

Citizens Advisory Panel on New Generation: Report and Recommendations to the Lansing Board of Water & Light

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Prepared by
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Lansing, Michigan
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On behalf of
Citizens Advisory Panel on New Generation

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Executive Summary

The Lansing Board of Water and Light (BWL), Michigan's largest municipally owned utility, currently relies on the aging Eckert Power Plant for the majority of its energy generation. The Eckert Plant is increasingly costly to operate and faces mounting challenges in meeting modern environmental performance standards. The Eckert Plant is a half-century old and is slated for a staged shutdown beginning in 2017. In order to provide ample time to plan and design the replacement for the Eckert Plant, BWL staff began exploring alternatives in 2005. The options identified to date are outlined in an Integrated Resource Plan: building a more efficient, modern power plant; purchasing electricity on the open market; expanding the use of renewable energy; and undertaking a comprehensive energy efficiency program.

An 11-member Citizens Advisory Panel on New Generation was selected to review the BWL staff's proposed course of action: construction of a replacement power plant using modern biomass technology. The panel's kickoff meeting was held on August 14, 2008, and the first working meeting was September 18, 2008. Subsequent meetings were held until the panel had time to review the necessary information and develop recommendations.

The following members comprised the Citizens Advisory Panel:

- James Butler, Director of Urban Revitalization Division, Michigan State Housing Development Authority, and former president of the Michigan Broadband Authority
- Paula Cunningham, President, Capitol National Bank, and former president of Lansing Community College
- Pat Gillespie, Principal, Gillespie Group
- Tim Haggart, Business Representative, Plumbers and Pipefitters Local Union 333, and former BWL commissioner
- Paul Hufnagel, President, Lansing Labor Council
- Frank J. Kelley, former Michigan Attorney General
- Dennis Muchmore, Executive Director, Michigan United Conservation Clubs
- Joan Nelson, Executive Director, Allen Neighborhood Center
- David O'Leary, President, O'Leary Paint Co., and former BWL commissioner
- Dean Sienko, Medical Director, Ingham County Health Department
- Randy Thayer, Retired Plant Manager, General Motors Delta Assembly Plant

The panel conducted three public meetings to review the BWL's proposal and take public comment. Issues presented at the public meetings touched on job creation, energy efficiency options, renewable energy projects, a recommendation for a natural gas combined cycle generation option, concern over the rapidly changing regulatory environment, and the state of Lansing's economy. After considering the information presented by numerous parties, the panel reached the following recommendations:

1. The decision to invest in a new hybrid biomass cogeneration facility, while well-conceived and proactive when developed, should be delayed until uncertainty related to the local economy (including GM's future), environmental regulations, and the impacts of the BWL's energy efficiency and renewable energy programs is more fully resolved.. Panel members stressed the importance of keeping the BWL's options open as long as possible in the current rapidly changing electric utility industry, while that ensuring any new development aligns closely with market demands.
2. In all future planning, the BWL should continue to apply the three criteria that serve as the basis for decision making in the Integrated Resource Plan (IRP): reliability, affordability, and environmental stewardship.
3. Until a decision is made on a replacement for the Eckert Plant, the BWL should continue to aggressively update its IRP and pursue planning and exploration of the latest technologies in energy generation, including efficient natural gas combined cycle options, energy efficiency technologies, renewable options, and fuel diversity.
4. The BWL should continue to pursue biomass technology and continue to research the acquisition of a sustainable, reliable supply of biomass feedstock. It is the panel's opinion that biomass is one of the most appropriate and potentially abundant renewable fuel stocks in Michigan, with the caveat that the market for biomass feedstocks may become increasingly tight as competing uses are developed for the biomass.
5. The BWL should continue to consider potential partners for the development of any future energy production facility when possible and practical. This will serve to share risk and costs of the development and create economies of scale for all customers of the facility.

Findings and Recommendations

BACKGROUND

The Lansing Board of Water and Light (BWL), Michigan's largest municipally owned utility, currently relies on the aging Eckert Power Plant for the majority of its energy generation. The Eckert Plant is increasingly costly to operate and faces mounting challenges in meeting modern environmental performance standards. The Eckert Plant is a half-century old and is slated for a staged shutdown beginning in 2017. In order to provide ample time to plan and design the replacement for the Eckert Plant, BWL staff began exploring alternatives in 2005. The options identified to date are outlined in an Integrated Resource Plan: building a more efficient, modern power plant, purchasing electricity on the open market, expanding the use of renewable energy, and undertaking an energy efficiency program.

THE INTEGRATED RESOURCE PLAN

In May 2008, the Lansing Board of Water and Light staff released a comprehensive energy plan, also known as an Integrated Resource Plan (IRP).¹ The purpose of the plan is to provide strategic direction for greater Lansing's energy future; the IRP includes plans for energy conservation, renewable energy generation, and a plan to replace the existing base load generated at the Eckert Power Plant.

Criteria for decision-making

As a municipally owned utility, the BWL exists to provide its community with reliable and cost-effective service. To this end, the BWL staff adopted the following three criteria for decision making in its IRP: reliability, affordability, and environmental stewardship. These criteria were developed in 2005, in concert with a citizens committee that sought to balance competing goals.

Energy conservation

First, an energy conservation program was designed to help BWL customers save money on electricity bills and reduce the demand for energy from the BWL. The BWL has developed an energy optimization plan² and, in April of 2009, began to invest in energy conserving technology in partnership with customers whose commercial and industrial operations can make the biggest contribution to energy conservation for the dollars spent. After that first step, the BWL also began to implement an energy conservation program for residential customers.

