

## RENEWABLE ENERGY PLAN

During 2015, HBPW took the following actions to meet the REP standards:

- Renewable energy credits were acquired through power purchase agreements with Wildcat Windfarm (wind power), Beebe 1B Windfarm (wind power), North American Natural Resources (landfill gas) and Granger (landfill gas).
- Through the Michigan Public Power Agency, HBPW secured a 20-year Power Purchase Agreement with Beebe 1B Windfarm located in Ithaca, MI. HBPW started receiving energy and credits for this power source in December 2014. HBPW expects approximately **55,000 MWh of renewable energy** from this facility annually.
- HBPW acquired 43,326 megawatt hours (MWh) of electricity generated from landfill gas and 98,079 MWh from wind power for a total of **141,405 MWh of renewable energy** during the 2015 calendar year. This resulted in **13.24% of HBPW's total sales** being supplied by renewable energy.

## MICHIGAN RENEWABLE PORTFOLIO STANDARD (RPS)

### STATE RE SUPPLY REQUIREMENTS:

2013.....3.3%  
2014.....5%  
2015.....10%  
2016.....10%

### HBPW's YEARLY RE SUPPLY:

2011.....4.3%  
2012.....4.2%  
2013.....8%  
2014.....9.5%  
2015.....13.24%

### HBPW's BANKED RE CREDIT PROGRESS:

2011.....6.8%  
2012.....11.45%  
2013.....10%  
2014.....14.07%  
2015.....16.28%\*

The incremental cost of compliance for 2015 was \$3,783,724.25. This is the cost to comply with PA295 for 2015 and not the total cost of renewable energy. HBPW has more renewable energy resources than needed to meet the PA 295 requirements and banks renewable energy credits (RECs) for future compliance use or sells RECs to reduce overall power supply costs. The anticipated cost of compliance for PA295 for 2016 is \$917,645.23.

\* HBPW has banked active RE credits above the amount needed for the annual PA295 compliance requirement. HBPW sold some credits earned in 2015 that were not needed for current compliance.

## COST TO CUSTOMERS

- a) The 2015 itemized monthly charge to a residential customer for the renewable energy program was \$3.00 per month.
- b) The 2015 itemized monthly charge to a residential customer for the energy optimization program was \$0.001711 per kilowatt hour.
- c) The average Michigan electric residential customer is expected to save \$4.04 each month of the Energy Optimization program life.
- d) For the average Michigan residential customer, renewable energy is estimated to avoid \$3.15 per month of new coal-fired generation costs.
- e) The Michigan Public Service Commission's annual report on renewable energy can be viewed at the following website:  
[www.michigan.gov/mpsc](http://www.michigan.gov/mpsc)



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To learn more about the Georgetown University Energy Prize visit [www.hollandenergyprize.com](http://www.hollandenergyprize.com).

A BETTER HOUSE A BETTER HOLLAND  
GEORGETOWN UNIVERSITY ENERGY PRIZE



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# ENERGY OPTIMIZATION & RENEWABLE ENERGY PLAN



# 2015 ANNUAL SUMMARY REPORT



Holland Board of Public Works

Dear Holland BPW Electric Customer,

Michigan Public Act 295, known as the Clean, Renewable and Efficient Energy Act, calls on all utilities in the state to implement a Renewable Energy Plan and Energy Optimization program for their customers. The Act requires utilities to source a portion of their energy from renewable technologies and to implement programs that help customers improve energy efficiency.

Holland Board of Public Works surpassed its 2015 Renewable Energy Plan and Energy Optimization requirements and goals.

Holland is making significant progress within the 40 year Community Energy Plan. Construction on the new Holland Energy Park is progressing and we are excited to have this impressive structure serve as a resource, destination, and gateway for our community. Holland is also in the second year of the Georgetown University Energy Prize competition for a chance to win \$5 million and "change." We are seeing great participation and appreciate your efforts toward using your energy wisely.

Information about Community Energy Plan initiatives and copies of the complete 2015 annual reports for both the Renewable Energy Plan and Energy Optimization Program are available at our office and on our website: [www.hollandbpw.com](http://www.hollandbpw.com).

On behalf of the Holland BPW, thank you for your continued efforts to create a world-class, energy efficient community.

*Daniel D. Koster*

Dave Koster,  
General Manager

Holland Energy Park recently received the Institute for Sustainable Infrastructure's (ISI) Envision Platinum award recognizing the sustainability of public infrastructure, the first-in-the-country base load power generating plant to receive this rating.



## MORE THAN 12 MILLION KWH SAVED THROUGH EFFICIENCY PROGRAMS...

The equivalent of what more than 1,600 homes use per year!

Pursuant to 2008 Public Act 295 (PA 295), the Holland Board of Public Works (HBPW) is providing this annual summary on the Energy Optimization (EO) and Renewable Energy Plan (REP) results for the calendar year 2015.

### ENERGY OPTIMIZATION

Following are highlights of actions taken to meet the State EO standards:

- Meadowlans Townhomes HUD subsidized housing underwent major renovations in 2015, including energy efficiency upgrades. HBPW provided rebates for 118 high efficiency AC units, furnaces and programmable thermostats, 174 high efficiency bath fans, and 59 ENERGY STAR® refrigerators which equates to **126,991 kWh in first year savings**. HBPW also partnered with the Salvation Army, Community Action House, and Ottawa County Community Action Agency to distribute **636** totes with energy saving devices to income qualified customers.
- To promote the energy saving light-emitting diode (LED) technology and energy efficiency programs, HBPW distributed over **9,000 free LED night lights and light bulbs** through local hardware stores and a door-to-door campaign organized by the City. Residential customers also received more than **\$64,000 in incentives** for purchasing energy efficient furnaces, air conditioners and appliances - a 48% increase in participation compared to 2014. HBPW also revamped the appliance recycling program and is now partnering with locally owned company PADNOS for customers to recycle their Freon containing appliances for free and receive rebates up to \$50. Customers **recycled 273 units** in 2015.
- Commercial and industrial customers received incentives for upgrades to high-efficiency electric equipment. **166 projects were completed** with over 12 million kWh saved. HBPW also organized a small business energy audit pilot for **13 local businesses** in four different market segments; religious, restaurant, refrigeration and retail, to help them identify where they can save energy and money.

The table below shows the number of energy optimization credits that the HBPW generated in 2015 kWh, the expenditures in 2015 and expected future expenditures for 2016 as required by state law PA 295.

#### EO KWH SAVINGS

2015 kWh Goal	2015 kWh Saved	2016 kWh Goal
281,062	295,158	281,062
1,399,973	1,328,855	1,399,973
9,164,355	11,241,344	9,164,355

#### TOTALS

10,845,390	12,865,357	10,845,390
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#### EO EXPENDITURES

2015 Budget	2015 Spent	2016 Budget
\$85,824	\$77,856	\$85,824
\$240,606	\$223,449	\$240,606
\$1,282,226	\$736,834	\$1,282,226
\$70,764	\$70,764	\$70,764
\$70,764	\$32,875	\$70,764

#### TOTALS

\$1,750,184	\$1,414,778	\$1,750,184
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- LOW INCOME
- RESIDENTIAL
- BUSINESS
- ADMINISTRATION
- EVALUATION\*

\*The HBPW contracted an independent auditor to verify the incremental gross energy savings for each EO program for 2015. DNV GL Inc. reported that the HBPW has met the energy savings requirements of PA 295.