

House Committee on Energy Policy

Overview: Michigan Municipal Electric Association

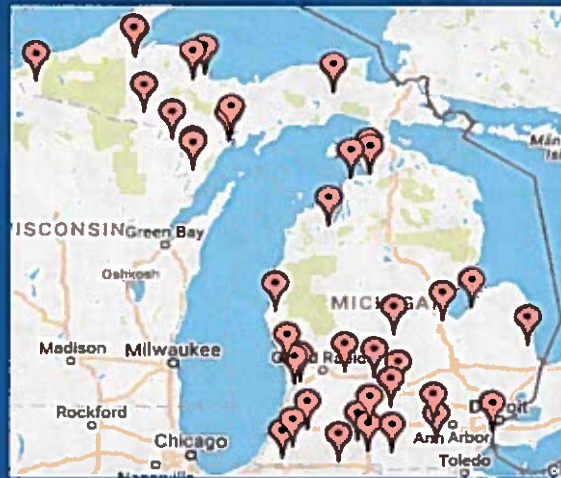


Jim Weeks
Executive Director
Michigan Municipal Electric
Association
03/28/2017

About MMEA Members

- Michigan has 40 municipally-owned electric utility systems
- 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 is approximately 7.5 million MWh (or about 8% of the State's total retail electricity sales)
- All municipally owned electric utility systems in the State are members of the *Michigan Municipal Electric Association (MMEA)*

Location of MMEA Members



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)

Local Control MCL 460.6

MICHIGAN PUBLIC SERVICE COMMISSION (EXCERPT) Act 3 of 1939

460.6 Public service commission; power and jurisdiction; "private, investor-owned wastewater utilities" defined.

Sec. 6.

(1) The public service commission is vested with complete power and jurisdiction to regulate all public utilities in the state ***except a municipally owned utility.....***

MCL 460.10y Act 3 of 1939

- Leaves ROA decision to governing body of a municipally owned utility
- Provides same protection for existing customers that is provided to regulated utilities in 124.3
- References Section 460.6, "the commission does not have jurisdiction over a municipally owned utility."

Service Territory MCL 124.3

INTERGOVERNMENTAL CONTRACTS BETWEEN MUNICIPAL CORPORATIONS (EXCERPT)

Act 35 of 1951

124.3 Furnishing municipal service outside municipal corporate limits; definitions.

Sec. 3.

(1)A municipal corporation may sell and deliver heat, power, and light in amounts as determined by the governing body of the utility, except for both of the following:

(a) Electric delivery service is *limited to the area of any city, village, or township that was contiguous to the municipal corporation as of June 20, 1974, and to the area of any other city, village, or township being served by the municipal utility as of June 20, 1974.*

(2) A municipal corporation shall not render electric delivery service for heat, power, or light *to customers outside its corporate limits already receiving the service from another utility unless the serving utility consents in writing.*

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.

“Public Power” Joint Action

- Michigan PA 448 of 1976, as amended, encourages the formation of **Joint Action Agencies** (JAAs) to allow municipal electric utilities to jointly *“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:
 - Michigan Public Power Agency (MPPA) – 18 full members 4 associate members
 - Michigan South Central Power Agency (MSCPA) – 5

Questions?



Jim Weeks
Executive Director
Michigan Municipal Electric
Association

House Energy Policy Standing Committee

George Stojic, Executive Director
Planning and Development
Lansing Board of Water & Light



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Lansing BWL Who We Are

- ❖ Owned by the citizens of Lansing
- ❖ Independent Board of Commissioners
 - Eight voting members
 - Nominated by Mayor
 - Confirmed by City Council
 - Three nonvoting members represent townships
- ❖ Provide Lansing area with electricity, drinking water, steam and chilled water
 - Drinking water since 1885
 - Electricity since 1892
 - Central steam since 1919
 - Chilled water since 2001



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BWL Water Utility

- ❖ Largest groundwater sourced drinking water system in Michigan (55,000 Customers)
- ❖ Own and operate two water treatment plants (Dye and Wise) with 50 million gallons a day of treatment capacity
- ❖ The BWL pumps, treats and distributes approximately 7 billion gallons of water annually
- ❖ Serve most of the Lansing metro region
- ❖ One of two water utilities in the U.S. to remove all lead service lines