Renewable Energy

Second, the BWL created a renewable energy plan and³ will continue its pursuit for more renewable energy sources to generate electricity, such as landfill gas, solar, hydro, and

¹ Available online at http://www.lbwl.com/IRP_full.pdf (accessed September 9, 2009).

² Available online at http://www.lbwl.com/EO_plan.pdf (accessed September 9, 2009).

³ Available online at http://www.lbwl.com/030509_RPS_plan.pdf (accessed September 9, 2009).

wind. The goal stated in the IRP is to meet the projected growth in greater Lansing's energy needs with a combination of energy conservation and renewable energy.

New Base Load Generation

The third component of the IRP is to build a modern, cleaner, more efficient power plant to replace the Eckert Plant. After analysis by outside consultants and BWL staff members, the BWL concluded that a hybrid biomass generating plant is the best way to provide for, and invest in, Lansing's energy future. The BWL proposes to build a biomass plant that will burn 70 percent coal and 30 percent biomass. Biomass is a renewable energy source, and includes any organic matter used as fuel (such as crop residue and wood waste).

The alternative to this plan is to purchase energy to supply Lansing's future needs on the open market. Independent consultants determined that buying electricity will likely result in a 55 percent increase in rates for BWL customers. Upon further review of market pricing, BWL staff concluded that rates could increase by even more than 55 percent. After consideration, BWL staff concluded that purchasing power on the open market would not sufficiently meet the criteria of reliability, affordability, and environmental stewardship.

THE CITIZENS ADVISORY PANEL

Purpose

In order to encourage continued community involvement in the planning process, the BWL staff sought public comment from the community on the plans to replace the Eckert Plant. BWL staff invited a panel of citizens to review the IRP at a series of public meetings (summarized below). A portion of each meeting was designated for public comment and community members were encouraged to share their concerns and ideas with the panel.

Participants

An 11-member Citizens Advisory Panel on New Generation was selected to review the BWL's proposed course of action. The panel's kickoff meeting was held on August 14, 2008, and the first working meeting was September 18, 2008. Subsequent meetings were held until the panel had time to review the necessary information and develop recommendations. The panel members were:

- James Butler, Director of Urban Revitalization Division, Michigan State Housing Development Authority, and former president of the Michigan Broadband Authority
- Paula Cunningham, President, Capitol National Bank, and former president of Lansing Community College
- Pat Gillespie, Principal, Gillespie Group
- Tim Haggart, Business Representative, Plumbers and Pipefitters Local Union 333, and former BWL commissioner
- Paul Hufnagel, President, Lansing Labor Council
- Frank J. Kelley, former Michigan Attorney General

- Dennis Muchmore, Executive Director, Michigan United Conservation Clubs
- Joan Nelson, Executive Director, Allen Neighborhood Center
- David O’Leary, President, O’Leary Paint Co., and former BWL commissioner
- Dean Sienko, Medical Director, Ingham County Health Department
- Randy Thayer, Plant Manager, General Motors Delta Assembly Plant

Frank J. Kelley and Paul Hufnagel co-chaired the panel.

Process

The Citizens Advisory Panel held three public meetings following the kickoff meeting on August 14, 2008: September 18, 2008, November 13, 2008, and February 12, 2009; a concluding luncheon was held on June 1, 2009, to finalize the group’s recommendations. At the public meetings BWL staff presented information to the panel and asked the panel members to discuss and react to it. Members of the public were also invited to comment at these meetings. The panel considered all information provided to make recommendations regarding the proposed IRP to the BWL staff. During the meetings, Public Sector Consultants staff took notes on the meeting discussion and documented public comments.

Experts were invited to some of the meetings to provide the panelists and the public with information on sustainable biomass acquisition, feedstock management, demand side market data, and energy optimization.

The panel held a final meeting on June 1, 2009, at which the panel discussed the previous meetings, all materials and information provided, and made recommendations to the BWL for inclusion in this report.

DISCUSSION

Members of the panel and the public applauded the BWL’s efforts at proactive planning. The majority of these stakeholders expressed concern that the *existing regulatory environment, market forces, and renewable energy technology* are in a state of flux at present. Stakeholders recognized that this complicates the attempts of the BWL staff and the Citizens’ Advisory Panel to select a course of action for the Eckert Plant replacement while ensuring that the criteria of reliability, affordability, and environmental stewardship are met.

Current uncertainty in the regulatory environment

Regulation of energy production and related emissions has associated costs. When regulations are well established and understood, costs can be predicted and decisions can be made regarding customer rates and investment. The instability of the existing regulatory environment makes it difficult to make long-term decisions.

Michigan

Governor Granholm’s executive directive 2009-2 required the Michigan Department of Environmental Quality to review all prudent alternatives to permitting new coal-fired power plants. The governor’s proposal, announced in her 2009 State of the State address,

calls for Michigan to reduce fossil fuel use by 45 percent before 2020; coupled with her executive order to the MDEQ to review alternatives to siting new coal-fired energy production facilities, it creates an administrative landscape that may not be favorable to the BWL's proposed biomass coal plant. These issues do not affect the BWL currently because it has not yet submitted a permit application for review.

Michigan enacted a renewable energy portfolio standard (RPS)⁴ in October 2008. The RPS requires that utilities in Michigan derive 10 percent of their electricity mix from renewable sources by 2015. The legislation also includes tax credits to encourage energy efficiency measures that may offset any related rate increases. The full impacts of the state's RPS are not yet known. Regulators and industry are currently working together to implement the requirements of the RPS. In response to a stakeholder's question regarding the BWL's ability to comply with Michigan's RPS, BWL staff answered that the BWL expects to meet the RPS requirements while remaining under the mandatory cost caps. The BWL's costs of achieving the RPS will be capped at approximately \$3 per residential meter, \$16 per commercial meter, and \$187 per industrial meter, annually.

