The HBPW Board of Directors met **Monday, April 19, 2010** at 3:30 p.m.
in the Service Center Board Room
625 Hastings Ave
Holland, Michigan

Chair Jim Storey called the meeting to order at 3:39 p.m. A quorum was present.

Members Present: Paul Elzinga, Diane Haworth, Tim Hemingway, Jim Storey, and City Council Liaison: Bob Vande Vusse and Ex Officio Member Soren Wolff

Members Absent: Rich Cook

Staff Present: Loren Howard, Dave Koster, Dan Nally, Ellen Taub, John Van Uffelen, and Freda Velzen; Bob Mihos, Mike Radakovitz, and Loralyn Bunce

10.047 **Board Minutes – March 8 & 22, 2010**

As part of the Consent Agenda, the Board of Directors accepted the minutes as an accurate report of actions taken.

10.048 **Obsolete Equipment**

The HBPW has identified materials and equipment, which are no longer pertinent for our use. The items on the attached lists have been determined excess, obsolete, or uneconomical to repair.

First, we determine if the items are usable within the HBPW and other City departments. Second, in an attempt to recover as much as we can, we will try to sell items to companies that specialize in inventory disposal. Our third course of action is to auction items that are remaining. The HBPW has the ability to conduct its own limited auction, open to the public. Items not sold or donated are recycled to the maximum extent.

As part of the Consent Agenda, the Board of Directors approved the lists of obsolete items ready to be declared surplus; and, forwarded the recommendation to Holland City Council for their approval.

10.049 **Cobblestone Pilot Agreement**

The Board of Directors approved a pilot program with Consert, Inc. applying Consert's smart grid technology to customers within the Cobblestone residential development in the City of Holland. Twenty seven customers in Cobblestone have volunteered to participate. A Consent Agreement has been prepared for each participant, Consert and the HBPW to sign.

As part of the Consent Agenda, the Board of Directors authorized the General Manager or the Utility Services Director to sign the "Consent to Participate in the Pilot Program" on behalf of the Holland Board of Public Works (HBPW).

10.050 **Resolution for Nondisclosure Agreement with SWMI**

SWMI is a local company whose primary mission is the development of wind turbine generation projects. SWMI has certain assets located in Allegan County that they have an interest in developing with the HBPW. The HBPW is interested in discussing the opportunity presented to see if these assets may complement one of the utility's missions, renewable energy production. This agreement will enable both parties to work together in a confidential manner as requested by SWMI.

As part of the Consent Agenda, the Board of Directors adopted the resolution authorizing a Mutual Confidentiality Agreement with SWMI and forwarded a companion resolution requesting the same of the Holland City Council.

** Red italics indicate information or discussion added during the meeting and/or action taken.*

Motion to approve the Consent Agenda as presented	*TH*
Second	*DH*
Favor	*4*
Oppose	*0*

10.051 **Communications from the Audience**

No communications from the audience

10.052 **Financial Statement – February 2010**

Although February shows negative revenues in all utilities, this is often the case in the months of January and February. February 2010 did show a slight trend in increased sales.

10.053 **Voice Communication System**

The current Nortel phone system used at the Holland Board of Public Works uses out-dated PBX (Private Branch Exchange) technology, and many of its components are no longer supported by the manufacturer. Replacement of the entire phone system is necessary in order to provide more reliable service with additional productive business features, such as call recording, caller-id, integration with cell phone technology, detailed call reporting, and improved redundancy.

The Board of Directors approved the purchase of a new voice communication system from Information Systems Intelligence LLC, in the amount of $162,692.32, and an associated Cisco Voice System Support Agreement, pending City Attorney approval.

Motion to approve the purchase and maintenance agreement	*PE*
Second	*DH*
Favor	*4*
Oppose	*0*

10.054 **Windmill Island Wind Energy Report**

In 2008 the Board and City Council approved a plan to investigate the feasibility of installing a utility sized wind turbine on Windmill Island. Following this decision, the Board entered into an agreement with Alternate Energy Solutions, Inc.(AES) for the purpose of erecting a meteorological (MET) tower to collect wind data such as speed and direction and then to analyze that data and report on the viability of constructing a utility sized wind turbine to capture the available wind energy.

