room ACs and dehumidifiers and removing oils and refrigerants and other recyclable components. Certain barriers exist to the replacement of old existing appliances with energy-efficient products, including difficulty in finding places to recycle old appliances, inability to deliver appliances to the drop-off location, lack of financial resources, competition for funds with other household budget items, and lack of awareness/knowledge about the

	benefits and costs of new energy efficiency measures. The Residential Appliance Recycling Program is designed to minimize these market barriers and encourage members/customers to dispose of old inefficient appliances and to increase the market share of ENERGY STAR® appliances by offering incentives, convenient scheduling of appointments, and cost-free pick-up of qualifying equipment.
Eligible Measures	Technologies that will be included in the program are: • Refrigerators • Freezers • Dehumidifiers • Room Air Conditioners Eligible measures may be revised over time as needed to reflect changes in current market conditions, EM&V results, and program experience.
Implementation Strategy	With assistance from MECA, the Utility will provide program management and oversight, vendor referrals, tracking and reporting oversight, and regulatory review. An appliance recycling contractor will provide turn-key implementation services, including the pick-up and proper disposal of the appliances in an environmentally safe manner, application and incentive processing, incentive payments, education and training, community outreach, tracking, verification, member/customer support, and marketing, jointly with the Utility. Members/customers will receive an incentive to have their old, working refrigerator or freezer picked up. A dehumidifier or room air conditioner can also be scheduled for pick-up in conjunction with a refrigerator or freezer pick-up. Additionally, appliances may be dropped off during special events or recycled through participating appliance retailers. In coordination with the utility, the implementing contractor may develop a community appliance recycling offering and recycling events. The program will be offered either in the summer months or year round depending on the local market demand for appliance recycling,

	Incentives may change based on market and program responses.
Marketing Strategy	Consumer education and marketing will be key components that emphasize the benefits of savings associated with retiring old, inefficient appliances and the importance of ensuring proper disposal and recycling. The marketing and communications strategy will be designed to inform members/customers of the availability and benefits of the program and how they can participate. To control the implementation of this program and scheduling of the appliance pick-up, direct marketing will be the primary source of communication. Marketing activities will include: • Brochures that describe the benefits and features of the program including program contact information. The brochures will be available for various public awareness events (presentations, seminars, etc.). • Bill inserts, bill messages and email messages to targeted members/customers. • Newsletters or magazines will include general information about all energy efficiency programs and will be used to feature special stories and solicit participation in this program. • Informational content on the MECA EO Collaborative Member's website. • Member/customer representatives trained to promote the program to their members/customers. • Presentations to key retailers and supplier groups to actively solicit their support in the program.
Milestones	

Major milestones	Date
Energy Optimization Plan filed with MPSC	8/15
Implementation contract signed	11/15
Energy Optimization Plan approved by MPSC	11/15
Program implementation begins	1/16

EM&V	MECA will coordinate the impact evaluation of the MECA EO Collaborative Members' Programs. The evaluation will include a certification of energy savings and will leverage knowledge gained from the evaluation of similar utility energy efficiency programs in Michigan. Data collection processes for the certification of energy savings will be reviewed by an independent third party evaluation contractor. The electric energy impact study will reliably estimate the program's gross annual kWh savings over the effective useful life of the energy efficient equipment installations funded by the program. The MECA EO Collaborative Members intends to add or eliminate measures from the program based on cost-effectiveness, market acceptance and standard practice.

Residential HVAC Equipment Program

Program	Residential HVAC Equipment Program
Objective	The primary goal of the Residential HVAC Equipment Program is to encourage residential members/customers to install energy-efficient heating, cooling and water heating equipment. The installation of energy efficiency equipment will be made through HVAC contractors. The program will lower the use of electricity and lower energy bills of the member/customer. It also encourages the HVAC contractors to development business practices (inventory, training, sales) that would promote the use of energy efficiency HVAC equipment.
Target Market	All residential members/customers are eligible for the program. The primary target market is the HVAC contractor who specifies and replaces the heating, cooling and water heating equipment in a home.
Program Duration	January 1, 2016 through December 31, 2019.
Program Description	The Residential HVAC Equipment Program provides incentives to residential members/customers for installing energy-efficient electric heating, cooling and water heating equipment. This program will serve existing homes installing new equipment and to new homes when they do not qualify for the New Home Construction incentives. Incentives will be provided to the home owner and will be based on fulfilling the energy efficiency requirements. More specifically, the program is designed to: • Provide incentives to purchase high efficiency equipment as specified within the program. • Provide technical information, education and training to contractors, builders and homeowners so that they can understand the benefits of the high efficiency alternatives and provide high efficiency alternatives as the best choice to members/customers. • Provide a marketing mechanism for contractors and equipment distributors to promote high efficiency equipment. • Ensure that the participation process is clear, easy to understand and simple.

	Certain barriers exist to the adoption of energy-efficient equipment, 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. If the equipment is replaced without electric efficiency in mind, there might not be the opportunity to make these improvements until many years later when the equipment fails. Avoiding this lost opportunity at the time of replacement allows energy efficiency to be optimized and is usually less costly than equipment replacement at a later time. This program is designed to help overcome these market barriers and encourage greater adoption of energy-efficient HVAC equipment in the residential market.
Eligible Measures	Technologies that may be included within this program are high efficiency heating, cooling and water heating equipment. Measures included are: • Central AC units with SEER ratings of 16 or above • ECM motors in gas furnaces, air conditioners or heat pumps • Geothermal or Air Source Heat Pumps with SEER rating of 15 or above. • Ductless mini-split systems • Heat Pump Water Heaters EF 2.0+ • Water heaters with efficiency of 93% or higher • Programmable thermostat • Water heater savings measures • Pool pumps Guidelines for equipment specified as high efficiency will change over time as market response, technology availability and changes in ENERGY STAR® standards.
Implementation Strategy	With the assistance of MECA, the MECA EO Collaborative Member will provide program management and oversight, vendor referrals, tracking and reporting oversight, and regulatory review. The implementation contractor will provide training and education, application and incentive processing, incentive payments, tracking,

	verification, technical support, member/customer support, and marketing, jointly with the MECA EO Collaborative Member. The contractor will also be responsible for supporting contractors and distributors with this program including training and marketing/promotion support. To make the Residential HVAC Equipment Program effective, the implementation contractor will work to build a strong trade ally relationship with equipment distributors, HVAC contractors and plumbing contractors. Those market participants are key in making sure high efficiency HVAC equipment is available, and key for selling the high efficiency alternative directly to members/customers as they replace their old and failing equipment. The allies use these sales motivations and sound business interests in promoting energy efficiency to encourage high efficiency sales, which in turn, motivate end-users to invest in energy efficiency. Additional water heater sales may be achieved through local EO Collaborative Member direct sales to their members/customers. The incentives for the program will be paid to the member/customer as either an instant incentive on the installing contractor's invoice or a direct payment to the member/customer. Once the equipment is installed and is verified as complying with the minimum standards, the instant incentive provided on the invoice to the member/customer will be paid to the HVAC contractor, or the incentive will be paid to the member/customer. Incentives will be provided to the contractor for all qualifying incentives paid each month.
Marketing Strategy	The marketing and communications strategy will be designed to inform homeowners, contractors and equipment distributors of the availability and benefits of the program and how they can participate in the program. Trade allies are integral to the successful delivery of prescriptive energy efficiency programs and are the primary means for reaching most residential end-users. These partners are often the members/customers first and only point-of-contact and a trusted resource for information on high efficiency equipment when making energy-related decisions. The strategy will include outreach to key partners and trade allies including contractors, equipment distributors, trade associations, and other parties of interest in the market. An important part of the marketing plan will be the content and functionality on the MECA EO Collaborative Members' website, which

will direct members/customers to information about the program.

Marketing and communications plan will include:

- Education seminars implemented in each market area to provide details about the benefits of the program and how to participate in the program. The seminars will be tailored to the needs of homeowners, contractors and equipment distributors.
- A combination of strategies includes outreach and presentations at professional and community forums and events, and through direct outreach to key contractors such as:
  - Brochures that describe the benefits and features of the program including program application forms and worksheets. They will be available through various public awareness events (presentations, home shows, etc.).
  - Print advertisements to promote the program placed in selected local media including the local area newspapers and trade publications.
  - Newsletters and magazines will include general information about all energy efficiency programs and will be used to feature special stories and solicit participation in this program.
  - MECA EO Collaborative Member's website content providing program information resources, contact information, downloadable application forms and worksheets, and links to other relevant service and information resources.
  - Presence at conferences and public events used to increase general awareness of the program and distribute program promotional materials.
  - Presentations to members/customers and trade allies to actively solicit their participation in the program.
- The marketing strategy will identify key member/customer segments and groups for targeted marketing, and will prepare specific outreach activities for these members/customers.

With the assistance of MECA, the MECA EO Collaborative Member will oversee the development of content, messaging, branding, and calls to action of all of the marketing and collateral materials used to promote the program.

Milestones

Major milestones	Date
Energy Optimization Plan filed with MPSC	8/15
Implementation contract signed	11/15
Energy Optimization Plan approved by MPSC	11/15
Program implementation begins	1/16

EM&V

MECA will coordinate the impact evaluation of the MECA EO Collaborative Members' Programs. The evaluation will include a certification of energy savings and will leverage knowledge gained from the evaluation of similar utility energy efficiency programs in Michigan. Data collection processes for the certification of energy savings will be reviewed by an independent third party evaluation contractor.

The electric energy impact study will reliably estimate the program's gross annual kWh savings over the effective useful life of the energy efficient equipment installations funded by the program.

The MECA EO Collaborative Members intends to add or eliminate measures from the program based on cost-effectiveness, market acceptance and standard practice.

Residential Solar Program

Program	Residential Solar Program
Objective	The primary goal of the Residential Solar Program is to encourage residential members/customers to install energy-saving solar equipment. The installation of energy-saving solar equipment will be made through contractors specializing in solar equipment technologies. The program is designed to lower the use of electricity and lower energy bills of the member/customer. The program will encourage solar contractors to use the program to promote solar technologies as a viable electric energy alternative. This program is offered at the utility's option.
Target Market	All residential members/customers are eligible for the program. At the utility's option, the program offers members/customers the opportunity to participate individually or collectively. The target markets will include the member/customer and contractors who specialize in solar technology installations.
Program Duration	January 1, 2016 through December 31, 2019.
Program Description	The Residential Solar Program provides incentives to residential members/customers for installing or participating in the installation of qualifying energy-saving solar systems. More specifically, the program is designed to: • Provide incentives to purchase and install electricity producing solar equipment as specified within the program. • Provide technical information, education and training to contractors and homeowners so that they can understand the benefits of solar systems. • Provide a marketing mechanism for contractors and solar equipment distributors to promote electricity producing solar equipment. • Ensure that the participation process is clear, easy to understand and simple. Certain barriers exist to the adoption of solar equipment, including lack of investment capital, competition for funds with other home

	investments or amenities, lack of awareness/knowledge about the benefits and costs of solar systems, lack of education and skills of the contractor, and technology performance uncertainties. This program is designed to help overcome these market barriers and encourage greater adoption of energy-saving solar equipment in the residential market.
Eligible Measures	Technologies that may be included within this program are energy-saving solar equipment that produce electricity. To provide program flexibility, specific technologies and installations will be approved on a case-by-case basis.
Implementation Strategy	With the assistance of MECA, the MECA EO Collaborative Member will provide program management and oversight, vendor referrals, tracking and reporting oversight, and regulatory review. The implementation contractor will provide training and education, application and incentive processing, incentive payments, tracking, verification, technical support, member/customer support, and marketing, jointly with the MECA EO Collaborative Member. The implementation contractor will also be responsible for supporting solar contractors and distributors with this program including training and marketing/promotion support. The incentives for the program will be paid to the member/customer.
Marketing Strategy	The marketing and communications strategy will be designed to inform homeowners, solar contractors and solar equipment distributors of the availability and benefits of the program and how they can participate in the program. An important part of the marketing plan will be the content and functionality on the MECA EO Collaborative Members' website, which will direct members/customers to information about the program. The marketing strategy will be utility based and will be coordinated closely with the utility's communications with their members/customers. The strategy will also include outreach and presentations at professional and community forums and events, and through direct outreach to key contractors. With the assistance of MECA, the MECA EO Collaborative Member will oversee the development of content, messaging, branding, and

	calls to action of all of the marketing and collateral materials used to promote the program.
Milestones	

Major milestones	Date
Energy Optimization Plan filed with MPSC	8/15
Implementation contract signed	11/15
Energy Optimization Plan approved by MPSC	11/15
Program implementation begins	1/16

EM&V	MECA will coordinate the impact evaluation of the MECA EO Collaborative Members' Programs. The evaluation will include a certification of energy savings and will leverage knowledge gained from the evaluation of similar utility energy efficiency programs in Michigan. Data collection processes for the certification of energy savings will be reviewed by an independent third party evaluation contractor. The electric energy impact study will reliably estimate the program's gross annual kWh savings over the effective useful life of the energy efficient equipment installations funded by the program. The MECA EO Collaborative Members intends to add or eliminate measures from the program based on cost-effectiveness, market acceptance and standard practice.

Residential Audit/Weatherization/New Construction/Behavioral Program

Program	Residential Audit/Weatherization/New Construction/Behavioral Program
Objective	The objective of the Residential Audit/Weatherization/New Construction/Behavioral Program is to provide information, incentive and support for members/customers to improve the energy efficiency of their homes in areas not address by the other EO Programs. Most of the focus is on building shell insulation and infiltration. This program offers EO Collaborative Members at cost-effective way to reach members/customers that may not participate in other programs. Audit and Weatherization The Audit and Weatherization part of the program will include online energy information and easy to install measures to help members/customers take action to reduce energy use. It will also include weatherization for manufactured homes. New Construction The New Construction part of the program is to encourage residential members/customers to build more efficient new homes and to install energy-efficient lighting, heating and cooling equipment, and improve building envelope efficiency in new homes. Behavioral The behavioral part of the program will include programmable thermostat and member/customer use reporting.
Target Market	Audit and Weatherization All residential members/customers are eligible for the online energy survey and energy saving measures kit. At the utility's option and depending on available resources, an in-home audit (assessment) with direct install measures may be included. New Construction All residential members/customers and builders constructing new single family homes in the utility's service territories are eligible for this program. The primary target market is the custom and

	production builders and developers of new homes. Behavioral At the utility's option and depending on available resources, the behavioral components of the program may be offered. • The thermostat measure will be offered to all residential members/customers. • The member/customer usage reporting program will be delivered to those members/customers identified by the utility as having the greatest opportunity to save energy.
Program Duration	January 1, 2016 through December 31, 2019.
Program Description	Audit and Weatherization The single family market has significant barriers to energy efficiency. The primary barrier is a lack of awareness and knowledge as to the ways that they can improve their home and change behaviors to save energy. Another major barrier is the lack of funds to make needed improvements to their homes that would save energy and money. Home owners have little time to implement or knowledge of energy efficiency measures. By providing online home energy audit (as part of the Residential Educational Program) and energy savings kits, the homeowner can improve their efficiency and reduce energy costs. This program is designed to actively engage members/customers to help overcome these barriers and improve energy efficiency for this member/customer group who has large energy needs and a large potential for savings. The residential Audit and Weatherization part of the program provides an energy savings kit to residential members/customers who complete the online energy survey. • Receiving the energy saving kit interacts with the online home energy audit that is included in the Educational Program. • For completing the self-audit information for the online energy survey, the member/customer will receive an energy savings kit that includes easy to install energy saving measures. At the utility's option, an in-home audit (assessment) may be offered. Besides the assessment, energy efficiency measures such as

	CFLs/LEDs, low flow shower heads and faucet aerators leaders, pipe insulation and smart power strips will be installed by the assessor. New Construction The Residential New Construction program provides assistance and encouragement for builders to build more efficient new homes and to install energy-efficient lighting, heating and cooling equipment, and improve the building envelope efficiency in new homes. The program provides financial bonuses for the installation of high efficiency appliances and kits that include high efficiency lighting and other energy saving measures. Certain barriers exist to the adoption of energy efficiency measures, 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 builder, and technology performance uncertainties. If the home is not designed and constructed with electric efficiency in mind, there might not be the opportunity to make these improvements until many years later when the equipment fails or further building remodeling occurs. Avoiding this lost opportunity at the time of design and construction allows energy efficiency to be optimized and is usually less costly than equipment replacement or redesign. This program is designed to help overcome these market barriers and encourage greater adoption of energy efficiency measures in the new construction residential market. Behavioral The thermostat program provides incentives for the installation of a programmable thermostats and programmable thermostats with Wi-Fi connectivity. The member/customer usage reporting component of the program will help members/customers understand how and when they're using energy and provide suggestions and tips to use energy more efficiently and reduce their energy use.
Eligible Measures	Audit and Weatherization The technologies to be included in the energy savings kit are: • 5 CFLs/LEDs • 2 energy efficient faucet aerators

	• 1 energy efficient showerhead When an in-home assessment is conducted, additional measures may be included but not limited to pipe insulation and smart power strip. When providing the weatherization component of this program in the electrically heated manufactured home market, duct sealing may also be included. <u>New Construction</u> The technologies to be included within the New Construction part of the program are high efficiency appliances and other energy efficiency measures. <u>Behavioral</u> • An incentive will be provided for the installation of a programmable thermostat. • For the usage reporting component of this program, the member/customer will be encouraged to generally use less energy and install higher efficiency measures. Measures may be added or removed based on market response, technology availability and changes in efficiency or building code standards.
Implementation Strategy	With assistance from MECA, the MECA EO Collaborative Member will provide program management and oversight, vendor referrals, tracking and reporting, oversight, and regulatory review. An implementation contractor will provide turn-key implementation services including training and education, application and incentive processing, incentive payments, tracking, verification, technical support, member/customer support, and marketing, jointly with the MECA EO Collaborative Member. <u>Audit and Weatherization</u> The energy survey is offered through the online energy survey. When the self-audit is completed, the member/customer will be sent an energy savings kit containing easy to install energy efficiency measures. The implementing contractor will be responsible for sending the energy efficiency kits. Where utilities choose to provide in-home energy assessments, the

	implementation contractor will provide these assessments and install energy efficiency measures at no charge to the member/customer. For manufactured home weatherization, the implementation contractor will solicit participation, provide the energy assessment and conduct the weatherization project. <u>New Construction</u> The implementation contractor will provide bonus incentives for the installation of high efficiency appliances and HVAC equipment and will provide energy efficiency kits that can be used by the member/customer to save energy. The implementation of this program will be coordinated with the member's/customer's gas provider where gas and electricity are saved as the result of the installation of high efficiency insulation or infiltration measures. <u>Behavioral</u> The implementation contractor will provide incentives for the purchase and installation of programmable thermostats. This program will provide two thermostat incentive levels – one incentive level for members/customers wishing to install a programmable thermostat and a higher incentive level for members/customers wishing to install a more expensive Wi-Fi communicating thermostat. Where the utility chooses to implement a member/customer use reporting based behavioral component to this program, the implementing contractor will work with utility to acquire the appropriate data needed to provide customized reporting for participating members/customers.
Marketing Strategy	Marketing activities for the three components of this program may generally include: • Direct mail to potential participant members/customers based on zip code. • Newsletters and magazines will include general information about all energy efficiency programs and will be used to feature special stories and solicit participation in this program. • Website content providing program information resources, contact information, downloadable application forms and worksheets, and

links to other relevant service and information resources.

- Presence at conferences and public events used to increase general awareness of the program and distribute program promotional materials.
- Presentations to key members/customers and member/customer groups to actively solicit their participation in the program.
- Public relations materials and general media.
- Brochures that describe the benefits and features of the program including program contact information. The brochures will be available for various public awareness events (presentations, seminars, etc.).
- Bill inserts, bill messages and email messages to targeted members/customers.
- Informational content on the MECA EO Collaborative Member's websites.
- Member/customer representatives trained to promote the program to their members/customers.

Audit and Weatherization

Promotional materials will be developed for all residential members/customers.

The marketing and communications strategy will be designed to inform members/customers of the availability and benefits of the program and how they can participate.

The energy efficiency kit which is available to members/customers completing the online audit will be promoted through the online audit website.

Where the utility ops to provide in-home energy assessments, the utility will identify those members/customers to which the program will be made available. Direct mail materials explaining the benefits of the program and the ways in which members/customers can participate will be mailed to the members/customers soliciting their participation.

Weatherization for electrically heated manufactured homes will be promoted through general program communications and utility references.

New Construction

Promotional materials will be developed for home owners and developers on the benefits of constructing and energy efficiency home. This education will be through a combination of workshops and direct meetings with key market participants in the area.

The marketing and communications strategy will be designed to inform homeowners, builders and developers of the availability and benefits of the program and how they can participate in the program. The strategy will include outreach to key partners and trade allies including builders, developers, architects, contractors, equipment distributors, trade associations, and other parties of interest in the market. An important part of the marketing plan will be the content and functionality on the utility's website, which will direct members/customers to information about the program.

More specifically, the marketing and communications plan will include:

- Educational seminars to provide details about how to participate in the program. The seminars will be tailored to the needs of homeowners, builders, developers and architects.
- A combination of strategies including local media advertising, outreach and presentations at professional and community forums and events, and through direct outreach to key builders and developers.

Behavioral

The thermostat incentive program will be promoted to the HVAC trade allies in the HVAC products program and to retail stores as part of the High Efficiency Products Program.

Where the utility ops to include a member/customer use reporting program, the utility will provide the implementation contractor with information needed to contact, enroll and serve perspective participants. Those members/customers participants will be solicited to participate in the program through direct mail (and email when available).

Milestones

Major milestones	Date
Energy Optimization Plan filed with MPSC	8/15
Implementation contract signed	11/15
Energy Optimization Plan approved by MPSC	11/15
Program implementation begins	1/16

EM&V

MECA will coordinate the impact evaluation of the MECA EO Collaborative Members' Programs. The evaluation will include a certification of energy savings and will leverage knowledge gained from the evaluation of similar utility energy efficiency programs in Michigan. Data collection processes for the certification of energy savings will be reviewed by an independent third party evaluation contractor.

The electric energy impact study will reliably estimate the program's gross annual kWh savings over the effective useful life of the energy efficient equipment installations funded by the program.

The MECA EO Collaborative Members intends to add or eliminate measures from the program based on cost-effectiveness, market acceptance and standard practice.

Residential Farm Service Program

Program	Residential Farm Services Program
Objective	The primary objective of the Residential Farm Services Program is to encourage residential farm operations to install energy-efficient measures in existing and new facilities.
Target Market	All residential farm members/customers are eligible for the program. The target market also includes trade allies supporting the farm producer industry.
Program Duration	January 1, 2016 through December 31, 2019.
Program Description	This program provides prescriptive and custom incentives to residential farm members/customers for the installation of energy-efficient equipment for numerous agricultural applications including but not limited to lighting, motors and drives, controls, heating, ventilation and refrigeration equipment and custom incentives for the installation of innovative and unique energy-efficient equipment and controls. Having a custom incentive allows efficiency measures and systems to be installed for situations specific to that member's/customer's application or process. <u>Prescriptive Incentive</u> The prescriptive incentives are structured to broadly apply to many common energy efficiency measures that are similar across many types of farm production operations. Having a simple program structure and incentive schedule for common equipment and applications provides members/customers and the market suppliers with certainty and ease of use regarding the incentives they will receive for installing a wide variety of energy efficiency measures. <u>Custom Incentive</u> Custom incentives for the installation of innovative and unique energy-efficient equipment and controls are to be offered on a per kWh basis based on pre-approved engineering estimates. This program targets energy savings equipment or processes as well as applications with so much variability in operating characteristics that standardized savings cannot be assumed across the farm producer

	base. This program also includes those technologies that are new to the market and have not yet established baseline savings. More specifically, the program is designed to: • Provide incentives to farm owners and operators for the installation of high efficiency equipment and controls. • Provide the knowledge necessary and market demand to justify the marketing of high efficiency measures by electrical contractors, mechanical contractors, and their distributors. • Ensure that the participation process is clear, easy to understand and simple. Where applicable, the MECA EO Collaborative Member will work with the gas company supplying services to the member/customer to coordinate incentives, processing and assistance for those measures or systems that apply to both fuels (ex: building shell measure improvements). Certain barriers exist to the adoption of energy efficiency measures, including lack of investment capital, competition for funds with other capital improvements, lack of awareness/knowledge about the benefits and costs of energy efficiency measures, high transaction and information research costs, and technology performance uncertainties. This program is designed to help overcome these market barriers and encourage greater adoption of energy efficiency measures in the farm producer market. The premise of the program is that through engagement and education with the market participants and through member/customer incentives to reduce upfront costs, the risks to energy efficiency implementation will be reduced and the rewards from the savings will become more apparent thus increasing adoption. <u>Outdoor Lighting</u> To improve efficiency of outdoor lighting, the utility may provide incentives for the installation of LED fixtures.
Eligible Measures	<u>Prescriptive Incentive</u> Technology categories for which prescriptive incentives have been established include the following. • High efficiency lighting

- High-efficiency commercial equipment
- Timer for engine block heater
- Motors/pumps/drives
- Fans
- Low-energy livestock waterer
- Refrigeration Equipment
- Heat recovery tank
- Variable speed controller for vacuum pump
- Electric or solar water heaters for dairy farm milk houses
- Dairy refrigeration tune-ups
- MSU farm energy audit
- Controls
- Other

Specific technologies included in the program will change over time based on codes and standards, changing market needs, introduction of new technologies and market adoption rates.

Custom Incentive

For the effective use of custom incentives, flexibility is the key. Technologies that are unique to that member/customer, new to the market or have a wide range of savings based on their application cannot be covered by prescriptive incentives due to their variability. However these variable energy savings technologies can be significant and encouraged with custom incentives. Measures must show electric energy savings through accepted engineering analysis that will be reviewed and pre-approved by the utility for the incentive. Measures cannot receive a custom incentive if they are eligible for a prescriptive incentive unless they are in combination with other measures or systems that makes them unique.

Measures may be added or removed based on market response, technology availability and changes in efficiency standards.

Outdoor Lighting

The selected LED technology will be used to replace 175 W mercury

	vapor and 100 W high-pressure sodium fixtures.
Implementation Strategy	Prescriptive Incentive With assistance from MECA, the MECA EO Collaborative Member will provide program management and oversight, vendor referrals, tracking and reporting, oversight, and regulatory review. An implementation contractor will provide turn-key implementation services including training and education, application and incentive processing, incentive payments, tracking, verification, technical support, member/customer support, and marketing, jointly with the MECA EO Collaborative Member. The key to program success is twofold. First, the utility will engage farm producer member/customer participants by using their existing market delivery channel. This market delivery channel includes manufacturers, distributors, consultants, engineers and contractors. The program staff will educate, partner and engage these important market actors in the program. Through these existing market actors who have relationships with farm producer members/customers, the new high efficiency technology will be offered to members/customers as a viable option. To support the market participants, the program also includes farm member/customer educational and promotional pieces designed to assist facility owners, operators and decision makers with the information necessary to improve the energy efficiency of the systems in their facilities. Second, the utility will use account management resources that have direct relationships with members/customers and can help identify opportunities to participate in the program. These resources will build member/customer awareness, educate the member/customer on opportunities and connect interested members/customers with the appropriate participating contractors. Incentives will be offered to reduce the cost of the energy-efficient equipment and will vary based on cost-effectiveness and market response. The program strives to cover a minimum of 50% of the incremental equipment cost of the measure to stimulate the market if it is cost-effective; however, depending on the acceptance of a measure in the marketplace, 50% is not always needed. Additional guidelines may be established such as total incentives available per member/customer per year to assure that funds are allocated across all farm member/customer opportunities.

Where applicable, the MECA EO Collaborative Member will work with the gas company supplying services to the member/customer to coordinate incentives, processing and assistance for those measures or systems that apply to both fuels (ex: building shell measure improvements).

Custom Incentive

Work to achieve cost effective energy savings with custom incentives will center on working with farm members/customers to apply energy efficiency in unique ways to their operations and processes and working with the industry participants to find the right solutions to their needs. The primary key to success is utilizing the existing relationships of the utility's internal staff that has relationships with their farm members/customers and can help identify opportunities to participate in the program. These resources will build member/customer awareness, educate the member/customer, and work with engineering staff, supporting engineering firms and Energy Service Companies. Through the engagement of the market participants throughout the delivery channel, additional projects can be identified and potential solutions suggested. These participants include manufacturers, distributors, trade associations, consultants, engineers and contractors. The program will be supported by utility staff for educating, partnering and engaging these important participants in the program as they also discuss other program offerings. Through these existing market participants who have relationships with residential farm members/customers, new high efficiency technology and custom program solutions will be offered to members/customers as a viable option. To support the market participants, the program also includes member/customer educational and promotional pieces designed to assist facility owners, operators and decision makers with the information necessary to improve the energy efficiency of the systems in their facilities.

Utility's account managers will promote the program to their farm members/customers directly and cross promote it with other programs.

Custom incentives will be set using a per kWh basis so energy savings will be rewarded. Incentive levels will vary over time based on costs and market need but will typically be established in one year increments. Many new technologies will have higher incentive levels and migrate to a lower incentive level over time as they gain

	acceptance within the market. This approach gives appropriate signals to the market about new technologies or riskier technologies that have significant savings potential. Other guidelines to reduce free ridership will also be established. These guidelines may include: • Simple payback for the project must be between 1 year and 8 years after the incentive is applied. Incentives can be adjusted to meet the payback criteria. • Program incentives will not exceed 50% of the installed project cost. • The MECA EO Collaborative Member reserves the right to adjust these guidelines over time and to make exceptions. One barrier to getting custom measures identified and installed is getting members/customers to spend funds to analyze the opportunity and savings. To help address this issue, assessment/audit grants will be available to members/customers for up to $500 of the analysis cost not to exceed an amount to be determined for facilities. <u>Outdoor Lighting</u> If this option is selected by the utility for implementation, the utility will provide program details to those members/customers who are using 175 W mercury vapor and 100 W high-pressure sodium fixtures. For those members/customers who choose to participate, the utility will install the LED fixtures.
Marketing Strategy	Educational and promotional materials will be developed for farm owners and operators on the benefits of energy efficiency improvements and improved systems performance, including educational brochures, farm member/customer and market provider seminars, program promotional material, and website content. Specific educational, training and promotional efforts will be aimed at market participants such as electrical contractors, building supply firms, and distributors to help them promote efficient measures to their members/customers. This education will be through a combination of mailings and direct meetings with key market participants. A free engine block heater will be used to generate program leads. The marketing and communications strategy will be designed to

inform farm producer members/customers of the availability and benefits of the program and how they can participate in the program. The strategy will include outreach to key partners and market participants including A&E firms, Energy Services Companies, the equipment supply community, the contractor community, relevant professional and trade associations and other interested parties. An important part of the marketing plan will be content and functionality on the MECA EO Collaborative Member's website, which will direct farm members/customers to information about the program.

Marketing and communications plan will include:

- Education seminars will provide details about the program and how to participate in the program.
- A combination of strategies including media advertising, outreach and presentations at professional and community forums and events, and through direct outreach to key members/customers of the farm community and member/customer representatives such as:
  - Brochures that describe the benefits and features of the program including program application forms and worksheets.
  - Targeted direct mailings used to educate members/customers on the benefits of the program and explaining how they can apply.
  - Member/customer and trade partner outreach and presentations informing interested parties about the benefits of the program and how to participate.
  - Print advertisements to promote the program placed in selected local media including newspapers and trade publications in the utility's service territories.
  - Newsletters and magazines will include general information about all energy efficiency programs and will be used to feature special stories and solicit participation in this program.
  - Website content providing program information resources, contact information, downloadable application forms and worksheets, and links to other relevant service and information resources.
  - The utility's' account managers informing their assigned accounts about the program during their regular

communications.