Federal

Proposed changes to federal policy include potential regulation of greenhouse gases (GHGs); a potential federal renewable portfolio standard that is more aggressive than Michigan's; new Department of Energy efficiency standards on appliances; and proposed market rules that would encourage load management.

The regulation of GHGs will likely lead to additional costs of energy production that will be passed on to utility customers. A 2007 court case⁵ established the requirement for the U.S. Environmental Protection Agency to regulate carbon dioxide emissions using best available control technology (BACT). Rules for carbon dioxide regulation are currently being promulgated. Further, Waxman Markey legislation⁶ introduced in the U.S. House of Representatives suggests a moratorium on new coal plants without carbon capture and sequestration. That technology is not currently proven for wide commercial availability.

Unpredictable market forces

Due to local, national, and global economic forces, demand for energy production and costs of feedstocks are relatively unpredictable. The local economy has been suffering a recession and fossil fuel feedstock prices have been exhibiting volatility. These forces complicate the decision-making ability of the BWL and stakeholders.

Changing Customer Demands

Energy demands by the local manufacturing base have been declining recently and are expected to continue on this downward trend. Local manufacturing facilities, including

⁴ P.A. 295 of 2008, the Clean, Renewable, and Efficient Energy Act, available online at [http://www.legislature.mi.gov/\(S\(b55vxe4501z5sonkyr35tl55\)\)/mileg.aspx?page=MCLPASearch](http://www.legislature.mi.gov/(S(b55vxe4501z5sonkyr35tl55))/mileg.aspx?page=MCLPASearch) (accessed September 9, 2009).

⁵ 549 U.S. 497 (2007), *Massachusetts v. Environmental Protection Agency*, available online at <http://www.supremecourtus.gov/opinions/06pdf/05-1120.pdf> (accessed September 9, 2009).

⁶ H.R. 2454 American Clean Energy and Security Act of 2009, available online at <http://www.govtrack.us/congress/bill.xpd?bill=h111-2454> (accessed September 9, 2009).

the General Motors plants, have been the BWL's largest customers over the years. This may not be the case in the near future, however; because of its historically low rates and high reliability the BWL has been asked whether it could supply energy to anticipated information technology data centers. Future demand for energy will be determined by the combination of diverse customers located in Lansing.

Price Volatility of Fossil Fuel Feedstocks

Coal has supplied roughly 50 percent of electricity generation in the United States for the last 25 years and virtually all of the BWL's generation. Volatility in fossil fuel prices, including oil, natural gas, and coal, exposes utility customers to increased variability in their energy bills. Added to market volatility is the potential cost escalation of coal prices associated with any future greenhouse gas regulations. There is a potential to limit the exposure of BWL customers to volatility in coal prices if a facility that can burn alternative feedstocks, including biomass, is built.

Continued investment in energy efficiency and renewables

Some members of the public and the panel urged the BWL to avoid continued reliance on coal in its plans. They expressed concern that technology related to energy efficiency and renewable energy is advancing rapidly and that if a fossil fuel facility is built to replace the Eckert Plant, opportunities to invest in next-generation technology may be missed for decades.

Environmental groups proposed an alternative that advocates expanded use of renewable energy options, greater spending on energy efficiency, and construction of a natural gas combined cycle generating facility to complement renewable energy investment.

Other stakeholders echoed the desire to increase reliance on renewable energy and energy efficiency, but stressed the need to design and build a suitable replacement for the energy generated by the Eckert Plant. These stakeholders were concerned about the feasibility of replacing the significant amount of energy produced at the Eckert Plant with renewable energy and energy efficiency, and about the risk of exposing BWL customers to market prices for energy.

Finally, some stakeholders urged the BWL to continue its investment in the community by building a new energy generation facility in the Lansing area while continuing to invest in renewable energy and energy efficiency. These stakeholders stressed the need for energy independence and continued cost-effective, reliable service in order to leverage additional economic development in the region.

The BWL expects to continue and expand its commitment to energy efficiency by instituting net metering with some customers during the fall of 2009 and expects to implement additional load management programs after 2010, when the existing power pool participation agreement ends. The BWL is the first utility in Michigan to get an energy optimization plan in place. Efficiency gains to date have been the result of large efficiencies implemented at a few large customers across the entire load. The BWL is also conducting a demand-side market assessment, including the prioritization of programs for low-income customers. Further, BWL staff expects to meet the 10 percent renewable goal of the RPS and remain under the cost cap.

RECOMMENDATIONS

After considering the information presented, including comments from the public, and discussing the potential impacts to the community, the panel reached a consensus on the following recommendations:

1. The decision to invest in a new hybrid biomass cogeneration facility, while well conceived and proactive when developed, should be delayed until uncertainty related to the local economy (including GM's future), environmental regulations, and the impacts of the BWL's energy efficiency and renewable energy programs is more fully resolved. Panel members stressed the importance of keeping the BWL's options open as long as possible in the current, rapidly changing electric utility industry, while ensuring any new development aligns closely with market demands.
2. In all future planning, the BWL should continue to apply the three criteria that serve as the basis for decision-making in the Integrated Resource Plan (IRP): reliability, affordability, and environmental stewardship.
3. Until a decision is made on a replacement for the Eckert Plant, the BWL should continue to aggressively update its IRP and pursue planning and exploration of the latest energy generation, including combined cycle options, energy efficiency technologies, renewable options, and fuel diversity.
4. The BWL should continue to pursue biomass technology and continue to research the acquisition of a sustainable, reliable supply of biomass feedstocks. It is the panel's opinion that biomass is one of the most appropriate and potentially abundant renewable fuel stocks in Michigan, with the caveat that the market for biomass feedstocks may become increasingly tight as competing uses are developed for the biomass.
5. The BWL should continue to consider potential partners for the development of any future energy production facility when this makes sense. This will serve to share risk and costs of the development and create economies of scale for all customers of the facility.