Data collection for the study began at the tower on December 8, 2008 and ended December 31, 2009. Wind speed was monitored at elevations of 50, 40, 30, and 10 meters. The different elevations allowed wind shear equations to be developed that in turn allowed projections to be made of wind speeds at a higher elevation.

AES also compared the projected wind data at a turbine hub height of 65 meters against wind power curves of different utility sized wind turbines. The resultant energy production estimates were then used with turbine and development costs and estimated efficiency losses to determine what the cost of electricity would be from a wind energy project on Windmill Island. Using the probability projection, it is estimated that the cost of electricity produced by a utility sized turbine on Windmill Island would be approximately 11 ¢ / kW-Hr.

Another factor taken into consideration is turbulence due to the possible detrimental effect on the turbine structure. The terrain of the surrounding property and the vegetation located upstream of the turbine location can have a significant effect on the wind characteristics, specifically speed and turbulence. In this case the data from the MET tower indicates that there is enough turbulence on Windmill Island such that a turbine rating may need to be upgraded to meet the turbulence conditions, thereby increasing turbine cost.

General Manager Howard stated that Holland Board of Public Works will continue to look for places that make sense for utility sized turbines.

The Board of Directors accepted the recommendation to not pursue the installation of a utility sized wind turbine on Windmill Island.

Motion to approve	*DH*
Second	*TH*
Favor	*4*
Oppose	*0*

10.055 **P.A. 295 Energy Optimization Annual Report**

The 2009 HBPW P.A. 295 Energy Optimization Annual report will be filed with the MPSC prior to May 31, 2010. Pursuant to the legislation, the Annual Report must be presented to the appropriate governing body and the same report must be made available to customers and placed on the appropriate website. Holland Board of Public Works along with the other members of the MPPA Energy Efficiency Services Committee worked collaboratively to develop the template and the format for this Annual Report, which was approved by the MPSC. The Annual Report includes detailed information on the energy efficiency programs, by customer class that the utility implemented in 2009.

Following discussion about past and future distribution programs; incentives to purchase energy efficient products; and proper disposal education…

The Board of Directors accepted the 2009 Holland Board of Public Works P.A. 295 Energy Optimization Annual Report, as filed.

Motion to approve	
Second	
Favor	
Oppose	

10.056 **Holland Community Sustainability Committee Stakeholder & Community Forums**

When approaching this report, I (Mark DeRoo of Keystone Coaching & Consulting, LLC) couldn't help but reflect on the essential questions of what, who, why, and how. Clearly, what was said in forums reflected creative, substantive, and much scientific thinking. The breadth of ideas and suggestions demonstrates the diversity of thought and experience in both energy and water management.

In terms of "who," the vast majority of persons in attendance came with some experience, perspective, and much passion about "sustainability". The audiences, almost without exception, were engaged and enthusiastic. The conversations only expanded their knowledge about the dynamics and realities of energy and water management.

Conversely, the discussion did not engage many others in our community who have mild or little interest in sustainability or have little awareness of energy and water management both now and in the future. Again, "context is key". In an area that has been blessed by an abundance of resources and effective management of them, there may not be a perceived "critical need" that will engage a broader audience. This reality only points to the need for ongoing awareness and education. I suspect the journey will be a longer than a shorter one.

Lastly, in a couple of forums, the word "stewardship" was mentioned. Quite frankly, that theme permeated <u>all</u> the discussions. I believe the participants came from a perspective of wanting to do "the right thing." And this means, not only for now, but for the future. Increasingly, there is a recognition that our world is changing amidst finite resources; hence, the stewardship of God-given resources requires immediate attention, further discussion, and planning.