- Presence at conferences and public events used to increase general awareness of the program and distribute program promotional materials.
- Presentations to key members/customers and member/customer groups to actively solicit their participation in the program.

The marketing strategy will identify key member/customer segments and groups for target marketing, and will prepare specific outreach activities for these members/customers.

Outdoor Lighting

With assistance from the program implementation contractor, the utility selecting this program option will develop educational and promotional materials for members/customers that currently have 175 W mercury vapor and 100 W high-pressure sodium fixtures and could benefit from LED energy efficiency improvements. If this option is selected by the utility for implementation, the utility will promote the program by providing program details to those members/customers who are using 175 W mercury vapor and 100 W high-pressure sodium fixtures.

Milestones

Major milestones	Date
Energy Optimization Plan filed with MPSC	8/15
Implementation contract signed	11/15
Energy Optimization Plan approved by MPSC	11/15
Program implementation begins	1/16

EM&V

MECA will coordinate the impact evaluation of the MECA EO Collaborative Members' Programs. The evaluation will include a certification of energy savings and will leverage knowledge gained from the evaluation of similar utility energy efficiency programs in Michigan. Data collection processes for the certification of energy savings will be reviewed by an independent third party evaluation contractor.

	The electric energy impact study will reliably estimate the program's gross annual kWh savings over the effective useful life of the energy efficient equipment installations funded by the program. The MECA EO Collaborative Members intends to add or eliminate measures from the program based on cost-effectiveness, market acceptance and standard practice.

Residential Educational Services Program

Program	Residential Educational Services Program
Objective	The objective of the Educational Services Programs is to provide information and education about energy efficiency and conservation. The educational information will be delivered through many media and communication channels. These educational programs will provide the basis for more program specific efforts aimed at getting members/customers to participate in the utility's Energy Optimization portfolio of programs.
Target Market	The target markets are all member/customer segments served by the Energy Optimization Programs. Trade allies will also be a targeted market.
Program Duration	January 1, 2016 through December 31, 2019.
Program Description	The Educational Program will provide information about energy efficiency and conservation, giving members/customers valuable information on the benefits of participation, what they need to do to participate and how to sign up for the program. The Educational Services Programs will increase member/customer participation in the programs by making members/customers aware of the benefits of energy efficiency and conservation programs, educating the member/customer about how much energy and cost savings they can expect, and the long-term environmental benefits associated with these actions. The Educational Services Program will be primarily focused on the members/customers, but it will also to make it easy for trade allies to support the energy efficiency programs. Besides generally supporting all energy efficiency programs, the Educational Program will directly implement the energy efficiency online self-audit program. Besides providing an online audit, the program will also provide a connection to other programs and provide materials members/customers need to participate. Program education and information will be provided through many different channels. The following are examples of channels that might

	be used. • Member/customer representatives trained to promote the program to their members/customers • Informational content on the MECA EO Collaborative Members websites • Magazine and newsletters that will include general information about all energy efficiency programs • Residential seminars • Trade ally seminars/education • Radio advertising • Print advertising • Bill inserts • Events and trade shows • School programs • Trade publication advertising
Eligible Measures	The Educational Services Programs will not include eligible measures but will support and promote energy efficiency and conservation messages.
Implementation Strategy	The Educational Services Programs will provide general information on energy efficiency and conservation in support of the program specific marketing messages. The implementation of this program will be coordinated with all MECA EO Collaborative Members.
Marketing Strategy	Marketing strategy for the Educational Program is to have general information about energy efficiency and conservation readily available to members/customers enabling them to understand the benefits of participating. Cost savings as well as the long-term environmental benefits will be communicated. Magazines and newsletters will include general information about all energy efficiency programs and will be used to feature special stories and events promoting specific programs. Besides achieving energy saving by installing energy efficiency

	measures through the energy efficiency programs, low-cost/no-cost energy savings will be promoted with other publications distributed directly to interested members/customers.
Milestones	

Major milestones	Date
Energy Optimization Plan filed with MPSC	8/15
Implementation contract signed	11/15
Energy Optimization Plan approved by MPSC	11/15
Program implementation begins	1/16

EM&V	Process evaluation will be conducted under the direction of the MECA EO Collaborative.

Residential Pilot Programs

Program	Residential Pilot Programs
Objective	The objective of the Pilot Programs is to make current programs as effective as possible for members/customers and test and develop new program designs, test new marketing strategies and approaches to most effectively serve the energy needs of members/customers, and to test the energy saving impact of emerging technologies.
Target Market	All member/customer segments will be served by the pilot programs. Program design and new marketing approaches will be tested to reach "hard-to-reach" market segments. For example, these markets might include the non-English speaking community. This may require a test of social marketing techniques and unique partnerships for effectively delivering energy information, education and programs.
Program Duration	January 1, 2016 through December 31, 2019.
Program Description	The Pilot Programs is designed to enrich the effectiveness of the Energy Optimization Programs. The Pilot Programs will evolve over time and will be dictated by the changing needs of members/customers and new technologies. An important component of the Pilot Programs will be to conduct member/customer research to get the "voice of the member/customer" related to current and future programs and technologies. The Energy Optimization Programs are designed to permit all members/customers to have reasonable access to program benefits. The Pilot Programs will help improve the effectiveness and member/customer reach of the Energy Optimization Programs. The Pilot Programs provides incentives to introduce new products to demonstrate proof of product, technology application, technology acceptance and market acceptance. The Pilot Programs also determines product performance, member/customer satisfaction and energy saving of emerging technologies. At the option of the utility, concepts and energy savings of prepaid metering may be tested. This pilot program will test market acceptance, technology, communication and energy savings.

Eligible Measures	Different technologies, programs or marketing approaches will be considered in the Pilot Programs. These are just examples and are not necessarily ideas that will be tested.
	• Technologies investigated
	  o Phantom load reduction devices
	  o Wireless load control systems
	  o Prepaid metering
	• New programs studied
	  o Broader application of LEDs
	  o Other new lighting technologies and applications
	• New marketing approaches
	  o Deliver marketing messages through social networks
	  o Test new marketing approaches for soliciting income qualified participation
	  o Work with colleges to test new technologies, programs or approaches to the market
	  o Work with farm support organizations to test comprehensive approaches to agriculture producer optimization

Implementation Strategy	The Pilot Programs ideas and direction will come from feedback from the current programs, "voice of the member/customer" research and Utility and implementation contractor staff. The implementation of this program will be coordinated with other Members of the MECA EO Collaborative.
Marketing Strategy	Marketing strategy of the Pilot Programs will be dictated by the technology, the program or marketing approach being tested.

Milestones	The Pilot Programs' roll of enhancing the effectiveness of the energy efficiency programs requires feedback from previous programs and ongoing feedback as programs are implemented. If a program is not reaching the intended market or there are pockets within the market segment not being served, a plan will be designed to improve program performance. This plan will be tested as part of the Pilot Programs.

Major milestones	Date
Energy Optimization Plan filed with MPSC	8/15
Implementation contract signed	11/15
Energy Optimization Plan approved by MPSC	11/15
Program implementation begins	1/16

EM&V	Impact and process evaluation may be conducted on each Pilot Programs. This evaluation will be conducted under the direction of the MECA EO Collaborative.

Energy Optimization Plan (2016-2019) Commercial and Industrial Programs

• Commercial & Industrial Programs

C&I General Business Services Program

Program	C&I General Business Services Program
Objective	The primary objective of the Commercial and Industrial (C&I) General Business Services Program is to encourage commercial and industrial (C&I) members/customers to install energy-efficient measures in existing and new facilities.
Target Market	All C&I members/customers are eligible for the program. Members/customers who elect to implement a self-directed energy optimization plan are not eligible. The target market also includes trade allies serving C&I members/customers.
Program Duration	January 1, 2016 through December 31, 2019.
Program Description	This program provides prescriptive incentives to C&I members/customers for the installation of energy-efficient equipment for numerous applications including but not limited to lighting, motors and drives, controls, heating ventilation and air conditioning (HVAC), refrigeration, and food service equipment and custom incentives for the installation of innovative and unique energy-efficient equipment and controls. Having a custom incentive allows efficiency measures and systems to be installed for situations specific to that member's/customer's application or process. <u>Prescriptive Incentive</u> The prescriptive incentives are structured to broadly apply to many common energy efficiency measures that are similar across many C&I market segments. Having a simple program structure and incentive schedule for common equipment and applications provides members/customers and the market suppliers with certainty and ease of use regarding the incentives they will receive for installing a wide variety of energy efficiency measures. <u>Custom Incentive</u> Custom incentives for the installation of innovative and unique energy-efficient equipment and controls will be offered on a per kWh

basis based on pre-approved engineering estimates. This program targets energy savings equipment or processes as well as applications with so much variability in operating characteristics that standardized savings cannot be assumed across the member/customer base. This program also includes those technologies that are new to the market and have not yet established baseline savings.

More specifically, the program is designed to:

- Provide incentives to facility owners and operators for the installation of high efficiency equipment and controls.
- Provide the knowledge necessary and market demand to justify the marketing of high efficiency measures by electrical contractors, mechanical contractors, and their distributors.
- Ensure that the participation process is clear, easy to understand and simple.

Where applicable, the MECA EO Collaborative Member will work with the gas company supplying services to the member/customer to coordinate incentives, processing and assistance for those measures or systems that apply to both fuels (ex: building shell measure improvements).

Certain barriers exist to the adoption of energy efficiency measures, including lack of investment capital, competition for funds with other capital improvements, lack of awareness/knowledge about the benefits and costs of energy efficiency measures, high transaction and information research costs, and technology performance uncertainties. This program is designed to help overcome these market barriers and encourage greater adoption of energy efficiency measures in the C&I market. The premise of the program is that through engagement and education with the market participants and through member/customer incentives to reduce upfront costs, the risks to energy efficiency implementation will be reduced and the rewards from the savings will become more apparent thus increasing adoption.

Outdoor Lighting

To improve efficiency of outdoor lighting, the utility may provide incentives for the installation of LED fixtures.

Eligible Measures	Prescriptive Incentive Technology categories for which prescriptive incentives have been established include the following. • High Efficiency Lighting • HVAC Equipment • Motors/Pumps/Drives • Refrigeration Equipment • Food Service Equipment • Controls • Other Specific technologies included in the program will change over time based on codes and standards, changing market needs, introduction of new technologies and market adoption rates. Custom Incentive For the effective use of custom incentives, flexibility is the key. Technologies that are unique to that member/customer, new to the market or have a wide range of savings based on their application cannot be covered by prescriptive incentives due to their variability. However these variable energy savings technologies can be significant and encouraged with custom incentives. Measures must show electric energy savings through accepted engineering analysis that will be reviewed and pre-approved by the utility for the incentive. Measures cannot receive a custom incentive if they are eligible for a prescriptive incentive unless they are in combination with other measures or systems that makes them unique. Measures may be added or removed based on market response, technology availability and changes in efficiency standards. Outdoor Lighting The selected LED technology will be used to replace 175 W mercury vapor and 100 W high-pressure sodium fixtures.
Implementation Strategy	Prescriptive Incentive With assistance from MECA, the MECA EO Collaborative Member will provide program management and oversight, vendor referrals,

tracking and reporting, oversight, and regulatory review. The implementation contractor will provide turn-key implementation services including training and education, application and incentive processing, incentive payments, tracking, verification, technical support, member/customer support, and marketing, jointly with the MECA EO Collaborative Member.

The key to program success is twofold. First, the contractor will engage member/customer participants by using their existing market delivery channel. This market delivery channel includes manufacturers, distributors, consultants, engineers and contractors. The program will have resources dedicated to educating, partnering and engaging these important market actors in the program. Through these existing market actors who have relationships with C&I members/customers, the new high efficiency technology will be offered to members/customers as a viable option. To support the market participants, the program also includes member/customer educational and promotional pieces designed to assist facility owners, operators and decision makers with the information necessary to improve the energy efficiency of the systems in their facilities. Second, the utility will use internal staff resources that have direct relationships with members/customers and can help identify opportunities to participate in the program. These resources will build member/customer awareness, educate the member/customer on opportunities and connect interested members/customers with the appropriate participating contractors.

Incentives will be offered to reduce the cost of the energy-efficient equipment and will vary based on cost-effectiveness and market response. The program strives to cover a minimum of 50% of the incremental equipment cost of the measure to stimulate the market if it is cost-effective; however, depending on the acceptance of a measure in the marketplace, 50% is not always needed. Additional guidelines may be established such as total incentives available per member/customer per year to assure that funds are allocated across all member/customer opportunities.

Where applicable, the MECA EO Collaborative Member will work with the gas company supplying services to the member/customer to coordinate incentives, processing and assistance for those measures or systems that apply to both fuels (ex: building shell measure improvements).

Custom Incentive

Work to achieve cost effective energy savings with custom incentives will center on working with members/customers to apply energy efficiency in unique ways to their operations and processes and working with the industry participants to find the right solutions to their needs. The primary key to success is utilizing the existing relationships of the utility's internal staff that has relationships with members/customers and can help identify opportunities to participate in the program. These resources will build member/customer awareness, educate the member/customer, and work with engineering staff, supporting engineering firms and Energy Service Companies. Through the engagement of the market participants throughout the delivery channel, additional projects can be identified and potential solutions suggested. These participants include manufacturers, distributors, trade associations, consultants, engineers and contractors. The program will have staff dedicated to educating, partnering and engaging these important participants in the program as they also discuss other program offerings. Through these existing market participants who have relationships with C&I members/customers, new high efficiency technology and custom program solutions will be offered to members/customers as a viable option. To support the market participants, the program also includes member/customer educational and promotional pieces designed to assist facility owners, operators and decision makers with the information necessary to improve the energy efficiency of the systems in their facilities.

Utility's account managers will promote the program to their members/customers directly and cross promote it with other programs.

Custom incentives will be set using a per kWh basis so energy savings will be rewarded. Incentive levels will vary over time based on costs and market need but will typically be established in one year increments. Many new technologies may have higher incentive levels and migrate to a lower incentive level over time as they gain acceptance within the market. This approach gives appropriate signals to the market about new technologies or riskier technologies that have significant savings potential. Other guidelines to reduce free ridership will also be established. These guidelines may include:

- Simple payback for the project must be between 1 year and 8

	years after the incentive is applied. Incentives can be adjusted to meet the payback criteria. • Program incentives will not exceed 50% of the installed project cost. • The MECA EO Collaborative Member reserves the right to adjust these guidelines over time and to make exceptions. Outdoor Lighting If this option is selected by the utility for implementation, the utility will provide program details to those members/customers who are using 175 W mercury vapor and 100 W high-pressure sodium fixtures. For those members/customers who choose to participate, the utility will install the LED fixtures.
Marketing Strategy	Educational and promotional materials will be developed for building owners and operators on the benefits of energy efficiency improvements and improved systems performance, including educational brochures, member/customer and market provider seminars, program promotional material, and website content. Specific educational, training and promotional efforts will be aimed at market participants such as electrical contractors, building supply firms, and distributors to help them promote efficient measures to their members/customers. This education will be through a combination of mailings and direct meetings with key market participants. The marketing and communications strategy will be designed to inform members/customers of the availability and benefits of the program and how they can participate in the program. The strategy will include outreach to key partners and market participants including A&E firms, Energy Services Companies, the equipment supply community, the contractor community, relevant professional and trade associations and other interested parties. An important part of the marketing plan will be content and functionality on the MECA EO Collaborative Member's website, which will direct members/customers to information about the program. Marketing and communications plan will include: • Education seminars will provide details about the program and how to participate in the program.

- A combination of strategies including media advertising, outreach and presentations at professional and community forums and events, and through direct outreach to key members/customers and member/customer representatives such as:
  - Brochures that describe the benefits and features of the program including program application forms and worksheets.
  - Targeted direct mailings used to educate members/customers on the benefits of the program and explaining how they can apply.
  - Member/customer and trade partner outreach and presentations informing interested parties about the benefits of the program and how to participate.
  - Print advertisements to promote the program placed in selected local media including newspapers and trade publications in the utility's service territories.
  - Newsletters and magazines will include general information about all energy efficiency programs and will be used to feature special stories and solicit participation in this program.
  - Website content providing program information resources, contact information, downloadable application forms and worksheets, and links to other relevant service and information resources.
  - The utility's' account managers informing their assigned accounts about the program during their regular communications.
  - Presence at conferences and public events used to increase general awareness of the program and distribute program promotional materials.
  - Presentations to key members/customers and member/customer groups to actively solicit their participation in the program.
- The marketing strategy will identify key member/customer segments and groups for target marketing, and will prepare specific outreach activities for these members/customers.

Outdoor Lighting

With assistance from the program implementation contractor, the utility selecting this program option will develop educational and promotional materials for members/customers that currently have 175 W mercury vapor and 100 W high-pressure sodium fixtures and could benefit from LED energy efficiency improvements. If this option is selected by the utility for implementation, the utility will promote the program by providing program details to those members/customers who are using 175 W mercury vapor and 100 W high-pressure sodium fixtures.

Milestones

Major milestones	Date
Energy Optimization Plan filed with MPSC	8/15
Implementation contract signed	11/15
Energy Optimization Plan approved by MPSC	11/15
Program implementation begins	1/16

EM&V

MECA will coordinate the impact evaluation of the MECA EO Collaborative Members' Programs. The evaluation will include a certification of energy savings and will leverage knowledge gained from the evaluation of similar utility energy efficiency programs in Michigan. Data collection processes for the certification of energy savings will be reviewed by an independent third party evaluation contractor.

The electric energy impact study will reliably estimate the program's gross annual kWh savings over the effective useful life of the energy efficient equipment installations funded by the program.

The MECA EO Collaborative Members intends to add or eliminate measures from the program based on cost-effectiveness, market acceptance and standard practice.

C&I Educational Services Program

Program	C&I Educational Services Program
Objective	The objective of the Educational Services Programs is to provide information and education about energy efficiency and conservation. The educational information will be delivered through many media and communication channels. These educational programs will provide the basis for more program specific efforts aimed at getting members/customers to participate in the utility's Energy Optimization portfolio of programs.
Target Market	The target markets are all member/customer segments served by the Energy Optimization Programs. Trade allies will also be a targeted market.
Program Duration	January 1, 2016 through December 31, 2019.
Program Description	The Educational Services Program will provide information about energy efficiency and conservation, giving members/customers valuable information on the benefits of participation, what they need to do to participate and how to sign up for the program. The Educational Services Programs will increase member/customer participation in the programs by making members/customers aware of the benefits of energy efficiency and conservation programs, educating the member/customer about how much energy and cost savings they can expect, and the long-term environmental benefits associated with these actions. The Educational Services Programs will be primarily focused on the members/customers, but it will also to make it easy for trade allies to support the energy efficiency programs. The program will provide a connection to other programs and provide materials members/customers need to participate. Program education and information will be provided through many different channels. The following are examples of channels that might be used. • Member/customer representatives trained to promote the program to their members/customers

	• Informational content on the MECA EO Collaborative Members websites • Magazine and newsletters that will include general information about all energy efficiency programs • Business seminars • Trade ally seminars/education • Radio advertising • Print advertising • Bill inserts • Events and trade shows • School programs • Trade publication advertising
Eligible Measures	The Educational Services Programs will not include eligible measures but will support and promote energy efficiency and conservation messages.
Implementation Strategy	The Educational Services Programs will provide general information on energy efficiency and conservation in support of the program specific marketing messages. The implementation of this program will be coordinated with all MECA EO Collaborative Members.
Marketing Strategy	Marketing strategy for the Educational Services Program is to have general information about energy efficiency and conservation readily available to members/customers, enabling them to understand the benefits of participating. Cost savings as well as the long-term environmental benefits will be communicated. Magazines and newsletters will include general information about all energy efficiency programs and will be used to feature special stories and events promoting specific programs. Besides achieving energy saving by installing energy efficiency measures through the energy efficiency programs, low-cost/no-cost energy savings will be promoted with other publications distributed directly to interested members/customers.

Milestones	

Major milestones	Date
Energy Optimization Plan filed with MPSC	8/15
Implementation contract signed	11/15
Energy Optimization Plan approved by MPSC	11/15
Program implementation begins	1/16

EM&V	Process evaluation will be conducted under the direction of the MECA EO Collaborative.

C&I Pilot Programs

Program	C&I Pilot Programs
Objective	The objective of the Pilot Programs is to make current programs as effective as possible for members/customers and test and develop new program designs, test new marketing strategies and approaches to most effectively serve the energy needs of members/customers, and to test the energy saving impact of emerging technologies.
Target Market	All member/customer segments will be served by the pilot programs. Program design and new marketing approaches will be tested to reach "hard-to-reach" market segments. For example, these markets might include small businesses who lease space for their operations or schools with limited capital budgets. This may require a test of marketing techniques and unique partnerships for effectively delivering energy information, education and programs.
Program Duration	January 1, 2016 through December 31, 2019.
Program Description	The Pilot Programs is designed to enrich the effectiveness of the Energy Optimization Programs. The Pilot Program will evolve over time and will be dictated by the changing needs of members/customers and new technologies. An important component of the Pilot Program will be to conduct member/customer research to get the "voice of the member/customer" related to current and future programs and technologies. The Energy Optimization Programs are designed to permit all members/customers to have reasonable access to program benefits. The Pilot Program will help improve the effectiveness and member/customer reach of the Energy Optimization Programs. The Pilot Programs provides incentives to introduce new products to demonstrate proof of product, technology application, technology acceptance and market acceptance. The Pilot Program also determines product performance, member/customer satisfaction and energy saving of emerging technologies.
Eligible Measures	Different technologies, programs or marketing approaches will be considered in the Pilot Programs. These are just examples and are

	not necessarily ideas that will be tested.
	• Technologies investigated
	  o Phantom load reduction devices
	  o Wireless load control systems
	• New programs studied
	  o Broader application of LEDs and hard to place CFLs
	  o Other new lighting technologies
	  o Hotel room occupancy energy control program
	  o Commercial building retro-commissioning
	• New marketing approaches
	  o Target non-English speaking community
	  o Deliver marketing messages through trade organizations
	  o Work with colleges to test new technologies, programs or approaches to the market
	  o Work with farm support organizations to test comprehensive approaches to agriculture producer optimization

Implementation Strategy	The Pilot Programs ideas and direction will come from feedback from the current programs, "voice of the member/customer" research and Utility and implementation contractor staff. The implementation of this program will be coordinated with other Members of the MECA EO Collaborative.
Marketing Strategy	Marketing strategy of the Pilot Programs will be dictated by the technology, the program or marketing approach being tested.

Milestones	The Pilot Programs' roll of enhancing the effectiveness of the energy efficiency programs requires feedback from previously approved programs and ongoing feedback as programs are implemented. If a program is not reaching the intended market or there are pockets within the market segment not being served, a plan will be designed to improve program performance. This plan will be tested as part of the Pilot Program.

Major milestones	Date
Energy Optimization Plan filed with MPSC	8/15
Implementation contract signed	11/15
Energy Optimization Plan approved by MPSC	11/15
Program implementation begins	1/16

EM&V	Impact and process evaluation may be conducted on each Pilot Program. This evaluation will be conducted under the direction of the MECA EO Collaborative.

Dk. #1
CC/EAC
8/12/15

CLEAN, RENEWABLE, AND EFFICIENT ENERGY ACT
Act 295 of 2008

AN ACT to require certain providers of electric service to establish renewable energy programs; to require certain providers of electric or natural gas service to establish energy optimization programs; to authorize the use of certain energy systems to meet the requirements of those programs; to provide for the approval of energy optimization service companies; to provide for certain charges on electric and natural gas bills; to promote energy conservation by state agencies and the public; to create a wind energy resource zone board and provide for its power and duties; to authorize the creation and implementation of wind energy resource zones; to provide for expedited transmission line siting certificates; to provide for a net metering program and the responsibilities of certain providers of electric service and customers with respect to net metering; to provide for fees; to prescribe the powers and duties of certain state agencies and officials; to require the promulgation of rules and the issuance of orders; and to provide for civil sanctions, remedies, and penalties.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

The People of the State of Michigan enact:

PART 1.
GENERAL PROVISIONS

460.1001 Short title; purpose of act.

Sec. 1. (1) This act shall be known and may be cited as the "clean, renewable, and efficient energy act".

(2) The purpose of this act is to promote the development of clean energy, renewable energy, and energy optimization through the implementation of a clean, renewable, and energy efficient standard that will cost-effectively do all of the following:

(a) Diversify the resources used to reliably meet the energy needs of consumers in this state.

(b) Provide greater energy security through the use of indigenous energy resources available within the state.

(c) Encourage private investment in renewable energy and energy efficiency.

(d) Provide improved air quality and other benefits to energy consumers and citizens of this state.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1003 Definitions; A to C.

Sec. 3. As used in this act:

(a) "Advanced cleaner energy" means electricity generated using an advanced cleaner energy system.

(b) "Advanced cleaner energy credit" means a credit certified under section 43 that represents generated advanced cleaner energy.

(c) "Advanced cleaner energy system" means any of the following:

(*i*) A gasification facility.

(*ii*) An industrial cogeneration facility.

(*iii*) A coal-fired electric generating facility if 85% or more of the carbon dioxide emissions are captured and permanently geologically sequestered.

(*iv*) An electric generating facility or system that uses technologies not in commercial operation on the effective date of this act.

(d) "Affiliated transmission company" means that term as defined in the electric transmission line certification act, 1995 PA 30, MCL 460.562.

(e) "Applicable regional transmission organization" means a nonprofit, member-based organization governed by an independent board of directors that serves as the federal energy regulatory commission-approved regional transmission organization with oversight responsibility for the region that includes the provider's service territory.

(f) "Biomass" means any organic matter that is not derived from fossil fuels, that can be converted to usable fuel for the production of energy, and that replenishes over a human, not a geological, time frame, including, but not limited to, all of the following:

(*i*) Agricultural crops and crop wastes.

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(*ii*) Short-rotation energy crops.

(*iii*) Herbaceous plants.

(*iv*) Trees and wood, but only if derived from sustainably managed forests or procurement systems, as defined in section 261c of the management and budget act, 1984 PA 431, MCL 18.1261c.

(*v*) Paper and pulp products.

(*vi*) Precommercial wood thinning waste, brush, or yard waste.

(*vii*) Wood wastes and residues from the processing of wood products or paper.

(*viii*) Animal wastes.

(*ix*) Wastewater sludge or sewage.

(*x*) Aquatic plants.

(*xi*) Food production and processing waste.

(*xii*) Organic by-products from the production of biofuels.

(g) "Board" means the wind energy resource zone board created under section 143.

(h) "Carbon dioxide emissions benefits" means that the carbon dioxide emissions per megawatt hour of electricity generated by the advanced cleaner energy system are at least 85% less or, for an integrated gasification combined cycle facility, 70% less than the average carbon dioxide emissions per megawatt hour of electricity generated from all coal-fired electric generating facilities operating in this state on January 1, 2008.

(i) "Commission" means the Michigan public service commission.

(j) "Customer meter" means an electric meter of a provider's retail customer. Customer meter does not include a municipal water pumping meter or additional meters at a single site that were installed specifically to support interruptible air conditioning, interruptible water heating, net metering, or time-of-day tariffs.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1005 Definitions; E, F.

Sec. 5. As used in this act:

(a) "Electric provider", subject to sections 21(1), 23(1), and 25(1), means any of the following:

(*i*) Any person or entity that is regulated by the commission for the purpose of selling electricity to retail customers in this state.

(*ii*) A municipally-owned electric utility in this state.

(*iii*) A cooperative electric utility in this state.

(*iv*) Except as used in subpart B of part 2, an alternative electric supplier licensed under section 10a of 1939 PA 3, MCL 460.10a.

(b) "Eligible electric generator" means that a methane digester or renewable energy system with a generation capacity limited to the customer's electric need and that does not exceed the following:

(*i*) For a renewable energy system, 150 kilowatts of aggregate generation at a single site.

(*ii*) For a methane digester, 550 kilowatts of aggregate generation at a single site.

(c) "Energy conservation" means the reduction of customer energy use through the installation of measures or changes in energy usage behavior. Energy conservation does not include the use of advanced cleaner energy systems.

(d) "Energy efficiency" means a decrease in customer consumption of electricity or natural gas achieved through measures or programs that target customer behavior, equipment, devices, or materials without reducing the quality of energy services.

(e) "Energy optimization", subject to subdivision (f), means all of the following:

(*i*) Energy efficiency.

(*ii*) Load management, to the extent that the load management reduces overall energy usage.

(*iii*) Energy conservation, but only to the extent that the decreases in the consumption of electricity produced by energy conservation are objectively measurable and attributable to an energy optimization plan.

(f) Energy optimization does not include electric provider infrastructure projects that are approved for cost recovery by the commission other than as provided in this act.

(g) "Energy optimization credit" means a credit certified pursuant to section 87 that represents achieved energy optimization.

(h) "Energy optimization plan" or "EO plan" means a plan under section 71.

(i) "Energy optimization standard" means the minimum energy savings required to be achieved under section 77.

(j) "Energy star" means the voluntary partnership among the United States department of energy, the

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United States environmental protection agency, product manufacturers, local utilities, and retailers to help promote energy efficient products by labeling with the energy star logo, educate consumers about the benefits of energy efficiency, and help promote energy efficiency in buildings by benchmarking and rating energy performance.

(k) "Federal approval" means approval by the applicable regional transmission organization or other federal energy regulatory commission approved transmission planning process of a transmission project that includes the transmission line. Federal approval may be evidenced in any of the following manners:

(*i*) The proposed transmission line is part of a transmission project included in the applicable regional transmission organization's board-approved transmission expansion plan.

(*ii*) The applicable regional transmission organization has informed the electric utility, affiliated transmission company, or independent transmission company that a transmission project submitted for an out-of-cycle project review has been approved by the applicable regional transmission organization, and the approved transmission project includes the proposed transmission line.

(*iii*) If, after the effective date of this act, the applicable regional transmission organization utilizes another approval process for transmission projects proposed by an electric utility, affiliated transmission company, or independent transmission company, the proposed transmission line is included in a transmission project approved by the applicable regional transmission organization through the approval process developed after the effective date of this act.

(*iv*) Any other federal energy regulatory commission approved transmission planning process for a transmission project.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1007 Definitions; G to M.

Sec. 7. As used in this act:

(a) "Gasification facility" means a facility located in this state that uses a thermochemical process that does not involve direct combustion to produce synthesis gas, composed of carbon monoxide and hydrogen, from carbon-based feedstocks (such as coal, petroleum coke, wood, biomass, hazardous waste, medical waste, industrial waste, and solid waste, including, but not limited to, municipal solid waste, electronic waste, and waste described in section 11514 of the natural resources and environmental protection act, 1994 PA 451, MCL 324.11514) and that uses the synthesis gas or a mixture of the synthesis gas and methane to generate electricity for commercial use. Gasification facility includes the transmission lines, gas transportation lines and facilities, and associated property and equipment specifically attributable to such a facility. Gasification facility includes, but is not limited to, an integrated gasification combined cycle facility and a plasma arc gasification facility.

(b) "Incremental costs of compliance" means the net revenue required by an electric provider to comply with the renewable energy standard, calculated as provided under section 47.

(c) "Independent transmission company" means that term as defined in section 2 of the electric transmission line certification act, 1995 PA 30, MCL 460.562.

(d) "Industrial cogeneration facility" means a facility that generates electricity using industrial thermal energy or industrial waste energy.

(e) "Industrial thermal energy" means thermal energy that is a by-product of an industrial or manufacturing process and that would otherwise be wasted. For the purposes of this subdivision, industrial or manufacturing process does not include the generation of electricity.

(f) "Industrial waste energy" means exhaust gas or flue gas that is a by-product of an industrial or manufacturing process and that would otherwise be wasted. For the purposes of this subdivision, industrial or manufacturing process does not include the generation of electricity.