Appendix: *Meeting Notes*

BWL Citizens Review Panel: Meeting Notes

September 18, 2008

Present

James Butler
Paula Cunningham
Pat Gillespie
Tim Haggart
Paul Hufnagel
Frank Kelley
Dennis Muchmore
Joan Nelson
Dean Sienko
Randy Thayer

Absent

David O'Leary

Call to Order

Chair Kelley and George Stojic, of Lansing Board of Water and Light (BWL) staff, called the meeting to order at 9:10 AM. The meeting was to begin with public comment. Stojic reminded the group that these meetings were designed to be a conduit of public input to the BWL through the panel.

Public Comment

Noah Smith, Mid Michigan Construction Alliance

Mr. Smith expressed support for the proposed plant, citing the need to replace the Eckert station to comply with environmental regulations. In his opinion, meeting the BWL's growing energy needs by renewables (e.g., landfill gas co-generation with Granger) and conservation while replacing the Eckert station with a new, efficient, and cleaner facility that will create up to 700 new jobs over the next 3–4 years is good policy for the local economy, tax base, and community. He suggested that purchasing power from the grid would raise customer costs approximately 55 percent, and indicated that other plants on the grid are not "clean" sources of additional power for BWL customers.

Carol Rall, Lansing Resident

Ms. Rall called the decision to build a new coal plant the "biggest environmental decision of our generation." She urged the panel to consider the gravity and consequences of investing in continued coal-fired power generation and committing the next generation of Lansing area residents to a dirty and unhealthy facility. She noted that the proposed facility will likely burn 70 percent or more of its capacity as coal. She suggested that coal is artificially cheap, and its environmental impacts are severe. She quoted the Natural Resources Defense Council, saying coal has caused more damage to health and the environment than any other energy source. She quoted the Union of Concerned

Scientists, saying coal-fired power plants contribute more greenhouse gases to global warming than any other source. She quoted Lester Brown of the Earth Policy Institute, saying that carbon emissions should be cut by 2015, and that there should be a moratorium on coal-fired power plants. She quoted James Hanson, a NASA climate scientist, saying that climate change is near the tipping point and that there should be an immediate halt on new plants. Finally, she quoted Robert F. Kennedy, Jr. and said that there is no clean coal.

James Clift, Michigan Environmental Council

Mr. Clift commended the BWL for its long-term thinking and applauded the BWL's first version of an Integrated Resource Plan (IRP). He reminded the panel that the costs of energy will continue to rise in the future. He suggested that the panel should hold its next meeting in the evening to get better attendance.

Mr. Clift questioned whether IRP objectives from 2005 are appropriate for the current 2008 IRP, noting that the world has changed. He also questioned whether demand-side management measures had been fully explored; whether the assumptions used were correct; and whether purchase power agreements had been fully explored. He suggested the future requires a robust investment in energy efficiency and renewable energy. He indicated the need for more public input into the IRP objectives, citing that the candidate IRP failed to consider numerous demand and supply resource options. He suggested that decision makers will address the greenhouse gas cap and trade policies in the next 24 months, noting that the biggest future cost variable for BWL is greenhouse gas regulation costs.

Mr. Clift suggested that the BWL should investigate natural gas turbines since they are now the cheapest source of power. He suggested that the BWL should invest in combined cycle gas turbines to balance additional wind power generation in the state.

He also suggested that the energy efficiency reductions assumed in the IRP are too low, indicating that other cities are reducing demand by 1.4 percent. He suggested that conservation could be used for all energy growth demands.

Mr. Clift recognized the need to replace the 192 megawatt Eckert station with "something else." He noted the staged shutdown of the boilers at Eckert between 2017 and 2025. He suggested that the projected increased costs of coal will be a long-term risk to Lansing residents and BWL customers.

He noted Wisconsin's plans to build a supercritical coal-power plant because it is much less polluting than the biomass plant proposed in the IRP. He questioned whether the proposed facility could even acquire 30 percent biomass consistently, and suggested that if this could not be done the plant would be less efficient and dirtier than a supercritical plant, but would not be providing the renewable benefits it promised.

Steve Rall, Lansing Resident

Mr. Rall explained that he recently attended a presentation at Michigan State University given by Paul Giee, www.wind-works.org, about the wind future in Michigan. He repeated some of the information he heard at the presentation. He indicated that there is a

need for leadership on energy efficiency and conservation. He compared the annual energy use of a home in northern Europe (3,000 KWh) to one in the United States (6,000 to 10,000 KWh) on average. He indicated that Germany is now at 14 percent renewable energy sources, and projects 70,000 long-term jobs as a result. He suggested that wind energy technology has been advancing and its costs are becoming more competitive. He urged the panel to invite an expert on renewable energy and an expert in global warming (recommended Peter Sinclair).

Andy Mosser, Local Union Electricians

Mr. Mosser represents the interests of 600 unionized electricians in the Lansing area, of whom 25 percent are laid off or are working out of the area. Mr. Mosser indicated that whatever facility is built in the next ten years when the Eckert base load is taken off line will include members of his union. He expressed support for building any option in the Lansing area, whether conventional or renewable, as opposed to purchasing power from elsewhere.