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BWL Electric Facilities

- ❖ Number of electric customers
 - 82,946 Residential
 - 12,685 Commercial
 - 265 Industrial
- ❖ The BWL owns and operates:
 - Four pulverized coal-fired electric generating units
 - One gas fired CHP steam and electric generating plant
 - Solar energy and hydro installations
- ❖ PPA with MPPA for power generated at DTE's Belle River Plant
- ❖ PPAs for wind energy and utility scale solar



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REO Town Combined Heat and Power Plant

- ❖ Three separate facilities compose REO Town
 - Grand Trunk railroad depot
 - New BWL office building, LEED gold certification
 - Combined cycle cogeneration plant
- ❖ Operational July 1, 2013
- ❖ Two GE LM 6000 natural gas turbines with HRSG's
- ❖ One 14 MW steam turbine
- ❖ One auxiliary natural gas steam boiler



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REO Town Plant (continued)

- ❖ Replaces 7 old coal fired boilers
- ❖ Operates 40% more efficiently than coal units
- ❖ Eliminates the need to burn 350,000 tons of coal
- ❖ Reduces emissions: mercury more than 99%, SO2 99%, NOX 85%, GHG 50%
- ❖ Diversifies fuel mix
- ❖ Improves operational flexibility and reliability



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Steam and Chilled Water

- ❖ Serve the Lansing downtown district with steam heating
 - 185 steam customers
 - Majority of customer are commercial
 - One industrial customer
 - 700 million pounds of steam annually
- ❖ Chilled Water service to the downtown district
 - 16 commercial customers
 - 8,887 Thousand ton-hours annually
 - Chilled Water Plant capacity is 8,000 tons



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2015 Integrated Resource Plan

- ❖ Comprehensive electric generation planning incorporating a broad set of resource options, including future uncertainty and risk, and using multiple scenarios and sensitivities to select the best resource plan
- ❖ Prompted by announced retirement of BWL's Eckert coal fired generating station in 2020
- ❖ Undertaken as a public process



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Public Engagement

❖ Customer Survey

- Reliability, affordability and environmental impact were all key customer considerations
- Local generation and energy security
- The majority of Residential and half of Business Customers would pay more for renewable energy

❖ Created a nine member IRP Citizen Advisory Committee (CAC) composed of cross section of customers to direct IRP process



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Mission of Citizen Advisory Team

- ❖ Review and evaluate BWL Staff's assumptions, forecasts, and analysis
- ❖ Conduct public meetings
- ❖ Provide opportunity for interested members of the community to offer opinions, information and recommendations
- ❖ Recommend additional analysis by the BWL staff
- ❖ Make recommendations for future resources



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Citizen Advisory Committee Process

- ❖ CAC met 8 times between October, 2015 and April, 2016
- ❖ First 6 meetings were public meetings
 - Open to public participation
 - Presentations by subject matter experts
 - Sessions recorded and made available on website:
lansingenergytomorrow.com
- ❖ Final meetings focused on guiding principles, reviewing model results, and developing recommendations



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Citizen Advisory Committee Process (Continued)

- ❖ Public meetings in different locations included the opportunity for any interested party to make presentation and offer comment
- ❖ Web page with schedules and locations of meetings, copies of presentations and documents, and complete audio recordings of meetings
- ❖ Opportunity to submit written comments at meetings or for posting on web site



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Citizen Advisory Committee's Guiding Principles

- ❖ Provide affordable, reliable, secure, and sustainable electricity to customers.
- ❖ Continue BWL's leadership in the deployment of clean-energy technologies, such as renewable energy, energy efficiency, and distributed-energy resources.
- ❖ Promote further improvement in a healthy environment for customers and the Greater Lansing region.
- ❖ Generate and maintain local employment.
- ❖ Promote economic development in the Greater Lansing region.
- ❖ Be adaptable and mitigate future risks related to resource/fuel availability, technological advances, and cost.
- ❖ Emphasize the importance of local control and continue to seek input from the community when making major decisions.
- ❖ Prioritize energy self-sufficiency by reducing BWL's reliance on outside energy markets.