(g) "Integrated gasification combined cycle facility" means a gasification facility that uses a thermochemical process, including high temperatures and controlled amounts of air and oxygen, to break substances down into their molecular structures and that uses exhaust heat to generate electricity.

(h) "LEED" means the leadership in energy and environmental design green building rating system developed by the United States green building council.

(i) "Load management" means measures or programs that target equipment or devices to result in decreased peak electricity demand such as by shifting demand from a peak to an off-peak period.

(j) "Modified net metering" means a utility billing method that applies the power supply component of the full retail rate to the net of the bidirectional flow of kilowatt hours across the customer interconnection with the utility distribution system, during a billing period or time-of-use pricing period. A negative net metered

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quantity during the billing period or during each time-of-use pricing period within the billing period reflects net excess generation for which the customer is entitled to receive credit under section 177(4). Standby charges for modified net metering customers on an energy rate schedule shall be equal to the retail distribution charge applied to the imputed customer usage during the billing period. The imputed customer usage is calculated as the sum of the metered on-site generation and the net of the bidirectional flow of power across the customer interconnection during the billing period. The commission shall establish standby charges for modified net metering customers on demand-based rate schedules that provide an equivalent contribution to utility system costs.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1009 Definitions; N to Q.

Sec. 9. As used in this act:

(a) "Natural gas provider" means an investor-owned business engaged in the sale and distribution of natural gas within this state whose rates are regulated by the commission. However, as used in subpart B of part 2, natural gas provider does not include an alternative gas supplier licensed under section 9b of 1939 PA 3, MCL 460.9b.

(b) "Plasma arc gasification facility" means a gasification facility that uses a plasma torch to break substances down into their molecular structures.

(c) "Provider" means an electric provider or a natural gas provider.

(d) "PURPA" means the public utility regulatory policies act of 1978, Public Law 95-617.

(e) "Qualifying small power production facility" means that term as defined in 16 USC 824a-3.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1011 Definitions; R.

Sec. 11. As used in this act:

(a) "Renewable energy" means electricity generated using a renewable energy system.

(b) "Renewable energy capacity portfolio" means the number of megawatts calculated under section 27(2) for a particular year.

(c) "Renewable energy contract" means a contract to acquire renewable energy and the associated renewable energy credits from 1 or more renewable energy systems.

(d) "Renewable energy credit" means a credit granted pursuant to section 41 that represents generated renewable energy.

(e) "Renewable energy credit portfolio" means the sum of the renewable energy credits achieved by a provider for a particular year.

(f) "Renewable energy credit standard" means a minimum renewable energy portfolio required under section 27.

(g) "Renewable energy generator" means a person that, together with its affiliates, has constructed or has owned and operated 1 or more renewable energy systems with combined gross generating capacity of at least 10 megawatts.

(h) "Renewable energy plan" or "plan", means a plan approved under section 21 or 23 or found to comply with this act under section 25, with any amendments adopted under this act.

(i) "Renewable energy resource" means a resource that naturally replenishes over a human, not a geological, time frame and that is ultimately derived from solar power, water power, or wind power. Renewable energy resource does not include petroleum, nuclear, natural gas, or coal. A renewable energy resource comes from the sun or from thermal inertia of the earth and minimizes the output of toxic material in the conversion of the energy and includes, but is not limited to, all of the following:

(*i*) Biomass.

(*ii*) Solar and solar thermal energy.

(*iii*) Wind energy.

(*iv*) Kinetic energy of moving water, including all of the following:

(A) Waves, tides, or currents.

(B) Water released through a dam.

(*v*) Geothermal energy.

(*vi*) Municipal solid waste.

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(*vii*) Landfill gas produced by municipal solid waste.

(j) "Renewable energy standard" means the minimum renewable energy capacity portfolio, if applicable, and the renewable energy credit portfolio required to be achieved under section 27.

(k) "Renewable energy system" means a facility, electricity generation system, or set of electricity generation systems that use 1 or more renewable energy resources to generate electricity. Renewable energy system does not include any of the following:

(*i*) A hydroelectric pumped storage facility.

(*ii*) A hydroelectric facility that uses a dam constructed after the effective date of this act unless the dam is a repair or replacement of a dam in existence on the effective date of this act or an upgrade of a dam in existence on the effective date of this act that increases its energy efficiency.

(*iii*) An incinerator unless the incinerator is a municipal solid waste incinerator as defined in section 11504 of the natural resources and environmental protection act, 1994 PA 451, MCL 324.11504, that was brought into service before the effective date of this act, including any of the following:

(A) Any upgrade of such an incinerator that increases energy efficiency.

(B) Any expansion of such an incinerator before the effective date of this act.

(C) Any expansion of such an incinerator on or after the effective date of this act to an approximate design rated capacity of not more than 950 tons per day pursuant to the terms of a final request for proposals issued on or before October 1, 1986.

(*l*) "Revenue recovery mechanism" means the mechanism for recovery of incremental costs of compliance established under section 21.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1013 Definitions; S to W.

Sec. 13. As used in this act:

(a) "Site" means a contiguous site, regardless of the number of meters at that site. A site that would be contiguous but for the presence of a street, road, or highway shall be considered to be contiguous for the purposes of this subdivision.

(b) "Transmission line" means all structures, equipment, and real property necessary to transfer electricity at system bulk supply voltage of 100 kilovolts or more.

(c) "True net metering" means a utility billing method that applies the full retail rate to the net of the bidirectional flow of kilowatt hours across the customer interconnection with the utility distribution system, during a billing period or time-of-use pricing period. A negative net metered quantity during the billing period or during each time-of-use pricing period within the billing period reflects net excess generation for which the customer is entitled to receive credit under section 177(4).

(d) "Utility system resource cost test" means a standard that is met for an investment in energy optimization if, on a life cycle basis, the total avoided supply-side costs to the provider, including representative values for electricity or natural gas supply, transmission, distribution, and other associated costs, are greater than the total costs to the provider of administering and delivering the energy optimization program, including net costs for any provider incentives paid by customers and capitalized costs recovered under section 89.

(e) "Wind energy conversion system" means a renewable energy system that uses 1 or more wind turbines to generate electricity and has a nameplate capacity of 100 kilowatts or more.

(f) "Wind energy resource zone" or "wind zone" means an area designated by the commission under section 147.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

PART 2.
ENERGY STANDARDS

SUBPART A.
RENEWABLE ENERGY

460.1021 Electric providers; regulation of rates by commission; applicability of section; filing of proposed renewable energy plan; requirements; establishment of nonvolumetric

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mechanism; revenue recovery mechanism; agreement with customer to participate in commission-approved voluntary renewable energy program; reserve funds; contested case hearing on proposed plan; approval; determination; initial approval; review; amendment; rejection of proposed plan or amendment.

Sec. 21. (1) This section applies only to electric providers whose rates are regulated by the commission.

(2) Each electric provider shall file a proposed renewable energy plan with the commission within 90 days after the commission issues a temporary order under section 171. The proposed plan shall meet all of the following requirements:

(a) Describe how the electric provider will meet the renewable energy standards.

(b) Specify whether the number of megawatt hours of electricity used in the calculation of the renewable energy credit portfolio will be weather-normalized or based on the average number of megawatt hours of electricity sold by the electric provider annually during the previous 3 years to retail customers in this state. Once the plan is approved by the commission, this option shall not be changed.

(c) Include the expected incremental cost of compliance with the renewable energy standards for a 20-year period beginning when the plan is approved by the commission.

(d) For an electric provider that had 1,000,000 or more retail customers in this state on January 1, 2008, describe the bidding process to be used by the electric provider under section 33. The description shall include measures to be employed in the preparation of requests for proposals and the handling and evaluation of proposals received to ensure that any bidder that is an affiliate of the electric utility is not afforded a competitive advantage over any other bidder and that each bidder, including any bidder that is an affiliate of the electric provider, is treated in a fair and nondiscriminatory manner.

(3) The proposed plan shall establish a nonvolumetric mechanism for the recovery of the incremental costs of compliance within the electric provider's customer rates. The revenue recovery mechanism shall not result in rate impacts that exceed the monthly maximum retail rate impacts specified under section 45. The revenue recovery mechanism is subject to adjustment under sections 47(4) and 49. A customer participating in a commission-approved voluntary renewable energy program under an agreement in effect on the effective date of this act shall not incur charges under the revenue recovery mechanism unless the charges under the revenue recovery mechanism exceed the charges the customer is incurring for the voluntary renewable energy program. In that case, the customer shall only incur the difference between the charge assessed under the revenue recovery mechanism and the charges the customer is incurring for the voluntary renewable energy program. The limitation on charges applies only during the term of the agreement, not including automatic agreement renewals, or until 1 year after the effective date of this act, whichever is later. Before entering an agreement with a customer to participate in a commission-approved voluntary renewable energy program and before the last automatic monthly renewal of such an agreement that will occur less than 1 year after the effective date of this act, an electric provider shall notify the customer that the customer will be responsible for the full applicable charges under the revenue recovery mechanism and under the voluntary renewable energy program as provided under this subsection.

(4) If proposed by the electric provider in its proposed plan, the revenue recovery mechanism shall result in an accumulation of reserve funds in advance of expenditure and the creation of a regulatory liability that accrues interest at the average short-term borrowing rate available to the electric provider during the appropriate period. If proposed by the electric provider in its proposed plan, the commission shall establish a minimum balance of accumulated reserve funds for the purposes of section 47(4).

(5) The commission shall conduct a contested case hearing on the proposed plan filed under subsection (2), pursuant to the administrative procedures act of 1969, 1969 PA 306, MCL 24.201 to 24.328. If a renewable energy generator files a petition to intervene in the contested case in the manner prescribed by the commission's rules for interventions generally, the commission shall grant the petition. Subject to subsections (6) and (10), after the hearing and within 90 days after the proposed plan is filed with the commission, the commission shall approve, with any changes consented to by the electric provider, or reject the plan.

(6) The commission shall not approve an electric provider's plan unless the commission determines both of the following:

(a) That the plan is reasonable and prudent. In making this determination, the commission shall take into consideration projected costs and whether or not projected costs included in prior plans were exceeded.

(b) That the life-cycle cost of renewable energy acquired or generated under the plan less the projected life-cycle net savings associated with the provider's energy optimization plan does not exceed the expected life-cycle cost of electricity generated by a new conventional coal-fired facility. In determining the expected life-cycle cost of electricity generated by a new conventional coal-fired facility, the commission shall consider data from this state and the states of Ohio, Indiana, Illinois, Wisconsin, and Minnesota, including, if

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applicable, the life-cycle costs of the renewable energy system and new conventional coal-fired facilities. When determining the life-cycle costs of the renewable energy system and new conventional coal-fired facilities, the commission shall use a methodology that includes, but is not limited to, consideration of the value of energy, capacity, and ancillary services. The commission shall also consider other costs such as transmission, economic benefits, and environmental costs, including, but not limited to, greenhouse gas constraints or taxes. In performing its assessment, the commission may utilize other available data, including national or regional reports and data published by federal or state governmental agencies, industry associations, and consumer groups.

(7) An electric provider shall not begin recovery of the incremental costs of compliance within its rates until the commission has approved its proposed plan.

(8) Every 2 years after initial approval of a plan under subsection (5), the commission shall review the plan. The commission shall conduct a contested case hearing on the plan pursuant to the administrative procedures act of 1969, 1969 PA 306, MCL 24.201 to 24.328. The annual renewable cost reconciliation under section 49 for that year may be joined with the overall plan review in the same contested case hearing. Subject to subsections (6) and (10), after the hearing, the commission shall approve, with any changes consented to by the electric provider, or reject the plan and any proposed amendments to the plan.

(9) If an electric provider proposes to amend its plan at a time other than during the biennial review process under subsection (8), the electric provider shall file the proposed amendment with the commission. If the proposed amendment would modify the revenue recovery mechanism, the commission shall conduct a contested case hearing on the amendment pursuant to the administrative procedures act of 1969, 1969 PA 306, MCL 24.201 to 24.328. The annual renewable cost reconciliation under section 49 may be joined with the plan amendment in the same contested case proceeding. Subject to subsections (6) and (10), after the hearing and within 90 days after the amendment is filed, the commission shall approve, with any changes consented to by the electric provider, or reject the plan and the proposed amendment or amendments to the plan.

(10) If the commission rejects a proposed plan or amendment under this section, the commission shall explain in writing the reasons for its determination.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides:
"Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."
In subsection (2), the reference to "section 171" evidently should read "section 191".

460.1023 Alternative electric suppliers and cooperative electric utilities; applicability of section; filing of proposed renewable energy plan; requirements; public comment; initial approval; review; amendment; rejection of proposed plan or amendment.

Sec. 23. (1) This section applies only to alternative electric suppliers and cooperative electric utilities that have elected to become member-regulated under the electric cooperative member-regulation act, 2008 PA 167, MCL 460.31 to 460.39.

(2) Each alternative electric supplier or cooperative electric utility shall file a proposed renewable energy plan with the commission within 90 days or 120 days, respectively, after the commission issues a temporary order under section 171. The proposed plan shall meet all of the following requirements:

(a) Describe how the electric provider will meet the renewable energy standards.

(b) Specify whether the number of megawatt hours of electricity used in the calculation of the renewable energy portfolio will be weather-normalized or based on the average number of megawatt hours of electricity sold by the electric provider annually during the previous 3 years to retail customers in this state. Once the plan is approved by the commission, this option shall not be changed.

(3) The commission shall provide an opportunity for public comment on the proposed plan filed under subsection (2). After the opportunity for public comment and within 90 days after the proposed plan is filed with the commission, the commission shall approve, with any changes consented to by the electric provider, or reject the plan.

(4) Every 2 years after initial approval of a plan under subsection (3), the commission shall review the plan. The commission shall provide an opportunity for public comment on the plan. After the opportunity for public comment, the commission shall approve, with any changes consented to by the electric provider, or reject any proposed amendments to the plan.

(5) If an electric provider proposes to amend its plan at a time other than during the biennial review process under subsection (4), the electric provider shall file the proposed amendment with the commission. The commission shall provide an opportunity for public comment on the amendment. After the opportunity for public comment and within 90 days after the amendment is filed, the commission shall approve, with any

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changes consented to by the electric provider, or reject the amendment.

(6) If the commission rejects a proposed plan or amendment under this section, the commission shall explain in writing the reasons for its determination.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides:
"Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."
In subsection (2), the reference to "section 171" evidently should read "section 191".

460.1025 Municipally-owned electric utilities; applicability of section; filing of renewable energy plan; requirements; public comment; initial approval; review; amendment; determination of noncompliance.

Sec. 25. (1) This section applies only to municipally-owned electric utilities.

(2) Each electric provider shall file a proposed renewable energy plan with the commission within 120 days after the commission issues a temporary order under section 171. Two or more electric providers that each serve fewer than 15,000 customers may file jointly. The proposed plan shall meet all of the following requirements:

(a) Describe how the provider will meet the renewable energy standards.

(b) Specify whether the number of megawatt hours of electricity used in the calculation of the renewable energy credit portfolio will be weather-normalized or based on the average number of megawatt hours of electricity sold by the electric provider annually during the previous 3 years to retail customers in this state. Once the commission determines that the proposed plan complies with this act, this option shall not be changed.

(c) Include the expected incremental cost of compliance with the renewable energy standards.

(d) Describe the manner in which the provider will allocate costs.

(3) Subject to subsection (6), the commission shall provide an opportunity for public comment on the proposed plan filed under subsection (2). After the applicable opportunity for public comment and within 90 days after the proposed plan is filed with the commission, the commission shall determine whether the proposed plan complies with this act.

(4) Every 2 years after the commission initially determines under subsection (3) that a renewable energy plan complies with this act, the commission shall review the plan. Subject to subsection (6), the commission shall provide an opportunity for public comment on the plan. After the applicable opportunity for public comment, the commission shall determine whether any amendment to the plan proposed by the provider complies with this act. The proposed amendment is adopted if the commission determines that it complies with this act.

(5) If a provider proposes to amend its renewable energy plan at a time other than during the biennial review process under subsection (4), the provider shall file the proposed amendment with the commission. Subject to subsection (6), the commission shall provide an opportunity for public comment on the amendment. After the applicable opportunity for public comment and within 90 days after the amendment is filed, the commission shall determine whether the proposed amendment to the plan complies with this act. The proposed amendment is adopted if the commission determines that it complies with this act.

(6) The commission need not provide an opportunity for public comment under subsection (3), (4), or (5) if the governing body of the provider has already provided an opportunity for public comment and filed the comments with the commission.

(7) If the commission determines that a proposed plan or amendment under this section does not comply with this act, the commission shall explain in writing the reasons for its determination.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides:
"Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."
In subsection (2), the reference to "section 171" evidently should read "section 191".

460.1027 Electric utility with 1,000,000 or more retail customers; renewable energy capacity portfolio; renewable energy credit portfolio; standards; substitution of energy optimization credits, advanced cleaner energy credits, or combination; rates.

Sec. 27. (1) Subject to sections 31 and 45, and in addition to the requirements of subsection (3), an electric provider that is an electric utility with 1,000,000 or more retail customers in this state as of January 1, 2008 shall achieve a renewable energy capacity portfolio of not less than the following:

(a) For an electric provider with more than 1,000,000 but less than 2,000,000 retail electric customers in this state on January 1, 2008, a renewable energy capacity portfolio of 200 megawatts by December 31, 2013

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and 500 megawatts by December 31, 2015.

(b) For an electric provider with more than 2,000,000 retail electric customers in this state on January 1, 2008, a renewable energy capacity portfolio of 300 megawatts by December 31, 2013 and 600 megawatts by December 31, 2015.

(2) An electric provider's renewable energy capacity portfolio shall be calculated by adding the following:

(a) The nameplate capacity in megawatts of renewable energy systems owned by the electric provider that were not in commercial operation before the effective date of this act.

(b) The capacity in megawatts of renewable energy that the electric provider is entitled to purchase under contracts that were not in effect before the effective date of this act.

(3) Subject to sections 31 and 45, an electric provider shall achieve a renewable energy credit portfolio as follows:

(a) In 2012, 2013, 2014, and 2015, a renewable energy credit portfolio based on the sum of the following:

(*i*) The number of renewable energy credits from electricity generated in the 1-year period preceding the effective date of this act that would have been transferred to the electric provider pursuant to section 35(1), if this act had been in effect during that 1-year period.

(*ii*) The number of renewable energy credits equal to the number of megawatt hours of electricity produced or obtained by the electric provider in the 1-year period preceding the effective date of this act from renewable energy systems for which recovery in electric rates was approved on the effective date of this act.

(*iii*) Renewable energy credits in an amount calculated as follows:

(A) Taking into account the number of renewable energy credits under subparagraphs (*i*) and (*ii*), determine the number of additional renewable energy credits that the electric provider would need to reach a 10% renewable energy portfolio in that year.

(B) Multiply the number under sub-subparagraph (A) by 20% for 2012, 33% for 2013, 50% for 2014, and 100% for 2015.

(b) In 2016 and each year thereafter, maintain a renewable energy credit portfolio that consists of at least the same number of renewable energy credits as were required in 2015 under subdivision (a).

(4) An electric provider's renewable energy credit portfolio shall be calculated as follows:

(a) Determine the number of renewable energy credits used to comply with this subpart during the applicable year.

(b) Divide by 1 of the following at the option of the electric provider as specified in its renewable energy plan:

(*i*) The number of weather-normalized megawatt hours of electricity sold by the electric provider during the previous year to retail customers in this state.

(*ii*) The average number of megawatt hours of electricity sold by the electric provider annually during the previous 3 years to retail customers in this state.

(c) Multiply the quotient under subdivision (b) by 100.

(5) Subject to subsection (6), each electric provider shall meet the renewable energy credit standards with renewable energy credits obtained by 1 or more of the following means:

(a) Generating electricity from renewable energy systems for sale to retail customers.

(b) Purchasing or otherwise acquiring renewable energy credits with or without the associated renewable energy.

(6) An electric provider may substitute energy optimization credits, advanced cleaner energy credits with or without the associated advanced cleaner energy, or a combination thereof for renewable energy credits otherwise required to meet the renewable energy credit standards if the substitution is approved by the commission. However, commission approval is not required to substitute advanced cleaner energy from industrial cogeneration for renewable energy credits. The commission shall not approve a substitution unless the commission determines that the substitution is cost-effective compared to other sources of renewable energy credits and, if the substitution involves advanced cleaner energy credits, that the advanced cleaner energy system provides carbon dioxide emissions benefits. In determining whether the substitution of advanced cleaner energy credits is cost-effective, the commission shall include as part of the costs of the system the environmental costs attributed to the advanced cleaner energy system, including the costs of environmental control equipment or greenhouse gas constraints or taxes. The commission's determinations shall be made after a contested case hearing that includes consultation with the department of environmental quality on the issue of carbon dioxide emissions benefits, if relevant, and environmental costs.

(7) Under subsection (6), energy optimization credits, advanced cleaner energy credits, or a combination thereof shall not be used by a provider to meet more than 10% of the renewable energy credit standards. Advanced cleaner energy from advanced cleaner energy systems in existence on January 1, 2008 shall not be used by a provider to meet more than 70% of this 10% limit. This 10% limit does not apply to advanced

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cleaner energy credits from plasma arc gasification.

(8) Substitutions under subsection (6) shall be made at the following rates per renewable energy credit:

(a) One energy optimization credit.

(b) One advanced cleaner energy credit from plasma arc gasification or industrial cogeneration.

(c) Ten advanced cleaner energy credits other than from plasma arc gasification or industrial cogeneration.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1029 Renewable energy system location; requirements.

Sec. 29. (1) Subject to subsection (2), a renewable energy system that is the source of renewable energy credits used to satisfy the renewable energy standards shall be either located outside of this state in the retail electric customer service territory of any provider that is not an alternative electric supplier or located anywhere in this state. For the purposes of this subsection, a retail electric customer service territory shall be considered to be the territory recognized by the commission on January 1, 2008 and any expansion of retail electric customer service territory recognized by the commission after January 1, 2008 under 1939 PA 3, MCL 460.1 to 460.10cc. The commission may also expand a service territory for the purposes of this subsection if a lack of transmission lines limits the ability to obtain sufficient renewable energy from renewable energy systems that meet the location requirement of this subsection.

(2) The renewable energy system location requirements in subsection (1) do not apply if 1 or more of the following requirements are met:

(a) The renewable energy system is a wind energy conversion system and the electricity generated by the wind energy system, or the renewable energy credits associated with that electricity, is being purchased under a contract in effect on January 1, 2008. If the electricity and associated renewable energy credits purchased under such a contract are used by an electric provider to meet renewable energy requirements established after January 1, 2008 by the legislature of the state in which the wind energy conversion system is located, the electric provider may, for the purpose of meeting the renewable energy credit standard under this act, obtain, by any means authorized under section 27, up to the same number of replacement renewable energy credits from any other wind energy conversion systems located in that state. This subdivision shall not be utilized by an alternative electric supplier unless the alternative electric supplier was licensed in this state on January 1, 2008. Renewable energy credits from a renewable energy system under a contract with an alternative electric supplier under this subdivision shall not be used by another electric provider to meet its requirements under this part.

(b) The renewable energy system is a wind energy conversion system that was under construction or operational and owned by an electric provider on January 1, 2008. This subdivision shall not be utilized by an alternative electric supplier.

(c) The renewable energy system is a wind energy conversion system that includes multiple wind turbines, at least 1 of the wind turbines meets the location requirements of this section, and the remaining wind turbines are within 15 miles of a wind turbine that is part of that wind energy conversion system and that meets the location requirements of this section.

(d) Before January 1, 2008, an electric provider serving not more than 75,000 retail electric customers in this state filed an application for a certificate of authority for the renewable energy system with a state regulatory commission in another state that is also served by the electric provider. However, renewable energy credits shall not be granted under this subdivision for electricity generated using more than 10.0 megawatts of nameplate capacity of the renewable energy system.

(e) Electricity generated from the renewable energy system is sold by a not-for-profit entity located in Indiana or Wisconsin to a municipally-owned electric utility in this state or cooperative electric utility in this state under a contract in effect on January 1, 2008, and the electricity is not being used to meet another state's standard for renewable energy.

(f) Electricity generated from the renewable energy system is sold by a not-for-profit entity located in Ohio to a municipally-owned electric utility in this state under a contract approved by resolution of the governing body of the municipally-owned electric utility by January 1, 2008, and the electricity is not being used to meet another state's standard for renewable energy. However, renewable energy credits shall not be granted for electricity generated using more than 13.4 megawatts of nameplate capacity of the renewable energy system.

(g) All of the following requirements are met:

(*i*) The renewable energy system is a wind energy system, is interconnected to the electric provider's transmission system, and is located in a state in which the electric provider has service territory.

(*ii*) The electric provider competitively bid any contract for engineering, procurement, or construction of

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the renewable energy system, if the electric provider owns the renewable energy system, or for purchase of the renewable energy and associated renewable energy credits from the renewable energy system, if the provider does not own the renewable energy system, in a process open to renewable energy systems sited in this state.

(*iii*) The renewable energy credits from the renewable energy system are only used by that electric provider to meet the renewable energy standard.

(*iv*) The electric provider is not an alternative electric supplier.

(3) Advanced cleaner energy systems that are the source of the advanced cleaner energy credits used under section 27 shall be either located outside this state in the service territory of any electric provider that is not an alternative electric supplier or located anywhere in this state.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1031 Extensions of 2015 renewable energy standard deadline; establishment of revised renewable energy standard; compliance; "good cause" defined.

Sec. 31. (1) Upon petition by an electric provider, the commission may for good cause grant 2 extensions of the 2015 renewable energy standard deadline under section 27. Each extension shall be for up to 1 year.

(2) If 2 extensions of the 2015 renewable energy standard deadline have been granted to an electric provider under subsection (1), upon subsequent petition by the electric provider at least 3 months before the expiration of the second extended deadline, the commission shall, after consideration of prior extension requests under this section and for good cause, establish a revised renewable energy standard attainable by the electric provider. If the electric provider achieves the revised renewable energy standard, the provider is considered to be in compliance with this subpart.

(3) An electric provider that makes a good faith effort to spend the full amount of incremental costs of compliance as outlined in its approved renewable energy plan and that complies with its approved plan, subject to any approved extensions or revisions, shall be considered to be in compliance with this subpart.

(4) As used in this section, "good cause" includes, but is not limited to, the electric provider's inability, as determined by the commission, to meet a renewable energy standard because of a renewable energy system feasibility limitation including, but not limited to, any of the following:

(a) Renewable energy system site requirements, zoning, siting, land use issues, permits, including environmental permits, any certificate of need process under section 6s of 1939 PA 3, MCL 460.6s, or any other necessary governmental approvals that effectively limit availability of renewable energy systems, if the electric provider exercised reasonable diligence in attempting to secure the necessary governmental approvals. For purposes of this subdivision, "reasonable diligence" includes, but is not limited to, submitting timely applications for the necessary governmental approvals and making good faith efforts to ensure that the applications are administratively complete and technically sufficient.

(b) Equipment cost or availability issues including electrical equipment or renewable energy system component shortages or high costs that effectively limit availability of renewable energy systems.

(c) Cost, availability, or time requirements for electric transmission and interconnection.

(d) Projected or actual unfavorable electric system reliability or operational impacts.

(e) Labor shortages that effectively limit availability of renewable energy systems.

(f) An order of a court of competent jurisdiction that effectively limits the availability of renewable energy systems.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1033 Electric provider with 1,000,000 or more retail customers; obtaining renewable energy credits to meet standard in 2015; exception; submission of contract for approval.

Sec. 33. (1) Subject to subsections (2) and (3), an electric provider that had 1,000,000 or more retail customers in this state on January 1, 2008 shall obtain the renewable energy credits that are necessary to meet the renewable energy credit standard in 2015 and thereafter as follows:

(a) At the electric provider's option, up to but no more than 50% of the renewable energy credits shall be from any of the following:

(*i*) Renewable energy systems that were developed by and are owned by the electric provider. An electric provider shall competitively bid any contract for engineering, procurement, or construction of any new renewable energy systems described in this subdivision. However, an electric provider may consider

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unsolicited proposals presented to it by a renewable energy system developer outside of a competitive bid process. If the provider determines that such an unsolicited proposal provides opportunities that may not otherwise be available or commercially practical, the provider may enter into a contract with the developer.

(*ii*) Renewable energy systems that were developed by 1 or more third parties pursuant to a contract with the electric provider under which the ownership of the renewable energy system may be transferred to the electric provider, but only after the renewable energy system begins commercial operation. Any such contract shall be executed after a competitive bidding process conducted pursuant to guidelines issued by the commission. However, an electric provider may consider unsolicited proposals presented to it by a renewable energy system developer outside of a competitive bid process. If the provider determines that such an unsolicited proposal provides opportunities that may not otherwise be available or commercially practical, the provider may enter into a contract with the developer. An affiliate of the electric provider may submit a proposal in response to a request for proposals, subject to the code of conduct under section 10a(4) of 1939 PA 3, MCL 460.10a, and the sanctions for violation of the code under section 10c of 1939 PA 3, MCL 460.10c.

(b) At least 50% of the renewable energy credits shall be from renewable energy contracts that do not require transfer of ownership of the applicable renewable energy system to the electric provider or from contracts for the purchase of renewable energy credits without the associated renewable energy. A renewable energy contract or contract for the purchase of renewable energy credits under this subdivision shall be executed after a competitive bidding process conducted pursuant to guidelines issued by the commission. However, an electric provider may consider unsolicited proposals presented to it outside of a competitive bid process by a renewable energy system developer that is not affiliated with the electric provider. If the provider determines that such an unsolicited proposal provides opportunities that may not otherwise be available or commercially practical, the provider may enter into a contract with the developer. The contract is subject to review and approval by the commission under section 21. An electric provider or its affiliate may not submit a proposal in response to its own request for proposals under this subdivision. If an electric provider selects a bid other than the lowest price conforming bid from a qualified bidder, the electric provider shall promptly notify the commission. The commission shall determine in the manner provided under section 37 whether the electric provider had good cause for selecting that bid. If the commission determines that the electric provider did not have good cause, the commission shall disapprove the contract.

(2) Subsection (1) does not apply to either of the following:

(a) Renewable energy credits that are transferred to the electric provider pursuant to section 35(1).

(b) Renewable energy credits that are produced or obtained by the electric provider from renewable energy systems for which recovery in electric rates was approved as of the effective date of this act, including renewable energy credits resulting from biomass co-firing of electric generation facilities in existence on the effective date of this act, except to the extent the number of megawatt hours of electricity annually generated by biomass co-firing exceeds the number of megawatt hours generated during the 1-year period immediately preceding the effective date of this act.

(3) An electric provider shall submit a contract entered into pursuant to subsection (1) to the commission for review and approval. If the commission approves the contract, it shall be considered to be consistent with the electric provider's renewable energy plan. The commission shall not approve a contract based on an unsolicited proposal unless the commission determines that the unsolicited proposal provides opportunities that may not otherwise be available or commercially practical.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1035 Resale of renewable energy under PURPA; investor-owned electric utility with less than 20,000 customers, a municipally-owned electric utility, or cooperative electric utility; resale under power purchase agreement or existing agreements; determination of number of renewable energy credits.

Sec. 35. (1) If an electric provider obtains renewable energy for resale to retail or wholesale customers under an agreement under PURPA, ownership of the associated renewable energy credits shall be as provided by the PURPA agreement. If the PURPA agreement does not provide for ownership of the renewable energy credits, then:

(a) Except to the extent that a separate agreement governs under subdivision (b), for the duration of the PURPA agreement, for every 5 renewable energy credits associated with the renewable energy, ownership of 4 of the renewable energy credits is transferred to the electric provider with the renewable energy, and ownership of 1 renewable energy credit remains with the qualifying small power production facility.

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(b) If a separate agreement in effect on January 1, 2008 provides for the ownership of the renewable attributes of the generated electricity, the separate agreement shall govern until January 1, 2013 or until expiration of the separate agreement, whichever occurs first.

