



# Case Study

## El Dorado Correctional Facility El Dorado, KS



### PROJECT HIGHLIGHTS

#### Environmental Benefits

2,409 tons of harmful greenhouse gas emissions reduced annually

#### Equivalent to:

- Preserving 15.2 acres of forest from deforestation\* or
- Conserving 5,802 barrels of oil\*

#### Capital Costs

\$2,123,556

#### Annual Savings

Energy:	\$247,517
Non-Energy:	\$12,757
Utility Cost Reduction:	16%

#### \* Sources:

- Leonardo Academy's Cleaner & Greener<sup>SM</sup> Emissions Reduction Calculator  
[http://www.cleanerandgreener.org/resources/emission\\_reductions.htm](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:** El Dorado Correctional Facility is composed of three separate facilities: two minimum security and one maximum security prison, which have the capacity to serve over 1,000 inmates. The facility lacked the funds to complete needed upgrades, so they turned to the Kansas Facility Conservation Improvement Program (FCIP) for help. All work needed to be completed within the challenging security environment of a correctional facility.

#### PROJECT SCOPE:

**Solution:** Some of the more notable improvements made by ConEdison Solutions, through its subsidiary, Custom Energy Services, include automatic light sensors, stainless steel sink and toilet combination units, and a new laundry system. The light sensors take advantage of areas that receive plenty of natural daylight by only turning on lights when necessary. The stainless steel plumbing fixtures greatly reduce the amount of water used at the facility, and their durability provides reduced replacement and maintenance costs compared to the existing porcelain units. The new laundry system allows for safer and more efficient operation by lowering wash temperatures and eliminating the handling of chemicals by operators. El Dorado Correctional Facility is using over \$260,000 in annual savings on utilities and operation costs from the upgrades to fund the project over a ten-year period.

#### Contact:

Jim Davis  
Physical Plant Supervisor Specialist  
1737 SE Highway 54  
El Dorado, KS 67042  
316-322-2091X

#### Construction Start Date:

August 2004

#### Construction End Date:

December 2004

### ENERGY CONSERVATION MEASURES

#### Lighting

High efficiency lighting

#### Building Controls

- Energy management system
- Variable speed control
- Kitchen exhaust hood control

#### Heating and Cooling

- Steam system optimization
- Rooftop units

#### Water Conservation

- Low-flow water fixtures
- Water softening

#### Other Upgrades

Install laundry ozone system



## Clients: Government & Non Profit Groups

### FEDERAL

**Federal Aviation Administration**  
New England Region,  
Burlington, MA

**General Services Administration (GSA),**  
New York, NY

**GSA Department of Justice, Dallas, TX**

**GSA Federal Court House Building,**  
Fort Lauderdale, FL

**GSA Internal Revenue Service,**  
Farmers Branch, TX

**GSA Northeast Region, Boston, MA**

**GSA R.L. Timberlake, Jr. Federal Building,**  
Tampa, FL

**National Archives & Records Administration**  
Boston, MA

**Veterans Administration (VA)**  
VA, Bronx, NY  
VA, Queens, NY  
VA, Westchester, NY  
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

**Buchanan County, MO**

**City of Boca Raton, FL**

**City of Charlottesville, VA**

**City of Ft. Myers, FL**

**City of Hialeah, FL**

**City of Pittsburg, KS**

**City of Tallahassee, FL**

**City of Temple Terrace, FL**

**City of Winter Haven, FL**

**City of Ybor, FL**

**Essex and Union Counties, NJ**

**FL Dept. of Environmental Protection,**  
Tallahassee, FL

**FL Department of Management Services,**  
Miami, FL

**Hernando County Government,**  
Brooksville, FL

**Kansas Insurance Department,**  
Topeka, KS

**Loudoun County, VA**

**Miami-Dade County, FL**

**Middlesex Water Company, NJ**

**Missouri State Fairgrounds,**  
Sedalia, MO

**New York Power Authority, NY**

**Plant City Public Works, PA**

**Polk County Government,**  
Bartow, FL

**Southbridge Water Department,**  
Southbridge, MA

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

**FL Division of Fruits & Vegetables,**  
Winter Haven, FL

**Suwannee County,**  
Live Oak, FL

**Trenton Water Works, NJ**

### CORRECTIONAL FACILITIES

**Arlington County Justice Center, VA**

**El Dorado Correctional Facility, KS**

**Lansing Correctional Facility, KS**

**Norton Correctional Facility, KS**

**Winfield Correctional Facility, KS**

### U.S. POSTAL SERVICE

**Atlanta Bulk Mail Center, GA**

**Barrigada Main Post Office (MPO), Guam**

**Billings Processing & Distribution Center**  
(P&DC), MT

**Central Florida District, FL**

**Chattanooga P&DC, TN**

**Cheyenne P&DC, WY**

**Denver, P&DC, CO**

**Dominic V. Daniels P&DC, Kearny, NJ**

**Eugene P&DC, OR**

**Grand Central Station MPO, New York, NY**

**Honolulu P&DC, HI**

**JFK Air Mail Facility, New York, NY**

**Kilmer P&DC, Edison, NJ**

**Los Angeles, P&DC, CA**

**Manasota P&DC, Sarasota, FL**

**Miami, P&DC, FL**

**Morgan P&DC, New York, NY**

**Phoenix General Mail Facility, AZ**

**Reno P&DC, NV**

**San Francisco, P&DC, CA**

**San Juan P&DC, Puerto Rico**

**Spokane P&DC, WA**

**Springfield P&DC and National**  
**Distribution Center, MA**

**Suncoast District, FL**

**Teterboro P&DC, Teterboro, NJ**

**Trenton P&DC, NJ**

**Westchester P&DC, White Plains, NY**

**Whippany P&DC, Kearney, NJ**

**SES Contracts awarded for: AK, AZ, CA,**  
**Caribbean Region, CO, Guam, HI, ID, NJ,**  
**NV, NY, OR, UT, WA, and WY**

### U.S. MILITARY

**Florida Department of Military Affairs,**  
St. Augustine, FL

**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

**Museum of Science and Industry,**  
Tampa, FL

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

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