In conclusion, I want to thank the Holland Community Sustainability Committee for this special opportunity. Truly, it was a privilege. I learned a great deal and encountered a host of people who desire nothing but an outstanding future for the Holland area. I hope the combination of the forums and this report will serve as an ample platform as the committee engages the next step in their mandate.

The Board of Directors accepted the report as information.

10.057 **Substation Transformers and Supporting Equipment**

With the increased load of the new battery plants, the existing substation infrastructure of the Holland Board of Public Works will need to be expanded. The reason for this is to insure we can meet proposed and future expansions in this area, as well as having the flexibility to perform required maintenance on the system. The existing South Holland and Ottawa substations each have the capability of adding an additional transformer. Along with the transformers, additional equipment is required for system protection and to prepare for additional distribution circuits.

The lead time for this equipment is up to 30 weeks from time of order. Once it arrives, the new equipment must be installed, tested, and new circuits run to help support the additional load. To meet the time tables required of our customers, we will need to order the equipment as soon as possible. The amount of $2,500,000 was budgeted in the FY2011 capital budget for this equipment. The total for this equipment, including contingency, is $1,954,090. Installation will also have to be paid for, but it can be bid closer to the arrival time of the equipment.

The Board of Directors approved the purchase of the following equipment:1) Waukesha Transformer in the amount of $1,340,928 for two substation transformers; 2) Cooper in the amount of $72,969 for four VSA 16 Reclosers: 3) S & C in the amount of $85,236 for two circuit switchers: 4) Areva in the amount of $57,240 for six 138kV potential transformers: 5) Harlo in the amount of $36,367 for two relay control panels; and, 6) Riley & Co in the amount of $183,160 for two 138 kV breakers and four 12.47 kV breakers.

Approve a 10% contingency on each item to cover shipping of the equipment and manufacturer installation assistance.

Motion to approve	*DH*
Second	*PE*
Favor	*4*
Oppose	*0*

10.058 **Contract with Wood Group**

Overhauls of combustion turbine generators are recommended by the manufacturer, in this case General Electric (GE), in order to keep the units running efficiently and to prevent catastrophic damage from occurring. These overhauls occur in intervals based on either equivalent operating hours or equivalent starts. Unit 7 has surpassed the number of equivalent starts that is the basis for the HGPI. The inspection will include removing all components in the combustion section and sending them to a Wood Group facility in East Windsor, CT for non-destructive examinations such as fluorescent dye penetrant and performing minor repairs as necessary. The components in the turbine section will be visually inspected on site and based on the results of this inspection some components will be removed from the unit and sent to the Wood Group facility and be subjected to examinations and repairs similar to the combustion section hardware.

Although previous bore scope inspections of the unit have not revealed any damage to the turbine it is difficult to determine, without removing components from the unit, what if any repairs or parts replacements are necessary. Therefore the contingency includes a differential between the light repairs in the base contract and medium repairs as well as replacement of parts that may be required.

In addition to the inspections and repairs Wood Group will also remove the existing 1st stage turbine buckets and replace with a refurbished newer version set of OEM buckets. The existing buckets which along with the 2nd and 3rd stage buckets, convert the energy of the hot combustion gases into the mechanical energy necessary to turn the compressor and generator. These 1st stage buckets were manufactured with an older technology that has been found by GE to cause premature failure due to creep stress caused by oxidation. Failure of the 1st stage buckets would cause catastrophic damage to the downstream turbine components. GE recommends for peaking units that the buckets be replaced at the earlier of the starts based criteria of the HGPI or 8000 operating hours.

Hemingway asked that the board directors be invited to see the inner structure while torn apart.

Approve a contract, pending city attorney approval, with Wood Group, the low evaluated bidder, to perform a Hot Gas Path Inspection (HGPI), first stage turbine bucket replacement, and possible repairs to Unit 7 for an amount of $768,944 and a contract contingency in the amount of $189,303.

