

Baltimore City Department of General Services

Fleet Management Division • Facilities Maintenance Division • Planning, Design and Construction Division • Energy Division • Right-of-Way Services Division

Annual Report

"Preserving the Past, Maintaining the Present, and Building a Sustainable Future!"

The City of Baltimore is a leader in municipal energy efficiency, innovative application of technology and sustainable stewardship of government and community resources. Reducing the amount of energy the City uses helps the environment and saves money.

The Department of General Services (DGS) has five divisions

- **Fleet Management Division** - Our team of mechanics, body shop repairman and automotive maintenance workers maintain 5,800 pieces of motorized equipment ranging from fire trucks to lawn mowers. We manage 18 refueling facilities and 8 substations servicing the public fleet city-wide.
- **Facilities Maintenance Division** - Our team of tradesmen including pipe fitters, electricians and carpenters provide round-the-clock construction, repair and maintenance of City facilities, recreation centers, fire stations and libraries. We also provide custodial staff and building security services for public buildings.
- **Planning, Design and Construction Division** - Our team of architects and engineers work to lower the City's carbon footprint through facility assessments and office consolidations. The Division also preserves, restores and increases the efficiency of City's buildings including its historic properties. Our construction managers and inspectors administrate contracts and manage consultants for more than 400 city-owned buildings.
- **Energy Division** - Our team of engineers, accountants and energy experts work to improve energy systems in buildings. With a goal of displacing fossil energy use, and reducing overall energy costs and consumption, we work closely with government, nonprofits, residents and businesses to produce energy savings throughout the City.
- **Right-of-Way Services Division** - Our team monitors the private use of public rights-of-way, including the approval and issuance of permits allowing such outdoor activity as block parties, adopt-a-lot neighborhood gardens, alley gatings and greenings, banner hangings, street closures, and utility street cuts.



Efficiency and Sustainability

- Locked in fuel rates
- Increased fleet fuel flexibility
- Reduced overall building energy
- Improved operating efficiency
- Improved economics of operation
- Initiated holistic approach to building management
- Obtained \$15M in grants and low interest loans
- Used \$7M from savings to finance capital projects
- Economically operated 3 megawatts (MW) of renewable energy



Baltimore Convention Center Green Roof

Better Schools. Safer Streets. Stronger Neighborhoods.

www.baltimorecity.gov

2010 Accomplishments

- FLEET** - Our fleet is 35% green, using alternative fuels such as compressed natural gas and biodiesel. In 2010 we purchased 95 flexible fuel vehicles and locked in 80% of our fuel purchases for one year at \$2.52/gallon, saving the City \$300K. Our 10 newly purchased diesel trucks have particulate filter cleaners which remove soot from the engines. And, even our car washes meet the green test by utilizing reclaimed water. Fleet's innovative web based and hands-on training saves the City \$2M annually in vendor costs. And, our highly trained mechanics participate in 40 hours of product and equipment instruction each year reducing the need to outsource repair work.



- MAINTENANCE** - In November 2010, we instituted the Baltimore Green Cleaning Program in numerous City facilities. We had two primary goals: to protect the health of building occupants and visitors; and minimize environmental impact. We also saved money:



- \$973,717 by reducing custodial posts from 24 to 12 hours per day
 - \$82K by reducing security costs
 - \$100K saved by ordering paper goods directly from the manufacturer
 - \$100K by moving from daily to weekly carpet and floor cleaning

We are working more efficiently and sustainably.

- DESIGN AND CONSTRUCTION** - As one more step in our holistic approach to managing City facilities, we surveyed 77% of the square footage of our municipal buildings documenting layout, size, utilities and tenants. 2010 highlights include a beautiful renovation of the Edmondson Library and a complete restoration of Engine 31 on Greenmount Avenue. We installed the green roof in the at the Baltimore Convention Center.

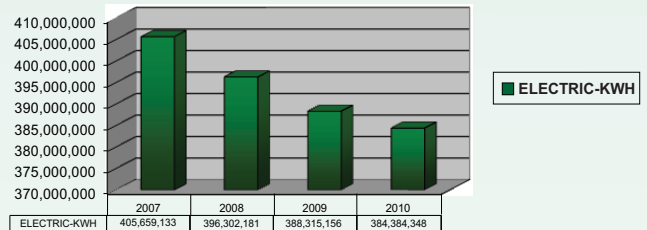


Also, We added four LEED (Leadership in Energy and Environmental Design) certified professionals to our team: three architects and one engineer.

