

Readying Michigan to Make Good Energy Decisions

Michigan Energy Public Forum
Thoughts From MI's Municipal Utilities

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Michigan “Public Power”

- ▶ Michigan has 41 municipally-owned electric utility systems. All are members of MMEA.
- ▶ Range in size from a small village of less than 200 customers (Daggett) to the Lansing Board of Water and Light with almost 100,000 customers
- ▶ Total aggregate annual retail electricity sales to public power customers in Michigan in 2011 was approximately 7.6 billion KWh (or about 8% of the State’s total retail electricity sales)

MMEA Members

- ▶ *Baraga*
- ▶ *Bay City*
- ▶ *Charlevoix*
- ▶ *Chelsea*
- ▶ *Clinton*
- ▶ *Coldwater*
- ▶ *Croswell*
- ▶ *Crystal Falls*
- ▶ *Daggett*
- ▶ *Detroit*
- ▶ *Dowagiac*
- ▶ *Eaton Rapids*
- ▶ *Escanaba*
- ▶ *Gladstone*
- ▶ *Grand Haven*
- ▶ *Harbor Springs*
- ▶ *Hart*
- ▶ *Hillsdale*
- ▶ *Holland*
- ▶ *L'Anse*
- ▶ *Lansing*
- ▶ *Lowell*
- ▶ *Marquette*
- ▶ *Marshall*
- ▶ *Negaunee*
- ▶ *Newberry*
- ▶ *Niles*
- ▶ *Norway*
- ▶ *Paw Paw*
- ▶ *Petoskey*
- ▶ *Portland*
- ▶ *St. Louis*
- ▶ *Sebewaing*
- ▶ *South Haven*
- ▶ *Stephenson*
- ▶ *Sturgis*
- ▶ *Traverse City*
- ▶ *Union City*
- ▶ *Wakefield*
- ▶ *Wyandotte*
- ▶ *Zeeland*

Municipal Characteristics / Controlling Authorities

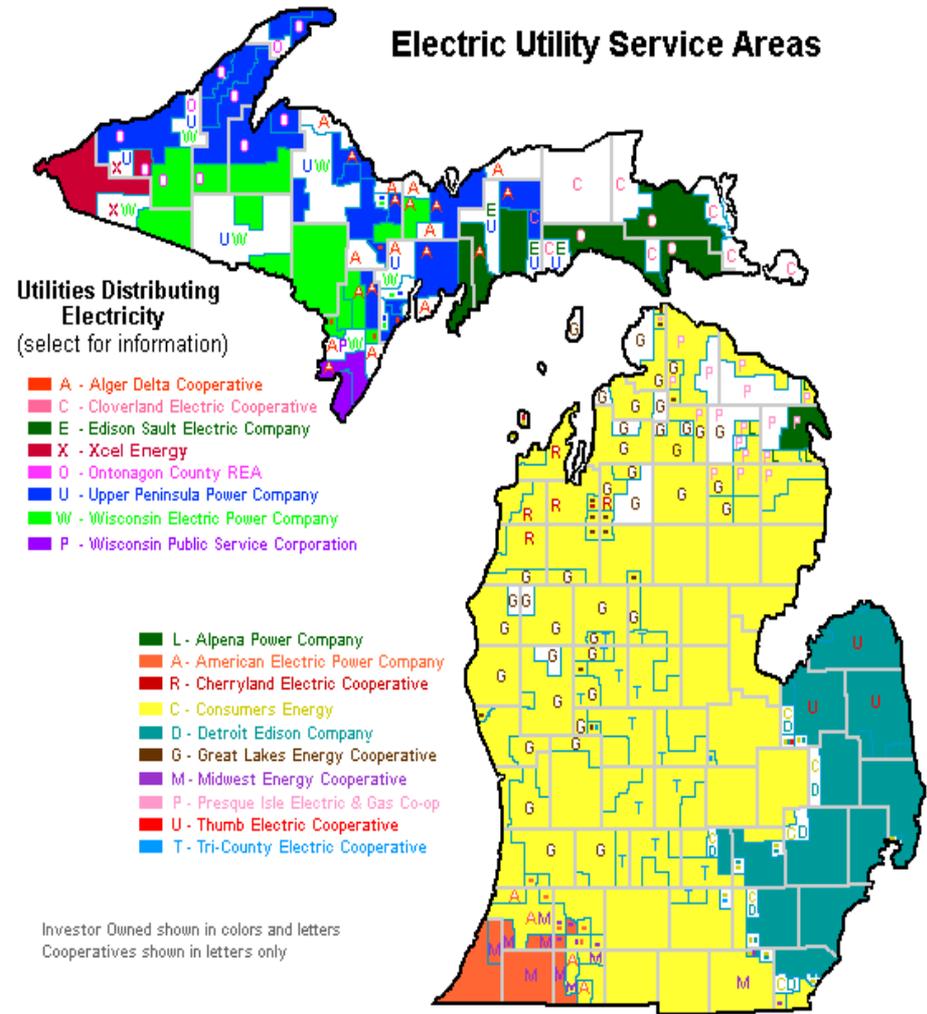
- ▶ Not-for-Profit Load Serving Entities w/Obligation to Provide Customers w/Reliable, Affordable, and Environmental Friendly Electricity
- ▶ *Regulated Locally by Governing Bodies* Made up of Voted or Appointed Members
- ▶ Michigan Constitution Art. VII, Sec. 24
- ▶ Michigan Statute MCL 124.3, 117.4f, 460.10y (PA 141 of 2000/PA 286 of 2008)