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Citizen Advisory Committee Recommendations

Year	Recommendation
2018	85MW wind energy
2020	40MW solar energy 100MW natural gas generation
2025-2029	70MW solar energy
2030	300MW natural gas generation
2018-2030	70MW demand management Continue 1% energy waste reduction program



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Other Committee Recommendations

- ❖ Review and update the IRP (with input from a standing CAC) every four years
- ❖ Regularly review the applicability and costs of advancing renewable energy technologies, particularly battery storage
- ❖ Continue to explore opportunities to expand BWL energy-efficiency program
- ❖ <http://lansingenergytomorrow.com>



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IRP Follow-up

- ❖ Many recommendations included BWL 2016 Strategic Plan
 - 88 Mw's wind energy PPA
 - 30% Clean energy goal in 2020
 - Exploring 40 Mw's additional solar in 2020
 - Beginning development of new natural gas combined cycle power plant
 - Expand energy waste reduction goal beyond 1% of sales annually after 2020
- ❖ Meet annually with CAC members to provide update and solicit feedback
- ❖ Created Energy Efficiency Advisory Committee composed of residents and experts



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Questions?



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Holland Board of Public Works

Approach to Integrated Resource Planning

Dave Koster, General Manager

March 28, 2017

About the Holland BPW

- Owned by the City of Holland
- Electric, Water, Wastewater and Broadband
 - Service to City and four contiguous townships
 - 28,000 Electric Customers
 - 82% of Electric Revenue is Commercial & Industrial
- Board of Directors
 - 5 Voting appointed by Mayor with Council consent
 - 1 Non-voting from the Townships
 - City Manager and Council Liaison also Ex-Officio

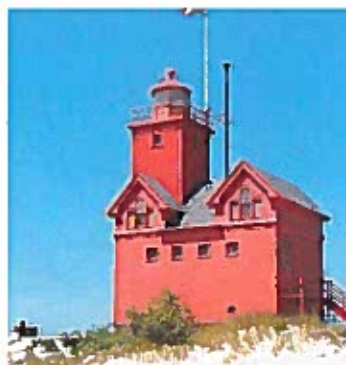
Holland BPW – Approach to IRP
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Background

Community Energy Plan

- Initiated in 2010 to address long term, 40 years, sustainability plan



Holland BPW – Approach to IRP
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Background

- CEP – High Level Goals
 - Competitive in our energy supply
 - Attractive to business
 - Protective of the environment
- Strategies Vetted by Task Forces
 - Generation Supply
 - District Energy
 - Home Energy Retrofits
 - C & I Building Efficiency
 - Industrial Utility Bundling
 - Building Labeling
 - Education and Outreach



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Power for the 21st Century



- Communication and education effort focused on the greater Holland community
- P21 Web site, <http://p21decision.com/>
- Twitter, Face Book
- Series of public education meetings on fuels, generation technology, world view of energy, environmental issues
- Desired Conclusion – Decision on generation option(s)

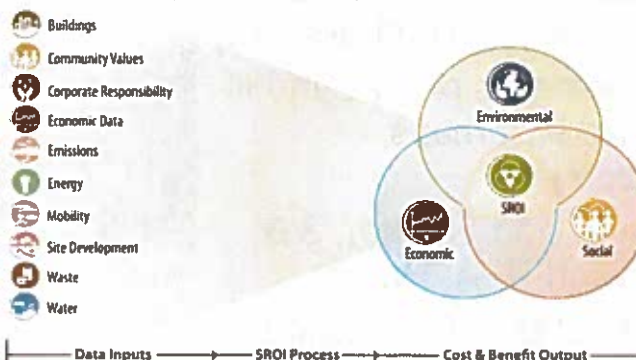
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Generation Evaluation

Sustainable Return on Investment

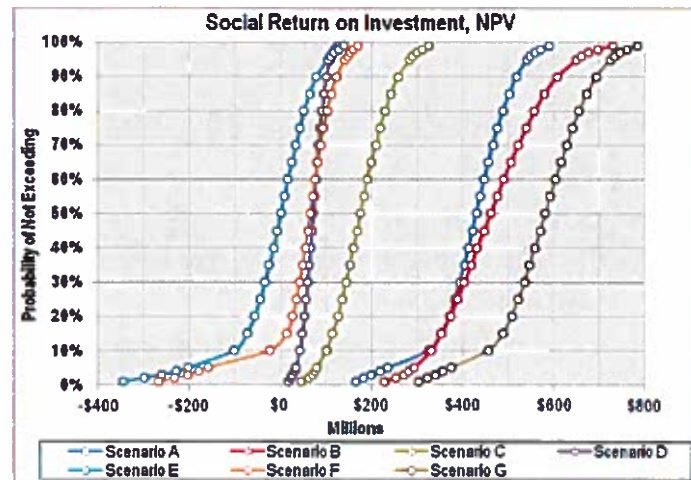
It's best practice in Cost-Benefit Analysis and Financial Analysis over a project's entire life-cycle, augmented by:



