

Coleman A. Young Municipal Center – Energy Efficiency & Cost Containment

In 2005 the Detroit-Wayne Joint Building Authority (Authority) revised its *Mission Statement* and added “environmentally appropriate” as a guiding principle. Applying this principle in its daily operations has enabled the Authority to reduce its annual operating budget from \$15 million to \$8.6 million including a 50% reduction in utility expenses (resulting in three Energy Star designations) These operational savings have also enabled the Authority to move forward with the implementation of a number of long overdue capital improvements without requiring capital funding from the City of Detroit or County of Wayne. These projects include the renovation of the 13th floor auditorium (increasing its capacity from 477 seats to 553 seats) and the restoration of the *Spirit of Detroit* statue.



Practicing sustainability (being “green”) has saved the Authority \$1.8 million annually in energy costs making it possible to restore the auditorium and the *Spirit of Detroit* applying “green principles”. The Authority considers this being “green-to-the-second power” (*Green?*)

The Authority focuses its operating efforts on the identification of “no-cost and low-costs” solutions to energy efficiency and cost containment. Additionally, the Authority has completed an 18 month Facility Master Plan that, once executed, is intended to guide long-term capital improvements with the goal of achieving a LEED Silver Certification.

No-Cost Operational Initiatives:

These initiatives have focused on operating policies and procedures including;

- Establishing standard building hours of operation (reducing the demand for after-hours heating and cooling)
- Eliminating evening light pollution (Jefferson Avenue decorative lighting and unnecessary office suite lighting)
- Transition to daytime cleaning (reduce staff levels and eliminate need for evening lighting)
- Aggressive rate negotiations with the steam-provider and seeking “favored-nation” treatment with the County
- Establishing standard building services and a bill-back system to tenants for extraordinary utility use
- Communicate “green initiatives” to the stakeholders and tenants and encourage their participation
- Establish “green” purchasing initiatives in both goods and services acquisition

Low-Cost Initiatives:

These initiatives involve preventive maintenance and capital spending with a rapid pay-back through utility costs savings:

- Transition condenser water source from domestic water (DWSD) to river water
- Maintenance of steam distribution system and steam trap repairs and replacements
- Lighting retrofit program (18,000 fixtures) and transition from T12 to T8 fixtures and to energy efficient ballasts
- Re-engineered restrooms designed to hand-free and to reduce water and energy consumption
- Enhancements to the BMS system (Building Management System) to better monitor consumption and implement automatic controls to reduce energy consumption
- Create a web-based Preventative Maintenance (PM) system to assure proper and timely maintenance of mechanical equipment (pumps, motor, air handlers, etc)
- Invest in building upgrades to introduce single-stream recycling

The Authority has received *EPA Energy Star* designation for four consecutive years by managing energy performance strategically across the entire organization and by making cost-effective improvements to the Center. While participating in the ENERGY STAR initiative, the Authority has saved approximately \$1.8 million dollars annually in energy costs and has prevented greenhouse gas emissions equal to the electricity use from 1,156 households for a year or equal to the annual gas emissions from 1,598 passenger vehicles.

The Authority supports the use of benchmarking in a continuing effort to strive to be “best-in-class” and in November 2009 joined forces with the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) in a national pilot labeling program focused on creating a cutting-edge benchmarking tool to measure excellence in the areas of operational efficiency and sustainability.