

# **Case Study**

# **Baltimore City Fire Stations**

Baltimore, MD



#### **PROJECT HIGHLIGHTS**

# **Environmental Benefits**

874 tons of harmful greenhouse gas emissions reduced annually

#### **Equivalent to:**

- Preserving 5.5 acres of forest from deforestation\* or
- Conserving 1,843 barrels of oil\*

# **Capital Costs**

\$2,047,103

### **Annual Savings**

Energy: \$118,395 Non-Energy: \$35,505

- \* Sources
- Leonardo Academy's Cleaner & Greener<sup>SM</sup> Emissions Reduction Calculator http://www.cleanerandgreener.org/resources/ emission\_reductions.htm
- U.S. Environmental Protection Agency, Greenhouse Gas Equivalencies Calculator http://www.epa.gov/cleanenergy/energy-resources/ calculator.html

# PROJECT DESCRIPTION Energy Savings Performance Contract

**Challenge:** The City of Baltimore asked ConEdison *Solutions*, through its subsidiary, Custom Energy Services, to investigate opportunities for energy efficiency in its seven largest fire department facilities. Several of the firehouses had heating systems that failed frequently and were beyond repair. The focus of the project was to improve the energy efficiency and comfort of the buildings by providing new equipment.

#### **PROJECT SCOPE:**

**Solution:** New mechanical systems were installed. This included radiant heat in the apparatus bays where the fire trucks are housed. New windows and bay doors were also installed, and the firefighters report that the firehouses are much quieter now. Air conditioning was added to the Fire Academy auditorium and was installed in time for the 2007 cadet graduation ceremony.

#### **Contact:**

James Bellamy Facilities Director 1407 Key Highway Baltimore, MD 21230 410-396-1785

#### **Construction Start Date:**

February 2006

#### **Construction End Date:**

July 2007

# ENERGY CONSERVATION MEASURES

# Lighting

High efficiency lighting

# **Building Controls**

Control systems upgrade

# **Heating and Cooling**

- Install rooftop units
- · Install air handling units

#### **Building Envelope**

- Weatherized bay doors
- · Window replacement

#### **Fuel Conversion**

Domestic hot water heater

#### **Water Conservation**

Replace water heater

### **Other Upgrades**

Install premium efficiency motors

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# Clients: Government & Non Profit Groups



### **FEDERAL**

Federal Aviation Administration New England Region, Burlington, MA

General Services Administration, New York, NY

General Services Administration
Department of Justice,
Dallas, TX

General Services Administration Federal Court House Building, Fort Lauderdale, FL

General Services Administration Internal Revenue Service, Farmers Branch, TX; Kansas City, MO

General Services Administration Northeast Region,

Boston, MA

General Services Administration

R.L. Timberlake, Jr. Federal Building,

Tampa, FL

National Archives and Records Administration, Boston, MA

Veterans Administration
VISN #3, New York City Medical Center
New York, NY

# **STATE AND MUNICIPAL**

Alexandria Sanitation Authority, VA Arlington County, VA Bergen County Utility Authority, Little Ferry, NJ

City of Baltimore, MD

City of Baltimore, Fire Department, MD

City of Boca Raton, FL City of Charlottesville, VA City of Ft. Myers, FL

City of Hialeah, FL

City of Parsons, KS City of Pittsburg, KS

City of l'ittsburg, KS City of Tallahassee, FL

City of Tamanassee, TE

City of Winter Haven, FL

City of Ybor, FL

Essex and Union Counties, NJ

Florida Department of Environmental Protection,

Tallahassee, FL

Florida Department of Management Services,

Miami, FL

Hernando County Government, Brooksville, FL

Kansas Insurance Department, Topeka, KS

Miami-Dade County, Miami, FL

Middlesex Water Company, Middlesex, NJ

Missouri State Fairgrounds, Sedalia, MO

New York Power Authority (various locations), New York, NY

Pittsburgh Housing Authority, Pittsburgh, PA

Plant City Public Works, Plant City, PA

**Polk County Government,** Bartow, FL

**Southbridge Water Department,** Southbridge, MA

**St. Lucie County,**Fort Pierce, FL

State FL-Division of Fruits & Vegetables, Winter Haven, FL

Suwannee County,

Live Oak, FL

Trenton Water Works, Trenton, NJ

# **CORRECTIONAL FACILITIES**

El Dorado Correctional Facility, KS Hutchinson Correctional Facility, KS Lansing Correctional Facility, KS Norton Correctional Facility, KS Winfield Correctional Facility, KS

# **U.S. POSTAL SERVICE**

Atlanta Bulk Mail Center, GA
Atlanta Georgia Facilities, Group 1 and 2,
Crown Road Facility,
Hapeville, GA

Kilmer Processing and Distribution,

Edison, NJ

Morgan Processing and Distribution Center,

New York, NY

USPS-Central Florida District, FL USPS-Suncoast District, FL

Whippany Processing and Distribution Center,

Kearney, NJ

SES Contracts awarded for: CA, AZ, NV, HI, Guam, CO, WY, UT, ID, OR, WA and AK

# **U.S. MILITARY**

Florida Department of Military Affairs Hanscom Air Force Base, Bedford, MA

MacDill Air Force Base, Tampa, FL

National Naval Medical Center,

Bethesda, MD

**Naval Air Station,** Jacksonville, FL

Tyndall Air Force Base, Panama City, FL

U.S. Army Garrison at Fort Hamilton,
Brooklyn, NY

U.S. Army Reserves, New York, NY

U.S. Coast Guard, Boston, MA

U.S. Navy, District of Washington

Anacostia Annex,

Washington, D.C.

U.S. Navy, Washington Navy Yard, Washington, D.C.

# **MUSEUMS**

John F. Kennedy Presidential Library and Museum,

Boston, MA

**U.S. Naval Museum,** Washington, D.C.

Museum of Science and Industry, Tampa, FL

**USS Intrepid Sea, Air and Space Museum,** New York, NY