
INTEROFFICE MEMORANDUM

TO: HONORABLE MAYOR AND COUNCIL
FROM: ROBERT S. HOFFMANN, BOROUGH ADMINISTRATOR
SUBJECT: SUSTAINABILITY UPDATE
DATE: 8/4/2008
CC: RAY HERR, CFO

Overview

Sustainability is the terminology used to define all environmental issues whether it is for energy consumption or the prevention of pollution. Its application at the local government level has been a subject of great interest to me for several years. At both the 2006 and 2007 ICMA Conferences, I attended seminars titled "Sustainability and Leadership – The Manager's Role." I learned that over 200 municipalities in the United States have some form of sustainability project underway. The overwhelming majority are concentrating on biodiesel. A memo dated October 18, 2007 about the ICMA Conference and seminar was prepared for the then Mayor and Council. It was also given to the Mayor and Council-elect.

In January of 2007, a barrel of oil cost \$50.00. At noontime on Monday, August 4th, the price of a barrel of oil was \$120.33. This is a decrease of \$24.67 off of the approximate high three weeks ago. People are congratulating themselves for taking energy saving measures that have helped to reduce the cost of a barrel of oil. The price of a barrel of oil is \$70.33 or 58.4% higher than the price of a barrel of oil in January of 2007. Much more effort is required to reduce the unit cost of energy and ensure an adequate supply for all of our future needs.

In an interview on News Radio 88 several months ago, the Postmaster General of the United States stated that for every penny a barrel of oil increases, \$1,000,000 in operating expenses is added to the postal service budget. Governments at every level must become less reliant on foreign oil and the wide price fluctuations which occur over time. All levels of government should rely on sustainable energy alternatives to hold the line on these rising energy costs as well as promoting a clean environment. Due to a unique set of circumstances, the Borough of Westwood will be able to become energy self-sufficient in six years. These circumstances include the willingness of the Governing Body to embrace change, the talent of the professional staff to be innovative and the spirit of innovation and enthusiasm that the Governing Body has fostered by authorizing hybrid vehicles and the research into other areas of sustainability.

Background

During calendar year 2008, the State of New Jersey announced that the state budget deficit was approximately \$33 billion. Actions taken at the state level will also affect government operations at the local, county and school districts. There are several areas of the municipal budget that the Borough does not have control over in the short term. However, in the long term, the cost in those areas can be managed and reduced. Utility and fuel costs are an example.

For calendar year 2007, the Borough paid approximately \$540,700 for its utilities and fuel (gasoline and diesel). In June the Board of Public Utilities granted a 17.2% rate increase for electric service. In September it will consider granting an additional 20% rate increase. The municipal budget can only increase by a total of 2 ½% per year. With a waiver granted by the state, it can be increased an additional 1% for a total annual increase of 3.5%. For 2008 these two utility rate increases, when blended, equate to a 15.2% rate increase. With the high cost of energy as well as unfunded state mandates being forced upon local governments, Westwood must think outside the traditional box to meet the policy established by the Mayor and Council to:

- Become known as one of the best managed and livable communities of the state.
- Obtain a AAA bond rating.
- Encourage innovation and improve the way we deliver services to our residents.
- Anticipate what the governing body needs and deliver it.
- Always have integrity and do the right thing.

The cost of utility bills and fuel requires a long-term solution. The increases in these areas, which are beyond the control of the Governing Body, have a direct and severe impact on the cost of local government.

To protect the economic health of the Borough and its taxpayers, several sustainability initiatives involving clean energy generated in the United States have been outlined at various meetings. Two projects have been pilot tested—Hybrid vehicles and recycled vegetable oil. Both are successes. These initiatives do not rely on fossil fuel and will reduce the Borough's reliance on foreign oil. In the long run, these initiatives will save money, help provide employment opportunities and keep our tax dollars in New Jersey. To date, the Governing Body's approval of the Hybrid police vehicle on patrol has:

- Saved the taxpayers money;
- Reduced our reliance on fossil fuels;
- Reduced pollution;
- Improved the morale of the residents and staff; and
- Improved the prestige of the Borough in the regional and national media.

All sustainability projects being reviewed by the Borough and recommended to the Governing Body will be cost effective. They will save money, reduce pollution and improve the environment. Those are the criteria for recommendation to the Mayor and

Council. These projects will have the added benefit of helping the Borough improve its bond rating in the future.