Motion to approve	*PE*
Second	*TH*
Favor	*4*
Oppose	*0*

10.059 **Coal Supply Dust Suppression System**

The Holland Board of Public Works (HBPW) staff commissioned a coal optimization study, which was performed by Benetech Company in 2009. As a result, staff prepared a 3-phase, 3-year capital plan to progressively burn higher percentages of PRB coal. Staff is expediting phase one to allow on-site blending of the bituminous coal that is scheduled to be shipped from the recently closed Sappi Paper facility in Muskegon with a proposed supply of pure PRB coal. At the March 8, 2010 Board meeting, the staff presented a "Phase I" action list of projects and their respective costs to implement this phase in 2010. This site work will allow staff to further develop system improvements needed to support both on-site blending and increased percentages of PRB coal in the fuel mix.

One of the initial projects identified in the Benetech study was the implementation of a dust suppression system at the beginning of the coal handling process. The dust suppression system supplied by Crown Products and Services will apply a chemical surfactant, in the form of foam, to the coal at the point it is first mixed together and directed onto the conveyor belt. This chemical treatment will reduce the dust generated as the coal makes it way through the handling steps until it is deposited into the coal bunkers. In support of this system, changes need to be made in the ancillary water, air, and electric systems.

Bids were solicited from Benetech, Inc. and Crown Products and Services for the design and turnkey installation of a dust suppression system. Consideration was given to the turnkey installation price, the annual operating cost for chemical supply, and the annual maintenance cost of the system. As a result, Crown Products and Services was found to be the lowest responsive bidder.

The Board of Directors approved a contract with Crown Products and Services, pending City Attorney approval, and an associated budget transfer from contingency in the amount of $54,000. This contract is for the turn-key installation of a dust suppression system for $48,791 with a contract contingency in the amount of $5209 to cover the costs of unforeseen issues that may be discovered during the installation.

Motion to approve	*TH*
Second	*DH*
Favor	*4*
Oppose	*0*

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10.060 **Carbon Monoxide monitoring System**

The staff commissioned a coal optimization study, which was performed by Benetech Company in 2009. As a result, staff prepared a 3-phase, 3-year capital plan to progressively burn higher percentages of PRB coal. Staff is expediting phase one to allow on-site blending of the bituminous coal that is scheduled to be shipped from the recently closed Sappi Paper facility in Muskegon with a proposed supply of pure PRB coal. At the March 8, 2010 Board meeting, the staff presented a "Phase I" action list of projects, which is attached to this recommendation for reference, and their respective costs to implement this phase in 2010. This recommendation covers one of those "Phase I" plant modifications.

One of the initial projects identified in the Benetech study was the implementation of a CO gas monitoring system at the beginning of the coal handling process. When higher levels of PRB coal are blended it has the potential to volatize and release CO gas. Monitors are used to detect various levels of CO within the blending process and once levels reach a certain level actions are initiated to eliminate the hot spot area within the coal. This safety system is a necessary devise when blending increased levels of PRB coal.

Bids were solicited from Cofessco Fire Protection Inc. and George Peters Associates Inc. for the design and installation of a CO Gas Monitoring system. Consideration was given to the installation price, the annual operating cost for supplies/spare parts, and the annual maintenance cost of the system. As a result, Cofessco Fire Protection was found to be the lowest responsive bidder.

Approve a contract with Cofessco Fire Protection, pending City Attorney approval as to form, for the installation of a carbon monoxide (CO) monitoring system in the amount of $30,773.91 with a contract contingency in the amount of $3000 to cover any unforeseen issues that may discovered during the installation. Also, approve a budget transfer from contingency in the amount of $33,773.91.

Motion to approve	*PE*
Second	*TH*
Favor	*4*
Oppose	*0*

ANNOUNCEMENTS

NOTE TIME CHANGE - Joint Study Session April 26, 2010 @ 5:30 pm in City Hall Training Room

ADJOURNMENT

A motion to adjourn the meeting of April 19, 2010 was made by *Hemingway* supported by *Haworth* and agreed upon by the Board of Directors present.

The Board Meeting of April 19, 2010 adjourned at *4:43 p.m*.

Minutes respectfully submitted by,

Loralyn A Bunce
Secretary to the Board

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