

RENEWABLE ENERGY PLAN (REP)

During 2016, HBPW took the following actions to meet the REP standards:

- Renewable energy (RE) 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 has entered into a memorandum of understanding to participate in a proposed wind project in Tuscola county for approximately **3.5 MW of capacity**. This project is planned for commercial operation before the end of 2018.
- HBPW acquired 40,470 megawatt hours (MWh) of electricity generated from landfill gas and 97,452 MWh from wind power for a total of **137,923 MWh of renewable energy** during the 2016 calendar year. This resulted in **12.43% 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%
2017.....10%

HBPW's YEARLY RE SUPPLY:

2011.....4.3%
2012.....4.2%
2013.....8%
2014.....9.5%
2015.....13.24%
2016.....12.43%

HBPW's BANKED RE CREDIT PROGRESS:

2011.....6.8%
2012.....11.45%
2013.....10%
2014.....14.07%
2015.....16.28%*
2016.....12.24%*

The incremental cost of compliance for 2016 was \$1,718,283. This is the cost to comply with PA295 for 2016 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 2017 is \$2,571,195.

* HBPW has banked active RE credits above the amount needed for the annual PA295 compliance requirement. HBPW sold some credits earned in 2016 that were not needed for current compliance.

COST TO CUSTOMERS

a) The 2016 itemized monthly charge to a residential customer for the renewable energy program was \$3.00 per month.

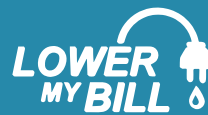


b) The 2016 itemized monthly charge to a residential customer for the energy optimization program was \$0.001728 per kilowatt hour.

Holland Energy Fund

The Holland Energy Fund is a nonprofit corporation that facilitates the **Home Energy Retrofit Program and On-Bill Loan Program** in partnership with the City of Holland, Holland Board of Public Works and Michigan Saves.

Learn more at HollandEnergyFund.com.



HBPW offers FREE home energy check-ups! Schedule one today and learn how to save on your utility bills.

Call 616.393.5606

Find us on social media!



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ENERGY OPTIMIZATION & RENEWABLE ENERGY PLAN



2016 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 2016 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 coming to a close with the ribbon cutting planned for October. We are excited to have this impressive structure serve as a resource, destination, and gateway for our community.

Also, City homeowners have a new way to pay for energy improvements with the Holland On-Bill Loan Program offered by the Holland Energy Fund. The first in Michigan, this program combines simple qualifying criteria, low fixed interest rates, and the convenience of payment on your HBPW bill.

Copies of the complete 2016 annual reports for both the Renewable Energy Plan and Energy Optimization Program are available at our office and on our website: 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 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 13 MILLION KWH SAVED THROUGH EFFICIENCY PROGRAMS...

The equivalent of what more than 1,800 homes use per year!

Pursuant to 2008 Public Act 295 (PA 295), 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 2016.

ENERGY OPTIMIZATION

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

- The 2016 Appliance Recycling Program had a 70% increase in participation, equating to over **390 old appliances** turned in for proper recycling to keep Freon and material out of the landfills. The annual Recycle Rewards Event earned the Michigan Department of Environmental Quality's Neighborhood Environmental Partner award for the **sixth year in a row**.
- To promote the energy saving light-emitting diode (LED) technology and energy efficiency programs, HBPW distributed over **5,000 free LED night lights and light bulbs** door-to-door and at community events. To encourage the use of LEDs, customers turned in more than **237 pounds of incandescent holiday lights** to be recycled in exchange for a new LED light bulb. Residential customers also received more than **\$46,000 in incentives** for purchasing energy efficient furnaces, air conditioners, appliances, and LED light bulbs.
- Commercial and Industrial customers received incentives for upgrades to high-efficient electrical equipment. **192 projects** were completed with **11,546,747 million kWh savings**. HBPW organized a training event for advanced lighting controls, performed small business energy audits, and implemented a lighting controls pilot at Davenport University and an auto-tinting window energy study at the West Michigan Regional Airport.



New, locally-invented window technology installed as an energy efficiency demonstration project at the new West Michigan Regional Airport business center.

The table below shows the number of energy optimization credits that the HBPW generated in 2016 kWh, the expenditures in 2016 and expected future expenditures for 2017 as required by state law PA 295.

EO KWH SAVINGS

| 2016 kWh Goal | 2016 kWh Saved | 2017 kWh Goal |
|---------------|----------------|---------------|
| 281,062 | 211,313 | 281,062 |
| 1,399,973 | 1,476,944 | 1,399,973 |
| 9,164,355 | 11,546,747 | 9,164,355 |

TOTALS

| | | |
|------------|------------|------------|
| 10,845,390 | 13,235,004 | 10,845,390 |
|------------|------------|------------|

EO EXPENDITURES

| 2016 Allowance | 2016 Spent | 2017 Allowance |
|----------------|------------|----------------|
| \$85,824 | \$35,212 | \$85,824 |
| \$240,606 | \$210,605 | \$240,606 |
| \$1,282,226 | \$655,546 | \$1,282,226 |
| \$70,764 | \$70,764 | \$70,764 |
| \$70,764 | \$31,875 | \$70,764 |

TOTALS

| | | |
|-------------|-------------|-------------|
| \$1,750,184 | \$1,004,002 | \$1,750,184 |
|-------------|-------------|-------------|

- LOW INCOME
- RESIDENTIAL
- BUSINESS
- ADMINISTRATION
- EVALUATION*

*The HBPW contracted an independent auditor to verify the incremental gross energy savings for each EO program for 2016. DNV GL Inc. reported that the HBPW has met the energy savings requirements of PA 295.