

CITY OF NEWARK
Delaware

March 19, 2009

TO: Kyle R. Sonnenberg, City Manager

FROM: Carol S. Houck, Assistant to the City Manager

SUBJECT: **ENERGY, EFFICIENCY & CONSERVATION PLAN – UPDATE**

BACKGROUND

In response to Council's direction the following represents Newark's Energy, Efficiency & Conservation Plan. This report and any subsequent updates shall, upon Council acceptance, serve as Newark's guide to the expansion of conservation and efficiency efforts through a focused plan of action.

INITIATIVES ALREADY UNDERWAY

- Implement a Curbside Recycling program–
 - Our implementation of curbside recycling is expected to take place this June with carts and final program instructions delivered to residents early in the month.
- Implement a Green Wednesdays yard waste collection program–
 - This program will be implemented this April and will address the yard waste disposal needs of residents.
- Review of the DEMEC Energy Portfolio for renewable energy targets-
 - Newark's annual supply portfolio totals approximately 436 MWH. Our supply of renewable energy sources (currently either landfill gas or hydropower) makes up slightly less than 4% of our total and DEMEC has been advised of our desire to increase this percentage.
 - DEMEC's commitment to the Blue Water Wind Project would raise our percentage to approximately 19%. However, recent funding concerns associated with the project may impact our ability to reach this goal. Currently, the State administration remains supportive and anticipates that the project will move forward. If the Blue Water Wind Project is built as presently conceived, Newark will be well positioned to meet the State portfolio standards noted above without taking any additional actions. Modifications to this plan or additional actions may be necessary if the project does not materialize. Additionally, any action to increase our percentage should only be adopted following consideration of the cost/benefits associated with renewable energy.
- Implement on-line utility billing and payment program-

- The purchase and installation of the Harris eCare web software module has been made and we are moving forward with all steps necessary to offer on-line bill payment and billing as an option to utility customers by year-end.
- Provision of customer based utility detail on-line-
 - Customer based utility information will eventually be available through a web portal link on our web site. The recent upgrade to the Harris Billing system provides this functionality that will be phased in this year.
- Explore the feasibility of a solar energy project-
 - The Electric Department is working with the University of Delaware’s Center for Energy and Environmental Policy to assess the electricity needs and solar capacity of the Municipal Building. Data has already been shared, however, the outcome of the exercise was not available in time to include it in this document.
- Vehicle Purchases/Evaluations-
 - It is our intent to evaluate the availability and cost of fuel efficient/hybrid vehicles where feasible with every vehicle purchase. Vehicles of a special nature such as those of the Police Department will continue to be replaced with commonly accepted law enforcement units until such time as new options become available.
- Evaluation of the applications for induction/LED lighting-
 - The Electric Department has been evaluating the appropriateness of using induction/LED lighting for street light applications. This effort has confirmed that there remain two avenues of belief regarding this matter which loosely translated are based on the difference between “actual light levels” and “comfort or perceived light levels”. Conflicting theories aside, one report in particular urges caution with roadway applications. This caution relates to the need for “actual light levels” to best see objects such as a pedestrian or biker in a roadway. The current levels provided by induction lighting/LED fixtures does not provide the optimum light for roadway applications. This effort is on-going.

OBJECTIVES UNDER CONSIDERATION/REQUIRING MOTION OF COUNCIL

- **Provision of a Budget Billing option for customers**

The Finance Department will develop a budget billing payment option for our utility customers that will identify a set monthly payment based on past usage information. It is important to note that such programs may result in a much higher payment at the end of the year when the account is balanced between the actual usage and the payments made. Procedures for participating and estimating the budget billing will be developed in 2009 and the program will be offered in 2010.

This objective will be implemented by the Finance Department in 2010 following development of the procedures for participation and estimating. Waiting until 2010 allows for the Department to focus on and implement several other initiatives that are already underway.

- **Implementation of a mandatory Systems Benefits Charge that provides certain funds for three Energy Initiatives (the Energy Assistance Fund, the Conservation Advancement Program and the Green Energy Fund) on an annual basis that is embedded in the electric cost of service and recovered in rates**

As we worked through the initiatives suggested by Council and attempted to identify funding mechanisms for each, it became apparent that the most efficient and consistent way to fund these items is by budgeting for such costs each year. This allows for full acknowledgement of the funds each year to our customers as well as a stable funding source for the initiatives that will enable them to be successful.