(2) If an investor-owned electric utility with less than 20,000 customers, a municipally-owned electric utility, or cooperative electric utility obtains all or substantially all of its electricity for resale under a power purchase agreement or agreements in existence on the effective date of this act, ownership of any associated renewable energy credits shall be considered to be transferred to the electric provider purchasing the electricity. The number of renewable energy credits associated with the purchased electricity shall be determined by multiplying the total number of renewable energy credits associated with the total power supply of the seller during the term of the agreement by a fraction, the numerator of which is the amount of energy purchased under the agreement or agreements and the denominator of which is the total power supply of the seller during the term of the agreement. This subsection does not apply unless 1 or more of the following occur:

(a) The seller and the electric provider purchasing the electricity agree that this subsection applies.

(b) For a seller that is an investor-owned electric utility whose rates are regulated by the commission, the commission reduces the number of renewable energy credits required under the renewable energy credit standard for the seller by the number of renewable energy credits to be transferred to the electric provider purchasing the electricity under this subsection.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1037 Renewable energy contract without associated renewable energy; determination of compliance with retail rate impact limits.

Sec. 37. If, after the effective date of this act, an electric provider whose rates are regulated by the commission enters a renewable energy contract or a contract to purchase renewable energy credits without the associated renewable energy, the commission shall determine whether the contract provides reasonable and prudent terms and conditions and complies with the retail rate impact limits under section 45. In making this determination, the commission shall consider the contract price and term. If the contract is a renewable energy contract, the commission shall also consider at least all of the following:

(a) The cost to the electric provider and its customers of the impacts of accounting treatment of debt and associated equity requirements imputed by credit rating agencies and lenders attributable to the renewable energy contract. The commission shall use standard rating agency, lender, and accounting practices for electric utilities in determining these costs, unless the impacts for the electric provider are known.

(b) Subject to section 45, the life-cycle cost of the renewable energy contract to the electric provider and customers including costs, after expiration of the renewable energy contract, of maintaining the same renewable energy output in megawatt hours, whether by purchases from the marketplace, by extension or renewal of the renewable energy contract, or by the electric provider purchasing the renewable energy system and continuing its operation.

(c) Electric provider and customer price and cost risks if the renewable energy systems supporting the renewable energy contract move from contracted pricing to market-based pricing after expiration of the renewable energy contract.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1039 Granting 1 renewable energy credit for each megawatt hour of electricity generated from renewable energy system; conditions; granting Michigan incentive renewable energy credits; expiration.

Sec. 39. (1) Except as otherwise provided in section 35(1), 1 renewable energy credit shall be granted to the owner of a renewable energy system for each megawatt hour of electricity generated from the renewable energy system, subject to all of the following:

(a) If a renewable energy system uses both a renewable energy resource and a nonrenewable energy resource to generate electricity, the number of renewable energy credits granted shall be based on the percentage of the electricity generated from the renewable energy resource.

(b) A renewable energy credit shall not be granted for renewable energy generated from a municipal solid waste incinerator to the extent that the renewable energy was generated by operating the incinerator in excess of the greater of the following, as applicable:

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(*i*) The incinerator's nameplate capacity rating on January 1, 2008.

(*ii*) If the incinerator is expanded after the effective date of this act to an approximate continuous design rated capacity of not more than 950 tons per day pursuant to the terms of a final request for proposals issued not later than October 1986, the nameplate capacity rating required to accommodate that expansion.

(c) A renewable energy credit shall not be granted for renewable energy the renewable attributes of which are used by an electric provider in a commission-approved voluntary renewable energy program.

(2) Subject to subsection (3), the following additional renewable energy credits, to be known as Michigan incentive renewable energy credits, shall be granted under the following circumstances:

(a) 2 renewable energy credits for each megawatt hour of electricity from solar power.

(b) 1/5 renewable energy credit for each megawatt hour of electricity generated from a renewable energy system, other than wind, at peak demand time as determined by the commission.

(c) 1/5 renewable energy credit for each megawatt hour of electricity generated from a renewable energy system during off-peak hours, stored using advanced electric storage technology or a hydroelectric pumped storage facility, and used during peak hours. However, the number of renewable energy credits shall be calculated based on the number of megawatt hours of renewable energy used to charge the advanced electric storage technology or fill the pumped storage facility, not the number of megawatt hours actually discharged or generated by discharge from the advanced energy storage facility or pumped storage facility.

(d) 1/10 renewable energy credit for each megawatt hour of electricity generated from a renewable energy system constructed using equipment made in this state as determined by the commission. The additional credit under this subdivision is available for the first 3 years after the renewable energy system first produces electricity on a commercial basis.

(e) 1/10 renewable energy credit for each megawatt hour of electricity from a renewable energy system constructed using a workforce composed of residents of this state as determined by the commission. The additional credit under this subdivision is available for the first 3 years after the renewable energy system first produces electricity on a commercial basis.

(3) A renewable energy credit expires at the earliest of the following times:

(a) When used by an electric provider to comply with its renewable energy credit standard.

(b) When substituted for an energy optimization credit under section 77.

(c) Three years after the end of the month in which the renewable energy credit was generated.

(4) A renewable energy credit associated with renewable energy generated within 120 days after the start of a calendar year may be used to satisfy the prior year's renewable energy standard and expires when so used.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1041 Renewable energy credits; trade, sale, or transfer; demonstration of compliance; establishment of energy credit certification and tracking program; use not required in state.

Sec. 41. (1) Renewable energy credits may be traded, sold, or otherwise transferred.

(2) An electric provider is responsible for demonstrating that a renewable energy credit used to comply with a renewable energy credit standard is derived from a renewable energy source and that the electric provider has not previously used or traded, sold, or otherwise transferred the renewable energy credit.

(3) The same renewable energy credit may be used by an electric provider to comply with both a federal standard for renewable energy and the renewable energy standard under this subpart. An electric provider that uses a renewable energy credit to comply with another state's standard for renewable energy shall not use the same renewable energy credit to comply with the renewable energy credit standard under this subpart.

(4) The commission shall establish a renewable energy credit certification and tracking program. The certification and tracking program may be contracted to and performed by a third party through a system of competitive bidding. The program shall include all of the following:

(a) A process to certify renewable energy systems, including all existing renewable energy systems operating on the effective date of this act, as eligible to receive renewable energy credits.

(b) A process for verifying that the operator of a renewable energy system is in compliance with state and federal law applicable to the operation of the renewable energy system when certification is granted. If a renewable energy system becomes noncompliant with state or federal law, renewable energy credits shall not be granted for renewable energy generated by that renewable energy system during the period of noncompliance.

(c) A method for determining the date on which a renewable energy credit is generated and valid for transfer.

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(d) A method for transferring renewable energy credits.

(e) A method for ensuring that each renewable energy credit transferred under this act is properly accounted for under this act.

(f) If the system is established by the commission, allowance for issuance, transfer, and use of renewable energy credits in electronic form.

(g) A method for ensuring that both a renewable energy credit and an advanced cleaner energy credit are not awarded for the same megawatt hour of energy.

(5) A renewable energy credit purchased from a renewable energy system in this state is not required to be used in this state.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1043 Granting 1 advanced cleaner energy credit for each megawatt hour of electricity generated from advanced cleaner energy system; expiration; trade, sale, or transfer; establishment of advanced cleaner energy credit certification and tracking program; use not required in state.

Sec. 43. (1) One advanced cleaner energy credit shall be granted to the owner of an advanced cleaner energy system for each megawatt hour of electricity generated from the advanced cleaner energy system. However, if an advanced cleaner energy system uses both an advanced cleaner energy technology and an energy technology that is not an advanced cleaner energy technology to generate electricity, the number of advanced cleaner energy credits granted shall be based on the percentage of the electricity generated from the advanced cleaner energy technology. If a facility or system, such as a gasification facility using biomass as feedstock, qualifies as both an advanced cleaner energy system and a renewable energy system, at the owner's option, either an advanced cleaner energy credit or a renewable energy credit, but not both, may be granted for any given megawatt hour of electricity generated by the facility or system.

(2) An advanced cleaner energy credit expires at the earliest of the following times:

(a) When substituted for a renewable energy credit under section 27 or an energy optimization credit under section 77.

(b) 3 years after the end of the month in which the advanced cleaner energy credit was generated.

(3) Advanced cleaner energy credits may be traded, sold, or otherwise transferred.

(4) The commission shall establish an advanced cleaner energy credit certification and tracking program. The certification and tracking program may be contracted to and performed by a third party through a system of competitive bidding. The program shall include all of the following:

(a) A process to certify advanced cleaner energy systems, including all existing advanced cleaner energy systems operating on the effective date of this act, as eligible to receive advanced cleaner energy credits.

(b) A process for verifying that the operator of an advanced cleaner energy system is in compliance with state and federal law applicable to the operation of the advanced cleaner energy system when certification is granted. If an advanced cleaner energy system becomes noncompliant with state or federal law, advanced cleaner energy credits shall not be granted for advanced cleaner energy generated by that advanced cleaner energy system during the period of noncompliance.

(c) A method for determining the date on which an advanced cleaner energy credit is generated and valid for transfer.

(d) A method for transferring advanced cleaner energy credits.

(e) A method for ensuring that each advanced cleaner energy credit transferred is properly accounted for.

(f) Allowance for issuance, transfer, and use of advanced cleaner energy credits in electronic form.

(g) A method for ensuring that both a renewable energy credit and an advanced cleaner energy credit are not awarded for the same megawatt hour of electricity.

(5) An advanced cleaner energy credit purchased from an advanced cleaner energy system in this state is not required to be used in this state.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1045 Charges for electric provider's tariffs that permit recovery of incremental costs of compliance; calculation; report to residential customer in billing statement; values; determining long-term, life-cycle, levelized costs of building and operating and acquiring nonrenewable electric generating capacity and energy.

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Sec. 45. (1) For an electric provider whose rates are regulated by the commission, the commission shall determine the appropriate charges for the electric provider's tariffs that permit recovery of the incremental cost of compliance subject to the retail rate impact limits set forth in subsection (2).

(2) An electric provider shall recover the incremental cost of compliance with the renewable energy standards by an itemized charge on the customer's bill for billing periods beginning not earlier than 90 days after the commission approves the electric provider's renewable energy plan under section 21 or 23 or determines under section 25 that the plan complies with this act. An electric provider shall not comply with the renewable energy standards to the extent that, as determined by the commission, recovery of the incremental cost of compliance will have a retail rate impact that exceeds any of the following:

(a) $3.00 per month per residential customer meter.

(b) $16.58 per month per commercial secondary customer meter.

(c) $187.50 per month per commercial primary or industrial customer meter.

(3) The retail rate impact limits of subsection (2) apply only to the incremental costs of compliance and do not apply to costs approved for recovery by the commission other than as provided in this act.

(4) The incremental cost of compliance shall be calculated for a 20-year period beginning with approval of the renewable energy plan and shall be recovered on a levelized basis.

(5) In its billing statements for a residential customer, each provider shall report to the residential customer all of the following in a format consistent with other information on the customer bill:

(a) An itemized monthly charge, expressed in dollars and cents, collected from the customer for implementing the renewable energy program requirements of this act. In the first bill issued after the close of the previous year, an electric provider shall notify each residential customer that the customer may be entitled to an income tax credit to offset some of the annual amounts collected for the renewable energy program.

(b) An itemized monthly charge, expressed in dollars and cents, collected from the customer for implementing the energy optimization program requirements of this act.

(c) An estimated monthly savings, expressed in dollars and cents, for that customer to reflect the reductions in the monthly energy bill produced by the energy optimization program under this act.

(d) An estimated monthly savings, expressed in dollars and cents, for that customer to reflect the long-term, life-cycle, levelized costs of building and operating new conventional coal-fired electric generating power plants avoided under this act as determined by the commission.

(e) The website address at which the commission's annual report under section 51 is posted.

(6) For the first year of the programs under this part, the values reported under subsection (5) shall be estimates by the commission. The values in following years shall be based on the provider's actual customer experiences. If the provider is unable to provide customer-specific information under subsection (5)(b) or (c), it shall instead specify the state average itemized charge or savings, as applicable, for residential customers. The provider shall make this calculation based on a method approved by the commission.

(7) In determining long-term, life-cycle, levelized costs of building and operating and acquiring nonrenewable electric generating capacity and energy for the purpose of subsection (5)(d), the commission shall consider historic and predicted costs of financing, construction, operation, maintenance, fuel supplies, environmental protection, and other appropriate elements of energy production. For purposes of this comparison, the capacity of avoided new conventional coal-fired electric generating facilities shall be expressed in megawatts and avoided new conventional coal-fired electricity generation shall be expressed in megawatt hours. Avoided costs shall be measured in cents per kilowatt hour.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1047 Cost of service to be recovered by electric provider; recovery of incremental costs of compliance; calculation; modification of revenue recovery mechanism; excess costs; refund to customer classes; certain actual costs considered as costs of service.

Sec. 47. (1) Subject to the retail rate impact limits under section 45, the commission shall consider all actual costs reasonably and prudently incurred in good faith to implement a commission-approved renewable energy plan by an electric provider whose rates are regulated by the commission to be a cost of service to be recovered by the electric provider. Subject to the retail rate impact limits under section 45, an electric provider whose rates are regulated by the commission shall recover through its retail electric rates all of the electric provider's incremental costs of compliance during the 20-year period beginning when the electric provider's plan is approved by the commission and all reasonable and prudent ongoing costs of compliance during and after that period. The recovery shall include, but is not limited to, the electric provider's authorized rate of return on equity for costs approved under this section, which shall remain fixed at the rate of return and debt

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to equity ratio that was in effect in the electric provider's base rates when the electric provider's renewable energy plan was approved.

(2) Incremental costs of compliance shall be calculated as follows:

(a) Determine the sum of the following costs to the extent those costs are reasonable and prudent and not already approved for recovery in electric rates as of the effective date of this act:

(*i*) Capital, operating, and maintenance costs of renewable energy systems or advanced cleaner energy systems, including property taxes, insurance, and return on equity associated with an electric provider's renewable energy systems or advanced cleaner energy systems, including the electric provider's renewable energy portfolio established to achieve compliance with the renewable energy standards and any additional renewable energy systems or advanced cleaner energy systems, that are built or acquired by the electric provider to maintain compliance with the renewable energy standards during the 20-year period beginning when the electric provider's plan is approved by the commission.

(*ii*) Financing costs attributable to capital, operating, and maintenance costs of capital facilities associated with renewable energy systems or advanced cleaner energy systems used to meet the renewable energy standard.

(*iii*) Costs that are not otherwise recoverable in rates approved by the federal energy regulatory commission and that are related to the infrastructure required to bring renewable energy systems or advanced cleaner energy systems used to achieve compliance with the renewable energy standards on to the transmission system, including interconnection and substation costs for renewable energy systems or advanced cleaner energy systems used to meet the renewable energy standard.

(*iv*) Ancillary service costs determined by the commission to be necessarily incurred to ensure the quality and reliability of renewable energy or advanced cleaner energy used to meet the renewable energy standards, regardless of the ownership of a renewable energy system or advanced cleaner energy technology.

(*v*) Except to the extent the costs are allocated under a different subparagraph, all of the following:

(A) The costs of renewable energy credits purchased under this act.

(B) The costs of contracts described in section 33(1).

(*vi*) Expenses incurred as a result of state or federal governmental actions related to renewable energy systems or advanced cleaner energy systems attributable to the renewable energy standards, including changes in tax or other law.

(*vii*) Any additional electric provider costs determined by the commission to be necessarily incurred to ensure the quality and reliability of renewable energy or advanced cleaner energy used to meet the renewable energy standards.

(b) Subtract from the sum of costs not already included in electric rates determined under subdivision (a) the sum of the following revenues:

(*i*) Revenue derived from the sale of environmental attributes associated with the generation of renewable energy or advanced cleaner energy systems attributable to the renewable energy standards. Such revenue shall not be considered in determining power supply cost recovery factors under section 6j of 1939 PA 3, MCL 460.6j.

(*ii*) Interest on regulatory liabilities.

(*iii*) Tax credits specifically designed to promote renewable energy or advanced cleaner energy.

(*iv*) Revenue derived from the provision of renewable energy or advanced cleaner energy to retail electric customers subject to a power supply cost recovery clause under section 6j of 1939 PA 3, MCL 460.6j, of an electric provider whose rates are regulated by the commission. After providing an opportunity for a contested case hearing for an electric provider whose rates are regulated by the commission, the commission shall annually establish a price per megawatt hour. In addition, an electric provider whose rates are regulated by the commission may at any time petition the commission to revise the price. In setting the price per megawatt hour under this subparagraph, the commission shall consider factors including, but not limited to, projected capacity, energy, maintenance, and operating costs; information filed under section 6j of 1939 PA 3, MCL 460.6j; and information from wholesale markets, including, but not limited to, locational marginal pricing. This price shall be multiplied by the sum of the number of megawatt hours of renewable energy and the number of megawatt hours of advanced cleaner energy used to maintain compliance with the renewable energy standard. The product shall be considered a booked cost of purchased and net interchanged power transactions under section 6j of 1939 PA 3, MCL 460.6j. For energy purchased by such an electric provider under a renewable energy contract or advanced cleaner energy contract, the price shall be the lower of the amount established by the commission or the actual price paid and shall be multiplied by the number of megawatt hours of renewable energy or advanced cleaner energy purchased. The resulting value shall be considered a booked cost of purchased and net interchanged power under section 6j of 1939 PA 3, MCL 460.6j.

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(*v*) Revenue from wholesale renewable energy sales and advanced cleaner energy sales. Such revenue shall not be considered in determining power supply cost recovery factors under section 6j of 1939 PA 3, MCL 460.6j.

(*vi*) Any additional electric provider revenue considered by the commission to be attributable to the renewable energy standards.

(*vii*) Any revenues recovered in rates for renewable energy costs that are included under subdivision (a).

(3) The commission shall authorize an electric provider whose rates are regulated by the commission to spend in any given month more to comply with this act and implement an approved renewable energy plan than the revenue actually generated by the revenue recovery mechanism. An electric provider whose rates are regulated by the commission shall recover its commission approved pre-tax rate of return on regulatory assets during the appropriate period. An electric provider whose rates are regulated by the commission shall record interest on regulatory liabilities at the average short-term borrowing rate available to the electric provider during the appropriate period. Any regulatory assets or liabilities resulting from the recovery costs of renewable energy or advanced cleaner energy attributable to renewable energy standards through the power supply cost recovery clause under section 6j of 1939 PA 3, MCL 460.6j, shall continue to be reconciled under that section.

(4) If an electric provider's incremental costs of compliance in any given month during the 20-year period beginning when the electric provider's plan is approved by the commission are in excess of the revenue recovery mechanism as adjusted under section 49 and in excess of the balance of any accumulated reserve funds, subject to the minimum balance established under section 21, the electric provider shall immediately notify the commission. The commission shall promptly commence a contested case hearing pursuant to the administrative procedures act of 1969, 1969 PA 306, MCL 24.201 to 24.328, and modify the revenue recovery mechanism so that the minimum balance is restored. However, if the commission determines that recovery of the incremental costs of compliance would otherwise exceed the maximum retail rate impacts specified under section 45, it shall set the revenue recovery mechanism for that electric provider to correspond to the maximum retail rate impacts. Excess costs shall be accrued and deferred for recovery. Not later than the expiration of the 20-year period beginning when the electric provider's plan is approved by the commission, for an electric provider whose rates are regulated by the commission, the commission shall determine the amount of deferred costs to be recovered under the revenue recovery mechanism and the recovery period, which shall not extend more than 5 years beyond the expiration of the 20-year period beginning when the electric provider's plan is approved by the commission. The recovery of excess costs shall be proportional to the retail rate impact limits in section 45 for each customer class. The recovery of excess costs alone, or, if begun before the expiration of the 20-year period, in combination with the recovery of incremental costs of compliance under the revenue recovery mechanism, shall not exceed the retail rate impact limits of section 45 for each customer class.

(5) If, at the expiration of the 20-year period beginning when the electric provider's plan is approved by the commission, an electric provider whose rates are regulated by the commission has a regulatory liability, the refund to customer classes shall be proportional to the amounts paid by those customer classes under the revenue recovery mechanism.

(6) After achieving compliance with the renewable energy standard for 2015, the actual costs reasonably and prudently incurred to continue to comply with this subpart both during and after the conclusion of the 20-year period beginning when the electric provider's plan is approved by the commission shall be considered costs of service. The commission shall determine a mechanism for an electric provider whose rates are regulated by the commission to recover these costs in its retail electric rates, subject to the retail rate impact limits in section 45. Remaining and future regulatory assets shall be recovered consistent with subsections (2) and (3) and section 49.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1049 Renewable cost reconciliation; commencement; contested case proceeding; discovery; modifications of revenue recovery mechanism; reconciliation of revenues with amounts actually expensed and projected; duties of commission; interest accrual.

Sec. 49. (1) This section applies only to an electric provider whose rates are regulated by the commission. Concurrent with the submission of each report under section 51, the commission shall commence an annual proceeding, to be known as a renewable cost reconciliation, for each electric provider whose rates are regulated by the commission. The renewable cost reconciliation proceeding shall be conducted as a contested case pursuant to the administrative procedures act of 1969, 1969 PA 306, MCL 24.201 to 24.328. Reasonable

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discovery shall be permitted before and during the reconciliation proceeding to assist in obtaining evidence concerning reconciliation issues including, but not limited to, the reasonableness and prudence of expenditures and the amounts collected pursuant to the revenue recovery mechanism.

(2) At the renewable cost reconciliation, an electric provider may propose any necessary modifications of the revenue recovery mechanism to ensure the electric provider's recovery of its incremental cost of compliance with the renewable energy standards.

(3) The commission shall reconcile the pertinent revenues recorded and the allowance for the nonvolumetric revenue recovery mechanism with the amounts actually expensed and projected according to the electric provider's plan for compliance. The commission shall consider any issue regarding the reasonableness and prudence of expenses for which customers were charged in the relevant reconciliation period. In its order, the commission shall do all of the following:

(a) Make a determination of an electric provider's compliance with the renewable energy standards, subject to section 31.

(b) Adjust the revenue recovery mechanism for the incremental costs of compliance. The commission shall ensure that the retail rate impacts under this renewable cost reconciliation revenue recovery mechanism do not exceed the maximum retail rate impacts specified under section 45. The commission shall ensure that the recovery mechanism is projected to maintain a minimum balance of accumulated reserve so that a regulatory asset does not accrue.

(c) Establish the price per megawatt hour for renewable energy and advanced cleaner energy capacity and for renewable energy and advanced cleaner energy to be recovered through the power supply cost recovery clause under section 6j of 1939 PA 3, MCL 460.6j, as outlined in section 47(2)(b)(*iv*).

(d) Adjust, if needed, the minimum balance of accumulated reserve funds established under section 21.

(4) If an electric provider has recorded a regulatory liability in any given month during the 20-year period beginning when the electric provider's plan is approved by the commission, interest on the regulatory liability balance shall be accrued at the average short-term borrowing rate available to the electric provider during the appropriate period, and shall be used to fund incremental costs of compliance incurred in subsequent periods within the 20-year period beginning when the electric provider's plan is approved by the commission.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1051 Compliance with renewable energy standards; submission of annual report by each electric provider; information; submission of report summary to customers of certain electric utilities; monitoring reports; submission of report to legislative committees; maintenance of report by department of enregy, labor, and economic growth.

Sec. 51. (1) By a time determined by the commission, each electric provider shall submit to the commission an annual report that provides information relating to the actions taken by the electric provider to comply with the renewable energy standards. Concurrently, a municipally-owned electric utility shall submit a copy of the report to the governing body of the municipally-owned electric utility, and a cooperative electric utility shall submit a copy of the report to its board of directors.

(2) An annual report under subsection (1) shall include all of the following information:

(a) The amount of electricity and renewable energy credits that the electric provider generated or acquired from renewable energy systems during the reporting period and the amount of renewable energy credits that the electric provider acquired, sold, traded, or otherwise transferred during the reporting period.

(b) The amount of electricity that the electric provider generated or acquired from advanced cleaner energy systems pursuant to this act during the reporting period.

(c) The capacity of each renewable energy system and advanced cleaner energy system owned, operated, or controlled by the electric provider, the total amount of electricity generated by each renewable energy system or advanced cleaner energy system during the reporting period, and the percentage of that total amount of electricity from each renewable energy system that was generated directly from renewable energy.

(d) Whether, during the reporting period, the electric provider began construction on, acquired, or placed into operation a renewable energy system or advanced cleaner energy system.

(e) Expenditures made in the past year and anticipated future expenditures to comply with this subpart.

(f) Any other information that the commission determines necessary.

(3) Concurrent with the submission of each report under subsection (1), a municipally-owned electric utility shall submit a summary of the report to its customers in their bills with a bill insert and to its governing body. If, together with the summary required under this subsection, a municipally-owned electric utility submits to its residential customers the information required pursuant to section 45(5) for the year covered by

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the summary under this subsection, the municipally-owned electric utility shall be considered to be in compliance with the itemized billing requirements of section 45(2) and the reporting requirements of section 45(5) for that year. Concurrent with the submission of each report under subsection (1), a cooperative electric utility shall submit a summary of the report to its members in a periodical issued by an association of rural electric cooperatives and to its board of directors. A municipally-owned electric utility or cooperative electric provider shall make a copy of the report available at its office and shall post a copy of the report on its website. A summary under this section shall indicate that a copy of the report is available at the office or website.

(4) The commission shall monitor reports submitted under subsection (1) and ensure that actions taken under this act by electric providers serving customers in the same distribution territory do not create an unfair competitive advantage for any of those electric providers.

(5) By February 15, 2011 and each year thereafter, the commission shall submit to the standing committees of the senate and house of representatives with primary responsibility for energy and environmental issues a report that does all of the following:

(a) Summarizes data collected under this section.

(b) Discusses the status of renewable energy and advanced cleaner energy in this state and the effect of this subpart and subpart B on electricity prices.

(c) For each of the different types of renewable energy sold at retail in this state, specifies the difference between the cost of the renewable energy and the cost of electricity generated from new conventional coal-fired electric generating facilities.

(d) Discusses how the commission is fulfilling the requirements of subsection (4).

(e) Evaluates whether this subpart has been cost-effective.

(f) Provides a comparison of the cost effectiveness of the methods of an electric utility with 1,000,000 or more retail customers in this state as of January 1, 2008 obtaining renewable energy credits under the options described in section 33.

(g) Describes the impact of this subpart on employment in this state. The commission shall consult with other appropriate agencies of the department of energy, labor, and economic growth in the development of this information.

(h) Describes the effect of the percentage limits under section 27(7) on the development of advanced cleaner energy.

(i) Makes any recommendations the commission may have concerning amendments to this subpart, including changes in the percentage limits under section 27(7), or changes in the definition of renewable energy resource or renewable energy system to reflect environmentally preferable technology.

(6) The department of energy, labor, and economic growth shall maintain on the department's website a copy of the commission's most recent report under subsection (5).

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008;—Am. 2010, Act 174, Imd. Eff. Sept. 30, 2010.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1053 Failure to meet renewable energy credit standard by deadline; civil action; contested case; final order.

Sec. 53. (1) If an electric provider whose rates are regulated by the commission fails to meet a renewable energy credit standard by the applicable deadline, subject to any extensions under section 31, both of the following apply:

(a) The electric provider shall purchase sufficient renewable energy credits necessary to meet the renewable energy credit standard.

(b) The electric provider shall not recover from its ratepayers the cost of purchasing renewable energy credits under subdivision (a) if the commission finds that the electric provider did not make a good faith effort to meet the renewable energy standard, subject to any extensions under section 31.

(2) The attorney general or any customer of a cooperative electric utility that has elected to become member-regulated under the electric cooperative member-regulation act, 2008 PA 167, MCL 460.31 to 460.39, may commence a civil action for injunctive relief against such a cooperative electric utility if the electric provider fails to meet the applicable requirements of this subpart or an order issued or rule promulgated under this subpart.

(3) An action under subsection (2) shall be commenced in the circuit court for the circuit in which the principal office of the cooperative electric utility that has elected to become member-regulated is located. An action shall not be filed under subsection (2) unless the prospective plaintiff has given the prospective defendant and the commission at least 60 days' written notice of the prospective plaintiff's intent to sue, the

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basis for the suit, and the relief sought. Within 30 days after the prospective defendant receives written notice of the prospective plaintiff's intent to sue, the prospective defendant and plaintiff shall meet and make a good faith attempt to determine if there is a credible basis for the action. If both parties agree that there is a credible basis for the action, the prospective defendant shall take all reasonable and prudent steps necessary to comply with the applicable requirements of this subpart within 90 days of the meeting.

(4) In issuing a final order in an action brought under subsection (2), the court may award costs of litigation, including reasonable attorney and expert witness fees, to the prevailing or substantially prevailing party.

(5) Upon receipt of a complaint by an alternative electric supplier's customer or on the commission's own motion, the commission may conduct a contested case to review allegations that the alternative electric supplier has violated this subpart or an order issued or rule promulgated under this subpart. If the commission finds, after notice and hearing, that an alternative electric supplier has violated this subpart or an order issued or rule promulgated under this subpart, the commission shall do 1 or more of the following:

(a) Revoke the license of the alternative electric supplier.

(b) Issue a cease and desist order.

(c) Order the alternative electric supplier to pay a civil fine of not less than $5,000.00 or more than $50,000.00 for each violation.

(6) Upon receipt of a complaint by any customer of a municipally-owned electric utility or upon the commission's own motion, the commission may review allegations that the municipally-owned electric utility has violated this subpart or an order issued or rule promulgated under this subpart. If the commission finds, after notice and hearing, that a municipally-owned electric utility has violated this subpart or an order issued or rule promulgated under this subpart, the commission shall advise the attorney general. The attorney general may commence a civil action for injunctive relief against the municipally-owned electric utility in the circuit court for the circuit in which the principal office of the municipally-owned electric utility is located.

(7) In issuing a final order in an action brought under subsection (6), the court may award costs of litigation, including reasonable attorney and expert witness fees, to the prevailing or substantially prevailing party.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

SUBPART B.
ENERGY OPTIMIZATION

460.1071 Proposed energy optimization plan; filing; time period; goal; combining with renewable energy plan; provisions; limitation on expenditures.

Sec. 71. (1) A provider shall file a proposed energy optimization plan with the commission within the following time period:

(a) For a provider whose rates are regulated by the commission, 90 days after the commission enters a temporary order under section 171.

(b) For a cooperative electric utility that has elected to become member-regulated under the electric cooperative member regulation act, 2008 PA 167, MCL 460.31 to 460.39, or a municipally-owned electric utility, 120 days after the commission enters a temporary order under section 171.

(2) The overall goal of an energy optimization plan shall be to reduce the future costs of provider service to customers. In particular, an EO plan shall be designed to delay the need for constructing new electric generating facilities and thereby protect consumers from incurring the costs of such construction. The proposed energy optimization plan shall be subject to approval in the same manner as an electric provider's renewable energy plan under subpart A. A provider may combine its energy optimization plan with its renewable energy plan.

(3) An energy optimization plan shall do all of the following:

(a) Propose a set of energy optimization programs that include offerings for each customer class, including low income residential. The commission shall allow providers flexibility to tailor the relative amount of effort devoted to each customer class based on the specific characteristics of their service territory.

(b) Specify necessary funding levels.

(c) Describe how energy optimization program costs will be recovered as provided in section 89(2).

(d) Ensure, to the extent feasible, that charges collected from a particular customer rate class are spent on energy optimization programs for that rate class.

(e) Demonstrate that the proposed energy optimization programs and funding are sufficient to ensure the

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achievement of applicable energy optimization standards.