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SROI Outcomes



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Renewable Sources

- 10 year, 15 MW wind PPA, Wildcat 1 (Windfall, IN)
- 20 year, 16.8 MW wind PPA, Beebe 1B (Ithaca, MI)
- Supplements other Landfill Gas and Biomass Resources
- Soon to add 20 year, 3.5 MW wind PPA, Huron
- Holland: 15% Renewable



Top of one of the Ithaca turbines

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Holland Energy Park



- Develop a Resource
- Create a Destination
- Enhance a Gateway

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Holland Energy Park



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Holland Energy Park Demolition

- 27 homes
- 8 commercial structures
- 1 factory
- 11.58 tons and 25 yards of asbestos waste
- Recycled:
 - Fluorescent lamps, ballasts and capacitors
 - 590 tons of scrap metal
 - 300 tires
 - 25,000 cubic yards of crushed concrete

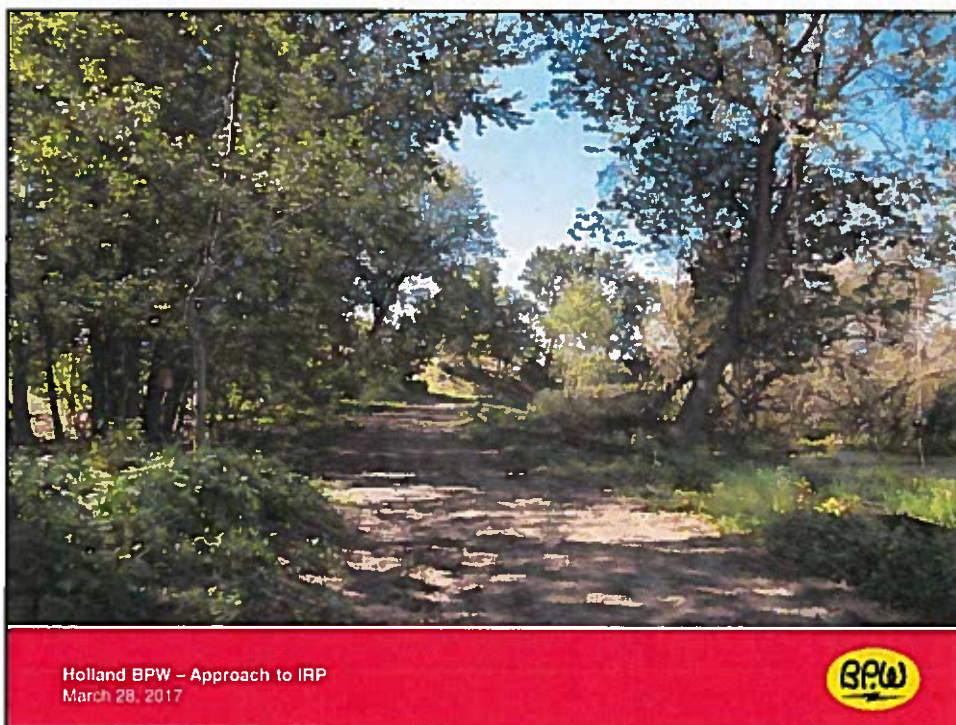


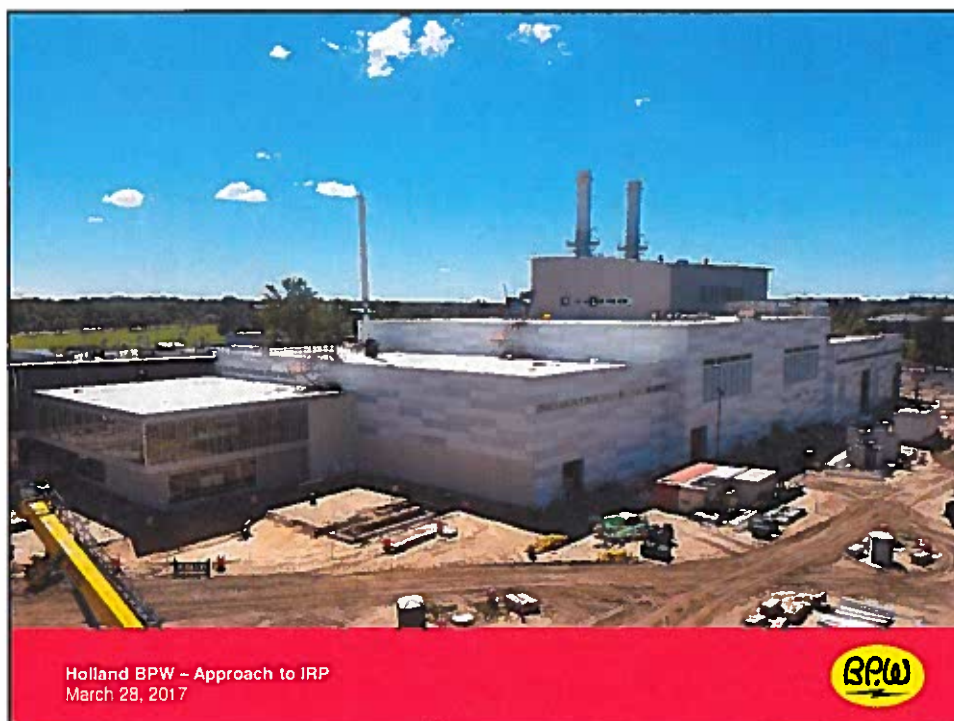
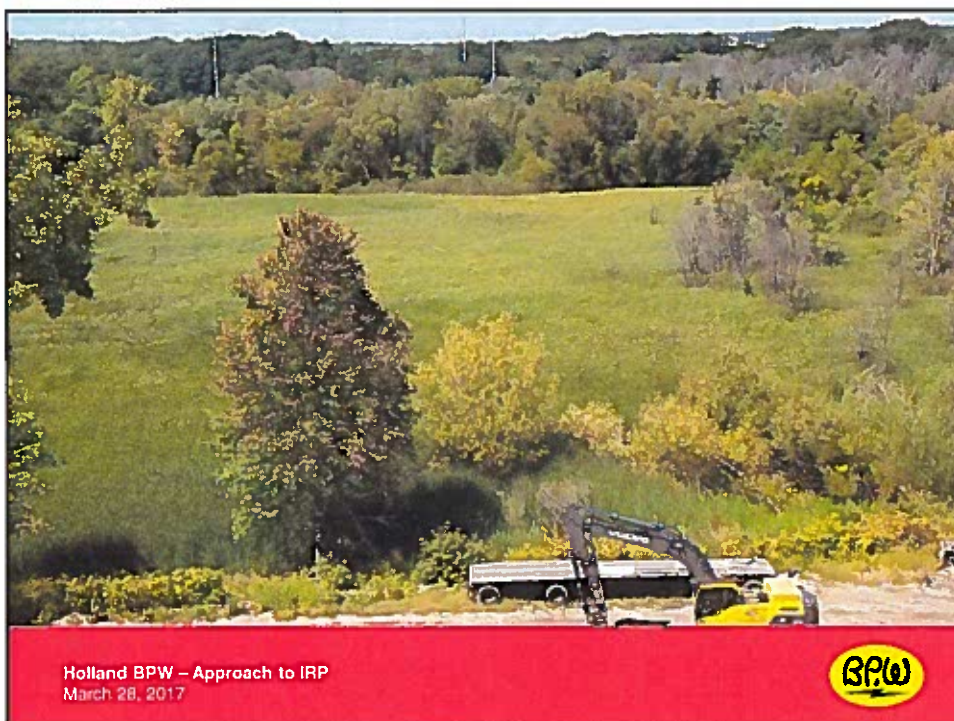
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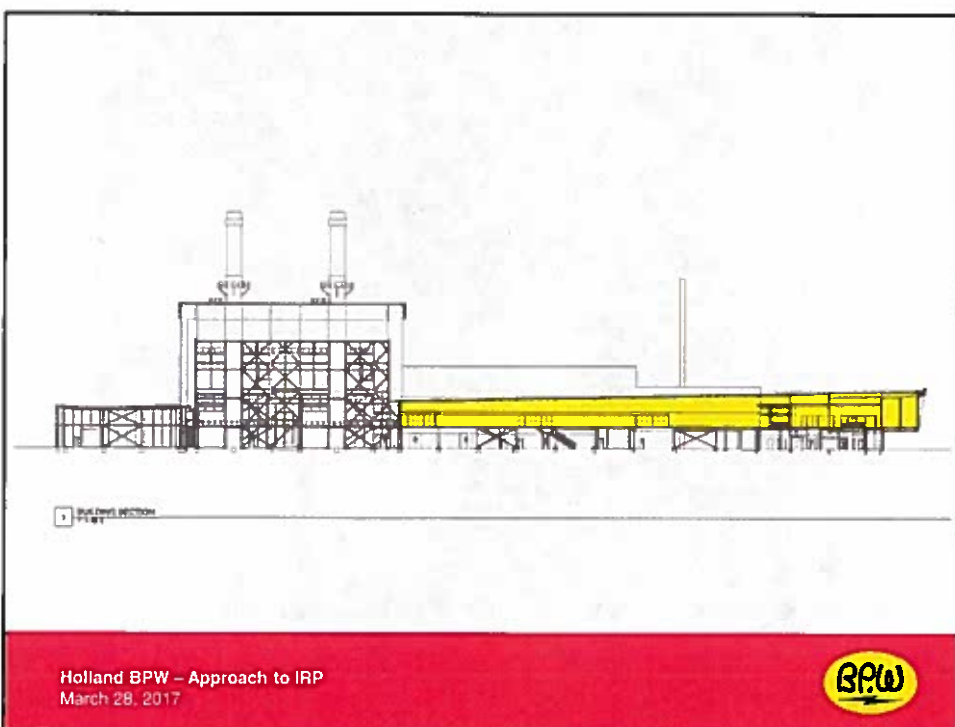
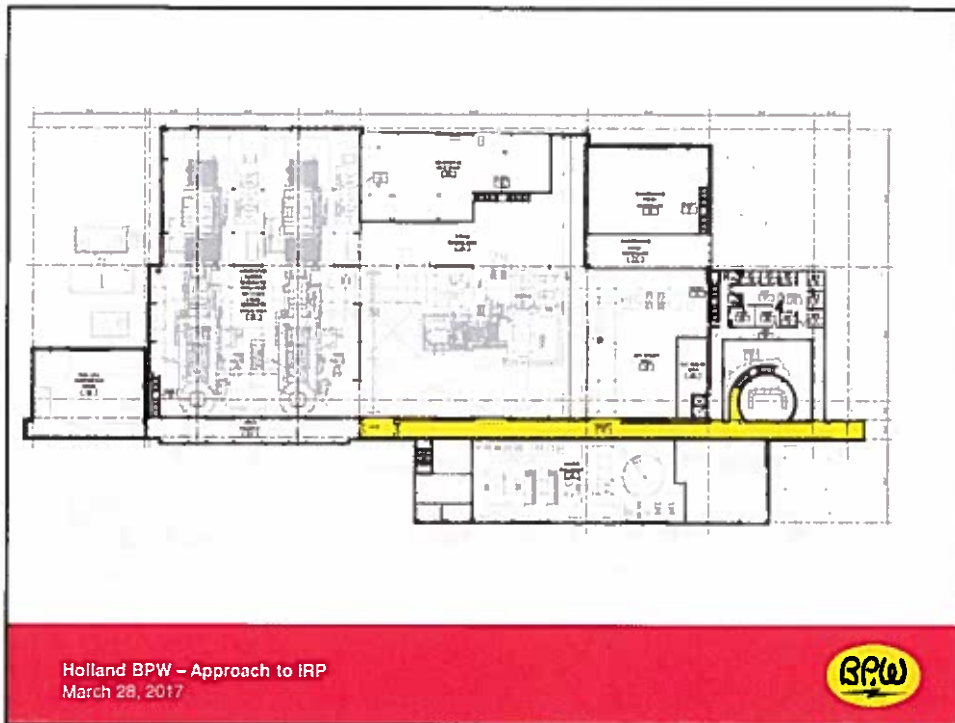


