



Facility type	Correctional
Project cost	\$16.7 million
Annual cost savings	\$1.5 million*
Contract term	15 years
Contract type	EPC

MICHIGAN DEPARTMENT OF CORRECTIONS

Jackson, MI

A multi-measure guaranteed energy performance contract enabled the Jackson Complex to accomplish its primary objective of decommissioning the existing steam plant. NORESKO's approach balanced energy saving and capital improvements to address the aging facilities' needs.

In 2013, the Michigan Department of Corrections (MDOC) requested proposals to develop and implement a comprehensive energy efficiency program for the Jackson Complex. Decoupling facilities from the existing central powerhouse was a key goal for MDOC.

NORESCO combined its extensive experience and best practices serving correctional facilities and implementing decentralization projects, with local engineers already knowledgeable about the Jackson complex. Contractors were selected through a competitive bidding process using Buy4Michigan. The unified approach expedited mobilization and engineered the facilities' preferred procedures into the project from the beginning. MDOC selected the NORESKO team, and construction began in December 2015.

The project is guaranteed to reduce annual energy and water consumption valued at more than \$1.5 million. MDOC also benefited from more than \$150,000 in rebates earned with Consumers Energy, the local utility provider.

Among other benefits, removing steam loads from the central plant and installing dedicated domestic hot water, heating hot water, and kitchen steam boilers will increase the operating efficiency of the facility and provide more reliable equipment.

Together, MDOC and NORESKO delivered a project characterized by professional communication, thorough design, and astute project management.

Technical Highlights

- ▶ Boiler plant decentralization
- ▶ 140-ton absorption chiller replacement
- ▶ Variable air volume system & optimization
- ▶ Installation of corrections-grade plumbing
- ▶ Replacement of sanitary & domestic water piping
- ▶ Upgrade interior lighting & controls
- ▶ Steam trap repair & replacement
- ▶ Heating system insulation

Expected Environmental Impact

- ▶ 1,904,665 kWh reduction in annual electricity use
- ▶ 840,735 therms reduction in annual natural gas use
- ▶ 3,982 kW reduction in annual electricity demand
- ▶ 71,477 kGal reduction in annual usage for both water and sewer

"If there was a rating system to offer their [the NORESKO] team, MDOC would offer a five star rating to this firm for their ability to audit, design, engineer and manage this performance contract.

Construction Project Manager
Michigan Department of Corrections

* Annual cost savings are shown at the level guaranteed for the first year of the performance period after construction completion.