(f) Specify whether the number of megawatt hours of electricity or decatherms or MCFs of natural gas used in the calculation of incremental energy savings under section 77 will be weather-normalized or based on the average number of megawatt hours of electricity or decatherms or MCFs of natural gas sold by the provider annually during the previous 3 years to retail customers in this state. Once the plan is approved by the commission, this option shall not be changed.

(g) Demonstrate that the provider's energy optimization programs, excluding program offerings to low income residential customers, will collectively be cost-effective.

(h) Provide for the practical and effective administration of the proposed energy optimization programs. 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.

(i) Include a process for obtaining an independent expert evaluation of the actual energy optimization programs to verify the incremental energy savings from each energy optimization program for purposes of section 77. All such evaluations shall be subject to public review and commission oversight.

(4) Subject to subsection (5), an energy optimization plan may do 1 or more of the following:

(a) Utilize educational programs designed to alter consumer behavior or any other measures that can reasonably be used to meet the goals set forth in subsection (2).

(b) Propose to the commission measures that are designed to meet the goals set forth in subsection (1) and that provide additional customer benefits.

(5) Expenditures under subsection (4) shall not exceed 3% of the costs of implementing the energy optimization plan.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides:
"Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."
In subdivisions (a) and (b) of subsection (1), the references to "section 171" evidently should read "section 191".

460.1073 Energy optimization plan; approval by commission.

Sec. 73. (1) A provider's energy optimization plan shall be filed, reviewed, and approved or rejected by the commission and enforced subject to the same procedures that apply to a renewable energy plan.

(2) The commission shall not approve a proposed energy optimization plan unless the commission determines that the EO plan meets the utility system resource cost test and is reasonable and prudent. In determining whether the EO plan is reasonable and prudent, the commission shall review each element and consider whether it would reduce the future cost of service for the provider's customers. In addition, the commission shall consider at least all of the following:

(a) The specific changes in customers' consumption patterns that the proposed EO plan is attempting to influence.

(b) The cost and benefit analysis and other justification for specific programs and measures included in a proposed EO plan.

(c) Whether the proposed EO plan is consistent with any long-range resource plan filed by the provider with the commission.

(d) Whether the proposed EO plan will result in any unreasonable prejudice or disadvantage to any class of customers.

(e) The extent to which the EO plan provides programs that are available, affordable, and useful to all customers.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1075 Energy optimization plan; exceeding standard; authorization for commensurate financial incentive; payment; limitation.

Sec. 75. An energy optimization plan of a provider whose rates are regulated by the commission may authorize a commensurate financial incentive for the provider for exceeding the energy optimization performance standard. Payment of any financial incentive authorized in the EO plan is subject to the approval of the commission. The total amount of a financial incentive shall not exceed the lesser of the following amounts:

(a) 25% of the net cost reductions experienced by the provider's customers as a result of implementation of

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the energy optimization plan.

(b) 15% percent of the provider's actual energy efficiency program expenditures for the year.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides:
"Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."
In subdivision (b), "15% percent" evidently should read "15%".

460.1077 Energy savings; minimum energy optimization standards to be met by provider; determination of incremental energy savings; calculations; basis; substitution; limitations.

Sec. 77. (1) Except as provided in section 81 and subject to the sales revenue expenditure limits in section 89, an electric provider's energy optimization programs under this subpart shall collectively achieve the following minimum energy savings:

(a) Biennial incremental energy savings in 2008-2009 equivalent to 0.3% of total annual retail electricity sales in megawatt hours in 2007.

(b) Annual incremental energy savings in 2010 equivalent to 0.5% of total annual retail electricity sales in megawatt hours in 2009.

(c) Annual incremental energy savings in 2011 equivalent to 0.75% of total annual retail electricity sales in megawatt hours in 2010.

(d) Annual incremental energy savings in 2012, 2013, 2014, and 2015 and, subject to section 97, each year thereafter equivalent to 1.0% of total annual retail electricity sales in megawatt hours in the preceding year.

(2) If an electric provider uses load management to achieve energy savings under its energy optimization plan, the minimum energy savings required under subsection (1) shall be adjusted by an amount such that the ratio of the minimum energy savings to the sum of maximum expenditures under section 89 and the load management expenditures remains constant.

(3) A natural gas provider shall meet the following minimum energy optimization standards using energy efficiency programs under this subpart:

(a) Biennial incremental energy savings in 2008-2009 equivalent to 0.1% of total annual retail natural gas sales in decatherms or equivalent MCFs in 2007.

(b) Annual incremental energy savings in 2010 equivalent to 0.25% of total annual retail natural gas sales in decatherms or equivalent MCFs in 2009.

(c) Annual incremental energy savings in 2011 equivalent to 0.5% of total annual retail natural gas sales in decatherms or equivalent MCFs in 2010.

(d) Annual incremental energy savings in 2012, 2013, 2014, and 2015 and, subject to section 97, each year thereafter equivalent to 0.75% of total annual retail natural gas sales in decatherms or equivalent MCFs in the preceding year.

(4) Incremental energy savings under subsection (1) or (3) for the 2008-2009 biennium or any year thereafter shall be determined for a provider by adding the energy savings expected to be achieved during a 1-year period by energy optimization measures implemented during the 2008-2009 biennium or any year thereafter under any energy efficiency programs consistent with the provider's energy efficiency plan.

(5) For purposes of calculations under subsection (1) or (3), total annual retail electricity or natural gas sales in a year shall be based on 1 of the following at the option of the provider as specified in its energy optimization plan:

(a) The number of weather-normalized megawatt hours or decatherms or equivalent MCFs sold by the provider to retail customers in this state during the year preceding the biennium or year for which incremental energy savings are being calculated.

(b) The average number of megawatt hours or decatherms or equivalent MCFs sold by the provider during the 3 years preceding the biennium or year for which incremental energy savings are being calculated.

(6) For any year after 2012, an electric provider may substitute renewable energy credits associated with renewable energy generated that year from a renewable energy system constructed after the effective date of this act, advanced cleaner energy credits other than credits from industrial cogeneration using industrial waste energy, load management that reduces overall energy usage, or a combination thereof for energy optimization credits otherwise required to meet the energy optimization performance standard, if the substitution is approved by the commission. The commission shall not approve a substitution unless the commission determines that the substitution is cost-effective and, if the substitution involves advanced cleaner energy credits, that the advanced cleaner energy system provides carbon dioxide emissions benefits. In determining whether the substitution of advanced cleaner energy credits is cost-effective compared to other available energy optimization measures, the commission shall consider the environmental costs related to the advanced cleaner energy system, including the costs of environmental control equipment or greenhouse gas constraints

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or taxes. The commission's determinations shall be made after a contested case hearing that includes consultation with the department of environmental quality on the issue of carbon dioxide emissions benefits, if relevant, and environmental costs.

(7) Renewable energy credits, advanced cleaner energy credits, load management that reduces overall energy usage, or a combination thereof shall not be used by a provider to meet more than 10% of the energy optimization standard. Substitutions for energy optimization credits shall be made at the following rates per energy optimization credit:

(a) 1 renewable energy credit.

(b) 1 advanced cleaner energy credit from plasma arc gasification.

(c) 4 advanced cleaner energy credits other than from plasma arc gasification.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1079 Advanced cleaner energy systems; location.

Sec. 79. Advanced cleaner energy systems that are the source of the advanced cleaner energy credits used under section 77 shall be either located outside this state in the service territory of any electric provider that is not an alternative electric supplier or located anywhere in this state.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1081 Applicability of section to certain electric providers; establishment of alternative energy optimization standards; petition.

Sec. 81. (1) This section applies to electric providers that meet both of the following requirements:

(a) Serve not more than 200,000 customers in this state.

(b) Had average electric rates for residential customers using 1,000 kilowatt hours per month that are less than 75% of the average electric rates for residential customers using 1,000 kilowatt hours per month for all electric utilities in this state, according to the January 1, 2007, "comparison of average rates for MPSC-regulated electric utilities in Michigan" compiled by the commission.

(2) Beginning 2 years after a provider described in subsection (1) begins implementation of its energy optimization plan, the provider may petition the commission to establish alternative energy optimization standards. The petition shall identify the efforts taken by the provider to meet the electric provider energy optimization standards and demonstrate why the energy optimization standards cannot reasonably be met with energy optimization programs that are collectively cost-effective. If the commission finds that the petition meets the requirements of this subsection, the commission shall revise the energy optimization standards as applied to that electric provider to a level that can reasonably be met with energy optimization programs that are collectively cost-effective.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1083 Energy optimization credit; grant; expiration; carrying forward excess credits.

Sec. 83. (1) One energy optimization credit shall be granted to a provider for each megawatt hour of annual incremental energy savings achieved through energy optimization.

(2) An energy optimization credit expires as follows:

(a) When used by a provider to comply with its energy optimization performance standard.

(b) When substituted for a renewable energy credit under section 27.

(c) As provided in subsection (3).

(3) If a provider's incremental energy savings in the 2008-2009 biennium or any year thereafter exceed the applicable energy optimization standard, the associated energy optimization credits may be carried forward and applied to the next year's energy optimization standard. However, all of the following apply:

(a) The number of energy optimization credits carried forward shall not exceed 1/3 of the next year's standard. Any energy optimization credits carried forward to the next year shall expire that year. Any remaining energy optimization credits shall expire at the end of the year in which the incremental energy savings were achieved, unless substituted, by an electric provider, for renewable energy credits under section 27.

(b) Energy optimization credits shall not be carried forward if, for its performance during the same

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biennium or year, the provider accepts a financial incentive under section 75. The excess energy optimization credits shall expire at the end of the year in which the incremental energy savings were achieved, unless substituted, by an electric provider, for renewable energy credits under section 27.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1085 Energy optimization credit not transferable; program for transferability of credits; recommendations.

Sec. 85. (1) An energy optimization credit is not transferable to another entity.

(2) The commission, in the 2011 report under section 97, shall make recommendations concerning a program for transferability of energy optimization credits.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1087 Certification and tracking program.

Sec. 87. The commission shall establish an energy optimization credit certification and tracking program. The certification and tracking program may be contracted to and performed by a third party through a system of competitive bidding. The program shall include all of the following:

(a) A determination of the date after which energy optimization must be achieved to be eligible for an energy optimization credit.

(b) A method for ensuring that each energy optimization credit substituted for a renewable energy credit under section 27 or carried forward under section 83 is properly accounted for.

(c) If the system is established by the commission, allowance for issuance and use of energy optimization credits in electronic form.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1089 Recovery of costs; limitation; capitalization costs; funding level for low income residential programs; authorization of natural gas provider to implement revenue decoupling mechanism; limitation on expenditures of total utility retail sales revenues; percentages.

Sec. 89. (1) The commission shall allow a provider whose rates are regulated by the commission to recover the actual costs of implementing its approved energy optimization plan. However, costs exceeding the overall funding levels specified in the energy optimization plan are not recoverable unless those costs are reasonable and prudent and meet the utility system resource cost test. Furthermore, costs for load management undertaken pursuant to an energy optimization plan are not recoverable as energy optimization program costs under this section, but may be recovered as described in section 95.

(2) Under subsection (1), costs shall be recovered from all natural gas customers and from residential electric customers by volumetric charges, from all other metered electric customers by per-meter charges, and from unmetered electric customers by an appropriate charge, applied to utility bills as an itemized charge.

(3) For the electric primary customer rate class customers of electric providers and customers of natural gas providers with an aggregate annual natural gas billing demand of more than 100,000 decatherms or equivalent MCFs for all sites in the natural gas utility's service territory, the cost recovery under subsection (1) shall not exceed 1.7% of total retail sales revenue for that customer class. For electric secondary customers and for residential customers, the cost recovery shall not exceed 2.2% of total retail sales revenue for those customer classes.

(4) Upon petition by a provider whose rates are regulated by the commission, the commission shall authorize the provider to capitalize all energy efficiency and energy conservation equipment, materials, and installation costs with an expected economic life greater than 1 year incurred in implementing its energy optimization plan, including such costs paid to third parties, such as customer rebates and customer incentives. The provider shall also propose depreciation treatment with respect to its capitalized costs in its energy optimization plan, and the commission shall order reasonable depreciation treatment related to these capitalized costs. A provider shall not capitalize payments made to an independent energy optimization program administrator under section 91.

(5) The established funding level for low income residential programs shall be provided from each

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customer rate class in proportion to that customer rate class's funding of the provider's total energy optimization programs. Charges shall be applied to distribution customers regardless of the source of their electricity or natural gas supply.

(6) The commission shall authorize a natural gas provider that spends a minimum of 0.5% of total natural gas retail sales revenues, including natural gas commodity costs, in a year on commission-approved energy optimization programs to implement a symmetrical revenue decoupling true-up mechanism that adjusts for sales volumes that are above or below the projected levels that were used to determine the revenue requirement authorized in the natural gas provider's most recent rate case. In determining the symmetrical revenue decoupling true-up mechanism utilized for each provider, the commission shall give deference to the proposed mechanism submitted by the provider. The commission may approve an alternative mechanism if the commission determines that the alternative mechanism is reasonable and prudent. The commission shall authorize the natural gas provider to decouple rates regardless of whether the natural gas provider's energy optimization programs are administered by the provider or an independent energy optimization program administrator under section 91.

(7) A natural gas provider or an electric provider shall not spend more than the following percentage of total utility retail sales revenues, including electricity or natural gas commodity costs, in any year to comply with the energy optimization performance standard without specific approval from the commission:

(a) In 2009, 0.75% of total retail sales revenues for 2007.

(b) In 2010, 1.0% of total retail sales revenues for 2008.

(c) In 2011, 1.5% of total retail sales revenues for 2009.

(d) In 2012 and each year thereafter, 2.0% of total retail sales revenues for the 2 years preceding.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1091 Alternative compliance payment.

Sec. 91. (1) Except for section 89(6), sections 71 to 89 do not apply to a provider that pays the following percentage of total utility sales revenues, including electricity or natural gas commodity costs, each year to an independent energy optimization program administrator selected by the commission:

(a) In 2009, 0.75% of total retail sales revenues for 2007.

(b) In 2010, 1.0% of total retail sales revenues for 2008.

(c) In 2011, 1.5% of total retail sales revenues for 2009.

(d) In 2012 and each year thereafter, 2.0% of total retail sales revenues for the 2 years preceding.

(2) An alternative compliance payment received from a provider by the energy optimization program administrator under subsection (1) shall be used to administer energy efficiency programs for the provider. Money unspent in a year shall be carried forward to be spent in the subsequent year.

(3) The commission shall allow a provider to recover an alternative compliance payment under subsection (1). This cost shall be recovered from residential customers by volumetric charges, from all other metered customers by per-meter charges, and from unmetered customers by an appropriate charge, applied to utility bills.

(4) An alternative compliance payment under subsection (1) shall only be used to fund energy optimization programs for that provider's customers. To the extent feasible, charges collected from a particular customer rate class and paid to the energy optimization program administrator under subsection (1) shall be devoted to energy optimization programs and services for that rate class.

(5) Money paid to the energy optimization program administrator under subsection (1) and not spent by the administrator that year shall remain available for expenditure the following year, subject to the requirements of subsection (4).

(6) The commission shall select a qualified nonprofit organization to serve as an energy optimization program administrator under this section, through a competitive bid process.

(7) The commission shall arrange for a biennial independent audit of the energy optimization program administrator.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1093 Self-directed energy optimization plan.

Sec. 93. (1) An eligible electric customer is exempt from charges the customer would otherwise incur as an electric customer under section 89 or 91 if the customer files with its electric provider and implements a

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self-directed energy optimization plan as provided in this section.

(2) Subject to subsection (3), an electric customer is not eligible under subsection (1) unless it is a commercial or industrial electric customer and meets all of the following requirements:

(a) In 2009 or 2010, the customer must have had an annual peak demand in the preceding year of at least 2 megawatts at each site to be covered by the self-directed plan or 10 megawatts in the aggregate at all sites to be covered by the plan.

(b) In 2011, 2012, or 2013, the customer or customers must have had an annual peak demand in the preceding year of at least 1 megawatt at each site to be covered by the self-directed plan or 5 megawatts in the aggregate at all sites to be covered by the plan.

(c) In 2014 or any year thereafter, the customer or customers must have had an annual peak demand in the preceding year of at least 1 megawatt in the aggregate at all sites to be covered by the self-directed plan.

(3) The eligibility requirements of subsection (2) do not apply to a commercial or industrial customer that installs or modifies an electric energy efficiency improvement under a property assessed clean energy program pursuant to the property assessed clean energy act.

(4) The commission shall by order establish the rates, terms, and conditions of service for customers related to this subpart.

(5) The commission shall by order do all of the following:

(a) Require a customer to utilize the services of an energy optimization service company to develop and implement a self-directed plan. This subdivision does not apply to a customer that had an annual peak demand in the preceding year of at least 2 megawatts at each site to be covered by the self-directed plan or 10 megawatts in the aggregate at all sites to be covered by the self-directed plan.

(b) Provide a mechanism to recover from customers under subdivision (a) the costs for provider level review and evaluation.

(c) Provide a mechanism to cover the costs of the low income energy optimization program under section 89.

(6) All of the following apply to a self-directed energy optimization plan under subsection (1):

(a) The self-directed plan shall be a multiyear plan for an ongoing energy optimization program.

(b) The self-directed plan shall provide for aggregate energy savings that each year meet or exceed the energy optimization standards based on the electricity purchases in the previous year for the site or sites covered by the self-directed plan.

(c) Under the self-directed plan, energy optimization shall be calculated based on annual electricity usage. Annual electricity usage shall be normalized so that none of the following are included in the calculation of the percentage of incremental energy savings:

(*i*) Changes in electricity usage because of changes in business activity levels not attributable to energy optimization.

(*ii*) Changes in electricity usage because of the installation, operation, or testing of pollution control equipment.

(d) The self-directed plan shall specify whether electricity usage will be weather-normalized or based on the average number of megawatt hours of electricity sold by the electric provider annually during the previous 3 years to retail customers in this state. Once the self-directed plan is submitted to the provider, this option shall not be changed.

(e) The self-directed plan shall outline how the customer intends to achieve the incremental energy savings specified in the self-directed plan.

(7) A self-directed energy optimization plan shall be incorporated into the relevant electric provider's energy optimization plan. The self-directed plan and information submitted by the customer under subsection (10) are confidential and exempt from disclosure under the freedom of information act, 1976 PA 442, MCL 15.231 to 15.246. Projected energy savings from measures implemented under a self-directed plan shall be attributed to the relevant provider's energy optimization programs for the purposes of determining annual incremental energy savings achieved by the provider under section 77 or 81, as applicable.

(8) Once a customer begins to implement a self-directed plan at a site covered by the self-directed plan, that site is exempt from energy optimization program charges under section 89 or 91 and is not eligible to participate in the relevant electric provider's energy optimization programs.

(9) A customer implementing a self-directed energy optimization plan under this section shall annually submit to the customer's electric provider a brief report documenting the energy efficiency measures taken under the self-directed plan during the previous year, and the corresponding energy savings that will result. The report shall provide sufficient information for the provider and the commission to monitor progress toward the goals in the self-directed plan and to develop reliable estimates of the energy savings that are being achieved from self-directed plans. The customer report shall indicate the level of incremental energy savings

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achieved for the year covered by the report and whether that level of incremental energy savings meets the goal set forth in the customer's self-directed plan. If a customer submitting a report under this subsection wishes to amend its self-directed plan, the customer shall submit with the report an amended self-directed plan. A report under this subsection shall be accompanied by an affidavit from a knowledgeable official of the customer that the information in the report is true and correct to the best of the official's knowledge and belief. If the customer has retained an independent energy optimization service company, the requirements of this subsection shall be met by the energy optimization service company.

(10) An electric provider shall provide an annual report to the commission that identifies customers implementing self-directed energy optimization plans and summarizes the results achieved cumulatively under those self-directed plans. The commission may request additional information from the electric provider. If the commission has sufficient reason to believe the information is inaccurate or incomplete, it may request additional information from the customer to ensure accuracy of the report.

(11) If the commission determines after a contested case hearing that the minimum energy optimization goals under subsection (6)(b) have not been achieved at the sites covered by a self-directed plan, in aggregate, the commission shall order the customer or customers collectively to pay to this state an amount calculated as follows:

(a) Determine the proportion of the shortfall in achieving the minimum energy optimization goals under subsection (6)(b).

(b) Multiply the figure under subdivision (a) by the energy optimization charges from which the customer or customers collectively were exempt under subsection (1).

(c) Multiply the product under subdivision (b) by a number not less than 1 or greater than 2, as determined by the commission based on the reasons for failure to meet the minimum energy optimization goals.

(12) If a customer has submitted a self-directed plan to an electric provider, the customer, the customer's energy optimization service company, if applicable, or the electric provider shall provide a copy of the self-directed plan to the commission upon request.

(13) By September 1, 2010, following a public hearing, the commission shall establish an approval process for energy optimization service companies. The approval process shall ensure that energy optimization service companies have the expertise, resources, and business practices to reliably provide energy optimization services that meet the requirements of this section. The commission may adopt by reference the past or current standards of a national or regional certification or licensing program for energy optimization service companies. However, the approval process shall also provide an opportunity for energy optimization service companies that are not recognized by such a program to be approved by posting a bond in an amount determined by the commission and meeting any other requirements adopted by the commission for the purposes of this subsection. The approval process for energy optimization service companies shall require adherence to a code of conduct governing the relationship between energy optimization service companies and electric providers.

(14) The department of energy, labor, and economic growth shall maintain on the department's website a list of energy optimization service companies approved under subsection (13).

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008;—Am. 2010, Act 269, Imd. Eff. Dec. 14, 2010.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1095 Duties and authority of commission.

Sec. 95. (1) The commission shall do all of the following:

(a) Promote load management in appropriate circumstances.

(b) Actively pursue increasing public awareness of load management techniques.

(c) Engage in regional load management efforts to reduce the annual demand for energy whenever possible.

(d) Work with residential, commercial, and industrial customers to reduce annual demand and conserve energy through load management techniques and other activities it considers appropriate. The commission shall file a report with the legislature by December 31, 2010 on the effort to reduce peak demand. The report shall also include any recommendations for legislative action concerning load management that the commission considers necessary.

(2) The commission may allow a provider whose rates are regulated by the commission to recover costs for load management undertaken pursuant to an energy optimization plan through base rates as part of a proceeding under section 6 of 1939 PA 3, MCL 460.6, if the costs are reasonable and prudent and meet the utility systems resource cost test.

(3) The commission shall do all of the following:

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(a) Promote energy efficiency and energy conservation.

(b) Actively pursue increasing public awareness of energy conservation and energy efficiency.

(c) Actively engage in energy conservation and energy efficiency efforts with providers.

(d) Engage in regional efforts to reduce demand for energy through energy conservation and energy efficiency.

(e) By November 30, 2009, and each year thereafter, submit to the standing committees of the senate and house of representatives with primary responsibility for energy and environmental issues a report on the effort to implement energy conservation and energy efficiency programs or measures. The report may include any recommendations of the commission for energy conservation legislation.

(4) This subpart does not limit the authority of the commission, following an integrated resource plan proceeding and as part of a rate-making process, to allow a provider whose rates are regulated by the commission to recover for additional prudent energy efficiency and energy conservation measures not included in the provider's energy optimization plan if the provider has met the requirements of the energy optimization program.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1097 Compliance with energy optimization standards; reports.

Sec. 97. (1) By a time determined by the commission, each provider shall submit to the commission an annual report that provides information relating to the actions taken by the provider to comply with the energy optimization standards. By that same time, a municipally-owned electric utility shall submit a copy of the report to the governing body of the municipally-owned electric utility, and a cooperative electric utility shall submit a copy of the report to its board of directors.

(2) An annual report under subsection (1) shall include all of the following information:

(a) The number of energy optimization credits that the provider generated during the reporting period.

(b) Expenditures made in the past year and anticipated future expenditures to comply with this subpart.

(c) Any other information that the commission determines necessary.

(3) Concurrent with the submission of each report under subsection (1), a municipally-owned electric utility shall submit a summary of the report to its customers in their bills with a bill insert and to its governing body. Concurrent with the submission of each report under subsection (1), a cooperative electric utility shall submit a summary of the report to its members in a periodical issued by an association of rural electric cooperatives and to its board of directors. A municipally-owned electric utility or cooperative electric provider shall make a copy of the report available at its office and shall post a copy of the report on its website. A summary under this section shall indicate that a copy of the report is available at the office or website.

(4) Not later than 1 year after the effective date of this act, the commission shall submit a report on the potential rate impacts on all classes of customers if the electric providers whose rates are regulated by the commission decouple rates. The report shall be submitted to the standing committees of the senate and house of representatives with primary responsibility for energy and environmental issues. The commission's report shall review whether decoupling would be cost-effective and would reduce the overall consumption of fossil fuels in this state.

(5) By October 1, 2010, the commission shall submit to the committees described in subsection (4) any recommendations for legislative action to increase energy conservation and energy efficiency based on reports under subsection (1), the energy optimization plans approved under section 89, and the commission's own investigation. By March 1, 2013, the commission shall submit to those committees a report on the progress of electric providers in achieving reductions in energy use. The commission may use an independent evaluator to review the submissions by electric providers.

(6) By February 15, 2011 and each year thereafter and by September 30, 2015, the commission shall submit to the committees described in subsection (4) a report that evaluates and determines whether this subpart and subpart A have each been cost-effective and makes recommendations to the legislature. The report shall be combined with any concurrent report by the commission under section 51.

(7) The report required by September 30, 2015 under subsection (6) shall also review the opportunities for additional cost-effective energy optimization programs and make any recommendations the commission may have for legislation providing for the continuation, expansion, or reduction of energy optimization standards. That report shall also include the commission's determinations of all of the following:

(a) The percentage of total energy savings required by the energy optimization standards that have actually been achieved by each electric provider and by all electric providers cumulatively.

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(b) The percentage of total energy savings required by the energy optimization standards that have actually been achieved by each natural gas provider and by all natural gas providers cumulatively.

(c) For each provider, whether that provider's program under this subpart has been cost-effective.

(8) If the commission determines in its report required by September 30, 2015 under subsection (6) or determines subsequently that a provider's energy optimization program under this subpart has not been cost-effective, the provider's program is suspended beginning 180 days after the date of the report or subsequent determination. If a provider's energy optimization program is suspended under this subsection, both of the following apply:

(a) The provider shall maintain cumulative incremental energy savings in megawatt hours or decatherms or equivalent MCFs in subsequent years at the level actually achieved during the year preceding the year in which the commission's determination is made.

(b) The provider shall not impose energy optimization charges in subsequent years except to the extent necessary to recover unrecovered energy optimization expenses incurred under this subpart before suspension of the provider's program.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

SUBPART C.
MISCELLANEOUS

460.1111 Municipally-owned electric utilities; new authority not granted to commission.

Sec. 111. This part does not provide the commission with new authority with respect to municipally-owned electric utilities except to the extent expressly provided in this act.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1113 Pollution control equipment; use of electricity or natural gas in installation, operation, or testing; exemption.

Sec. 113. Notwithstanding any other provision of this part, electricity or natural gas used in the installation, operation, or testing of any pollution control equipment is exempt from the requirements of, and calculations of compliance required under, this part.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

PART 3.
STATE GOVERNMENT ENERGY EFFICIENCY AND CONSERVATION

460.1131 Reduction in state government grid-based energy purchases; goal.

Sec. 131. It is the goal of this state to reduce state government grid-based energy purchases by 25% by 2015, when compared to energy use and energy purchases for the state fiscal year ending September 30, 2002.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1133 Department of management and budget; duties.

Sec. 133. The department of management and budget, after consultation with the energy office in the department of labor and economic growth, shall do all of the following:

(a) Establish a program for energy analyses of each state building that identifies opportunities for reduced energy use, including the cost and energy savings for each such opportunity, and includes a completion schedule. Under the program, the energy star assessment and rating program shall be extended to all buildings owned or leased by this state. An energy analysis of each such building shall be conducted at least every 5 years. Within 1 year after the effective date of this act, an energy analysis shall be conducted of any such building for which an energy analysis was not conducted within 5 years before the effective date of this act. If building or facility modifications are allowed under the terms of a lease, the state shall undertake any recommendations resulting from an energy audit to those facilities if the recommendations will save money.

(b) Examine the cost and benefit of using LEED building code standards when constructing or remodeling

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a state building.

(c) Before the state leases a building, examine the cost and benefit of leasing a building that meets LEED building codes standards, or remodeling a building to meet such standards. The state shall take into consideration whether a building has historical, architectural, or cultural significance that could be harmed by a lease not being renewed solely based on the building's failure to meet LEED criteria.

(d) Assist each state department in appointing an energy reduction coordinator to work with the department of management and budget and the state energy office to reduce state energy use.

(e) Ensure that, during any renovation or construction of a state building, energy efficient products are used whenever possible and that the state purchases energy efficient products whenever possible.

(f) Implement a program to educate state employees on how to conserve energy. The energy office and the department of management and budget shall update the program every 3 years.

(g) Use more cost-effective lighting technologies, geothermal heat pumps, and other cost-effective technologies to conserve energy.

(h) Reduce state government energy use during peak summer energy use seasons with the goal of achieving reductions beginning in 2010.

(i) Create a web-based system for tracking energy efficiency and energy conservation projects occurring within state government.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

PART 4.

WIND ENERGY RESOURCE ZONE

460.1141 Definitions.

Sec. 141. As used in this part:

(a) "Construction" means any substantial action constituting placement or erection of the foundations or structures supporting a transmission line. Construction does not include preconstruction activity or the addition of circuits to an existing transmission line.

(b) "Route" means real property on or across which a transmission line is constructed or proposed to be constructed.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1143 Wind energy resource zone board; membership.

Sec. 143. Within 60 days after the effective date of this act, the commission shall create the wind energy resource zone board. The board shall consist of 9 members, as follows:

(a) 1 member representing the commission.

(b) 2 members representing the electric utility industry.

(c) 1 member representing alternative electric suppliers.

(d) 1 member representing the attorney general.

(e) 1 member representing the renewable energy industry.

(f) 1 member representing cities and villages.

(g) 1 member representing townships.

(h) 1 member representing independent transmission companies.

(i) 1 member representing a statewide environmental organization.

(j) 1 member representing the public at large.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1145 Wind energy resource zone board; powers, duties, and decision-making authority; report.

Sec. 145. (1) The wind energy resource zone board shall exercise its powers, duties, and decision-making authority under this part independently of the commission.

(2) The board shall do all of the following:

(a) In consultation with local units of government, study all of the following:

(*i*) Wind energy production potential and the viability of wind as a source of commercial energy generation

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in this state.

(*ii*) Availability of land in this state for potential utilization by wind energy conversion systems.

(b) Conduct modeling and other studies related to wind energy, including studying existing wind energy conversion systems, estimates for additional wind energy conversion system development, and average annual recorded wind velocity levels. The board's studies should include examination of wind energy conversion system requests currently in the applicable regional transmission organization's generator interconnection queue.

(3) Within 240 days after the effective date of this act, issue a proposed report detailing its findings under subsection (2). The board's proposed report shall include the following:

(a) A list of regions in the state with the highest level of wind energy harvest potential.

(b) A description of the estimated maximum and minimum wind generating capacity in megawatts that can be installed in each identified region of this state.

(c) An estimate of the annual maximum and minimum energy production potential for each identified region of this state.

(d) An estimate of the maximum wind generation capacity already in service in each identified region of this state.

(4) The board shall submit a copy of the proposed report under subsection (3) to the legislative body of each local unit of government located in whole or part within any region listed in subsection (3)(a). The legislative body may submit comments to the board on the proposed report within 63 days after the proposed report was submitted to the legislative body. After the deadline for submitting comments on the proposed report, the board shall hold a public hearing on the proposed report. The board may hold a separate public hearing in each region listed under subsection (3)(a). The board shall give written notice of a public hearing under this subsection to the legislative body of each local unit of government located in whole or part within the region or regions that are the subject of the hearing and shall publish the notice in a newspaper of general circulation within the region or regions.