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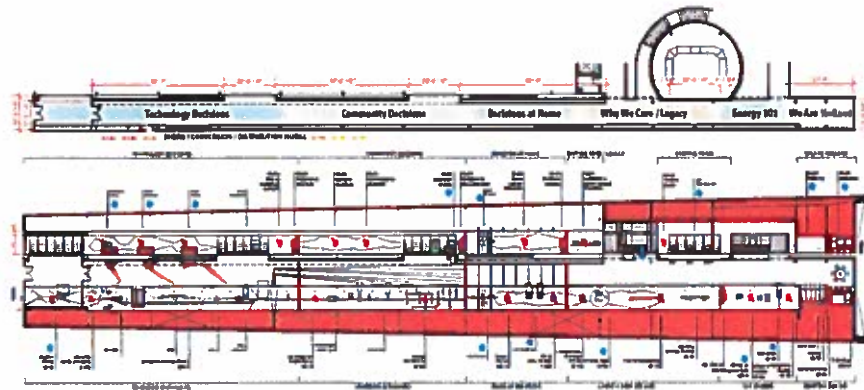






"Good Energy Decisions"

The technology and innovation at Holland Energy Park emerged from the good energy decisions of the community and its leaders to generate a brighter future.



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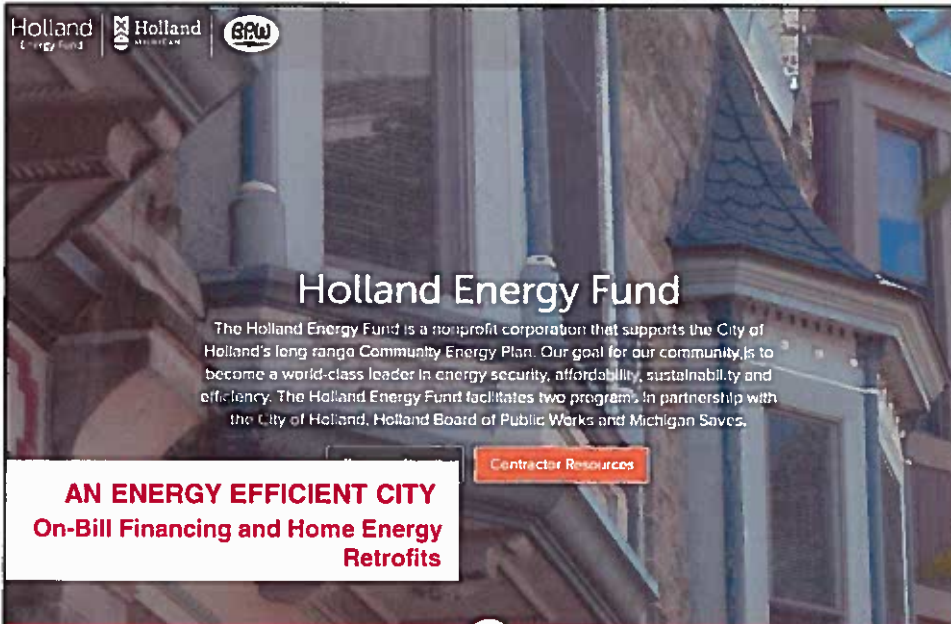


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Holland Energy Fund | Holland Michigan | BPW


Holland Energy Fund

The Holland Energy Fund is a nonprofit corporation that supports the City of Holland's long range Community Energy Plan. Our goal for our community is to become a world-class leader in energy security, affordability, sustainability and efficiency. The Holland Energy Fund facilitates two programs in partnership with the City of Holland, Holland Board of Public Works and Michigan Saves.

AN ENERGY EFFICIENT CITY
On-Bill Financing and Home Energy Retrofits

[Contractor Resources](#)

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Public Act 408 of 2014:
***"Municipal Utility
Residential Clean Energy
Program Act"***

- Provides for the ability to use "On-Bill Financing" of Home Energy Improvements
- Development of Holland Energy Fund
- Program is Operational!
- Target 100 homes this year
- Average \$19,000 invested for 34% savings

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