

Energy
Optimization
&
Renewable
Energy Plan



2010

**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, help 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, also called "green" or "clean energy."

We are pleased to report that the Holland BPW has surpassed 2010 requirements and goals. Following is a summary report of our Energy Optimization efforts and our Renewable Energy Plan (REP).

Copies of the complete 2010 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.



Loren Howard,
General Manager

HBPW's Energy Plan Exceeds Target for 2010.

Pursuant to 2008 Public Act 295 (PA 295), The Holland Board of Public Works (HBPW) is providing this annual summary for the Energy Optimization (EO) and Renewable Energy Plan (REP) for the calendar year 2010.

Energy Optimization (EO)

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

- Partnering with the Michigan Community Action Agency Association (MCAAA), over 200 residential low income customers were provided compact fluorescent lights (CFLs) and /or Energy Star refrigerators to help them save energy. In addition, working with the City of Holland, **over 400 CFLs were distributed to low income customers** in the central city area of Holland.
- **All residential electric customers received coupons for CFL kits** at three local hardware stores. They were also provided incentives for energy efficient HVAC/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 energy audit program. **Kilowatt savings goals exceeded plan.**
- Commercial and industrial customers received incentives for upgrades to high-efficiency electric equipment. The program was fully subscribed with 58 customers participating, the majority implementing lighting upgrades. Additionally, approximately **300 street lights in downtown Holland were changed to LEDs.** Energy management education was conducted in one-on-one meetings, events and classes.
- **HBPW became an ENERGY STAR Partner** to increase availability of energy efficiency resources to the utility and its customers.



Net shortages or excess kilowatt hours and budget expenditures from the 2010 programs will be carried over into the 2011 program goals.

The number of energy optimization credits that the HBPW generated in 2010 in kilowatt hours (kWh) and the expenditures made in 2010 and expected future expenditures for 2011 as required by state law PA 295 are shown in the tables below:

EO CREDITS GENERATED

| 2010 kWh Goal | 2010 kWh Saved | 2011 kWh Goal |
|---------------|----------------|---------------|
| 62,266 | 96,819 | 109,693 |
| 1,425,027 | 1,434,091 | 1,986,378 |
| 3,361,807 | 3,949,690 | 4,380,589 |
| TOTALS | | |
| 4,849,100 | 5,480,600 | 6,476,660 |

EO EXPENDITURES

| 2010 Budget | 2010 Spent | 2011 Budget |
|-------------|------------|-------------|
| \$89,909 | \$35,449 | \$148,220 |
| \$175,016 | \$177,501 | \$267,957 |
| \$454,815 | \$401,545 | \$754,357 |
| \$37,925 | \$37,925 | \$58,600 |
| \$30,340 | \$30,340 | \$46,880 |
| TOTALS | | |
| \$788,005 | \$682,760 | \$1,276,014 |

- 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 2010. KEMA Inc. has reported that the HBPW has met the energy savings requirements of PA 295.

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

Renewable Energy Plan (REP)

During 2010, the HBPW took the following actions to meet the REP standards:

- Power purchase agreements (PPAs) are in place with CMS-Graying for biomass and North American Natural Resources and Granger for landfill gas based generation.
- Holland is seven months into a wind data collection process for sites under option for lease in Allegan County. The feasibility of adding wind generation on these sites will be evaluated over the next several months.

The HBPW acquired 32,083 megawatt hours (MWh) of electricity generated from landfill gas and 7,292 MWh generated from biomass for a total of 40,856 megawatt hours of renewable energy during the 2010 calendar year. This brings HBPW's renewable energy supply to 6.8%.

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%

We're well on our way!

The incremental cost of compliance for 2010 was \$3,251,071.39. Additional expenditures in the amount of \$262,728.48 were incurred on development efforts associated with potential wind generation in Allegan County.

The anticipated cost of compliance with state law PA 295 for 2011 is \$3,661,277. Additional expenditures in the amount of \$400,000 are anticipated for exploration and development of additional renewable resources in calendar year 2011.

Cost to Customers



- a) The 2010 itemized monthly charge for a residential customer for the renewable energy program requirements under PA 295 was \$3.00 per month.
- b) The 2010 itemized monthly charge for a residential customer for the energy optimization program as required under PA 295 was \$0.001373 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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