MI Constitution 1963 Art. VII, Sec.24

- ▶ “. . . Any city or village may acquire, own or operate, within or without its corporate limits, public service facilities for supplying water, light, heat, power,”
- ▶ Service without corporate limits allowed up to 25% of that furnished within or greater amounts allowed by law.

Where “Public Power” Serves

- ▶ 12 municipal electric systems are located in Michigan’s Upper Peninsula
- ▶ 20 municipal utilities within the Consumers Energy service territory
- ▶ 4 in the Detroit Edison footprint
- ▶ 5 are located in the south-eastern lower peninsula in the service territory of Indiana Michigan Power Company (AEP)



Joint Action Agencies

- ▶ PA 448 of 1976, as amended, allows the formation of **Joint Action Agencies (JAAs)** where municipal electric utilities can work jointly to *“acquire, finance, maintain, and operate generating, transmission, and distribution facilities of electric power, fuel and energy reserves and all necessary related properties, equipment, and facilities;”*
- ▶ Three JAAs are currently serving Michigan’s municipal electric utilities:

MI Public Power Agency (MPPA) – 17 members

MI South Central Power Agency (MSCPA) – 5 members

WPPI Energy (WPPI Energy) – 6 members in UP

Public Act 295

Energy Optimization

Programs Offered/Results

- ▶ **Residential Low Income Services**
- ▶ All the municipal electric utilities continued to offer low income programs to their customers in 2012.

- ▶ **Residential Solutions**
- ▶ All the municipal electric utilities offered programs to their residential customers, examples of the types of programs are listed below.

- ▶ *Efficient Lighting Program*
- ▶ *Refrigerator/Freezer Turn-In and Recycling Program*
- ▶ *Residential Education Services*
- ▶ *Residential HVAC and Appliances*
- ▶ *Audit and Weatherization (on-line audits)*
- ▶ *Residential Multi-Family In-Unit Efficiency*
- ▶ *Electric Water Heater Savings Kits*
- ▶ *Pilot/Emerging Technology Program*

Public Act 295 Energy Optimization Programs Offered/Results

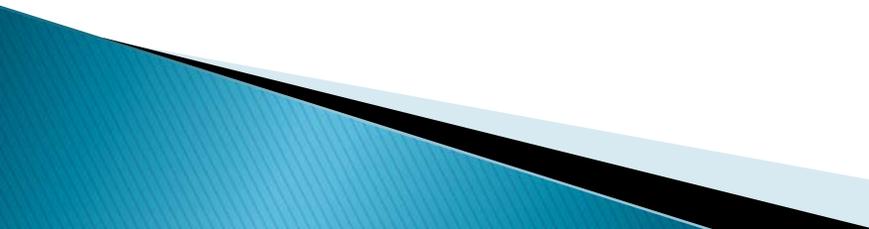
Business Solutions

All the municipal electric utilities offered programs to their commercial and industrial customers, examples of the types of programs are listed below.

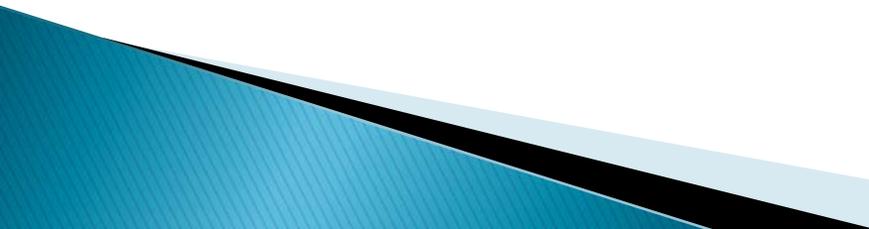
- ▶ *Commercial and Industrial Prescriptive Incentive Program*
- ▶ *Commercial and Industrial Custom Incentive Program*
- ▶ *Multi-Family Common Area Program*
- ▶ *Business Education Services*
- ▶ *Pilot/Emerging Technology Program*

