



Case Study

Lansing Correctional Facility Lansing, KS



PROJECT HIGHLIGHTS

Environmental Benefits

6,617 tons of harmful greenhouse gas emissions reduced annually

Equivalent to:

- Preserving 41.9 acres of forest from deforestation* or
- Conserving 13,960 barrels of oil*

Capital Costs

\$3,583,697

Annual Savings

Energy: \$373,989
Non-Energy: \$65,749

* Sources:

- Leonardo Academy's Cleaner & GreenerSM 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 Lansing Correctional Facility is the oldest and largest facility for detention and rehabilitation of male adult felony offenders in the state of Kansas. The complex has a capacity of 2,335 inmates and consists of three facilities: the original prison, the central unit, and the east unit. Lansing Correctional Facility chose to partner with ConEdison Solutions, through its subsidiary, Custom Energy Services, to address the challenges presented by rising utility costs, deferred maintenance issues, and a lack of capital budget.

PROJECT SCOPE

Solution: The primary objective in implementing the Facility Conservation Improvement Program (FCIP) project was to reduce energy consumption and, consequently, the expenditures on energy and energy-related services. ConEdison Solutions accomplished this through the installation of new energy-efficient equipment, systems, materials, and services. Lighting retrofits and the installation of an energy management system provided Lansing Correctional Facility with significant electricity savings. Facility improvements and the modernization of older, inefficient equipment, systems and materials were also major goals of this partnership.

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Construction Start Date:

January 2004

Construction End Date:

June 2004

ENERGY CONSERVATION MEASURES

Lighting and Controls

- High efficiency lighting
- LED exit signs
- Occupancy sensors

Building Controls

- Energy management system
- Unit heater controls
- Support services controls retro-commissioning
- Variable frequency drives

Heating and Cooling

- Steam trap replacements
- HVAC replacements
- Water heater replacement

Water Conservation

- Low-flow water fixtures
- Shower improvements

Additional Upgrades

- Kitchen exhaust hood controls
- Laundry process optimization