We recommend budgeting for these costs in the 2010 operating budget. Proceeding in this fashion will provide a consistent funding source for the three initiatives identified by Council and will allow time for the development of the qualification processes, advance notice to utility customers and identification of the fee necessary to raise \$100,000. We have selected \$100,000 to be collected during its first year.

- **Develop a plan for the installation of energy efficient lighting within the Municipal Building and Police Department facilities**

The Electric Department has determined that 463 light fixtures within the Police Department and Municipal Building facilities alone can be retrofitted with energy efficient ballasts and lamps saving approximately 120,000 kwh/year. It is estimated that at \$0.10 per kwh, the annual savings would be \$12,000 and that the installed cost for both labor and materials would be \$24,000, allowing for a payback in two years.

It is recommended that costs associated with this retrofit be included in the 2010 Capital Improvement Program unless the above noted review suggests this effort should be incorporated into an overall plan of action for the facilities.

- **Implementation of an electronic equipment recycling program**

The Delaware Solid Waste Authority (DSWA) has recently opened a drop off center at the end of Wharton Drive in the area of Pinebrook Apartments. The location accepts all residential recyclables including batteries and electronic goods. Recent contact to the DSWA revealed that the volume at the site is steadily increasing and they view it to be meeting the needs of the area.

The location of this drop off facility within the City of Newark can meet the needs of our residents therefore eliminating our need to offer a like service. We have started to advertise the location as well as the items it accepts on our web site and Newark TV 22.

- **Encourage energy conservation through a redesign of the electric rates**

It has been determined that a rate study should be performed to determine the redesign of our rate structure so that it promotes energy conservation (including time of use metering for commercial customers and winter rates and/or electric heat user rate) and economic development initiatives.

It is recommended that Council confirm its interest in the Finance Department initiating a rate study in 2009 to determine the redesign of our rate structure so that it promotes energy conservation and economic development initiatives. The cost of such a study is expected to be \$50,000 and has been included in the 2009 Capital Program.

- **Investigate the feasibility of purchasing reusable envelopes for utility bill mailings**

It appears that the use of reusable envelopes may be applicable to our utility bill mailings. A full evaluation including cost impact (reduction of return envelopes/higher purchase cost) and other modifications that may become necessary must be completed to confirm feasibility.

It is recommended that the Finance Department initiate an evaluation of this option and present a recommendation to the City Manager based on its findings in time for the 2010 operating budget.

- **Implement a program that allows homeowners to call-in or enter their meter readings on-line**

The Finance Director has considered this option and reports the following:

- Timeliness and accuracy of the readings provided by either method are of concern. It is likely that customers may not call/enter readings in time for the relevant billing cycle or they may intentionally or unintentionally misread the meter. Accuracy is noted to already be a challenge for inexperienced meter readers.
- The workload that could be generated by either method is of concern. If the call-ins are taken by our customer service representatives, it is estimated that the call volume could increase by as much as 80,000 calls a year. Likewise, the information provided via either method would need to be manually entered into the billing system. Consideration of automating such a process would require investigation as this functionality is not currently available from our billing system.

It is recommended that we do not accept call in or on-line meter readings until such a time that the Finance Department can evaluate options to implement an automated process and determine the benefits of doing so to our organization. This effort should be postponed until at least 2010 so that the benefits of on-line billing and bill payments can be realized.

SUMMARY OF RECOMMENDATIONS

In conclusion, the issues considered and outlined within this report represent an initial plan of action towards reaching greater energy efficiency and conservation within our organization and community. **Support of the following via a motion of Council is requested:**

- Support the provision of a Budget Billing option for utility customers in 2010.
Cost: \$0
- Support the implementation of a mandatory Systems Benefits Charge in January 2010 that will be embedded in our utility rates and fund three Energy Initiatives of Council.
Cost: \$100,000
- Support the intention to retrofit lighting fixtures in the 2010 Capital Program.
Cost: \$24,000
- Acknowledge the provision of an electronic equipment recycling program in Newark by the DSWA as satisfactorily meeting the needs of our community.
Cost: \$0
- Approve of the implementation of a rate study in 2009 to determine the redesign of our rate structure so that it promotes energy conservation and economic development initiatives.
Cost: \$50,000 (in 2009 CIP)
- Support the 2009 investigation of using reusable (same envelope returned with payment) envelopes for our utility bill mailings with implementation in 2010, if feasible.
Cost: To be determined/evaluated
- Approve of our plan to evaluate options for automated call-in or on-line acceptance of meter readings in 2010.
Cost: To be determined/evaluated

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