Holland Board of Public Works
Electric Generation Alternatives Analysis
For Proposed Permit to Install (PTI) No. 25-07
For Circulating Fluidized Bed Coal Boiler
in Holland, Michigan
Docket Number: U-16077
Staff Report to Michigan Department
of Natural Resources & Environment

July 7, 2010

Prepared by staff from the Generation and Certificate of Need Section,
Electric Reliability Division of the Michigan Public Service Commission

The following is excerpted from the 78-page report by Sara E. Leeland.
The entire report is available at:
http://efile.mpsc.state.mi.us/efile/docs/16077/0077.pdf

Holland Board of Public Works (HBPW) submitted its "Power Supply Study" hereafter referred to as an Electric Generation Alternatives Analysis (EGAA) to the DNRE and to the Commission on April 1, 2010. As detailed in its EGAA, HBPW is proposing to install new baseload generation that will be comprised of one 70 megawatt (net) circulating fluidized bed (CFB) boiler, and associated facilities at 64 Pine Avenue in Holland, Michigan.

Staff acknowledges that a generation asset, such as has been proposed by HBPW, represents a significant financial investment with a variety of associated risks. Significant changes have taken place on many fronts, including a slowing national and state economy, new state policy initiatives on energy efficiency and renewable energy, and federal legislative efforts on the regulation of carbon emissions. With these issues in mind, Staff contends that a full spectrum of risks should have been considered within the framework of HBPW's EGAA, as those risks should be fully considered prior to making any long-term investment decisions of this nature. In addition, the EGAA analysis should have included sensitivity analysis, to help HBPW better determine how its plan would respond to variations in basic assumptions that would affect those risks.

Staff provides the following findings:
• HBPW failed to adequately demonstrate the need for the proposed facility as the

sole source to meet its projected capacity requirements.

Given Michigan's recent economic recession and uncertainty concerning the time frame for economic recovery, HBPW's forecasted annual demand growth rate of approximately 2.1% appears overly optimistic.

Furthermore, the amount of peak demand reduction potential through energy efficiency and other demand-side strategies assumed within HBPW's supply plan appears unduly conservative. Under-estimating the potential impact of energy efficiency in future years, coupled with an overly optimistic load forecast results in a projected capacity need which may not fully materialize.

• HBPW analyzed only one base case scenario in their resource expansion plans. Scenario analysis should be employed across a wide range of variables and sensitivities including: future load levels, fuel prices, renewable energy penetration levels, energy efficiency penetration levels, and other variables which impact future resource planning in order to properly evaluate the associated risks.

• Purchased power options were not fully explored as they were limited to only ten percent (10%) of the total requirement within the model. Staff recommends further evaluation of purchased power options that may be available to HBPW over the next several years.

• As acknowledged in HBPW's EGAA filing, Staff notes that the proposed CFB plant is one alternative out of a range of alternatives that may be used to fill the projected capacity need. Other less costly alternatives were noted in the EGAA and could be selected to meet HBPW's expected capacity shortfall, if so desired.

Other options that could fill all, or portions, of the projected capacity need include: a combined cycle natural gas plant, purchase power options or a combination of alternatives that could lead to lesser amounts of purchased power, energy efficiency and load management, and renewable generation resources.