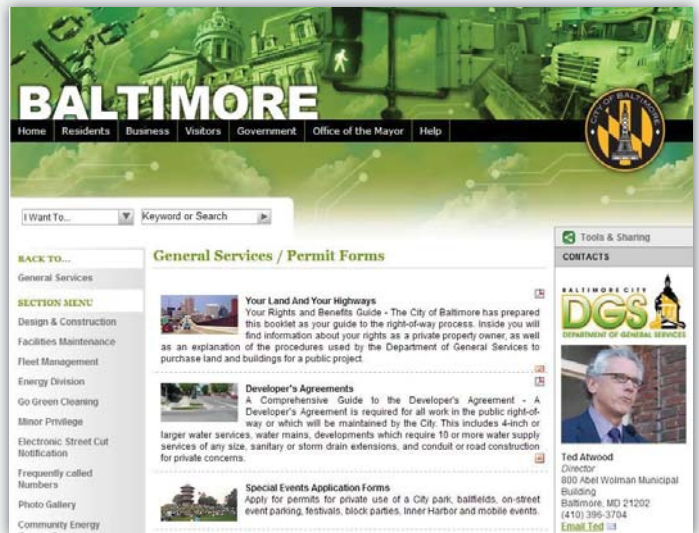
- ENERGY** - We worked to achieve energy independence for Baltimore City by decreasing energy use and costs. The Energy Office reduces government expenditures by \$5.5M each year through savings from reduced purchases of electric power, steam, natural gas, chilled water and related savings on maintenance costs.



CITY-WIDE ENERGY CONSUMPTION



- RIGHT-OF-WAY SERVICES** - We dramatically improved our automated process for special event and street cut permits, making it more customer-friendly. We changed our application fees to encourage earlier submissions and upgraded our website for easier permit application. Applications can be downloaded from our site, and soon, we will enable electronic submission.

