

# **Renewable Energy Plan Holland Board of Public Works U-15866**

This filing by the Holland Board of Public Works (HBPW) complies with Public Act 295 of 2008 (the Act) and the related December 4, 2008 Michigan Public Service Commission Order (MPSC Case No. U-15800).

Part 2, Section 25, of the Act requires municipal utilities to file a twenty year plan to achieve renewable energy credit portfolio standards that are specified in Section 27. The plan must be filed with the MPSC within 120 days of the MPSC's temporary order, issued pursuant to Section 191. Each electric providers plan must do the following:

- (b.) Describe how the provider will meet the RPS standards;
- (c.) Specify whether the number of megawatt hours used in the calculation of the RPS requirement will be weather normalized or based on the average number of megawatt hours of electricity sold by the provider annually during the previous 3 years;
- (d.) Provide expected incremental cost of compliance with the RPS requirement;
- (e.) Describe the manner in which the provider will allocate costs.

This document and its attachments satisfy all of the requirements of Section 25 (2) for the twenty year period running from 2009 to 2029.

## **Background**

HBPW had a renewable energy plan prior to the enactment of PA 295. This pre-PA 295 plan provides for all of the Renewable Energy Credits (RECs) required by HBPW for the 2012-2029 time period. Part of this plan called for the collection of a fee from its customers to help pay for the renewable power. Therefore, there are no incremental costs associated with the renewable sources planned for since HBPW is already collecting from its customers and a plan was in place. If RECs were to be required at some point in the future because the pre-PA 295 planned RECs were insufficient to meet requirements, then there would be an incremental cost of RECs for the additional RECs required.

The City will have excess RECs to sell starting in 2012 and continuing for the duration of the REP planning period. Selling of RECs represents a source of income to the City which will reduce overall power supply costs. The cost per REC will be determined to a large extent by market forces once the Michigan REC market is designed and implemented. This REP assumes the sale of some of the excess RECs keeping the balance in reserve.

The financial impact of this REP is expected to be minimized for the City's customers and the City will comply with Section 45 of PA 295 which refers to methods of notification to customers charges, if any, for costs associated with its REP.

**Section 25 (2) (a) “Describe how the provider will meet the renewable energy standards”**

The HBPW developed a two phase approach to meeting the standards. Phase I addresses the compliance years 2012 through 2015 and Phase II addresses the years running from 2016 to 2029.

Phase I – Phase I renewable energy sources include generation derived from a biomass fueled power plant, several landfill gas facilities and one wind project. “Banked” Renewable Energy Credits (REC) from these renewable energy sources for the years 2009-2015 (in accordance with Section 29 (3) (c) of PA 295), when combined with their expected generation during the Phase I years of 2012-2015 provides the HBPW with an inventory of RECs sufficient to allow the HBPW to meet the PA 295 standards through 2015. See *Attachment A – Renewable Energy Facilities* for further details on the specific sites and Holland’s Q-REP spreadsheet for REP details.

Phase II –The HBPW is currently pursuing several renewable generation projects that have the potential to come on line prior to 2015. These facilities, in combination with the facilities listed on Attachment A, will provide the HBPW the renewable energy generation required on a go forward basis to meet the PA 295 standards. See Attachment B – *Renewable Energy Facilities Under Development* for further details.

**Section 25 (2) (b) “Specify whether the number of megawatt hours of electricity used in the calculation of the renewable energy credit portfolio will be weather-normalized or based on the average number of megawatt hours of electricity sold by the electric provider annually during the previous 3 years to retail customers I this state.”**

The HBPW will be calculating its renewable energy credit portfolio requirements based on the average number of megawatt hours of electricity sold by the HBPW annually during the previous 3 years to its retail customers in the state.

**Section 25 (2) (c) “Include the expected incremental cost of compliance with the renewable energy standards.”**

Following the Filing Requirements and Instructions for Renewable Energy Plans for Municipally-Owned Electric Utilities provided in Attachment C of the MPSC Order to implement PA 295, the HBPW has provided Attachment C – Renewable Energy Plan Summary as well as a “RECS” sheet in Holland’s Q-REP spreadsheet providing the accounting of expected RECs. Please see this attachment for further details. In summary, there will be no incremental cost of compliance as Holland’s plan and rate structure to support this plan were in place prior to the passage of PA 295.

