

Energy
Optimization
&
Renewable
Energy Plan



2011
ANNUAL
SUMMARY
REPORT



**HOLLAND BOARD
OF PUBLIC WORKS**

Dear HBPW Electric Customer,

In 2008, the Michigan Legislature approved Public Act 295, known as the Clean, Renewable and Efficient Energy Act, which calls on all utilities in the state to implement Energy Optimization (EO) programs for their customers. The programs, following established goals, have helped residents and businesses become more energy efficient.

Along with helping our customers gain energy efficiencies, the Act also calls for utilities to develop plans to supply a portion of the community's energy demands from renewable energy sources.

We are pleased to report that the Holland BPW has surpassed 2011 requirements and goals. Following is a summary report of our Energy Optimization efforts and our Renewable Energy Plan.

Copies of the complete 2011 annual reports for both the Energy Optimization and Renewable Energy Plan are available at our office and on our website: www.hollandbpw.com.

On behalf of the Holland BPW, thank you for your efforts in helping our community set new energy standards.



Dave Koster,
General Manager

Business Exceeds Conservation Goal by 37%

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 2011.

Energy Optimization (EO)

HBPW has taken the following actions to meet the State EO standards:

- Partnerships with Lakeshore Habitat for Humanity and the Michigan Community Action Agency Association (MCAAA) resulted in **more than 150 low income homes retrofitted** with compact fluorescent lights (CFLs) and/or Energy Star refrigerators to help them save money. In addition, CFLs and energy saving tips were distributed at National Night Out on August 2 and the Resources for Affordable, Healthy and Simple Living Expo on August 30.
- All residential electric customers received coupons for CFL kits** at three local hardware stores. They were also provided incentives for energy efficient furnaces, air conditioners and appliance upgrades and the turn-in of old or "second" refrigerators and freezers for recycling. Energy efficiency benefits were communicated at community events, on local radio spots and the HBPW on-line Energy Depot program.
- Commercial and industrial customers received incentives for upgrades to high-efficiency electric equipment. With a **21% increase in participation**, the majority of the 70 customers implemented lighting upgrades. Energy management education was conducted in one-on-one meetings, events and the new **Energy Smarts for Businesses** classroom curriculum.

In addition to EO actions, HBPW installed 17 electric vehicle charging stations throughout Holland with a ChargePoint grant from the Department of Energy.



Net shortages or excess kilowatt hours and budget expenditures from the 2011 programs can be carried over into the 2012 program goals.

The number of energy optimization credits that the HBPW generated in 2011 in kilowatt hours (kWh), the expenditures made in 2011 and expected future expenditures for 2012 as required by state law PA 295 are shown in the tables below:

EO CREDITS GENERATED

2011 kWh Goal	2011 kWh Saved	2012 kWh Goal
109,693	89,268	242,474
1,986,378	1,661,941	1,207,767
4,380,590	6,001,189	7,906,152
TOTALS		
6,476,661	7,762,398	9,356,393

EO EXPENDITURES

2011 Budget	2011 Spent	2012 Budget
\$148,220	\$19,822	\$74,041
\$267,957	\$263,761	\$200,857
\$754,357	\$546,585	\$1,058,011
\$58,600	\$58,600	\$57,953
\$46,880	\$28,776	\$57,953
TOTALS		
\$1,276,014	\$917,544	\$1,448,815

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

*The HBPW contracted with an independent auditor to verify the incremental gross energy savings for each EO program for 2011. KEMA Inc. has reported that the HBPW has met the energy savings requirements of PA 295.

Visit our website at www.hollandbpbw.com and click on the Energy Smart Program link to learn about energy efficiency programs available to you.

Renewable Energy Plan (REP)

During 2011, the HBPW took the following actions to meet the REP standards:

- Renewable energy credits were acquired through power purchase agreements with CMS-Grayling for biomass and North American Natural Resources and Granger for landfill gas based generation.
- Holland BPW collected wind data for sites under option for lease in Allegan County and is evaluating several wind power purchase agreements.

The HBPW acquired 32,581 megawatt hours (MWh) of electricity generated from landfill gas and 8,729 MWh generated from biomass for a total of 41,310 megawatt hours of renewable energy during the 2011 calendar year. This brings HBPW's renewable energy supply to 11.45%.

Michigan Renewable Portfolio Standard (RPS)

STATE RENEWABLE ENERGY SUPPLY REQUIREMENTS:

2012	2%
2013	3.3%
2014	5%
2015	10%

HBPW'S RENEWABLE ENERGY SUPPLY PROGRESS:

2009	1.94%
2010	6.8%
2011	11.45%

We're well prepared!

The incremental cost of compliance for 2011 was \$2,131,814. Additional expenditures in the amount of \$328,366 were incurred on development efforts associated with potential wind generation in Allegan County.

The anticipated cost of compliance with state law PA 295 for 2012 is \$4,080,207.13.

Cost to Customers

- a) The 2011 itemized monthly charge to a residential customer for the renewable energy program requirements under PA 295 was \$3.00 per month.
- b) The 2011 itemized monthly charge to a residential customer for the energy optimization program as required under PA 295 was \$.00148 per kilowatt hour.
- c) The average electric residential customer is expected to save \$2.92 each month of the Energy Optimization program life.
- d) For the average Michigan residential customer, renewable energy is estimated to avoid \$3.90 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



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