Douglas Jester, Area Resident

Mr. Jester reviewed his resume for the panel and then proceeded to provide comments on the IRP. His primary concern is cost reduction. He suggested that the IRP should be redone using an equation that optimizes level of energy efficiency, demand management, and renewable sources. He also mentioned that energy storage options, co-generation, and waste heat capture and release are not included in the IRP.

Mr. Jester expressed concern that the IRP had become outdated when the renewable portfolio standard was passed by the Michigan legislature. He observed that the IRP does not consider net metering or feed-in rates for third-party supply. He also indicated that efficiency in energy transport and distribution is not considered in the IRP.

He discussed emissions and concluded that a coal-fired generation facility with carbon capture and storage should be the logical choice to protect customers from the potentially high costs of carbon emission charges. He said that the IRP does not consider emissions that impact air quality, such as nitrogen oxides and sulfur oxides. He also indicated that the IRP fails to analyze whether customers would be willing to pay more for a solution other than the least costly alternative.

Mr. Jester discussed combined cycle natural gas generation and indicated that it might be about 5 percent more expensive than coal generation. He suggested that the risk analysis used in the IRP may be wrong and urged the panel to remember that while gas prices will certainly continue to rise, the costs of emitting carbon dioxide and mercury may rise even faster. He concluded that a combined cycle gas plant would operate cleaner than a coal plant, even with 57 percent biomass included in the feedstock.

Mr. Jester's final comment was that an IRP including all variables in an optimization equation would lead to a better outcome.

Dorothy Jones, Area Resident

Ms. Jones asked the panel to "look to the future." She urged the use of solar and wind power on the GM plants near the Eckert station and suggested increased use of batteries

for energy storage. She reminded panelists that customers need assistance to improve efficiency. She finally urged the panel to consider paying more now to reduce pollution in the future.

Public Comment Period Closed

At 10:25, Mr. Stojic thanked the panel and the public for their attention and comments. He introduced the guest expert on biomass procurement, Anan Gangadarrin.

Availability of Biomass

Mr. Gangadarrin gave a presentation on the use of waste products in energy generation. This presentation was requested to give the panel an understanding of the benefits and challenges of using a waste product as a feedstock for energy production.

Mr. Gangadarrin discussed a concept called the “virtuous cycle.” To qualify as a virtuous cycle, a process must use only waste and the entire stream of procurement must be renewable and sustainable. He discussed the triple bottom line of (1) financial performance, (2) social benefits, and (3) environmental benefits.

By way of example, he discussed the use of anaerobic digesters to make methane gas. He indicated they are widely used in Europe and developing nations and they have a negative carbon footprint. He mentioned pelletized sewage sludge being used in new operations in California, and suggested this was a potential solution for sewage disposal in areas with high landfill tipping fees.

He discussed the challenges inherent to contracting for a steady supply of 100 megawatts (MW) worth of biomass (roughly 1.2–1.4 million tons of biomass at 4,000–5,000 BTUs). He indicated that this type of procurement is possible and that it is both an art and a science. He mentioned the competing factors of price, resulting emissions, seasonality of supply, countercyclical fuel matching, and storage needs that must be considered.

Conclusion

Mr. Stojic thanked Mr. Gangadarrin for his presentation. He then mentioned the pending Renewable Portfolio Standard legislation and said that the BWL would be watching its passage closely to understand how it may impact the current IRP.

Ms. Nelson requested a presentation on the BWL’s energy efficiency plan at a future meeting.

Mr. Stojic said that the next meeting date and agenda would be announced on the website and would likely be in the evening.

Adjournment

The meeting was adjourned by Chair Kelley at 11:27 AM.

BWL Citizens Review Panel: Meeting Notes

November 13, 2008
Offices of the Ingham County Health Department

Present

Ms. Paula Cunningham
Mr. Pat Gillespie
Mr. Tim Haggart
Mr. Paul Hufnagel
Mr. Frank J. Kelley
Ms. Joan Nelson
Mr. David O'Leary
Mr. Randy Thayer

Absent

Mr. James Butler
Mr. Dennis Muchmore
Dr. Dean Sienko

Call to Order

Chair Kelley called the meeting to order at 7:00 PM.

Presentation of Previous Comments

Mr. George Stojic, Executive Director for Strategic Planning and Development at the Lansing Board of Water and Light (BWL), gave a presentation that discussed the feedback received to date from the panel and the public. He indicated that two broad issues have been the integrated resource plan (IRP) and its underlying assumptions, and concerns over coal and combustion.

Panel Discussion

- Ms. Nelson inquired about the BWL's energy efficiency program. She suggested some concepts for consideration including:
 - A prescriptive commercial and industrial program
 - A custom program for larger customers
 - Programs for low-income customers
 - Focusing first on lighting, then on heating and air conditioning, and then appliance efficiency
- Ms. Nelson also brought up the recent Waxman legislation that suggests a moratorium on new coal plants without carbon capture and sequestration.
- Mr. Hufnagel asked whether under the IRP 114 percent of peak power demands plus backup are required amounts of production. The answer from BWL staff was "yes."