The following is a summary of our sustainability projects:

1. Police – The 2008 Ford Escape Hybrid on patrol has been featured in two (2) magazine articles, the Bergen Record, The Today Show and will soon appear on a Cable TV news show feature. A Toyota Highlander Hybrid is scheduled to be delivered to the Borough's Police Department during the week of August 11th. Liberty Toyota has the state contract. Once the vehicle has been delivered, it must be outfitted for service with the Police Department. The Governing Body adopted a resolution authorizing the purchase of a third Hybrid vehicle for the Police. Chief Regino has asked to investigate alternate fuel Hybrid vehicles. A third gas/electric Hybrid has not yet been ordered by the Police Department. The Police Department is obtaining data, cost information and conducting an analysis of propane powered vehicles. The resolution to order a gas/electric Hybrid is still in effect. Once the Police have provided a written report outlining all of the costs of a propane powered vehicle, I will review it with the Chief and, if appropriate, discuss it with the Police Committee. Attachment "A" shows the actual miles per gallon and cost of fuel for the 2008 Ford Escape Hybrid on patrol.
2. Energy Audit – The Borough has solicited a proposal to install light sensors in Borough Hall. The Borough's contract electrician spent several hours in Borough Hall on Tuesday, July 15th looking at fixtures, switches and crawl spaces so that a quote can be prepared and submitted to the Borough. The Board of Public Utilities has not yet released applications for the energy audit. The Borough, based on its March 8th BRIT presentation, has received a commitment for a \$30,000 grant. The program was scheduled to begin in April. It has been delayed over the decision of who will administer the program. TRC Energy Solutions, which manages the New Jersey Smart Start Rebate Program, had their contract amended on July 11th to authorize them to oversee the Energy Audit Program.
3. Biodiesel Pilot – This pilot project is successful. It will be one of the most successful and duplicated programs ever launched by a local government in the United States. A June 10, 2008 multi-page memo explains in detail the biodiesel process. As of July 22nd, the Borough has filtered and used 155 gallons of recycled vegetable oil in its trucks. Based on a diesel price of \$4.20 a gallon, the Borough has saved \$651.00 in fuel costs. It has also reduced pollution by 3,100 pounds of particulates in the atmosphere.

Once the Borough acquires a filtration system, we will be able to filter large quantities and store recycled vegetable oil for future use. When a filtration system is obtained, the Borough will be able to filter and produce between 4,800 and 12,000 gallons of recycled vegetable oil for use in Borough vehicles. This will be a savings of between \$20,000 and \$50,000. The payback period on a filtration system will be six to nine months. Residents have begun bringing down recycled cooking oil to the DPW garage. One gentleman even brought

cheesecloth for us to use in the recycling process. Waste Management's offer to collect vegetable oil has not been acted upon. It can be acted upon once the filtration unit has been installed. Attachment "B" outlines the savings generated by this pilot project.

If members of the Governing Body have questions about the June 10th memo outlining the steps and costs of the biodiesel process, please do not hesitate to contact me. I would be happy to answer any questions.

4. Water Turbine – A micro water turbine is recommended to be installed in the Pascack Brook. This was recommended by DEP Commissioner Lisa Jackson in February. A letter has been sent and follow up phone calls have been made to United Water to schedule a meeting with them to plan for the installation of the micro water turbine at the spillway. The Borough has contacted Fairleigh Dickinson University and Rutgers for assistance in determining the proper type of Grid-Tied Batteryless System to install. The U.S. Geological Services has a small shed that measures the flow of water over the spillway. Our goal is to tap off the power in that shed. This will eliminate the need for bulk storage batteries. The cost of the units varies from \$2,000 to \$60,000 depending on the flow of the system. Westwood's needs are in the \$2,000 to \$15,000 range. Preliminary estimates from the FDU Institute for Sustainable Enterprise indicate a payback period of less than two years.
5. Wind Turbine – There are various forms of wind turbines. After both the biodiesel filtration system and the micro water turbine have been installed, the Borough's resources will be turned toward evaluating, selecting and recommending the appropriate form(s) of wind turbine.
6. Geothermal Heating – There are several aspects of geothermal heating that must be investigated further. Trips to the Bear Mountain Inn and Ossining Public Library are on the agenda. If any members of the Governing Body are interested, please let me know.
7. Alternate Fuel Vehicles – The Police Department is researching propane powered police vehicles.
8. DPW Hybrid – The Borough went out to bid for the DPW Hybrid. The state contract for the Toyota Highlander Hybrid is no longer in force. Specifications were prepared and eleven (11) bid packets were sent out. The bid opening date was Wednesday, July 30th at 11 a.m. One bid was received. That bid is within budget and is recommended to be awarded at the August 5th meeting.
9. Solar Panels – Preliminary meetings have been held with the President of Sunside Solar as well as three other companies. Additional meetings with representatives of solar power manufacturing companies must be scheduled. Meetings with representatives were scheduled and then cancelled by the representatives. Two of the representatives have been commuting between the United States and Beijing.

The summer Olympic village is using solar roofing material and panels developed by two of the companies the Borough has been in contact with. Both companies have stated that the payback period for their product is 36 to 48 months.

Conclusion

The Borough of Westwood's evaluation of sustainability ideas will lead to current and future savings. These ideas will also lead to a cleaner environment for current and future generations of Westwood residents. The Governing Body has approved the Energy Audit and Hybrid gasoline electric vehicles for the Police and Public Works Departments. The next two projects that make sense based on the evaluation to date are the biodiesel project and micro water turbine. Additional evaluation is required for the other initiatives outlined. The counsel and thought provoking questions of the governing body have helped move the sustainability initiatives forward. The encouragement of the governing body to be innovative is much appreciated.

Robert S. Hoffmann

RSH/lrf