(5) Within 45 days after satisfying the requirements of subsection (4), the board shall issue a final report as described in subsection (3).

(6) After the board issues its report under subsection (5), electric utilities, affiliated transmission companies and independent transmission companies with transmission facilities within or adjacent to regions of this state identified in the board's report shall identify existing or new transmission infrastructure necessary to deliver maximum and minimum wind energy production potential for each of those regions and shall submit this information to the board for its review.

(7) The board is dissolved 90 days after it issues its report under subsection (5).

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1147 Wind energy resource zone; designation; creation; preparation of order; report.

Sec. 147. (1) Based on the board's findings as reported under section 145, the commission shall, through a final order, designate the area of this state likely to be most productive of wind energy as the primary wind energy resource zone and may designate additional wind energy resource zones.

(2) A wind energy resource zone shall be created on land that is entirely within the boundaries of this state and shall encompass a natural geographical area or region of this state. A wind zone shall exclude land that is zoned residential when the board's proposed report is issued under section 145, unless the land is subsequently zoned for nonresidential use.

(3) In preparing its order, the commission shall evaluate projected costs and benefits in terms of the long-term production capacity and long-term needs for transmission. The order shall ensure that the designation of a wind zone does not represent an unreasonable threat to the public convenience, health, and safety and that any adverse impacts on private property values are minimal. In determining the location of a wind zone, the commission shall consider all of the following factors pursuant to the findings of the board:

(a) Average annual wind velocity levels in the region.

(b) Availability of land in the region that may be utilized by wind energy conversion systems.

(c) Existing wind energy conversion systems in the region.

(d) Potential for megawatt output of combined wind energy conversion systems in the region.

(e) Other necessary and appropriate factors as to which findings are required by the commission.

(4) In conjunction with the issuance of its order under subsection (1), the commission shall submit to the legislature a report on the effect that setback requirements and noise limitations under local zoning or other ordinances may have on wind energy development in wind energy resource zones. The report shall include

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any recommendations the commission may have for legislation addressing these issues. Before preparing the report, the commission shall conduct hearings in various areas of the state to receive public comment on the report.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1149 Electric utility, affiliated transmission company, or independent transmission company; expedited siting certificate; application; approvals.

Sec. 149. (1) To facilitate the transmission of electricity generated by wind energy conversion systems located in wind energy resource zones, the commission may issue an expedited siting certificate for a transmission line to an electric utility, affiliated transmission company, or independent transmission company as provided in this part.

(2) An electric utility, affiliated transmission company, or independent transmission company may apply to the commission for an expedited siting certificate. An applicant may withdraw an application at any time.

(3) Before filing an application for an expedited siting certificate for a proposed transmission line under this part, an electric utility, affiliated transmission company, or independent transmission company must receive any required approvals from the applicable regional transmission organization for the proposed transmission line.

(4) Sixty days before seeking approval from the applicable regional transmission organization for a transmission line as described in subsection (3), an electric utility, affiliated transmission company, or independent transmission company shall notify the commission in writing that it will seek the approval.

(5) The commission shall represent this state's interests in all proceedings before the applicable regional transmission organization for which the commission receives notice under subsection (4).

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1151 Expedited siting certificate; application; contents.

Sec. 151. An application for an expedited siting certificate shall contain all of the following:

(a) Evidence that the proposed transmission line received any required approvals from the applicable regional transmission organization.

(b) The planned date for beginning construction of the proposed transmission line.

(c) A detailed description of the proposed transmission line, its route, and its expected configuration and use.

(d) Information addressing potential effects of the proposed transmission line on public health and safety.

(e) Information indicating that the proposed transmission line will comply with all applicable state and federal environmental standards, laws, and rules.

(f) A description and evaluation of 1 or more alternate transmission line routes and a statement of why the proposed route was selected.

(g) Other information reasonably required by commission rules.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1153 Notice; conduct of proceeding; determination by commission that requirements are met; precedence; certificate as conclusive and binding; time period for granting or denying certificate.

Sec. 153. (1) Upon applying for a certificate, an electric utility, affiliated transmission company, or independent transmission company shall give public notice in the manner and form the commission prescribes of an opportunity to comment on and participate in a contested case with respect to the application. Notice shall be published in a newspaper of general circulation in the relevant wind energy resource zone within a reasonable time period after an application is provided to the commission and shall be sent to each affected municipality, electric utility, affiliated transmission company, and independent transmission company and each affected landowner on whose property a portion of the proposed transmission line will be constructed. The notice shall be written in plain, nontechnical, and easily understood terms and shall contain a title that includes the name of the electric utility, affiliated transmission company, or independent transmission company and the words "Notice of Intent to Construct a Transmission Line to Serve a Wind Energy Resource

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Zone".

(2) The commission shall conduct a proceeding on the application for an expedited siting certificate as a contested case under the administrative procedures act of 1969, 1969 PA 306, MCL 24.201 to 24.328. Upon receiving an application for a certificate, each affected municipality and each affected landowner shall be granted full intervener status as of right in commission proceedings concerning the proposed transmission lines.

(3) The commission shall grant an expedited siting certificate if it determines that all of the following requirements are met:

(a) The proposed transmission line will facilitate transmission of electricity generated by wind energy conversion systems located in a wind energy resource zone.

(b) The proposed transmission line has received federal approval.

(c) The proposed transmission line does not represent an unreasonable threat to the public convenience, health, and safety.

(d) The proposed transmission line will be of appropriate capability to enable the wind potential of the wind energy resource zone to be realized.

(e) The proposed or alternate route to be authorized by the expedited siting certificate is feasible and reasonable.

(4) If the commission grants an expedited siting certificate for a transmission line under this part, the certificate takes precedence over a conflicting local ordinance, law, rule, regulation, policy, or practice that prohibits or regulates the location or construction of the transmission line. A zoning ordinance or limitation imposed after an electric utility, affiliated transmission company, or independent transmission company files for a certificate shall not limit or impair the transmission line's construction, operation, or maintenance.

(5) In an eminent domain or other related proceeding arising out of or related to a transmission line for which a certificate is issued, a certificate issued under this act is conclusive and binding as to the public convenience and necessity for that transmission line and its compatibility with the public health and safety or any zoning or land use requirements in effect when the application was filed.

(6) The commission has a maximum of 180 days to grant or deny an expedited siting certificate under this section.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1155 Annual report.

Sec. 155. The commission shall make an annual report, summarizing the impact of establishing wind energy resource zones, expedited transmission line siting applications, estimates for future wind generation within wind zones, and recommendations for program enhancements or expansion, to the governor and the legislature on or before the first Monday of March of each year.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1157 Construction of transmission line not prohibited.

Sec. 157. This part does not prohibit an electric utility, affiliated transmission company, or independent transmission company from constructing a transmission line without obtaining an expedited siting certificate.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1159 Commission order subject to review; administration of part.

Sec. 159. (1) A commission order relating to any matter provided for under this part is subject to review as provided in section 26 of 1909 PA 300, MCL 462.26.

(2) In administering this part, the commission has only those powers and duties granted to the commission under this part.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1161 Eminent domain not conferred.

Sec. 161. This part does not confer the power of eminent domain.

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History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

PART 5.
NET METERING

460.1171 "Electric utility" defined.

Sec. 171. As used in this part, "electric utility" means any person or entity whose rates are regulated by the commission for the purpose of selling electricity to retail customers in this state.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1173 Statewide net metering program; establishment; order; rules; 1 percent requirement; selection of participating customers; provisions; maintenance of records.

Sec. 173. (1) The commission shall establish a statewide net metering program by order issued not later than 180 days after the effective date of this act. No later than 180 days after the effective date of this act, the commission shall promulgate rules regarding any time limits on the submission of net metering applications or inspections of net metering equipment and any other matters the commission considers necessary to implement this part. Any rules adopted regarding time limits for approval of parallel operation shall recognize reliability and safety complications including those arising from equipment saturation, use of multiple technologies, and proximity to synchronous motor loads. The program shall apply to all electric utilities and alternative electric suppliers in this state. Except as otherwise provided under this part, customers of any class are eligible to interconnect eligible electric generators with the customer's local electric utility and operate the generators in parallel with the distribution system. The program shall be designed for a period of not less than 10 years and limit each customer to generation capacity designed to meet only the customer's electric needs. The commission may waive the application, interconnection, and installation requirements of this part for customers participating in the net metering program under the commission's March 29, 2005 order in case no. U-14346.

(2) An electric utility or alternative electric supplier is not required to allow for net metering that is greater than 1% of its in-state peak load for the preceding calendar year. The utility or supplier shall notify the commission if its net metering program reaches the 1% requirement under this subsection. The 1% limit under this subsection shall be allocated as follows:

(a) No more than 0.5% for customers with a system capable of generating 20 kilowatts or less.

(b) No more than 0.25% for customers with a system capable of generating more than 20 kilowatts but not more than 150 kilowatts.

(c) No more than 0.25% for customers with a system capable of generating more than 150 kilowatts.

(3) Selection of customers for participation in the net metering program shall be based on the order in which the applications for participation in the net metering program are received by the electric utility or alternative electric supplier.

(4) An electric utility or alternative electric supplier shall not refuse to provide or discontinue electric service to a customer solely for the reason that the customer participates in the net metering program.

(5) The program created under subsection (1) shall include all of the following:

(a) Statewide uniform interconnection requirements for all eligible electric generators. The interconnection requirements shall be designed to protect electric utility workers and equipment and the general public.

(b) Net metering equipment and its installation must meet all current local and state electric and construction code requirements. Any equipment that is certified by a nationally recognized testing laboratory to IEEE 1547.1 testing standards and in compliance with UL 1741 scope 1.1A, effective May 7, 2007, and installed in compliance with this part is considered to be eligible equipment. Within the time provided by the commission in rules promulgated under subsection (1) and consistent with good utility practice, protection of electric utility workers, protection of electric utility equipment, and protection of the general public, an electric utility may study, confirm, and ensure that an eligible electric generator installation at the customer's site meets the IEEE 1547 anti-islanding requirements. Utility testing and approval of the interconnection and execution of a parallel operating agreement must be completed prior to the equipment operating in parallel with the distribution system of the utility.

(c) A uniform application form and process to be used by all electric utilities and alternative electric suppliers in this state. Customers who are served by an alternative electric supplier shall submit a copy of the application to the electric utility for the customer's service area.

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(d) Net metering customers with a system capable of generating 20 kilowatts or less qualify for true net metering.

(e) Net metering customers with a system capable of generating more than 20 kilowatts qualify for modified net metering.

(6) Each electric utility and alternative electric supplier shall maintain records of all applications and up-to-date records of all active eligible electric generators located within their service area.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1175 Net metering; application fee; limitation; costs; interconnection requirements.

Sec. 175. (1) An electric utility or alternative electric supplier may charge a fee not to exceed $100.00 to process an application for net metering. A customer with a system capable of generating more than 20 kilowatts shall pay all interconnection costs. A customer with a system capable of generating more than 150 kilowatts shall pay standby costs. The commission shall recognize the reasonable cost for each electric utility and alternative electric supplier to operate a net metering program. For an electric utility with 1,000,000 or more retail customers in this state, the commission shall include in that utility's nonfuel base rates all costs of meeting all program requirements except that all energy costs of the program shall be recovered through the utility's power supply cost recovery mechanism under sections 6j and 6k of 1939 PA 3, MCL 460.6j and 460.6k. For an electric utility with less than 1,000,000 base distribution customers in this state, the commission shall allow that utility to recover all energy costs of the program through the power supply cost recovery mechanism under sections 6j and 6k of 1939 PA 3, MCL 460.6j and 460.6k, and shall develop a cost recovery mechanism for that utility to contemporaneously recover all other costs of meeting the program requirements.

(2) The interconnection requirements of the net metering program shall provide that an electric utility or alternative electric supplier shall, subject to any time requirements imposed by the commission and upon reasonable written notice to the net metering customer, perform testing and inspection of an interconnected eligible electric generator as is necessary to determine that the system complies with all applicable electric safety, power quality, and interconnection requirements. The costs of testing and inspection are considered a cost of operating a net metering program and shall be recovered under subsection (1).

(3) The interconnection requirements shall require all eligible electric generators, alternative electric suppliers, and electric utilities to comply with all applicable federal, state, and local laws, rules, or regulations, and any national standards as determined by the commission.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1177 Customer's energy use in billing period; use of electric meters; credit.

Sec. 177. (1) Electric meters shall be used to determine the amount of the customer's energy use in each billing period, net of any excess energy the customer's generator delivers to the utility distribution system during that same billing period. For a customer with a generation system capable of generating more than 20 kilowatts, the utility shall install and utilize a generation meter and a meter or meters capable of measuring the flow of energy in both directions. A customer with a system capable of generating more than 150 kilowatts shall pay the costs of installing any new meters.

(2) An electric utility serving over 1,000,000 customers in this state may provide its customers participating in the net metering program, at no additional charge, a meter or meters capable of measuring the flow of energy in both directions.

(3) An electric utility serving fewer than 1,000,000 customers in this state shall provide a meter or meters described in subsection (2) to customers participating in the net metering program at cost. Only the incremental cost above that for meters provided by the electric utility to similarly situated nongenerating customers shall be paid by the eligible customer.

(4) If the quantity of electricity generated and delivered to the utility distribution system by an eligible electric generator during a billing period exceeds the quantity of electricity supplied from the electric utility or alternative electric supplier during the billing period, the eligible customer shall be credited by their supplier of electric generation service for the excess kilowatt hours generated during the billing period. The credit shall appear on the bill for the following billing period and shall be limited to the total power supply charges on that bill. Any excess kilowatt hours not used to offset electric generation charges in the next billing period will be carried forward to subsequent billing periods. Notwithstanding any law or regulation, net metering

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customers shall not receive credits for electric utility transmission or distribution charges. The credit per kilowatt hour for kilowatt hours delivered into the utility's distribution system shall be either of the following:

(a) The monthly average real-time locational marginal price for energy at the commercial pricing node within the electric utility's distribution service territory, or for net metering customers on a time-based rate schedule, the monthly average real-time locational marginal price for energy at the commercial pricing node within the electric utility's distribution service territory during the time-of-use pricing period.

(b) The electric utility's or alternative electric supplier's power supply component of the full retail rate during the billing period or time-of-use pricing period.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1179 Renewable energy credits.

Sec. 179. An eligible electric generator shall own any renewable energy credits granted for electricity generated under the net metering program created in this part.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1181 Finding of noncompliance; remedies and penalties.

Sec. 181. Upon a complaint or on the commission's own motion, if the commission finds, after notice and hearing, that an electric utility has not complied with a provision or order issued under this part, the commission shall order remedies and penalties as necessary to make whole a customer or other person who has suffered damages as a result of the violation.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

PART 6.
MISCELLANEOUS COMMISSION PROVISIONS

460.1191 Temporary order; issuance; rules.

Sec. 191. (1) Within 60 days after the effective date of this act, the commission shall issue a temporary order implementing this act, including, but not limited to, all of the following:

(a) Formats of renewable energy plans for various categories of electric providers.

(b) Guidelines for requests for proposals under this act.

(2) Within 1 year after the effective date of this act, the commission shall promulgate rules to implement this act pursuant to the administrative procedures act of 1969, 1969 PA 306, MCL 24.201 to 24.328. Upon promulgation of the rules, the order under subsection (1) is rescinded.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1193 Contested case proceeding; intervention; confidential business information.

Sec. 193. (1) Any interested party may intervene in a contested case proceeding under this act as provided in general rules of the commission.

(2) The commission and a provider shall handle confidential business information under this act in a manner consistent with state law and general rules of the commission.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

460.1195 Authority of commission not limited.

Sec. 195. This act does not limit any authority of the commission otherwise provided by law.

History: 2008, Act 295, Imd. Eff. Oct. 6, 2008.

Compiler's note: Enacting section 1 of Act 295 of 2008 provides: "Enacting section 1. As provided in section 5 of 1846 RS 1, MCL 8.5, this act is severable."

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NB # 3
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SENATE BILL No. 282

April 21, 2015, Introduced by Senators CASPERSON, HORN, KNEZEK, O'BRIEN, STAMAS, SCHMIDT, SCHUITMAKER, ANANICH, KOWALL and SHIRKEY and referred to the Committee on Energy and Technology.

A bill to regulate the siting and construction of certain electric transmission lines; to prescribe powers and duties of certain state and local entities and officials; to create a board; to prescribe the board's powers and duties; and to provide for certain fees.

THE PEOPLE OF THE STATE OF MICHIGAN ENACT:

Sec. 1. This act shall be known and may be cited as the "Michigan electric infrastructure act".

Sec. 2. As used in this act:

(a) "Board" means the Michigan electric infrastructure board created in section 3.

(b) "Commission" means the Michigan public service commission created in section 1 of 1939 PA 3, MCL 460.1.

SENATE BILL No. 282

(c) "Construction" means any substantial action constituting placement or erection of the foundations, trenches, facilities, equipment, or structures supporting a transmission line including, but not limited to, the conductors, wires, or other equipment attached to the structures. Construction does not include preconstruction activity or the addition of circuits to an existing transmission line.

(d) "Electric utility" means a person, partnership, corporation, association, or other legal entity whose transmission or distribution of electricity the commission regulates under 1909 PA 106, MCL 460.551 to 460.559, or 1939 PA 3, MCL 460.1 to 460.11. Electric utility does not include an independent transmission company.

(e) "Good cause" means an event or circumstance, whether or not foreseeable, not caused by a qualified developer that prevents the qualified developer from complying with an obligation under this act. Good cause does not include a strike or other labor unrest that affects only the qualified developer, an increase in prices or other change in general economic conditions, or a change in law or regulations.

(f) "Independent transmission company" means that term as defined in section 2 of the electric transmission line certification act, 1995 PA 30, MCL 460.562.

(g) "Municipality" means a city, township, or village.

(h) "Notice to construct" means a notice issued by the board granting an entity the sole right to construct a transmission line until the notice to construct expires.

1 (i) "Preconstruction activity" means that term as defined in
2 section 2 of the electric transmission line certification act, 1995
3 PA 30, MCL 460.562.
4 (j) "Qualified developer" means either of the following:
5 (*i*) An independent transmission company that commits to
6 support and advocate for the implementation of 1 resource adequacy
7 zone that includes both the Upper and Lower Peninsulas of this
8 state.
9 (*ii*) An entity that the board determines meets all of the
10 criteria stated in section 5(4).
11 (k) "Resource adequacy zone" means a geographic area, defined
12 by a regional transmission organization, for which there must be
13 access to sufficient total generation capacity, both internal and
14 importable into the zone, to serve load in accordance with the
15 regional transmission organization's requirements.
16 (*l*) "Route" means real property or other infrastructure on or
17 across which a transmission line is constructed or proposed to be
18 constructed.
19 (m) "Transmission line" means all structures, equipment, and
20 real property necessary to transfer electricity at system bulk
21 supply voltage of 100 kilovolts or more.
22 (n) "Utility corridor" means the geographic area necessary to
23 accommodate the construction and operation of 1 or more electric
24 transmission or distribution lines.
25 Sec. 3. (1) The Michigan electric infrastructure board is
26 created within the department of licensing and regulatory affairs.
27 The board shall consist of 7 members, appointed by the governor as

1 follows:

2 (a) One individual representing the department of
3 environmental quality.

4 (b) One individual representing the department of natural
5 resources.

6 (c) One individual representing the state energy office.

7 (d) One individual representing the Michigan economic
8 development corporation.

9 (e) One individual representing the technical staff of the
10 commission.

11 (f) One resident of the Upper Peninsula.

12 (g) One resident of the Lower Peninsula.

13 (2) The members initially appointed under subsection (1) shall
14 be appointed within 30 days after the effective date of this act.

15 (3) The board shall exercise its powers, duties, and decision-
16 making authority independently of the commission.

17 (4) The board shall ensure that adequate resources will be
18 able to reach electric consumers in this state through the
19 construction of transmission infrastructure that will reduce
20 congestion and energy prices in this state, provide for additional
21 transmission capacity in this state, ensure reliable and efficient
22 operation of the integrated electrical transmission system in this
23 state, and support this state's energy policy goals.

24 Sec. 5. (1) Within 30 days of the initial appointment of the
25 board under section 3, the board shall publish a list of counties
26 within this state that contain transmission facilities on which
27 constraints have caused congestion in the 5 years preceding the

publication of that list, leading to increased electricity prices.

(2) Within 60 days after the board publishes the list under subsection (1), the board shall request interested entities to submit proposals identifying any proposed transmission line necessary to do any of the following:

(a) Provide additional transmission capacity to the geographic areas of this state that include the counties identified in subsection (1), reduce congestion, constraints, and losses on the electrical system in this state, and reduce the overall cost of delivered energy in this state.

(b) Ensure the deliverability of generation resources both internal and external to this state to loads throughout this state for purposes of resource adequacy.

(c) Facilitate generation resource diversification.

(d) Increase the electrical connectivity between the Upper and Lower Peninsulas of this state beyond the capability provided by the 2 circuits connecting the Upper and Lower Peninsulas of this state existing on the effective date of this act by adding additional circuitry beyond the normal power carrying capacity of these circuits to enable the formation of 1 resource adequacy zone within the Midcontinent Independent System Operator footprint in this state.

(3) Any proposals submitted under subsection (2) must include all of the following:

(a) A preliminary cost estimate for the identified transmission line.

(b) An analysis of the estimated cost impact to retail

1 ratepayers if the cost of the transmission line were allocated to
2 all retail electric customers located in the Midcontinent
3 Independent System Operator footprint in this state.
4 (c) Any benefits associated with the transmission line.
5 (d) A statement from the entity submitting the proposal that
6 indicates why that entity is a qualified developer.
7 (4) After receiving a proposal under subsection (2), the board
8 shall determine whether an interested entity is a qualified
9 developer. To be considered a qualified developer, an entity must
10 be an independent transmission company or must demonstrate all of
11 the following:
12 (a) A commitment to support and advocate for the
13 implementation of a resource adequacy zone that includes both the
14 Upper and Lower Peninsulas of this state.
15 (b) Managerial expertise and capability, as demonstrated by
16 all of the following:
17 (*i*) A history of singular corporate focus on transmission.
18 (*ii*) The continuous operation of a networked transmission
19 system in this state during the 5 years before a proposal is
20 submitted under subsection (2).
21 (*iii*) A governance structure or control of the entity that is
22 independent of the users of the transmission facilities, and that
23 no member of the entity's board of directors has an affiliation
24 with a user of the transmission facilities or with an affiliate of
25 a user during the member's tenure on the board, that would unduly
26 affect the entity's performance. As used in this subparagraph,
27 "user" means any entity or affiliate of that entity that buys or

1 sells electricity in the entity's region or in a neighboring
2 region.
3 (*iv*) Technical and engineering qualifications and experience
4 in the design, construction, operation, and maintenance of
5 transmission lines.
6 (c) Financial strength and capability, as demonstrated by all
7 of the following:
8 (*i*) That securities of that entity have been issued through an
9 initial public offering.
10 (*ii*) That the entity has securities traded on at least 1 stock
11 exchange or in the over-the-counter market.
12 (*iii*) That the entity has a registration statement on file
13 with the federal Securities and Exchange Commission.
14 (*iv*) That the entity has an investment grade credit rating
15 from a nationally recognized statistical rating organization.
16 (*v*) That the entity has access to capital markets.
17 (*vi*) That the entity has the ability to cover losses resulting
18 from damage to or failure of any part of the facilities of the
19 transmission line in the normal course of business or financial
20 strategy and experience to facilitate timely replacements or
21 rebuilds as a result of catastrophic destruction or natural aging.
22 (d) Transmission planning expertise and capability, as
23 demonstrated by all of the following:
24 (*i*) That the entity has qualified engineers responsible for
25 planning functions.
26 (*ii*) The entity's prior experience in multiple regional
27 transmission organization planning processes.

1 (*iii*) The entity's experience in planning transmission lines
2 with a voltage level of at least 300 kilovolts.
3 (*iv*) The entity's experience in complying with transmission
4 planning criteria and guidelines, including those relevant to
5 interconnection with existing facilities.
6 (*v*) The entity's experience in addressing public concerns
7 regarding transmission lines.
8 (e) Construction expertise and capability, as demonstrated by
9 all of the following:
10 (*i*) The entity's history of successful construction of
11 transmission lines at voltage levels of at least 300 kilovolts.
12 (*ii*) The entity's ability to meet a schedule for the
13 development and completion of the transmission line consistent with
14 the identified date by which the project is needed.
15 (*iii*) The entity's demonstrated ability to construct projects
16 in accordance with project budgets.
17 (*iv*) The entity's experience in acquiring rights-of-way to
18 facilitate approval and construction of transmission lines.
19 (*v*) The entity's land acquisition experience.
20 (*vi*) The entity's permitting and siting experience.
21 (*vii*) Whether the entity has a sufficiently sized skilled
22 workforce.
23 (*viii*) The entity's established supply chain and vendor
24 relationships.
25 (f) Operations and maintenance capability, as demonstrated by
26 all of the following:
27 (*i*) The entity's performance on benchmarking studies in the

areas of reliability, storm response, and safety.

(*ii*) Whether the entity has been registered with the North American Electric Reliability Corporation as a transmission owner, transmission operator, and transmission planner for the 5 years before a proposal is submitted under subsection (2).

(*iii*) The entity's compliance with the North American Electric Reliability Corporation registration requirements and regional entity reliability standards for the 5 years before a proposal is submitted under subsection (2).

(*iv*) Ownership training, certification, and operations center experience.

(*v*) Operation of diverse equipment types, including poles, conduits, insulators, and transformers.

(*vi*) Sufficiently sized skilled workforce.

(*vii*) Sufficient capabilities and competencies to perform operations, maintenance, testing, inspection, repair, and replacement tasks including outage response, switching, emergency repairs, preventative or predictive maintenance, management of spare equipment, real-time operations monitoring and control capabilities, and major facility replacements or rebuilds.

(*viii*) Capability to maintain real-time reliability of the electric transmission system, ensuring comparable and nondiscriminatory transmission access and necessary services, minimizing system congestion, and further addressing real or potential transmission constraints.

(*ix*) Intention to construct, own, operate, and maintain an electric transmission facility that is under consideration by an

1 applicable regional transmission organization.

2 (*x*) Established supply chain and vendor relationships.

3 (g) Exemplary corporate citizenship, as demonstrated by all of

4 the following:

5 (*i*) Community outreach.

6 (*ii*) Communication and information-sharing during all phases

7 of transmission line development, construction, and operation.

8 (*iii*) Civic contributions to regional, state, and local

9 communities.

10 (*iv*) Whether the transmission entity operates under policies

11 that promote positive performance designed to satisfy the

12 electricity requirements of customers.

13 (*v*) A dedicated customer service department.

14 (5) Within 120 days after receiving a proposal from a

15 qualified developer under subsection (2), the board shall issue a

16 letter to the qualified developer either rejecting the

17 qualifications or recommendations of the qualified developer in

18 full, requesting that the qualified developer provide more

19 information, or recommending the construction of the proposed

20 transmission line. If the board requests more information under

21 this subsection, the board shall, within 45 days of receiving that

22 information from a qualified developer, either reject the

23 recommendations or recommend construction of the proposed

24 transmission line. If the board issues a letter recommending

25 construction of a proposed transmission line, the qualified

26 developer receiving the letter shall, within 30 days after the

27 board issues the letter, submit an expression of interest in

1 constructing the transmission line identified by the board. If the
2 qualified developer does not submit an expression of interest
3 within 30 days after the board issues a letter under this
4 subsection, the board may issue a new request for submission of
5 proposals under subsection (2). Within 7 days after a qualified
6 developer has submitted an expression of interest, the board shall
7 issue the qualified developer that submitted the expression of
8 interest a notice to construct.

9 (6) The board may take any actions necessary and appropriate
10 to support a transmission line for which a notice to construct has
11 been issued, including coordination with the Midcontinent
12 Independent System Operator, supporting any out-of-cycle review
13 request, execution of any contracts or agreements, and preparation,
14 submission, and support for filings related to that project before
15 the Federal Energy Regulatory Commission or any other regulatory
16 body.

17 (7) The board shall initially give priority to proposals for a
18 transmission line that accomplishes the purpose stated in
19 subsection (2)(d).

20 (8) A document submitted to the board under this section is
21 not subject to disclosure under the freedom of information act,
22 1976 PA 442, MCL 15.231 to 15.246. The business that the board may
23 perform shall be conducted at a public meeting of the board held in
24 compliance with the open meetings act, 1976 PA 267, MCL 15.261 to
25 15.275.

26 Sec. 6. (1) Within 60 days after receiving a notice to
27 construct under section 5, a qualified developer shall submit any

1 necessary documents to the Midcontinent Independent System Operator
2 or other applicable regional transmission organization for any
3 required review and approval.
4 (2) Within 120 days after obtaining any required reviews and
5 approvals from the Midcontinent Independent System Operator or
6 other applicable regional transmission organization, the qualified
7 developer shall apply to the commission for an expedited siting
8 certificate under this act. If a qualified developer does not apply
9 to the commission within 120 days after obtaining any required
10 reviews and approvals from the applicable regional transmission
11 organization, the commission shall revoke the notice to construct
12 and the board may solicit expressions of interest for the
13 transmission line project under section 5. The commission may waive
14 the 120-day time limit if it determines the qualified developer had
15 good cause for failing to apply to the commission for an expedited
16 siting certificate within 120 days.
17 (3) A qualified developer shall include all of the following
18 in an application for an expedited siting certificate:
19 (a) Evidence that the applicant obtained a notice to construct
20 for the transmission line under section 5.
21 (b) The planned date to begin construction of the proposed
22 transmission line.
23 (c) A detailed description, route, and expected configuration
24 and use of the proposed transmission line.
25 (d) Information indicating that the proposed transmission line
26 will comply with all applicable state and federal environmental
27 standards, laws, and rules.

1 (e) A description and evaluation of 1 or more alternate
2 transmission line routes for the proposed transmission line, and a
3 statement of why the proposed route was selected.
4 (f) If a zoning ordinance prohibits or regulates the location
5 or development of any portion of the proposed route, a description
6 of the location and manner in which the zoning ordinance prohibits
7 or regulates the location or construction of the proposed route.
8 (g) Other information reasonably required by commission rules.
9 (4) After applying for an expedited siting certificate, an
10 applicant shall give public notice in the manner and form the
11 commission prescribes of an opportunity to participate in a
12 contested case under subsection (5) regarding the application.
13 Notice shall be published in a newspaper of general circulation in
14 the municipalities through which the proposed transmission line
15 project would run within 14 days after an application is submitted
16 to the commission under subsection (2). The notice shall be sent to
17 each affected municipality and each affected landowner on whose
18 property a portion of the proposed transmission line will be
19 constructed. The notice shall be written in plain, nontechnical,
20 and easily understood terms and contain a title that includes the
21 name of the applicant and the words "Notice of Intent to Construct
22 a Transmission Line".
23 (5) The commission shall conduct a proceeding on an
24 application for an expedited siting certificate as a contested case
25 under the administrative procedures act of 1969, 1969 PA 306, MCL
26 24.201 to 24.328. Upon receiving an application for a certificate,
27 the commission shall grant each affected municipality and each

1 affected landowner full intervener status as of right in commission
2 proceedings concerning the proposed transmission line.
3 (6) The commission shall grant an expedited siting certificate
4 under this act if the commission determines that all of the
5 following requirements are met:
6 (a) The applicant has received a notice to construct for the
7 proposed transmission line under section 5.
8 (b) The proposed transmission line does not represent an
9 unreasonable threat to the public convenience, health, and safety.
10 (c) The proposed or alternate route to be authorized by the
11 expedited siting certificate is feasible and reasonable.
12 (7) If the commission grants an expedited siting certificate
13 for a transmission line under this act, the certificate takes
14 precedence over a conflicting local ordinance, law, rule,
15 regulation, policy, or practice that prohibits or regulates the
16 location or construction of the transmission line. A zoning
17 ordinance or limitation imposed after a qualified developer applied
18 for an expedited citing certificate does not limit or impair the
19 transmission line's construction, operation, or maintenance.
20 (8) In an eminent domain or other related proceeding arising
21 out of or related to a transmission line for which an expedited
22 siting certificate is issued under this act, an expedited siting
23 certificate issued under this act is conclusive and binding as to
24 the public convenience and necessity for that transmission line and
25 the transmission line's compatibility with the public health and
26 safety or any zoning or land use requirements in effect when the
27 application was filed.