- Mr. O’Leary questioned the proposed size of the proposed plant. He asked whether the BWL should engage partners and build a larger plant for economies of scale in planning and financing and a more favorable risk distribution. He asked about the possibility of buying into another plant, such as the proposed Consumers facility in Essexville. He suggested that MSU might be a good partner. He questioned the wisdom of spending such a large sum on a plant without knowing the details of future carbon taxes and the potential for another nuclear plant to locate in Michigan. He suggested that transmission should not be a deal breaker and requested information on the transmission system at a future meeting. He stated he is in favor of a larger facility even if that delays the siting process. He suggested that BWL has been selling power in the past and it may be time for it to reduce production capacity.
- Mr. Kelley indicated that past projects headed by Consumers and DTE have struggled to stay under budget.
- Mr. O’Leary asked about the standard size of a plant. BWL staff answered that a standard circulating fluidized bed facility would be between 150 and 350 megawatts (MW); a supercritical coal plant would be 600–800 MW. Ms. Cunningham asked if 100 MW of power would be enough for BWL to entice a partner to join them in the proposed facility. She also asked if the sequence of developing a plan for approval and securing partners should be simultaneous. BWL staff informed her that they have been working on partnership agreements for about a year.
- Mr. Hufnagel asked if a purchase power agreement is better for the economy than building a new plant. He asked if owning a new plant would improve the local economy, and whether exposing BWL customers to the energy markets would be risky and/or more expensive. BWL staff answered that this proposal is key to maintaining a steady supply of competitively priced power for the local economy. Mr. O’Leary agreed that it would be bad for Lansing to lose the competitive advantage of local, reliable power.

Public Comment

James Clift, Michigan Environmental Council

Mr. Clift encouraged the BWL to look beyond meeting the state standard to determine whether exceeding the standard is comparable to building a new baseload source.

Steve Rall, Lansing Resident

Mr. Rall observed that he’d attended a wind farm tour in Michigan where the investor said he would get his money back in 12 years. Mr. Rall questioned why the BWL wouldn’t invest in that sort of endeavor. He also questioned the cost of transmission.

Mr. Rall asked when the public could expect a final report on this public involvement process since the meetings have been delayed from their original timeline. BWL staff expects the report within six months.

He asked when the panel will discuss the alternatives to the BWL proposal previously presented by the Michigan Environmental Council (MEC)/Lansing Can Do Better and Mr. Doug Jester.

He asked what criteria the panel will use to make its recommendation.

Dorothy Jones, Area Resident

Ms. Jones inquired about the degree to which the BWL has considered the complementary energy production of wind and solar sources. Mr. Stojic answered that the BWL has considered it and is pursuing solar technology. He urged her to keep in mind that wind always needs a backup power supply source. He indicated that replacement of a 300 megawatt coal plant would require 1,000 wind turbines plus backup power 72 percent of the time.

Ms. Jones expressed the hope that BWL will continue to exist and be publicly owned. She reiterated that she would like BWL to move away from coal. She gave the example of Germany implementing dispersed solar energy production on rooftops.

Mr. Stojic replied that it has been working on standards for net metering and a feed-in tariff, which should be set up by next year to allow dispersed solar energy production at homes to connect to the grid.

Tremaine Phillips, Michigan Environmental Council (MEC)

Mr. Phillips referenced a letter submitted by the MEC that indicated energy efficiency is the cheapest alternative for meeting future energy needs. He said the state policy on building efficiency has been improved. He urged the BWL to go beyond the state standard requirement for efficiency. He suggested that coal is artificially cheap and its price does not account for the health and environmental costs. He urged the panel and the BWL to look to the future, and suggested that coal would be a backward step.

Joseph Davis, Former BWL Business Manager

Mr. Davis said that the proposed coal plant will be much better for the community than the one that currently exists. He urged the panel and the public to recognize the need for energy. He suggested that reliability is key and said that customers are at the mercy of the market when one does not own the generation. He urged the BWL and the panel not to let others dictate the energy future of the community. He reiterated that the BWL has been the basis for economic growth in Lansing for the last 100 years. He expressed confidence that the best, state-of-the-art plant will be built and the best interests of the community will be considered. He closed by stating that new nuclear capacity will be at least 10–20 years away.

Max Zemek, Retired from BWL as Business Manager of Union

Mr. Zemek stressed the importance of building another plant to replace the Eckert “dinosaur” that requires expensive maintenance and upgrades. He cautioned against being dependent on the market for energy. He indicated his preference for the plant to be built in Lansing to maintain the BWL identity.

Douglas Jester, Area Resident

Mr. Jester questioned whether P.A. 295 requires additional 10 percent cost caps related to the incremental cost of compliance.

Mr. Jester suggested that the BWL presentation at the beginning of the meeting did not address each of the concerns he previously identified. He suggested that the opportunity for cost-effective energy efficiency is about 30 percent, according to studies at various scales completed by the American Council for an Energy-Efficient Economy.

He also asked about limitations on the BWL to conduct a “pay as you save” program that would finance energy-efficient improvements up front and allow customers to pay back the investment through subsequent utility bills.

Anne Woiwode, Michigan Chapter Sierra Club

Ms. Woiwode questioned how carbon dioxide emissions would be reduced under the proposed plan without carbon capture and sequestration. Mr. Stojic answered that the Eckert plant would be replaced and that biomass is carbon neutral. Further, he indicated that carbon capture and sequestration are not commercially available in the current planning horizon.

Ms. Woiwode cited the expense of the proposed plant. She mentioned articles she submitted to the panel. She raised the recent Sierra Club challenge to a coal plant in Utah on the issue of whether carbon dioxide is covered under the Clean Air Act air quality regulations. She suggested that outside expertise should be engaged to review the BWL’s plan.

Eric Larson

Mr. Larson was on the list to speak, but he had to leave.

Jim Weeks, Executive Vice President, Michigan Municipal Electric Association

Mr. Weeks said that there are partners interested in the proposed plant, but that they cannot sign on until the BWL gets consent from its customers to proceed with the proposed plant and partner with others. He said that the preferable option is for municipal utilities to work together. He suggested that the Eckert station is old and inefficient and requires replacement.

Mr. Weeks urged the panel to review the costs realistically. Buying from the MISO market means that customers pay market price, in comparison to paying the costs of generation when the municipality owns the plant. He asserted that cost-based rates are best for customers and the community.

