

Energy Program for Baltimore City Public Schools

The Baltimore's Energy Office has approached the energy conservation efforts at Baltimore City Public School System on three levels:

Utility Billing Review

- Collected utility data for the past few years starting in 2003 in an extensive database, and established a base line utilizing the latest utility billing software. This allowed us to put the energy consumption and cost in perspective and be able to compare between school buildings, type of utility used, annual cost and consumption and effect of outside temperature. By monitoring consumption we will be able to verify the effect of improvement and analyze its long term effects, in addition to reviewing the accuracy of utility bills
- Since electricity deregulation, BCPSS procurement office has been coordinating the electricity purchase efforts along with Baltimore City and surrounding counties, for best available rates

Energy Performance Contracting

- Developed contracts with 4 Energy Service Contractors (ESCO) to perform energy conservation measures at about 160 schools. These are design built contracts where the contractor guarantees the savings to be realized annually, for the life of the contract. The City and BCPSS piggybacked on the State of Maryland IDC contract and selected a group of energy companies who were qualified by the State. Items of work include lighting upgrades, HVAC and controls, water conservation and other work. We also combined the implementation of the guaranteed energy savings measures and current CIP projects, for speed of completion and for maximum energy conservation effect.

Preventive Maintenance Program

- We entered into a long term preventive maintenance agreement with each energy company assigned to a group of schools. In addition to insuring the realization of energy savings, these agreements will provide full coverage on all newly installed equipment and to perform preventive maintenance, trouble shooting and minor repairs to all existing HVAC and controls in the school buildings. As emergency repairs will be reduced by the proper preventive maintenance, this work will insure saving additional dollars and reduce the school building interruption.

Upcoming efforts:

- On-going conservation educational efforts
- Evaluation of applicable new technology
- Monitor future improvements in schools for conservation

For any further information, please contact
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Baltimore City's Energy Office

Environmental Impact on the City of Baltimore

Energy Performance Project	Status	Project Cost	kWh Reduction	Expected Annual Savings (After Completion- In FY06 Estimates)	Equivalent Reduction in MMBTU	Similar to Removing Tons of CO2 (Global Warming)	Similar to Removing Tons of SO2 (Acid Rain)	Similar to Removing Tons of Nox (Smog)	Similar to Planting Acres of Trees	Similar to Removing # Old Cars from the Roads
LED Project	Under Construction	\$6,500,000	7,900,000	\$900,000	26,955	6,476	512	863	3,235	2,364
Back River WWTP Digester Gas	Under Construction	\$14,000,000	18,500,000	\$1,800,000	63,122	15,166	1,199	2,020	7,575	5,536
BCPSS Projects-160 Schools	Under Construction	\$106,000,000	38,000,000	\$4,800,000	129,656	31,151	2,463	4,149	15,559	11,371
7 Fire Stations	Under Construction	\$2,000,000	692,608	\$120,000	2,363	568	45	76	284	207
16 City Buildings	Under Construction	\$2,800,000	2,300,000	\$200,000	7,848	1,885	149	251	942	688
10 City buildings	Completed	\$7,200,000	7,600,000	\$540,000	25,931	6,230	493	830	3,112	2,274
Other Energy reduction programs	On-going									
SUMMARY		\$138,500,000	74,992,608	\$8,360,000	255,875	61,476	4,862	8,188	30,705	22,440

The water conservation efforts will also net a reduction of about 150 million gallons of water per year