

Performance Contracting

Los Angeles County Los Angeles, California

Project Cost: \$13,900,000

Annual Cost Savings: \$2,600,000

Facility Description: 115 Municipal Buildings

*Contract Term: Multi-phased project included
10-year DSM and 3-year ESPC*

Financing: Utility Incentives, tax exempt lease and cash



Los Angeles County has undertaken lighting and mechanical upgrades in 115 municipal buildings that will save more than \$2.6 million and 28 million kWh annually. During the first phase of work, NORESKO installed about \$1.2 million worth of lighting improvements under a utility demand-side management program at no cost to the county. The multi-phase project has included improvements to electrical and mechanical systems in structures as diverse as hospitals, courthouses, administrative buildings, fire stations, sheriff offices, prisons, and a large civic center.

NORESKO managed the multi-phased project, which has included the retrofit of more than 100,000 fixtures with a combination of T8 lamps with electronic ballasts and compact fluorescent fixtures. Over 2,100 LED exit signs were also retrofitted in a wide variety of facilities.

Four chillers were also replaced with 130-ton rotary screw chillers, and one chiller was replaced with a new 350-ton centrifugal chiller. The project included a new primary chilled water pump and motor to provide maximum circulation through the chillers as well as a new secondary pumping loop pump with variable frequency drive (VFD) and controls. Cooling towers were removed and replaced with two new 165-ton, low-

approach cooling towers with dual-speed motors.

Ventilation was improved through AHU damper repairs, CO2 sensor installations, and installation of premium efficiency motors, VFDs and controls on 16 AHU supply and return air fans.

NORESKO also installed four new energy management systems (EMS). The project included upgrading EMS control systems with direct digital controls for air handling systems. The upgrade provides better control of AHU functions such as optimum start/stop, night setback, resetting of deck temperatures (based on zone with maximum demand) through a discriminator control on dual duct systems, sensing static pressure in ducts for VFD control, and regulating economizer controls. Carbon monoxide sensors were also installed to control exhaust fan operation in a parking garage.

NORESCO is the nation's most experienced energy service company providing comprehensive and proven energy-efficiency solutions and infrastructure development and operations strategies to a wide range of customers. A recognized industry leader installing and operating over \$1.4 billion of proven energy solutions in diverse markets across the nation, NORESKO has built on-site energy infrastructure generating more than 300 megawatts of power, and has helped customers improve energy efficiency saving over 31 billion-kilowatt hours of electricity and 71 trillion Btus of fuel.



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