He explained that some municipal utilities in Michigan are already contracting with MISO for power supply. He praised the BWL for taking the initiative to keep power production in Michigan and explained that for those who are opposed to a coal-based source for their power, 70 percent of the MISO market is dispatched as coal-generated power.

Todd Tennis, Ingham County Commissioner and Representative of the Construction Industry, State Employees, and the Electrical Union

Mr. Tennis suggested that the recently enacted RPS is inadequate and urged the BWL to surpass its requirements. He praised the BWL for taking a balanced approach and reinvesting in new, cleaner baseload plants, which will provide jobs. He suggested that if

BWL doesn't do it, some other utility will, and BWL customers will be forced to buy power from them. He suggested keeping the generation local to continue to provide safe, affordable, reliable power.

Conclusion

Chair Kelley thanked everyone for their participation. He indicated the BWL staff and panel would determine the number of additional meetings required and the schedule would continue to be made available to the public.

Adjournment

The meeting was adjourned by Chair Kelley at 9:00 PM.

BWL Citizens Review Panel: Meeting Notes

February 12, 2009
Foster Community Center

Present

Mr. James Butler
Mr. Pat Gillespie
Mr. Paul Hufnagel
Mr. Dennis Muchmore
Ms. Joan Nelson
Mr. David O'Leary
Dr. Dean Sienko
Mr. Randy Thayer

Absent

Ms. Paula Cunningham
Mr. Tim Haggart
Mr. Frank J. Kelley

Call to Order

Co-chair Hufnagel called the meeting to order at 3:08 PM.

Presentation

Mr. George Stojic, Executive Director for Strategic Planning and Development at the Lansing Board of Water and Light (BWL), gave a presentation that discussed the feedback received to date from the panel and the public. He indicated that two broad issues have been the integrated resource plan (IRP) and its underlying assumptions, and concerns over coal and combustion. Stojic explained that major changes in federal and state policy have adjusted the goals of energy producers away from traditional energy production and toward non-combustion and efficiency.

Stojic discussed policy changes in Washington, D.C., including potential regulation of greenhouse gases (GHG); the proposed federal renewable portfolio standard, which is more aggressive than Michigan's; new federal efficiency standards on appliances; and proposed market rules that would encourage load management.

Stojic mentioned that the BWL expects to institute net metering during summer 2009 and to participate in additional load management activities after 2010 when the existing power pool participation agreement ends.

Stojic explained that the governor's proposed 45 percent reduction in fossil fuel use coupled with the governor's executive order to the MDEQ to review all feasible alternatives to siting new coal-fired energy production facilities does not affect the BWL now because it has not yet submitted a permit application for review.

Stojic explained that the manufacturing base has been declining locally and may continue to decline. The General Motors facilities have been BWL's largest customer over the years. Stojic said that the BWL has received inquiries about information technology data centers due its low rates and high reliability.

Stojic told the panel that BWL staff would be reviewing the IRP in the coming months and would reevaluate its course of action given the changing trends in energy policy.

Panel Discussion

Ms. Nelson asked about the reference to the Michigan Saves program in the governor's State of the State address. She inquired about the program's potential impacts. Stojic explained that the BWL will be working on a pilot project with the Michigan Public Service Commission, and that there would be no net cash flow drain on the ratepayers who participate.

In response to a question regarding the BWL's ability to perform to Michigan's renewable portfolio standards (RPS), Stojic explained that the costs of achieving the RPS will be capped at approximately \$3 per residential meter, \$16 per commercial meter, and \$187 per industrial meter. The BWL expects to meet the 10 percent renewable goal and remain under the cost cap.

The BWL is conducting a demand-side market assessment, including the prioritization of programs for low-income customers.

Janet Brandt commented that the BWL is the first utility in the state to get an energy optimization plan in place. Ms. Nelson asked if efficiency gains were widespread throughout BWL's customers. Brandt answered that the efficiency gains to date were the result of large efficiencies implemented at a few large customers across the entire load. Ms. Nelson requested information on the market profiles for efficiency. Brand explained that the total benefit to cost ratio for BWL's energy efficiency program is 3:2, or that \$3 are saved for every \$2 spent in the program. The cost of conserved energy is 3.6 cents per kilowatt hour. Nelson expressed concern about the focus on the market in difficult economic times, noting that it is unclear how services will be provided in communities where the poverty rate exceeds 25 percent.

Mr. Gillespie asked how easy it will be to continually capture 2 percent energy savings each year, suggesting that large gains may be possible in the near term, but additional gains will become increasingly more expensive. Brandt answered that continued gains will likely come from improved technology.

Mr. Thayer asked how the region ranks in energy efficiency. Minnesota, Wisconsin, and Iowa are the current leaders in energy savings through efficiency.

Ms. Nelson cautioned decision makers to secure sustainable funding for energy efficiency upgrades in future years instead of relying on one-time influxes of federal funds.

Dr. Sienko asked about the role of changing behavior in the demand market. Brandt indicated that behavior is the hardest part to change, but that it is gaining momentum due to intense social marketing on behavioral change.

Public Comment

Ms. Rall, Area Resident

Ms. Rall expressed her interest in energy efficiency, and suggested that a \$1 billion coal plant would be a costly responsibility for Lansing. She recommended that the decision to build not be made in the current environment.

Mr. Duranko, Area Resident

Mr. Duranko expressed concern for his grandchildren's exposure to coal, related toxics including mercury, and GHGs. He indicated concern about human health issues and the environmental costs of coal mining processes. He implored the panel to seek alternative energy sources.

Ms. Jacobs, Area Resident

Ms. Jacobs encouraged increased energy efficiency and said that incentives could affect market demand enough to prevent the need for another coal plant. She encouraged the BWL to consider development of smart grid technologies and to provide incentives to insulate homes better.