1 (9) The commission shall grant or deny an expedited siting
2 certificate within 180 days after receiving an application under
3 this section.
4 Sec. 8. If a transmission line constructed under this act is
5 located within an existing utility corridor owned by an electric
6 utility or independent transmission company other than the
7 qualified developer constructing the transmission line, in addition
8 to any fees or payments related to acquiring the rights to use the
9 utility corridor, the qualified developer constructing the
10 transmission line under this act shall make a 1-time payment to the
11 electric utility or independent transmission company owning that
12 corridor. The payment shall be equal to 50% of the tax assessed to
13 the electric utility or independent transmission company in the
14 prior tax year under the general property tax act, 1893 PA 206, MCL
15 211.1 to 211.155, for the utility corridor in which the
16 transmission line constructed under this act is located.
17 Sec. 9. (1) The costs of a transmission line for which a
18 notice to construct is issued under this act shall be allocated to
19 all retail electric customers located in the Midcontinent
20 Independent System Operator footprint within this state.
21 (2) The revenue requirement for a transmission line for which
22 a notice to construct is issued shall be calculated pursuant to the
23 open access transmission, energy and operating reserve markets
24 tariff administered by the Midcontinent Independent System
25 Operator.
26 (3) The board shall cooperate with the recipient of the notice
27 to construct, the commission, and the Midcontinent Independent

1 System Operator in making any filings necessary to implement the
2 cost allocation established in this section.
3 Sec. 10. The commission shall issue a report to the governor
4 and the legislature on or before the first Monday of March of each
5 year. The report shall include all of the following:
6 (a) A summary of the impact of this act.
7 (b) A list of any transmission lines constructed or approved
8 under this act during the previous year.
9 Sec. 11. Except for a transmission line for which another
10 entity holds a valid notice to construct that has not expired under
11 this act, this act does not prohibit an entity from constructing a
12 transmission line without obtaining an expedited siting
13 certificate.
14 Sec. 12. (1) A commission order relating to any matter
15 provided for under this act is subject to review as provided in
16 section 26 of 1909 PA 300, MCL 462.26.
17 (2) In administering this act, the commission has only those
18 powers and duties granted to it under this act.
19 Sec. 13. This act does not confer the power of eminent domain.
20 Enacting section 1. This act takes effect 90 days after the
21 date it is enacted into law.

NB#4
CC/EA-C
8/12/15

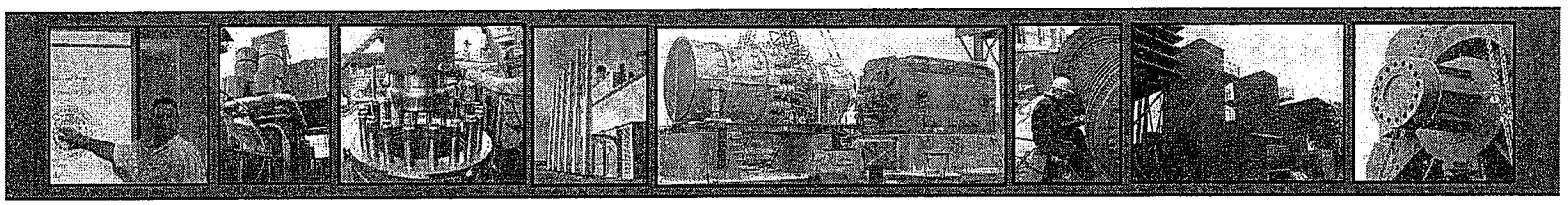
PLANT LAY UP REPORT

Presented to

City of Escanaba

Prepared by

ProEnergy™



Project No. 515-4374

June 15, 2015

This document is privileged and contains confidential Information intended for use only by The City of Escanaba.

Escanaba Power Generation Station
Long Term Lay Up Report
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1 EXECUTIVE SUMMARY

The Escanaba Generating Station was placed into service in 1958 and consists of two Babcock and Wilcox, coal fired boilers, providing steam to two (2) Allis Chalmers steam turbine generators.

The Plant includes the following major equipment:

- Two Babcock and Wilcox, 2-drum, stoker fired boilers generating steam at the following conditions; 125,000 lb/hour, 600 psi at 850°F.
- Two Allis Chalmers steam turbine generator name plate capacity 12.5 MW each.
- Plant electrical interconnect including a 12.47 kV / 69 kV switchyard and interconnect to the power grid at 69 kV.
- A General Electric Frame 5 simple cycle peaking gas turbine with a name plate capacity of 9.6 MW.
- The Plant is located in the Escanaba harbor area, and can receive fuel by truck, rail or barge/vessel.
- The plant is part of the MISO transportation and distribution power grid.
- Total personnel at the site stands at 18 people.

The owner of the facility, The City of Escanaba ("The City") has decided for economical reasons to take the facility out of service and purchase power from the MISO grid. The current operator of the facility ProEnergy Services ("PES") through its subsidiary Escanaba Operating Services was therefore requested to lay-up, winterize and remove all potential environmental materials from the facility. The City has made the decision to have security on site while the plant is on lock down as of June 15.

2 SCOPE OF SERVICES REQUESTED FROM PES

All steam- and water cycle piping and equipment were drained free of water and condensate.

Appendix "A" provides a detailed description of the executed work.

The Project team on site existed of:

Pat Fulsher	The City representative on site
Jack Scott	PES Plant Manager
Charles Detiege	PES Assistant Plant Manager
Rob Pieper	PES Project Manager (May 12 to June 15)

The target date for the completion of the scope of work reflected in Appendix "A" was set at June 15 and per that date a 100% completion of the project was successfully achieved. The plant is now fully winterized and all potential hazardous materials except for asbestos containing insulation are removed.

The gas turbine peaking unit was excluded from the scope of work. The City decided not to do any winterization and removal of potential hazardous materials on this unit as this was communicated to PES by the on site City Representative.

The unloading of coal from the plant bunkers was the critical path of this project. The original estimated planning was 20 days. The actual unloading took 11 days and a total of 681.74 tons was removed from site.

Appendix C provides the chronological execution of the project. Above all, this appendix provides not only the activities but the background of why certain decisions in execution were made by the project team on site.

All doors have warnings signs on the external access doors warning against future access. See photo series in Appendix C. The plant windows at ground level are now boarded up and the facility is on lockdown and power to the facility is disconnected.

2.1 OTHER RELEVANT INFORMATION

The City has issued an RFP for the sale of the plant and the potential new owner has the intent to convert the plant to bio mass fuel for the steam generation while maintaining and/or upgrading the two steam turbine islands and its auxiliary equipment.

3 APPENDIX "A"

Scope of Lay Up Winterization and Removal of Potential Environmental Hazardous Materials		
Item Detail	Action	Completed
Auxiliary Power to Station Transformer #3	Pull Line fuses	Yes
Bus No. 1 Main	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
Bus No. 3 Main	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
Bus No. 2 Main	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
Bus No. 1-3 Tie	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
Bus No. 2-3 Tie	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
Bus No. PNL P2	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
MCC No. 1 BKR	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
MCC No. 3 BKR	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
Power Panel P3	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
MCC No. 2 BKR	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
BFP No. 1 BKR	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
MCC No. 3 BKR	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
BFP No. 2 BKR	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes

CW Pump No. 1	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
CW Pump No. 3	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
CW Pump No. 2	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
ID Fan No. 1 BKR	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
No. 3 Air Compressor BKR	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
ID Fan No. 2 BKR	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
FD Fan No. 1 BKR	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
PRECIP PNL P1	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
FD Fan No. 2 BKR	Open DC Knife Switch	Yes
	Rack out AC Breaker	Yes
Unit #1 Generator	Remove Brush Rigging	Yes
	Seal Collector Rings (Flex Dip Rust Proof)	Yes
Unit #2 Generator	Remove Brush Rigging	Yes
	Seal Collector Rings (Flex Dip Rust Proof)	Yes
CT Generator	Remove Brush Rigging ???	Yes
	Seal Collector Rings (Rust Proof) ???	Yes
Reserve Charger, AC Supply	Normally Closed - Open / Rack out	Yes
Main Charger, AC Supply	Normally Open - Open / Rack out	Yes
Generator #1 DC Supply	Normally Closed - Open / Rack out	Yes
Generator #2 DC Supply	Normally Closed - Open / Rack out	Yes
Reserve Charger DC Out / Pilot Wire DC	Normally Closed - Open / Rack out	Yes
Substation DC Supply	Normally Closed - Open / Rack out	Yes
125 Volts DC Lightning Arrestor	Normally Open - Open / Rack Out	Yes

480 Volt Switchgear Panel DC Supply	Normally Closed - Open / Rack out	Yes
Unit #1 Exciter Field Flashing	Normally Closed - Open / Rack out	Yes
Control Room Switch Board DC Supply	Normally Closed - Open / Rack out	Yes
Unit #2 Field Flashing	Normally Closed - Open / Rack out	Yes
Transformer No. 62	Normally Closed - Open / Rack out	Yes
Main Charger,	Verify AC Power is Isolated	Yes
Reserve Charger	Verify AC Power is Isolated	Yes
Cable Feed From Charger	Disconnect	Yes
Terminal Bars Between Batteries	Disconnect	Yes
Disposal	Disposal	Yes
Main Charger,	Normally Closed - Open / Rack out AC Supply Power	Yes
Cable Feed From Charger	Disconnect	Yes
Terminal Connection Between Batteries	Disconnect	Yes
Batteries	Disposal	Yes
Emergency Light	Removal, Store Basement Warehouse	Yes
Battery	Disposal	Yes
ISCO Meter PH/ Flow Monitor (#1 Precip)	Remove Batteries, Store Basement Warehouse	Yes
UPS Systems	Remove, Store Basement Warehouse	Yes
Piping	Drain	Yes
Pumps	Disconnect and Drain	Yes
Surge Tank	Drain	Yes
Pump House Curb Stop	Close	Yes
Drain Line in Pump House	Cut / Drain	Yes
Seal Water Circ Pumps	Drain	Yes
Main Building Curb Stop	Close	Yes
Transmitters / Sensing Lines	Drain	Yes
Sinks	Drain	Yes
Water Heaters	Drain	Yes
Showers	Drain	Yes
Eye Wash Stations	Drain	Yes
Sprinkler System Piping	Drain	Yes

Hose Reel Piping		Yes
Portable Extinguishers		Yes
Transmitters / Sensing Lines	Drain	Yes
Main Building Floor and Trench Drains	Fill with Antifreeze and or Plug	Yes
Precipitator Building Floor Drains		Yes
CT Collection Sumps	Pump out	Yes
Sinks / Toilets / Showers	Fill with Antifreeze	Yes
Office Sump	Clean / Pump	Yes
Septic Tank	Clean / Pump	Yes
Steam Drum Unit 1	Vent / Drain	Yes
	Open Doors	Yes
	Install Desiccant Filters	Yes
Steam Drum Unit 2	Drain	Yes
	Open Doors	Yes
	Install Desiccant Filters	Yes
Mud Drum Unit 1	Drain	Yes
	Open Doors	Yes
	Install Desiccant Filters	Yes
Mud Drum Unit 2	Drain	Yes
	Open Doors	Yes
	Install Desiccant Filters	Yes
Unit 1 High Temp Super Heat Header Drain	Open Valves & Drain	Yes
Unit 1 Low Temp Super Heat Header Drain	Open Valves & Drain	Yes
Unit 1 Waterwall Header Drains	Open Valves & Drain	Yes
Unit I Convection Wall Header Drains	Open Valves & Drain	Yes
Unit 2 High Temp Super Heat Header Drain	Open Valves & Drain	Yes
Unit 2 Low Temp Super Heat Header Drain	Open Valves & Drain	Yes
Unit 2 Water wall Header Drains	Open Valves & Drain	Yes
Unit 2 Convection Wall Header Drains	Open Valves & Drain	Yes
High Temp Super Heat Unit 1	Install Scaffold	Yes

	Drill Holes	Yes
Low Temp Super Heat Unit 1	Drill Holes (Will not perform)	Yes
High Temp Super Heat Unit 2	Install Scaffold	Yes
	Drill Holes	Yes
Low Temp Super Heat Unit 2	Drill Holes (Abandon Procedure after 5/6 tubes)	Yes
Unit 1, #4 Feedwater Heater	Open Waterside Bypass Valve	Yes
	Drain Shell	Yes
	Remove Water from Tube Bundles	Yes
	Verify Feedwater Line to and from Heater is Drained	Yes
	Remove Water from Level Control	Yes
	Isolate Power and Remove Mercoid Level Alarm	Yes
Unit 2, #4 Feedwater Heater	Open Waterside Bypass Valve	Yes
	Drain Shell	Yes
	Remove Water from Tube Bundles	Yes
	Verify Feedwater Line to and from Heater is Drained	Yes
	Remove Water from Level Control	Yes
	Isolate Power and Remove Mercoid Level Alarm	Yes
#1 Feed Pump	Rack out Breaker	Yes
	Ensure Deaerator is Drained or Isolated	Yes
	Drain Pump Suction Line	Yes
	Drain Pump Discharge Line	Yes
	Remove / Open Discharge Line Check Valve	Yes
	Drain Recirculation Line	Yes
	Remove / Open Recirculation Line Check Valve	Yes
	Open Pump Casing Drains (3) or Fill Casing with Antifreeze	Yes
	Remove Flow Reducer Recirculation Line	Yes
	Drain Pump Lube Oil Reservoir	Yes

#2 Feed Pump	Rack out Breaker	Yes
	Ensure De-aerator is Drained or Isolated	Yes
	Drain Pump Suction Line	Yes
	Drain Pump Discharge Line	Yes
	Remove / Open Discharge Line Check Valve	Yes
	Drain Recirculation Line	Yes
	Remove / Open Recirculation Line Check Valve	Yes
	Open Pump Casing Drains (3) or Fill Casing with Antifreeze	Yes
	Remove Flow Reducer Recirculation Line	Yes
	Drain Pump Lube Oil Reservoir	Yes
#3 Feed Pump	Rack out Breaker	Yes
	Ensure De-aerator is Drained or Isolated	Yes
	Drain Pump Suction Line	Yes
	Drain Pump Discharge Line	Yes
	Remove / Open Discharge Line Check Valve	Yes
	Drain Recirculation Line	Yes
	Remove / Open Recirculation Line Check	Yes
	Open Pump Casing Drains (3) or Fill Casing with Antifreeze	Yes
	Open MOVs Suction Line	Yes
	Drain Pump Lube Oil Reservoir	Yes
Unit 1, #4 Heater to FW Control Valve	Drain Line	Yes
Unit 1, FW Control Valve	Open Control Valve	Yes
	Open Control Valve Drain	Yes
	Open Manual Isolation Valves	Yes
	Open Large ByPass Valve	Yes
	Open Small ByPass Valve	Yes
Unit 1, Economizer Check Valve	Remove Cover , Empty water	Yes
Unit 2, #4 Heater to FW Control Valve	Drain Line	Yes

Unit 2, FW Control Valve	Open Control Valve	Yes
	Open Control Valve Drain	Yes
	Open Manual Isolation Valves	Yes
	Open Large Bypass Valve	Yes
	Open Small Bypass Valve	Yes
Unit 2, Economizer Check Valve	Remove Cover, Empty water	Yes
1-1 Heater	Open Waterside Bypass Valve	Yes
	Drain Shell	Yes
	Remove Water from Tube Bundles	Yes
	Verify Feedwater Lines to and from Heater are Drained	Yes
	Remove Water from Level Control and Sight Glass	Yes
	Isolate Power then Remove Mercoid Level Alarm	Yes
1-2 Heater	Open Waterside Bypass Valve	Yes
	Drain Shell	Yes
	Remove Water from Tube Bundles	Yes
	Verify Feedwater Lines to and from Heater are Drained	Yes
	Isolate Power then Remove Mercoid Level Alarm	Yes
	Remove Water from Level Control and Sight Glass	Yes
2-1 Heater	Open Waterside Bypass Valve	Yes
	Drain Shell	Yes
	Remove Water from Tube Bundles	Yes
	Verify Feedwater Lines to and from Heater are Drained	Yes
	Isolate Power then Remove Mercoid Level Alarm	Yes
	Remove Water from Level Control and Sight Glass	Yes
2-2 Heater	Open Waterside Bypass Valve	Yes
	Drain Shell	Yes
	Remove Water from Tube Bundles	Yes

	Verify Feedwater Lines to and from Heater are Drained	Yes
	Remove Water from Level Control and Sight Glass	Yes
	Isolate Power then Remove Mercoid Level Alarm	Yes
Unit 1 Deaerator	Drain Shell	Yes
	Open Lower Access Door	Yes
	Drain Sight Glass	Yes
	Drain Level Control	Yes
Unit 2 Deaerator	Drain Shell	Yes
	Open Lower Access Door	Yes
	Drain Sight Glass	Yes
	Drain Level Control	Yes
Suction Line MOV 1-3	Open Manually	Yes
Suction Line MOV 2-3	Open Manually	Yes
Unit 1 Hotwell	Drain	Yes
	Open Drain Valve	Yes
	Drain Sight Glass	Yes
	Drain Level Control	Yes
	Isolate Power then Remove Mercoid Level Alarms	Yes
	Open Access Door	Yes
Unit 2 Hotwell	Drain	Yes
	Open Drain Valve	Yes
	Drain Sight Glass	Yes
	Drain Level Control	Yes
	Isolate Power then Remove Mercoid Level Alarms	Yes
	Open Access Door	Yes
Unit 1 Pump Discharge to Generator Coolers		Yes
Unit 1 Gen Cooler to Turbine Oil Cooler	Drill Hole & Drain	Yes
Unit 1 Turbine Oil Cooler Air Ejector	Drill Holes & Drain	Yes

Unit 1 Air Ejector to Condensate Control Valve		Yes
Unit 1 Cond Control Valve to #1 Heater		Yes
Unit 2 Pump Discharge to Generator Coolers		Yes
Unit 2 Gen Cooler to Turbine Oil Cooler		Yes
Unit 2 Turbine Oil Cooler Air Ejector	Drill Hole & Drain	Yes
Unit 2 Air Ejector to Condensate Control Valve	Drill Holes & Drain	Yes
Unit 2 Cond Control Valve to #1 Heater		Yes
1-1 Condensate Pump	Rack out Breaker	Yes
	Ensure Suction & Discharge Lines are Drained	Yes
	Open /Remove Discharge Check Valve	Yes
	Remove water from well	Yes
1-2 Condensate Pump	Rack out Breaker, Disconnect Motor Leads	Yes
	Ensure Suction & Discharge Lines are Drained	Yes
	Open /Remove Discharge Check Valve	Yes
	Remove water from well	Yes
2-2 Condensate Pump	Rack out Breaker	Yes
	Ensure Suction & Discharge Lines are Drained	Yes
	Open /Remove Discharge Check Valve	Yes
	Remove water from well	Yes
Pump 2-2	Rack out Breaker	Yes
	Ensure Suction & Discharge Lines are Drained	Yes
	Open /Remove Discharge Check Valve	Yes
	Remove water from well	Yes
Generator 1 Condensate Inlet Valves (2)	Open Valves	Yes
Generator 1 Condensate Bypass Valves (2)	Open Valves	Yes
Generator 1 Condensate Piping	Drain / Drill holes (Open Drains Bottom of Pipe)	Yes

Generator 1 Cooler Tube Bundle	Ensure Bundle is Drained (open)	Yes
Generator 1 Condensate inlet Valves 2	Open Valves	Yes
Generator 1 Condensate Bypass Valve (2)	Open Valves	Yes
Generator 1 Condensate Piping	Drain / Drill holes	Yes
Generator 1 Cooler Tube Bundle	Ensure Bundle is Drained (open)	Yes
Pump 1	Close Intake Gate, Dewater Pit	Yes
	Rack out Breakers, Disconnect Motor Leads	Yes
	Drain Motor Oil	Yes
Pump 2	Close Intake Gate, Dewater Pit	Yes
	Rack out Breakers, Disconnect Motor Leads	Yes
	Drain Motor Oil	Yes
Pump 3	Close Intake Gate, Dewater Pit	Yes
	Rack out Breakers, Disconnect Motor Leads	Yes
	Drain Motor Oil	Yes
Bleach & Injection Equipment	Remove Bleach from Tote & Dispose	Yes
	Remove Tote	Yes
	Notify Nalco to Pick-up Tote	Yes
#1 Vacuum Pump	Rack Out Breaker	Yes
#2 Vacuum Pump	Rack Out Breaker	Yes
Seal Water Filter & Lines Pump #1	Open & Drain	Yes
Seal Water Filter & Lines Pump #2	Open & Drain	Yes
Storage Tank	Vent & Drain Tank	Yes
Pressure Switches	Remove Mercury containing Switches (2)	Yes
Unit 1 Condenser	Drain	Yes
Unit 2 Condenser	Drain	Yes
Bearing Water Suction Line (3)	Drain	Yes
	Drain	Yes
	Drain	Yes
Unit 1	Verify piping is Drained	Yes

Unit 2	Verify piping is Drained	Yes
Unit 1, #1 Extraction Steam NRV	Open cover, Remove Water	Yes
Unit 1, #2 Extraction Steam NRV	Open cover, Remove Water	Yes
Unit 1, #3 Extraction Steam NRV	Open cover, Remove Water	Yes
Unit 1, #4 Extraction Steam NRV	Open cover, Remove Water	Yes
Unit 2, #1 Extraction Steam NRV	Open cover, Remove Water	Yes
Unit 2, Extraction Steam NRV	Open cover, Remove Water	Yes
Unit 2, #3 Extraction Steam NRV	Open cover, Remove Water	Yes
Unit 2, #4 Extraction Steam NRV	Open cover, Remove Water	Yes
Unit 1 Extraction Steam Traps	#1 Extraction Steam - Remove & Drain Upstream Trap	Yes
	#1 Extraction Steam -Remove & Drain Downstream Trap	Yes
	#2 Extraction Steam - Remove & Drain Upstream Trap	Yes
	#2 Extraction Steam -Remove & Drain Downstream Trap	Yes
	#3 Extraction Steam - Remove & Drain Upstream Trap	Yes
	#3 Extraction Steam - Remove & Drain Downstream Trap	Yes
Unit 2 Extraction Steam Trap	#1 Extraction Steam - Remove & Drain Upstream Trap	Yes
	#1 Extraction Steam -Remove & Drain Downstream Trap	Yes
	#2 Extraction Steam - Remove & Drain Upstream Trap	Yes
	#2 Extraction Steam - Remove & Drain Downstream Trap	Yes
	#3 Extraction Steam - Remove & Drain Upstream Trap	Yes
	#3 Extraction Steam -Remove & Drain Downstream Trap	Yes
	# 4 Extraction Steam - Drains to Hotwell open	Yes
1-1 Drip Pump	Rack Out / Open Breaker	Yes

	Ensure Suction & Discharge Lines are Drained	Yes
	Open / Remove Discharge Check Valve	Yes
	Remove water from well	Yes
1-2 Drip Pump	Rack out Breaker, Disconnect Motor Leads	Yes
	Ensure Suction & Discharge Lines are Drained	Yes
	Open /Remove Discharge Check Valve	Yes
	Remove water from well	Yes
2-1 Drip Pump	Rack Out / Open Breaker	Yes
	Ensure Suction & Discharge Lines are Drained	Yes
	Open /Remove Discharge Check Valve	Yes
	Remove water from well	Yes
2-2 Drip Pump	Rack Out / Open Breaker	Yes
	Ensure Suction & Discharge Lines are Drained	Yes
	Open /Remove Discharge Check Valve	Yes
	Remove water from well	Yes
Make Up Water Piping Plant	Open Supply Valves and Drains	Yes
Make Up Water Piping Ash Silo	Drain	Yes
Duplex Strainer	Open Covers and Drain	Yes
#1 Boiler Steam Supply	Open Supply Valves and Drains	Yes
#2 Boiler Steam Supply	Open Supply Valves and Drains	Yes
Make-Up Pump 1	Rack out Breaker	Yes
	Open Suction / Discharge Lines	Yes
	Ensure Recirculation Valves are Open	Yes
	Drain Float Trap	Yes
	Drain Pump Casing or Fill with Antifreeze	Yes
Make-Up Pump 2	Rack out Breaker	Yes
	Open Suction / Discharge Lines	Yes
	Ensure Recirculation Valves are Open	Yes
	Drain Float Trap	Yes

	Drain Pump Casing or Fill with Antifreeze	Yes
Bearing Water Pump #1	Isolate Power Supply	Yes
	Rack Out / Open Breaker	Yes
	Drain / Open Suction Line	Yes
	Drain Casing or Fill with Antifreeze	Yes
Bearing Water Pump #2	Rack Out / Open Breaker	Yes
	Drain / Open Suction Line	Yes
	Drain Casing or Fill with Antifreeze	Yes
	Drain open Suction Line	Yes
Piping	Drain	Yes
Storage Tanks	Drain, Open Access Door and Clean	Yes
Portable Units - DI Bottles	Send Back	Yes
Access Ladder Permeate Tank	Remove	Yes
Pumps	Open and Drain	Yes
Multi-Filters	Drain (Green Sand)	Yes
Pre-Filters (3)	Open Cartage & Drain	Yes
Bi-Sulfite Tote	Drain Bi-Sulfite & Dispose	Yes
Bi-Sulfite Pump & Lines	Drain & Dispose Bi-Sulfite	Yes
Anti-Scalant Tote		Yes
Anti-Scalant Pump and Lines		Yes
RO Membranes	Remove & Dispose	Yes
Pumps		Yes
Transmitters / Sensing Lines	Drain	Yes
CT Water Injection Pump	Drain	Yes
CT Water Injection Piping	Ensure Piping is Drain	Yes
CT Evaporator Cooler	Ensure Evaporator Cooler is Drained	Yes
Cooling System	Drain	Yes
Lube Oil Sys	Drain	Yes
Cooling System	Drain	Yes
Lube Oil System	Drain	Yes
Storage Tank	Drain	Yes
Dampers	Forced Closed	Yes

Duct Work	Clean	Yes
Motors	Drain Oil	Yes
Dampers	Forced Closed	Yes
Duct Work	Clean	Yes
Dampers	Forced Closed	Yes
Duct Work	Clean	Yes
Motors	Drain Oil	Yes
Unit 1, Bottom Ash Hoppers	Vacuum Out	Yes
Unit 1, Sifting Hoppers	Vacuum Out	Yes
Unit 1, Economizer Section Boiler	Vacuum Out	Yes
Unit 1, Economizer Hoppers (Cans)	Vacuum Out	Yes
Unit 1, Boiler Penthouse	Vacuum Out	Yes
Unit 1, Ductwork to Building Wall	Vacuum Out	Yes
Unit 2, Bottom Ash Hoppers	Vacuum Out	Yes
Unit 2, Sifting Hoppers	Vacuum Out	Yes
Unit 2, Economizer Section Boiler	Vacuum Out	Yes
Unit 2, Economizer Hoppers (Cans)	Vacuum Out	Yes
Unit 2 Boiler Penthouse	Vacuum Out	Yes
Unit 1, Inlet Vanes	Vacuum Out	Yes
Unit 1, Precipitator Hoppers	Vacuum Out	Yes
Unit 2, Inlet Vanes	Vacuum Out	Yes
Unit, 2 Precipitator Hoppers		Yes
Unit 1, Bunker 1	Install Modified Coal Leg	Yes
	Install Remote Feeder Control	Yes
	Run ID Fan for CO Control	Yes
	Empty Bunker with Power Buggy (Monitor CO Levels)	Yes
Unit 1, Bunker 2	Install Modified Coal Leg	Yes
	Install Remote Feeder Control	Yes
	Run ID Fan for CO Control	Yes
	Empty Bunker with Power Buggy	Yes
Unit 1, Bunker 3	Run ID Fan for CO Control	Yes

	Empty Bunker with Power Buggy (Monitor CO Levels)	Yes
Unit 2, Bunker 4	Install Modified Coal Leg	Yes
	Install Remote Feeder Control	Yes
	Run ID Fan for CO Control	Yes
	Empty Bunker with Power Buggy (Monitor CO Levels)	Yes
Unit 2, Bunker 5	Run ID Fan for CO Control	Yes
	Empty Bunker with Power Buggy (Monitor CO Levels)	Yes
Unit 2, Bunker 6	Install Modified Coal Leg	Yes
	Install Remote Feeder Control	Yes
	Run ID Fan for CO Control	Yes
	Empty Bunker with Power Buggy (Monitor CO Levels)	Yes
Track Hopper Chain Drive	Drain Oil	Yes
Track Hopper Gear Reducer	Drain Oil	Yes
Track Hopper Conveyor Belt	Remove Coal	Yes
Incline Conveyor Chain Drive	Drain Oil	Yes
Incline Conveyor Gear Reducer	Drain Oil	Yes
Incline Conveyor Belt	Remove Coal	Yes
Bucket Elevator Chain Drive	Drain Oil	Yes
Bucket Elevator Gear Reducer	Drain Oil	Yes
Bucket Elevator Pit	Remove Coal	Yes
Flight Conveyor Chain Drive	Drain Oil	Yes
Flight Conveyor Gear Reducer	Drain Oil	Yes
Bunker / Flight Conveyor Floor Level	Clean	Yes
Unit 1 Stoker #1 Conveyor Gear Drive	Drain Oil	Yes
Unit 1 Stoker #2 Conveyor Gear Drive	Drain Oil	Yes
Unit 1 Stoker #3 Conveyor Gear Drive	Drain Oil	Yes
Unit 1 Stoker #4 Conveyor Gear Drive	Drain Oil	Yes
Unit 1 Stoker #1 Conveyor Gear Drive	Drain Oil	Yes
Unit 1 Stoker #2 Conveyor Gear Drive	Drain Oil	Yes
Unit 1 Stoker #3 Conveyor Gear Drive	Drain Oil	Yes

Unit 1 Stoker #4 Conveyor Gear Drive	Drain Oil	Yes
CT Main Tank	Pump Out	Yes
CT Starting Diesel Tank	Pump Out	Yes
CT Supply Piping	Pump Out	Yes
Coal Equipment Fuel Tank	Pump Out	Yes
#1 Turbine Oil Reservoir	Shutoff and Rack out Turning Gear Motor	Yes
	Shutoff and Rack out Turning Gear Oil Pump	Yes
	Pump Out Oil in Tank	Yes
	Clean Tank	Yes
	Shutoff & Rack out Vapor Extractor	Yes
#1 Turbine Bowser	Pump Out Tank	Yes
	Shutoff and Rack out Bowser Transfer Pump	Yes
	Remove Filters / Dispose	Yes
	Clean	Yes
#2 Turbine Reservoirs	Shutoff and Rack out Turning Gear Motor	Yes
	Shutoff and Rack out Turning Gear Oil Pump	Yes
	Pump Out Oil in Tank	Yes
	Clean Tank	Yes
	Shutoff & Rack out Vapor Extractor	Yes
#2 Turbine Bowser	Pump Out Tank	Yes
	Shutoff and Rack out Bowser Transfer Pump	Yes
	Remove Filters / Dispose	Yes
	Clean	Yes
	Return/Disposal	Yes
See Other Categories	Open Cooler End bells	Yes
	Seal up Collector Rings	Yes
	Remove Brush Rigging	Yes
Front Entry Door (West)	Install Signage	Yes
Overhead Door(North)	Install Signage	Yes

