



Buffalo Environmental Management Commission Monthly Energy/Efficiency and Sustainability TIP SHEET January 2011

As part of its City Charter-defined mission to advise the Mayor and Common Council on environmental issues affecting the City, the Buffalo Environmental Management Commission submits a monthly "tip sheet" on a timely topic for information, review and consideration. This month's tip sheet showcases City of North Tonawanda **New York Energy \$martSM** program.

The North Tonawanda water treatment plant main facility has annual electrical and fuel costs of approximately \$212,000 and \$38,000, respectively. The annual energy cost for the remote pumping station and storage tank is about \$25,000. In an effort to control these energy costs the City took part in the New York State Energy Research and Development Authority's (NYSERDA) FlexTech Program with Stearns & Wheler, LLC performing the engineering and contracting work. The total study cost was \$45,600 with NYSERDA providing **\$22,800**. Stearns & Wheler created an alternatives evaluation to analyze opportunities for energy cost savings, energy conservation, and efficiency improvements.

Recommendations

Stearns & Wheler offered several recommendations to reduce and control energy costs. These included replacement of existing oversized equipment, maintenance of existing pumps, a computerized maintenance management system, automation of equipment, installation of variable frequency drives, and plant shutdown during nighttime hours. Maintenance and repair of the pumps provide the facility with more capacity and efficiency. Other recommendations include pumping coordination that prevents the larger pumps from operating simultaneously, and lighting conservation that shuts-off lights in areas of the facility not in use.

Results

Implementation of the energy efficiency recommendations amounts to an annual electric savings of over 893,000 kWh for the City of North Tonawanda, and will reduce the water treatment plant's energy use and costs. Implementation of the recommended measures could reduce annual electric costs by \$89,880 or 43%, and annual fuel oil costs by \$2,700 or 7%. Some of the recommended alternatives will also provide an additional annual operational cost savings of \$90,000.

The City of North Tonawanda has implemented some of the recommended measures using NYSERDA's **New York Energy \$martSM** Commercial Industrial Performance Program and received an incentive of **\$64,000**. The cost of these measures for the city was \$230,000, but provides a \$57,000 annual electric savings.

New York Energy \$martSM

New York Energy \$martSM programs are designed to lower electricity costs by encouraging energy efficiency as the State's electric utilities move to competition. The programs are available to electric distribution customers (residential, commercial, institutional, and industrial) who pay into the SBC.

For more information about these services, contact NYSERDA toll free 1-866-NYSERDA, locally (518) 862-1090, or e-mail: info@nyserda.org or www.nyserda.org.

If you have any questions regarding the tip sheet please contact Joe Gardella (Interim Chair, BEMC) at gardella@buffalo.edu or Dennis Sutton (BEMC support staff) at dsutton@city-buffalo.com. We look forward to any input on the monthly tip sheet.

BEMC members are willing to attend any meetings to promote implementation of these programs in the City of Buffalo. BEMC meets the third Wednesday of each month, 8:00 AM, 920 City Hall. The web site address for the BEMC is:

http://www.ci.buffalo.ny.us/Home/CityServices/Environmental_Management_Commission