Ms. Harley, Area Resident

Ms. Harley commented it is not the right time for Lansing to build a new coal plant due to the quickly changing legal and regulatory landscape at the federal level, including the 2007 Supreme Court ruling that requires regulation of carbon dioxide under the Clean Air Act.

Ms. Woiwode, Michigan Chapter Sierra Club

Ms. Woiwode thanked the panel members for their service and their continued role in the review of the IRP, which creates a valuable forum for the public. She encouraged the panel to allow the public to comment before panel discussion so the panel can incorporate public concerns into their discussion time.

Mr. Knight, Area Resident

Mr. Knight commented that this is a cultural issue for the state of Michigan, and that through the right decisions, Michigan could be a destination and model for responsible energy use and halting climate change.

Ms. Lynn, Area Resident

Ms. Lynn encouraged the panel to hold its next meeting in the evening.

Mr. Jester, Area Resident

Mr. Jester provided a handout to the panel and said that from what he heard at this meeting, the BWL and panel are heading in the right direction. He encouraged the BWL to include pay-as-you-save programs into the solution.

Mr. Manchester, Area Resident

Mr. Manchester urged the BWL to keep options open as long as possible. He suggested the need for additional time to address the narrow range of assumptions in the original IRP and the community's level of understanding of the relative risks associated with decisions. He urged the BWL to err on the side of scientific advancement and be transparent in its decision making.

Ms. Kindle, Area Resident

Ms. Kindle supported postponing the plant indefinitely.

Mr. Alexander, Area Resident

Mr. Alexander suggested using federal stimulus funds to systematically insulate homes in Lansing. He also urged the BWL to present information on why other utilities have elected not to go with a new coal fired power plant.

Mr. Anderson, Area Resident

Mr. Anderson explained that during his time in East Lansing and Lansing, the air quality has improved over the last 40 years. He is leaning in favor of the proposed plant in the IRP. He suggested that coal is vital to the creation and preservation of American freedom, and that without use of it now, Michigan will be more dependent on foreign oil and manufacturing and will increase related foreign debt. He urged the BWL to protect the base power supply, indicating that he does not like blackouts. He urged the BWL and the panel to be visionary and not to make assumptions or decisions in uncertain times.

Conclusion

Chair Hufnagel thanked everyone for their participation.

Next Steps

The BWL will completely review the IRP in light of the recently changing policy trends, and will reconvene the panel in approximately three months to discuss the new proposal. The panel will be asked to give input on the new plan, and a task force may be used to draft recommendations after the plan is presented. Stojic will provide the panel a schedule for the BWL's reevaluation of the plan and will welcome their contributions to the process.

Adjournment

The meeting was adjourned by Chair Hufnagel at 4:25 PM.

BWL Citizens Review Panel: Luncheon Summary

June 1, 2009, 11:30 AM
Impression 5 Science Center
Lansing, Michigan

Present

Ms. Paula Cunningham
Mr. Pat Gillespie
Mr. Paul Hufnagel
Mr. Frank J. Kelley
Mr. Dennis Muchmore
Ms. Joan Nelson
Mr. David O'Leary
Dr. Dean Sienko

Absent

Mr. James Butler
Mr. Tim Haggart
Mr. Randy Thayer

Call to Order and Welcome

Chair Kelley called the business portion of the meeting to order at approximately noon after participants had eaten their lunch.

Presentation

George Stojic presented a summary of the process to date to the panelists. His presentation outlined the initial proposal from the Integrated Resource Plan (IRP) that the panel was asked to review, the changes in the regulatory environment that have occurred since the panel's review began, and potential next steps for the panelists to consider.

Discussion

The panel discussed the material presented and deliberated about a draft panel recommendation.

The panel discussed the wisdom of delaying a decision on a replacement for the Eckert power plant. Most members agreed with the prudence of delaying a decision for a short time until some of the uncertainty is settled. Some members expressed concern that a delay could create a challenging situation when the Eckert plant must meet increased environmental standards or shut down. Others were concerned that a delayed decision could put Lansing at a competitive disadvantage with other communities that have been proactive about their energy supply. Panelists concluded that the approach suggested by the BWL at this time reflects concerns expressed by the public as well.

All of this discussion resulted in a consensus that while a delay is appropriate now, the BWL must continue aggressively refining its IRP while adapting to the changing regulatory environment and embracing energy efficiency and renewable technology as much as possible.

Conclusions

The panel reached consensus that the decision to invest in a new biomass and coal cogeneration facility should be delayed until the regulatory environment has stabilized and there is more certainty for decision makers. The panel insisted that between now and the time to make a decision on a replacement for the Eckert plant, the BWL should continue to aggressively pursue planning and exploration of the latest energy generation and energy efficiency technologies. The panel agreed to explicitly support the three criteria that serve as the basis for decision making in the IRP: reliability, affordability, and environmental stewardship. The panel further agreed to explicitly endorse the use of biomass as one of the most appropriate and potentially abundant renewable fuel stocks in Michigan. Lastly, the panel endorsed the value of considering potential partners for the development of any future energy production facility.

Next Steps

PSC staff will draft a report that reflects the Citizen Panel's process to date and outlines the panel's recommendations and underlying rationale. A draft of the report will be sent electronically to BWL staff and to the panel members before July 1, 2009, for a final round of comments. If, at that time, panelists wish to convene again to finalize the document, BWL staff will organize the meeting. If panelists feel that a meeting is unnecessary, PSC staff will incorporate comments and edits into the draft document and will finalize the report. The final report will be transmitted electronically to the BWL and all panelists.