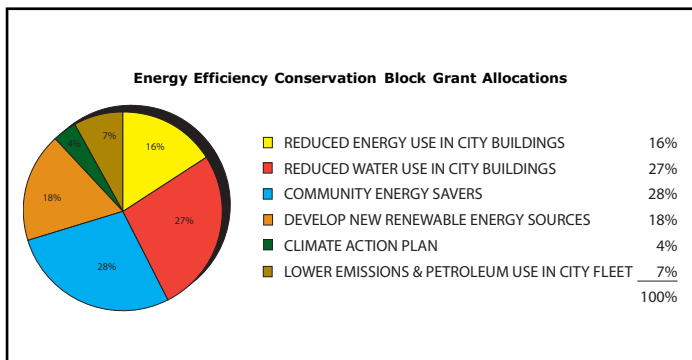


2010 Accomplishments

- Use More Renewable Energy** - We are improving Baltimore's air quality by increasing our use of renewable energy. Approximately 10% of the power the City used in 2010 and nearly 40% by 2013 will be from renewable resources. The City even generates its own renewable power - with 3MW of capacity in 2010 and an anticipated increase to 15MW in 2012.
- Communities Reduce Their Energy Use** - Citizen energy savings were accomplished through the Baltimore Neighborhood Energy Challenge (BNEC). BNEC is a partnership bringing together City agencies, non-profits, utilities, and community organizations to educate citizens about reducing energy use. In the 2010 pilot, BNEC distributed 1,200 energy saver kits. The average energy use reduction for participating neighborhoods ranged from 6 to 12.8%. Citizen energy savings is good for the environment and for the wallet, reducing home energy bills to better afford life's other essentials.
- Employee Efficiency** - DGS brings in \$1.50 in revenue and savings for every dollar spent on our payroll. We do this through collection of permit violations, energy savings performance contracts and grant funds on City buildings. (This number excludes our Fleet Division)
- Low interest (2%) bonds** - Low interest (2%) bonds totaling \$6.7M from the U.S. Treasury are being used to increase energy efficiency by upgrading heating, windows and lighting in libraries, firehouses and office buildings.
- Energy Savers Program** - The City has two energy efficiency programs targeting non-profit organizations, a significant part of the local business community and economy. Funds are being used to assist more than 100 non-profit organizations perform energy audits, conduct energy conservation outreach and make recommended energy conservation improvements. Funds leveraged from this grant will total more than \$2M.
- Reduced Water Use by City Government** - DGS has systematically installed new equipment in City buildings that substantially reduce water usage. By saving water, we help reduce energy consumption at our water treatment facilities.
- New HVAC Group** - In October, we created a new Heating, Ventilation and Air Conditioning (HVAC) Group under our Facilities Maintenance Division, immediately saving the City \$116K in contractual HVAC repairs. We will continue to save money by negotiating with on-call contractors, trimming repair proposals and preventing over-billing.
- Saving on Rent** - In partnership with the Office of the Comptroller and the Law Department, we initiated actions to reduce our private rental exposure saving \$2M that can now be reinvested in City facilities. One such action, the purchase of the Municipal Employee Credit Union (MECU) building at 401 E. Fayette Street, resulted in an immediate \$1M annual rental savings.
- YouthWorks** - The Department of General Services employed 35 students over the summer through Baltimore City's YouthWorks jobs program. DGS facilitated this youth employment through an energy block grant, and hired 13 additional students using DGS agency funds. The students learned about the Department, the uses and effects of energy on our everyday lives, and hosted an Energy Fair in the lobby of the Abel Wolman Building.



the MECU building at 401 E. Fayette Street, resulted in an immediate \$1M annual rental savings.



DGS summer youth workers proudly displayed their energy fair exhibit this summer in the lobbies of the Charles L. Benton and Abel Wolman Municipal buildings. DGS staff Nagaina Thomas, Sam Grillo, Paul Skorochod and intern Morgan Krach joined the workers for this photo.



- **Biomass Be Gone** - Working with the Department of Recreation and Parks, the Energy Office contracted the removal of years worth of logs at Camp Small, the Forestry Division's wood storage site, saving the City \$1M in disposal fees.

- **3 Megawatts of Energy Generated Annually** - The Back River Wastewater Cogeneration Facility is a prime example of our ability to finance energy saving projects through the use of performance contracting. Back River Waste Water Treatment Plant generates approximately 1.7M cubic feet of digester gas (i.e. methane) daily, a by-product of treating and degrading wastewater sludge. While using digester gas is relatively common, utilizing it to generate 3MW of electricity is rare. This electricity represents approximately 30% of the base electrical load at Back River, enabling the plant to pull less power from the local power grid. This successful project is well on its way to long term sustainability through the joint efforts of the City of Baltimore, Johnson Controls, and AECOM.



- **Wholesale Energy Purchasing** - Baltimore City works with surrounding local governments to purchase energy through the Baltimore Regional Cooperative Purchasing Committee (BRCCPC). Savings of 15 to 20% are being realized annually through a reduction in energy supply costs.
- **Close Monitoring** - By closely monitoring our over 3,600 energy/electricity accounts, investigating incorrect billing, closing unnecessary accounts and shopping for the best prices, DGS saved the City \$250K.

2011
A look toward the future.....

- **Renewable Energy** - We will install solar panels and geothermal equipment on city property with the goal of providing approximately 10% of the City's energy needs from these sources by 2013.
- **Climate Action Plan** - Baltimore will complete a Climate Action Plan in 2011.
- **Baltimore Business Energy Challenge (BBEC)** - We will launch BBEC this spring to educate local businesses on energy conservation, behavior modification and retrofit solutions.
- **Electric Vehicle Charging Stations** - We will install nine electric vehicle charging stations in City garages to facilitate the increased use of electric vehicles.
- **Expanded District Heating** - Baltimore will evaluate expanding district heating and distributed power generation.



2010 was the Department of General Services' first full year in existence. We reorganized divisions to make them more efficient. We realized savings by adopting energy efficient practices and installing conservation equipment in our buildings. Our aim is to save the City money, while providing better service and being more sustainable. We have forged and grown agency partnerships with Police, Fire, Health, Finance, Transportation, Libraries, Court System, Planning, and Recreation & Parks to better meet their needs so we can serve the public more effectively.

Stephanie Rawlings-Blake,
Mayor



STEPHANIE
RAWLINGS-BLAKE
MAYOR