- ▶ 2011 Program Results for MMEA Members (with the exception of Daggatt who was under the Efficiency United programs):
 - ▶ Total MWH Savings: 55,734 MWH (this translated into 108% of goal)
 - ▶ Total Expenditures; \$7,885,255

Public Act 295 Renewable Energy

- ▶ All 41 MMEA Members have filed REP Biennial Plans and Annual Reports.
 - ▶ 40 members are on track to obtain 10% of their retail sales from renewable energy resources by 2015 without exceeding the incremental cost of compliance rate caps in Sec. 45 of PA 295.
 - ▶ Members have invested in the following renewables: biomass, hydroelectric, landfill gas, solar, and wind.
 - ▶ Some members will also supplement their investment in renewables by purchasing RECs.
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Holland Board of Public Works

- ▶ Michigan's second largest municipally owned electric utility
 - ▶ Serves 27,500 customers in the City of Holland and surround townships
 - ▶ Electric revenue: 82% Commercial/Industrial
 - ▶ Currently uses waste heat to melt snow from 10 acres of streets and sidewalks in shopping district
- 

Holland's Community Energy Plan

▶ Goals

- GHG per capita from 24 to 13 metric tons by 2050
- Maintain competitive rates
- Attractive to business development

▶ Seven task forces underway implementing strategies to achieve the goals

- Electric Generation
- District Energy
- Home Energy Retrofits
- Commercial/Institution Building Efficiency
- Building Labeling
- Industrial Bundle of Energy Services
- Education and Outreach

Holland Electric Generation

- ▶ Performed a Sustainable Return on Investment Analysis
 - Considered financial and non-financial impacts of generation options
 - <http://p21decision.com/p21-start-thinking/>
- ▶ Staff recommendations approved by Board and City Council in December 2012
 - Develop and build 114 MW NG Combined Cycle
 - Complete PPA for 32 MW of wind
 - Let upcoming regulations determine fate of coal operation at James De Young

Holland's Combined Cycle Plant

- ▶ Site Selection in Progress
- ▶ COD planned for December 2016
- ▶ Displaces James De Young coal (150K tons/year)
- ▶ Will produce enough waste heat to increase snow melt area 4–5 times
- ▶ Plan to use low temp water to drive geothermal heat pump usage in buildings
- ▶ Evaluating high temp (200 °F) water service to Hope College

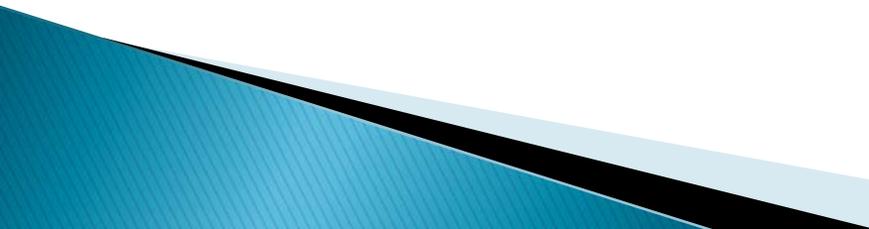
Lansing Board of Water & Light

- ▶ Michigan's largest municipally owned electric utility
 - ▶ Owned by citizens of Lansing
 - ▶ Serve the Lansing metropolitan area with electricity, water, central steam and chilled water
 - ▶ Board of Commissioners appointed by Mayor and confirmed by City Council
 - ▶ Board members represent diverse population
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Environmental Commitment

- ▶ Michigan's first utility renewable energy portfolio standard
 - ▶ Michigan's first comprehensive energy efficiency program
 - ▶ Michigan's largest solar energy array
 - ▶ First new utility electric generating plant in over twenty years
 - ▶ Reduction of greenhouse gases 20% by 2020
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Planning Process

- ▶ Comprehensive planning process
 - Reliability
 - Environmental Stewardship
 - Affordability
 - ▶ 2008 IRP
 - Proposed replacement of Eckert electric generating plant
 - ▶ IRP recommendations reviewed by Citizen Task Force
 - ▶ Task Force held several public meetings, took input from community and made recommendations
 - Affirmed planning criteria of affordability, reliability, and environmental stewardship
 - Delay decision due to economic downturn and GM bankruptcy
 - Consider alternative generation technology
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REO Town Plant

- ▶ Natural gas combined cycle cogeneration plant
 - Produces steam for central steam loop
 - Generates electricity for electric customers
- ▶ Highly efficient/low emission plant
 - Reduces coal use by over 138,000 tons per year
 - Reduces mercury and SO_x by over 99%
 - Reduces NO_x by over 95%
- ▶ Contributes significantly to generation reliability within the BWL's service territory
- ▶ Complements renewable energy options
- ▶ Helps reduce greenhouse gas emissions 20%