**Section 25 (2) (d) “Describe the manner in which the provider will allocate costs”**

Based on the response above, there are no incremental costs of compliance under this REP.

## **Attachment A – Renewable Energy Facilities**

**Grayling Generating Station** – Grayling Generation Station Limited Partnership has entered into a contract to provide 1MW of power, around the clock, for the HBPW. This power will be provided by a biomass fueled power plant located at 4400 Four Mile Road in Grayling, MI. Assuming a 95% capacity factor, this contract will provide HBPW with approximately 8,700 megawatt hours annually.

**Granger Landfill Energy** – The HBPW, through the Michigan Public Power Agency (MPPA), has entered into a long term contract with Granger to provide 16.26% of the power generated at several projects owned by Granger. Ownership will increase from 520 KW in 2010 to approximately 2.862 MW in 2013.

**Civic Center Wind** – This project will be brought on line in early 2009. Generation is provided by a 1.5 KW Swift Rooftop wind turbine mounted on the Holland Civic Center roof and a 1.9 KW Skystream wind turbine mounted on a monopole located on the grounds of the Holland Civic Center. Assuming a 20% capacity factor, this project will provide approximately 5.256 megawatt hours per year. Based on the small size of this project, it has not been included in the REP but may be included in future updates.

**HBPW Service Center Wind** – This project will be brought on line in early 2009. Generation is provided by a 1.5 KW Swift Rooftop wind turbine mounted on the HBPW Service Center roof. Assuming a 20% capacity factor, this project will provide approximately 2.628 megawatt hours per year. Based on the small size of this project, it has not been included in the REP but may be included in future updates.

## **Attachment B – Renewable Energy Facilities Under Development**

**Wyandotte Wind Project** – This wind generation project is in the final stages of development. The HBPW, through MPPA, is partnering with Wyandotte Municipal Services in a project that will install four to five 1.65 MW wind turbine generators within the city limits of Wyandotte, Michigan. The request for bids has been issued, the successful bidder has been chosen and negotiations to finalize the turn key contract have been initiated. It is anticipated that the turbines will be installed and operating during the first half of 2011. HBPW's share of this project is expected to be 5.5 MW.

**Windmill Island Wind Project** - The HBPW has installed a MET at Windmill Island which is located within the city limits of Holland, Michigan. Data has been collected for several months. If the wind resource is sufficient, the HBPW would proceed with installing at least one and potentially three wind turbines in the 1.65 MW class, for a total generation potential of 4.95MW or 11,274 megawatt hours per year. This asset could be on line and generating power by the end of 2010.

**Stone Mountain Wind Project** – The HBPW has obtained an option to purchase 1,500 acres of land in Chippewa County, MI. The HBPW has installed a meteorological equipment tower (MET) in November, 2008 and it is currently being used to gather data. It is the HBPW's intent to evaluate this data and determine if this site would be viable as a wind farm. If the wind resource is sufficient, the HBPW would proceed with constructing a wind farm consisting of 20-25 wind turbines in the 1.65 MW class, for a total generation potential of 41.25 MW or 90,338 megawatt hours per year. Holland's share would be approximately 38,000 MWHs per year. Preliminary conversations regarding a possible transmission line interconnect study have taken place. Final determination, go-no go decision, should be made by the end of 2009. Assuming a 30-36 month turbine deliver schedule this asset could be on line and generating power by the end of 2012.

**NS Wind Project** – The HBPW is pursuing the option to develop a wind project south of Muskegon, MI. Wind data has been collected for over 18 months. This data supports developing the site. It is the HBPW intent to install 2-3 wind turbines in the 1.65 MW class. This will provide 3.2 MW of generation or 8,672 megawatt hours per year. It is anticipated that this project will come on line late in 2010.