Coal Room Entry Door (West)	Install Signage	Yes
Coal Room Entry Door (East)	Install Signage	Yes
Coal Room Access Door From Plant	Install Signage	Yes
Building Entry Door (N/E)	Install Signage	Yes
Overhead Door(East)	Install Signage	Yes
Building Entry Door (S/E)	Install Signage	Yes
Access Door from Office	Install Signage	Yes
Access Doors from Warehouse	Install Signage	Yes
Door to Ash Silo	Install Signage	Yes
Door to Ash Silo (Steam Drum Level)	Install Signage	Yes
Door to Roof (3rd pt. Heater Level)	Install Signage	Yes
Door to Roof (Bucket Elevator)	Install Signage	Yes
Front Entry Door (West)	Key Lock, Dead Bolt or Hasp etc.	Yes
Overhead Door(North)	Key Lock, Dead Bolt or Hasp etc.	Yes
Coal Room Entry Door (West)	Key Lock, Dead Bolt or Hasp etc.	Yes
Coal Room Entry Door (East)	Key Lock, Dead Bolt or Hasp etc.	Yes
Coal Room Access Door From Plant	Key Lock, Dead Bolt or Hasp etc.	Yes
Building Entry Door (N/E)	Key Lock, Dead Bolt or Hasp etc.	Yes
Overhead Door(East)	Key Lock, Dead Bolt or Hasp etc.	Yes
Building Entry Door (S/E)	Key Lock, Dead Bolt or Hasp etc.	Yes
Access Door from Office	Key Lock, Dead Bolt or Hasp etc.	Yes
Access Doors from Warehouse	Key Lock, Dead Bolt or Hasp etc.	Yes
Door to Ash Silo (Steam Drum Level)	Key Lock, Dead Bolt or Hasp etc.	Yes
Door to Roof (3rd pt. Heater Level)	Key Lock, Dead Bolt or Hasp etc.	Yes
Door to Roof (Bucket Elevator)	Key Lock, Dead Bolt or Hasp etc.	Yes
South Wall, 26 Windows	Install Wood or Tin over Windows	Yes
East Wall (9 Windows, incl 2 Doors)	Install Wood or Tin over Windows	Yes
North Wall (Coal Room) 13 Windows includes. 2 Doors	Install Wood or Tin over Windows	Yes
North Wall (Maintenance Shop) 4 Windows	Install Wood or Tin over Windows	Yes
West Wall (Maintenance Shop) 8 Windows	Install Wood or Tin over Windows	Yes

West Wall (Front Entry) 2 Windows includes 1 Door	Install Wood or Tin over Windows	Yes
West Wall Entry Door	Install Signage	Yes
North Wall Entry Door (Double Doors)	Install Signage	Yes
Penthouse Entry Door Westside	Install Signage	Yes
Penthouse Entry Door Eastside	Install Signage	Yes
West Wall Entry Door	Key Lock, Dead Bolt or Hasp etc.	Yes
North Wall Entry Door (Double Doors)	Key Lock, Dead Bolt or Hasp etc.	Yes
Ladder Northwest Corner, (1)		Yes
Ladders Opacity Monitor (2), N/E & S/E		Yes
Penthouse Entry Door Westside	Key Lock, Dead Bolt or Hasp etc.	Yes
Penthouse Entry Door Eastside	Key Lock, Dead Bolt or Hasp etc.	Yes
South Wall, 1 Window		Yes
North Wall, 2 Windows		Yes
Access Door	Secure / Weld etc.	Yes
Ladder	Remove	Yes
Unit 1, CE 1	Rack Breaker Out	Yes
	Drain and Dispose Oil, Motor Gear Box	Yes
	Drain and Dispose Oil, Reduction Gear Box	Yes
	Drain and Dispose Oil, Chain Drive	Yes
Unit 1, CE 2	Rack Breaker Out	Yes
	Drain and Dispose Oil, Motor Gear Box	Yes
	Drain and Dispose Oil, Reduction Gear Box	Yes
	Drain and Dispose Oil, Chain Drive	Yes
Unit 1, CE 3	Rack Breaker Out	Yes
	Drain and Dispose Oil, Motor Gear Box	Yes
	Drain and Dispose Oil, Reduction Gear Box	Yes
	Drain and Dispose Oil, Chain Drive	Yes
Unit 1, DE 1	Rack Breaker Out	Yes
	Drain and Dispose Oil, Motor Gear Box	Yes

	Drain and Dispose Oil, Reduction Gear Box	Yes
Unit 1, DE 2	Rack Breaker Out	Yes
	Drain and Dispose Oil, Motor Gear Box	Yes
	Drain and Dispose Oil, Reduction Gear Box	Yes
Unit 1, DE 3	Rack Breaker Out	Yes
	Drain and Dispose Oil, Motor Gear Box	Yes
	Drain and Dispose Oil, Reduction Gear Box	Yes
West Wall Entry Door		Yes
South Wall Entry Door (Double Doors)		Yes
Penthouse Entry Door Westside		Yes
Penthouse Entry Door Eastside		Yes
West Wall Entry Door	Key Lock, Dead Bolt or Hasp etc.	Yes
South Wall Entry Door (Double Doors)	Key Lock, Dead Bolt or Hasp etc.	Yes
Ladder South West Corner (1)		Yes
Ladders Opacity Monitor (2), N/E & S/E		Yes
Penthouse Entry Door Westside	Key Lock, Dead Bolt or Hasp etc.	Yes
Penthouse Entry Door Eastside	Key Lock, Dead Bolt or Hasp etc.	
South Wall, 2 Windows		Yes
Access Door	Secure / Weld etc.	Yes
Ladder		Yes
Unit 1, CE 1	Rack Breaker Out	Yes
	Drain and Dispose Oil, Motor Gear Box	Yes
	Drain and Dispose Oil, Reduction Gear Box	Yes
	Drain and Dispose Oil, Chain Drive	Yes
Unit 1, CE 2	Rack Breaker Out	Yes
	Drain and Dispose Oil, Motor Gear Box	Yes
	Drain and Dispose Oil, Reduction Gear Box	Yes
	Drain and Dispose Oil, Chain Drive	Yes
Unit 1, CE 3	Rack Breaker Out	Yes

	Drain and Dispose Oil, Motor Gear Box	Yes
	Drain and Dispose Oil, Reduction Gear Box	Yes
	Drain and Dispose Oil, Chain Drive	Yes
Unit 1, DE 1	Rack Breaker Out	Yes
	Drain and Dispose Oil, Motor Gear Box	Yes
	Drain and Dispose Oil, Reduction Gear Box	Yes
Unit 1, DE 2	Rack Breaker Out	Yes
	Drain and Dispose Oil, Motor Gear Box	Yes
	Drain and Dispose Oil, Reduction Gear Box	Yes
Unit 1, DE 3	Rack Breaker Out	Yes
	Drain and Dispose Oil, Motor Gear Box	Yes
	Drain and Dispose Oil, Reduction Gear Box	Yes
Entry Door	Key Lock, Dead Bolt or Hasp etc.	Yes
Stairway		Yes
Signage - Asbestos, Arsenic, Lead Paint, etc.		Yes
Secure all access points (Doors, Intake gate,)		Yes
Protect lower level windows from breakage	Install Plywood	Yes
Repair all broken windows	N/A	
Air Compressor	Bleed Off Pressure, Drain Oil	Yes
Curb Stop	Close	Yes
Circulators Seal Water Lines	Disconnect& Drain	Yes
Eye Wash Station	Drain Supply Lines & Filter Housing	Yes
Documentation to be stored		Yes
Boiler Log Sheets		Yes
Turbine Generator Log Sheets		Yes
Total Generation Recorder Charts		Yes
System Voltage Charts		Yes
Generator Frequency Charts		Yes

Boiler Temperature Charts		Yes
Turbine Vacuum Charts		Yes
Boiler O2 Charts		Yes
Oil Drained from Rotating Equipment	Store In Barrels & Disposed	Yes
1-4 Heater Level Alarm	Isolate Power, Remove Switch	Yes
1-2 Heater Level Alarm	Isolate Power, Remove Switch	Yes
1-1 Heater Level Alarm Low	Isolate Power, Remove Switch	Yes
1-1 Heater Level Alarm High	Isolate Power, Remove Switch	Yes
#1 Hotwell Level Alarm Low	Isolate Power, Remove Switch	Yes
#1 Hotwell Level Alarm High	Isolate Power, Remove Switch	Yes
#1 Main Steam Pressure Low	Isolate Power, Remove Switch	Yes
#1 Main Steam Pressure High	Isolate Power, Remove Switch	Yes
2-4 Heater Level Alarm	Isolate Power, Remove Switch	Yes
2-2 Heater Level Alarm	Isolate Power, Remove Switch	Yes
2-1 Heater Level Alarm Low	Isolate Power, Remove Switch	Yes
2-1 Heater Level Alarm High	Isolate Power, Remove Switch	Yes
#2 Hotwell Level Alarm Low	Isolate Power, Remove Switch	Yes
#2 Hotwell Level Alarm High	Isolate Power, Remove Switch	Yes
#2 Main Steam Pressure Low	Isolate Power, Remove Switch	Yes
#2 Main Steam Pressure High	Isolate Power, Remove Switch	Yes
Vacuum Priming Low	Isolate Power, Remove Switch	Yes
Vacuum Priming High	Isolate Power, Remove Switch	Yes
Bearing Water Pumps	Isolate Power, Remove Switch	Yes

4 APPENDIX "B"

Daily Log – Escanaba Lay Up Project	
Date	Decisions and Event / Actions
Week May 11 to 15	
5/12/15	Circulation Pumps will not be pulled
	Draining continues
	Drill holes in Superheater for drainage and map and document location
	WILL NOT open valves containing asbestos, leave undrained
	Purchase coal piping, approved by M Furmanski
	Fill BFW pumps with glycol, apply to other pumps which cannot be drained
	Disconnect power of mercury switches do not open mercury containment
5/13/15	Double the number of buggies for unloading bunkers
	Operations placing position tags on valves (open/close)
	Draining wrapper drives
	Access to the R Creisse site for dumping coal was approved by Mike Furmanski
	Material for the coal legs fabrication to empty bunkers will be here tomorrow
	Decided to bring in BOSK earlier, May 18, because of outage at paper mill. Scope was reduced to line items 5,7,12 and 4 if necessary (1,2,3,6,8,9,10,11, not being done)
	Buggies for unloading the coal bunkers will arrive tomorrow
5/14/15	2 buggies arrived on site. Trying to locate 2 more
	Scaffolding for boiler planned to start 5/15
	Operations placing position tags on valves (open/close), continues
	Permeate tank is drained
	Modifying handrail for buggies
	Start modfying coal legs and adapt instrumentation for manual dump control
	Materials for coal leg modification are on site (Piping)
5/15/15	Continued with valve position tagging, open/close
	Majority of coal equipment is oil drained
	Coal leg modification was finished
	Conducted a test run loading coal into the truck using the buggies. A formal

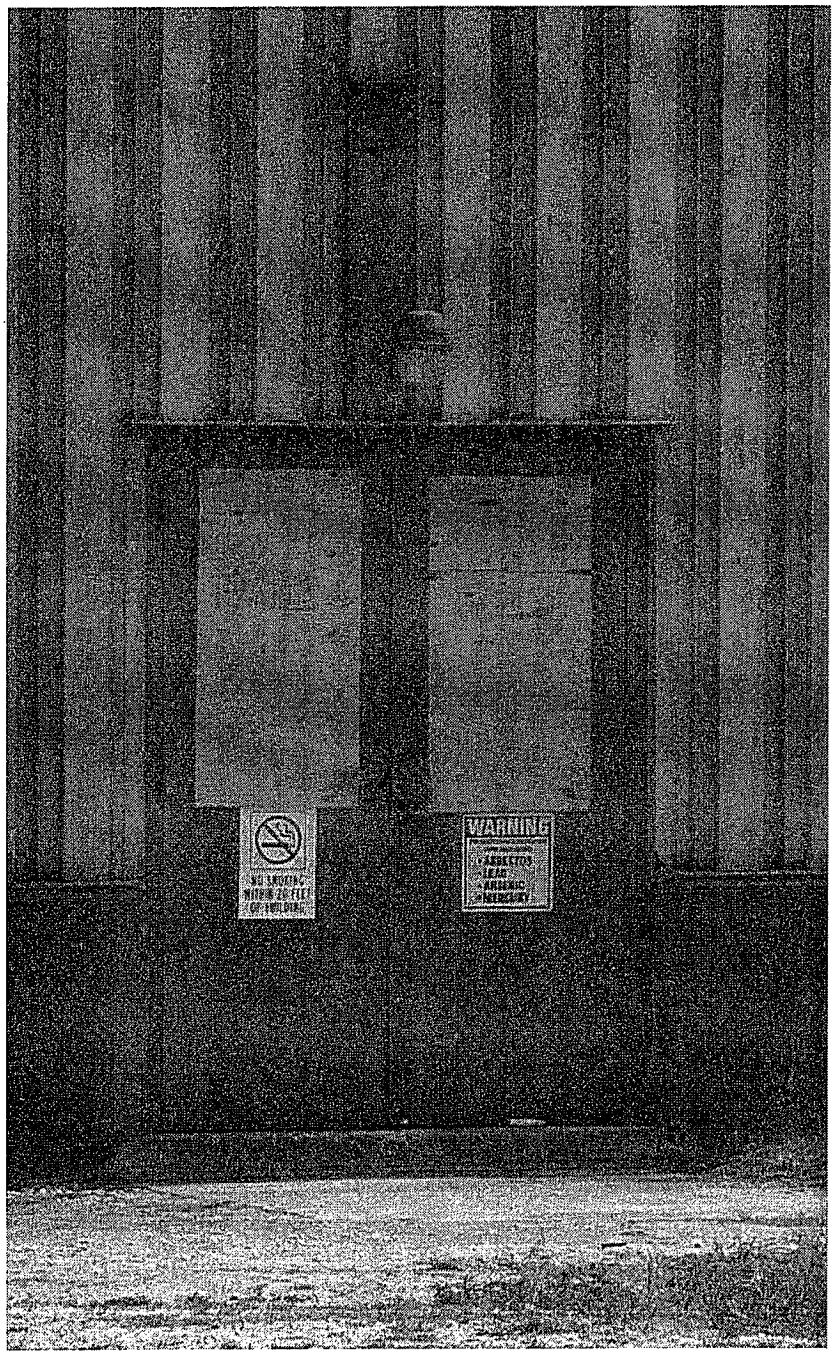
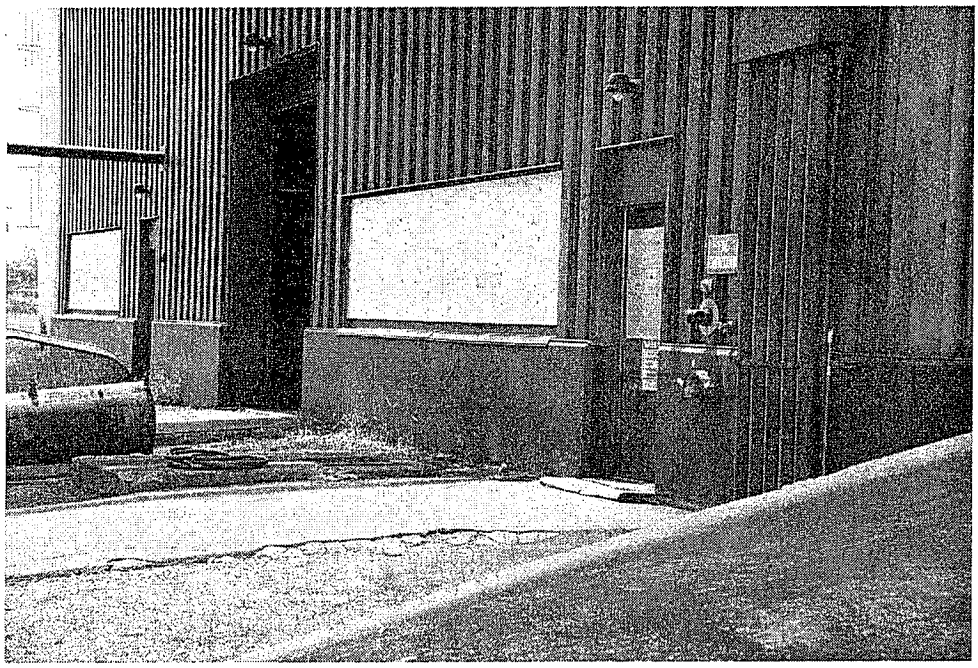
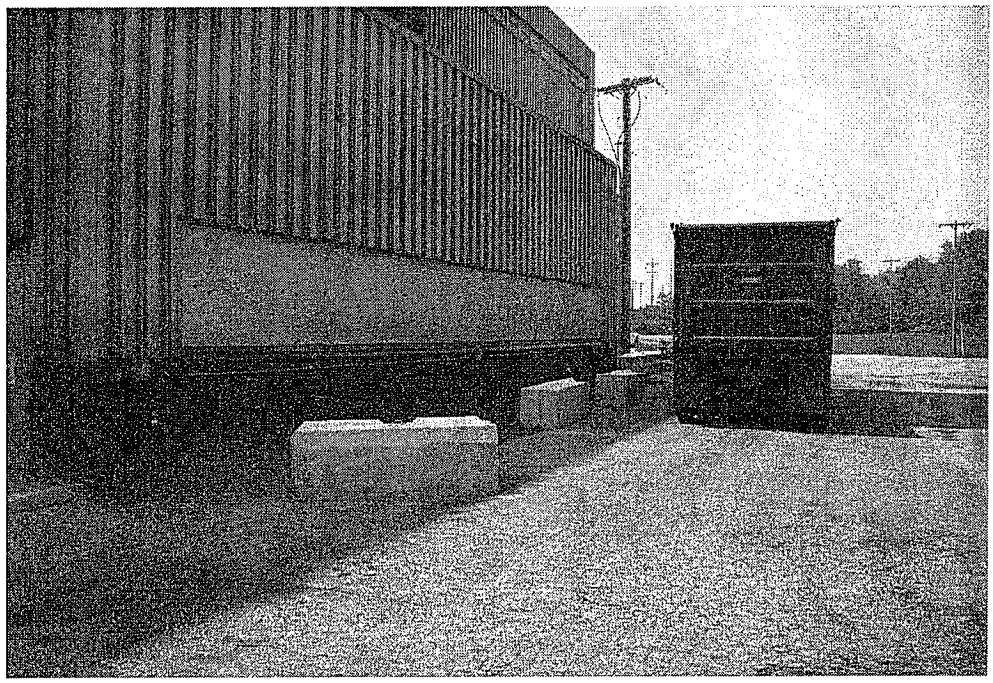
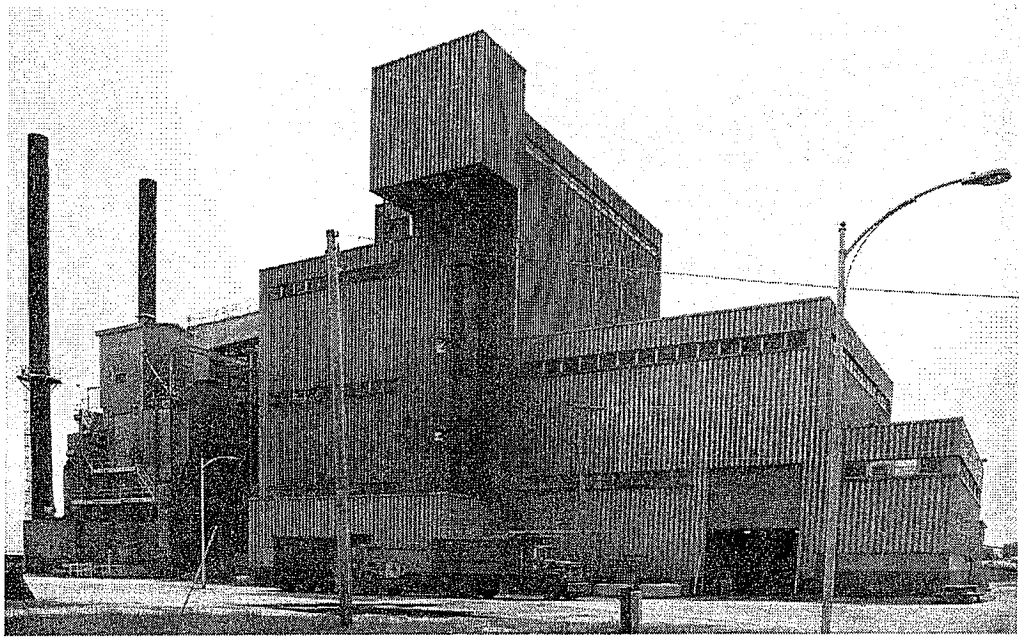
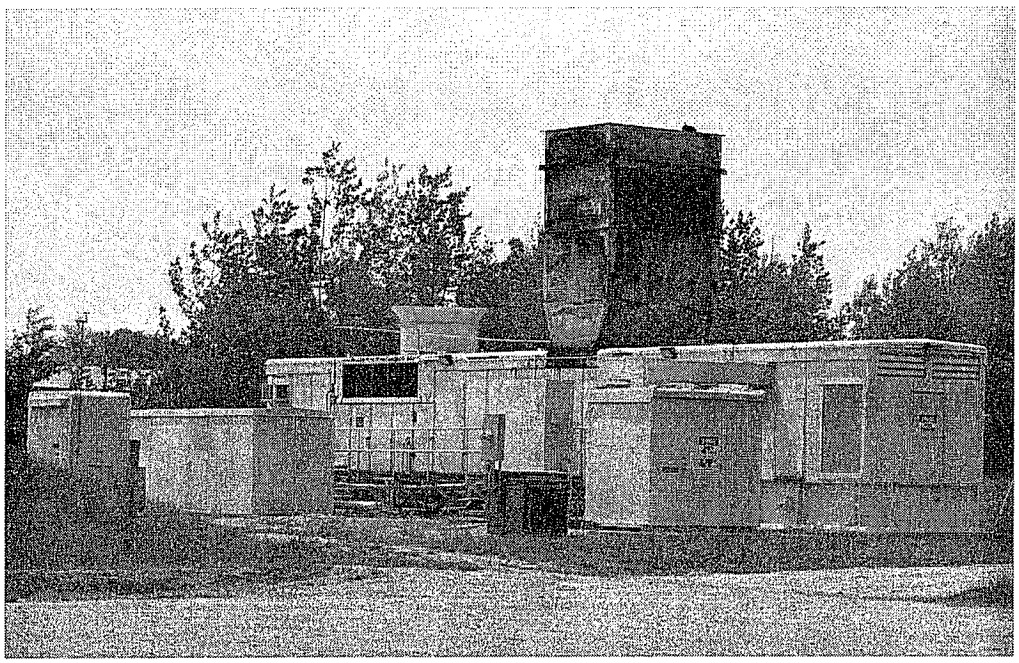
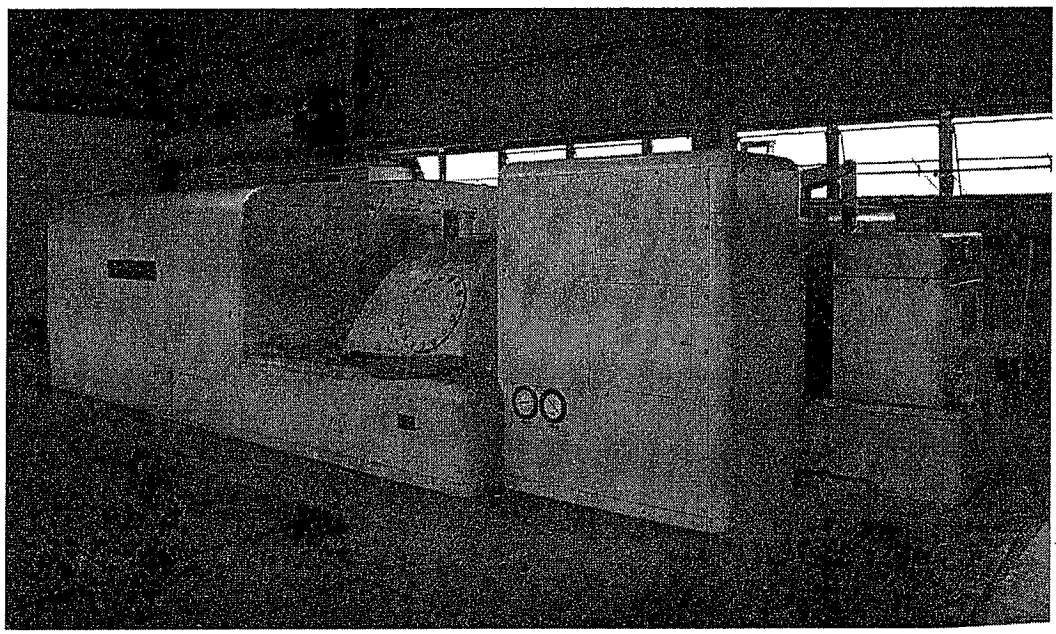
	procedure will be written and trained upon. We will continue on Monday
	Week May 18 to 22
5/18/15	Commenced unloading the coal bunkers using the buggies and transporting coal off site. Procedure for unloading issued to operations and clarified
	BOSK on site cleaning bottom ash hoppers by means of a vacuum truck
	Drained the oil of the rest of coal equipment
	Removed two more switches containing mercury
	Managed to load 6 trucks with the day shift which is approx. a total 70 tons removed. Night shift will continue with 2 people.
5/19/15	Unit drain holes drilled
	Decided not to drill drain holes in the superheater for drainage but use the vacuum truck still on site. This means too that we do not have to map the holes
	We tried the vacuum truck but it did not work. So we are back to plan A and started drilling holes and mapping
	Hydrite chemicals removed from site by vendor
	CT batteries removed from site
	Loaded 4 trucks today because of an interruption caused by loading chemicals and batteries on trucks
	Lower super heaters unit 2 drain holes drilled in bottom loops
5/20/15	BOSK continues to vacuum items 5, 7 and 12 of the quoted scope
	Continued to unload coal from the bunkers, experienced elevated CO levels at the coal legs caused by the gasoline powered buggies
	As a result the sequence of loading the buggies has been changed slowing down the unloading a bit
	In consultation with Pat Fulsher the City of Escanaba, Mike Furmanski, was advised that the low temperature superheat loop will not be drained.
	Access to this super heater loop is only possible by removing tubes which would be very costly. For now since the uncertainty of Sterling purchasing the facility the decision to drain or heat this superheater loop is put off until later this year for both units
	Unloaded coal out of the bunkers totaling 6 trucks
	All mercury and gauges except for one are ready for disposal. One switch requires a special procedure for removing off site.
	The precipitator doors interconnected lock system was completed and de-

	energized for Unit 2. The unit is completely locked out. Unit 1 is planned for tomorrow
5/21/15	Continue to unload coal bunkers, 5 truck loads
	BOSK finished up vacuuming the #1 precipitator
	Removed 4 emergency lights. 9 still to be done
	UPCO pulled the RTU MISO data connection
5/22/15	No coal unloading today. The buggies create elevated levels of CO in the boiler which conflicts with the confined space entry of BOSK
	It is estimated that unloading now stands at 40% empty and next week we will have a crew of 5 people available which results typically in a 10% per day progress.
	Continued to disconnect the emergency lighting
	Operations for this extended weekend have a list of tasks to be completed
	BOSK is vacuuming the #2 precipitator and will on Tuesday next
	Permeate tank was vacuumed and cleaned
	Lower super heater loops were drilled and drained
	We had limited manpower today because of the holiday
Week May 26 to 29	
5/26/15	BOSK finished their scope of work and the scaffolding was removed
	Emptied Unit 1 chemical day tank
	Removing covers of the ST NRVs and drained them of
	Emptied the sodium hypo chloride tank
	Moved coal leg from Unit 1 to Unit 2
	Closed Unit 2 precip
5/27/15	Continued unloading coal from bunkers, 4 truck loads
	Continued taking down emergency lights
	Finished up opening and draining NRVs
	Moved manual controls of coal legs to Unit 2
	Finished moving the Sodium Hypo tank and containment
	Unit 1 chemical day tank was drained and cleaned
	Finished locking up Unit 1 and Unit 2 precips
	Ran Unit 1 ID fan for CO control with front doors open

	We will have a 7 am transportation of one truck
5/28/15	Fully concentrated with the whole crew on unloading the coal bunkers, 7 truck loads
	Continued unloading coal. Since one of the trucks had two flat tires progress was a bit slower. Truck came back by noon. Truckloads 4
5/29/15	To catch up it was decided to bring the crew in on Saturday fom 6.30 am to 12.00. Monday morning the crew will start at 7 am.
	Two Nalco drums were picked by the vendor
	The coal bunkers are estimated for today at 66% empty
Week June 1 to June 5	
6/1/15	Unloaded the coal bunkers on Saturday morning May 30, 6 trucks. Total now stands at 42 trucks, approx. 500 tons.
	Continued unloading coal. It is anticipated to be finished with unloading by midday on Wednesday about 8 days ahead of schedule. Unloaded 6 trucks.
6/2/15	Continued with coal unloading, unloaded 6 trucks
	Surveyed bulletin boards for PES documents which have to go back to the company. No issues.
6/3/15	Coal unloading was finished today at 10.00 am. Unloaded a total of 51 trucks which equals approx. 612 tons. A more accurate number will be produced by the receiving party
	Cleaning up the coal spills in the plant
	It was decided by Mike Furmanski, City of Escanaba, not to do any lay up work on the gas turbine unit.
6/4/15	OSI on site to pick up the first batch of drums containing chemicals
	Continue to sweep and clean the plant
	Buggies are ready to be picked up and rental payments were stopped
	The last mercury containing measuring device will be removed by Tri Media in a special containment
	The sum total of the weigh scale receipts added up to 681.74 tons
	Started boarding up the pump house windows
	Cleaned 4 chemical tanks, still need to do 2
	Repaired the railing which was modified to unload coal
	Started modification track hopper lid to be able to make it lockable
	Two company trucks are on transport to Sedalia

6/5/15	It was decided in consultation and with approval of the City of Escanaba to plan for overtime for the weekends of June 6 and 14
	A list for weekend work/tasks was produced
6/8/15	Weekend tasks finished:
	50% of the windows at ground level are covered with plywood
	The lube oil of the ID and FD fans was drained of
	All warning signs are up on the external doors. Warning against asbestos, lead, arsenic and mercury at the facility
	The pump house was cleaned and ready to be locked up.
	Boarding continued as weather permits (thunderstorms in the area)
	TriMedia onsite removing mercury out barometric pressure gauge and prepared all the devices for shipment
	Removed poil from coal conveyers and scales
	Opened check valves on DA system
	Opened check valves on ash system steam side
6/9/15	DEQ inspector on site for a walk through and inspection and received an update on the status of the plant
	Boarding of the ground level windows continued and now stands at 100 % complete
	It was decided to remove asbestos insulation pre-emptively before it becomes a bigger issue. This is unforeseen and not in the budget, $1,000
	Rinsed and labeled the NALCO tanks. These are ready for pick up.
	Ladders from the upper floors are at ground level for storage
	Continued sweeping and cleaning in the plant
	2 Porta Potties were delivered on site
6/10/15	OSI pumped out the Turbine Oil sump
	The generator brush rings will be conserved using Rust-o-Leum rubber dip after de-greasing the surface using acetone
6/11/15	All chemical drums/tanks removed from site
	Taking down cage ladders and bottom part of the stairs outside the building to prevent illegal access to the building at higher levels. Parts been taking off are stored inside the building
	Estimated completion of the project now stands at 98%.
	Cover floor drains with plugs

6/12 to 6/15	Disconnect and drain city water
	Drain firewater system
	Lock external doors and entrance gate
	Disconnect power to the plant
	Demobilize

5 APPENDIX "C"

Photos of the execution of the project