

U.S. DEPT. OF LABOR, MINE SAFETY AND HEALTH ADMINISTRATION Energy Savings Performance Contract (ESPC)



In 2014, the U.S. Department of Labor (DoL) Mine Safety and Health Administration (MSHA) issued an Energy Savings Performance Contract (ESPC) Notice of Opportunity using the Department of Energy Super ESPC indefinite delivery, indefinite quantity (IDIQ) contract. After a competitive selection process, RWE Clean Energy was chosen and awarded a contract for the project.

Through the implementation of this ESPC Task Order by RWE Clean Energy, the U.S. Department of Labor, MSHA will reduce its energy consumption by 11,262 Mbtu and its water consumption by 2,518,000 gallons/yr. The total 2015 consumption of MSHA, as determined in an investment grade audit (IGA) by RWE Clean Energy, was 27,518 MMbtu.

RWE Clean Energy forecast that the U.S. Department of Labor, MSHA will realize an approximate reduction in energy consumption of 41%. This level of savings is above industry norms and is inclusive of the energy management system set point adjustments requested as part of the 50% IGA review.

Further, the IGA presented a comprehensive package of energy conservation measures representing six different technology categories that, collectively, solve the U.S. Department of Labor, MSHA's most critical needs:

- Replacement of the aged and deteriorating dormitory domestic water heaters with new more reliable models
- Replacement of the aged and deteriorating cooling tower cells with new higher efficiency models



PROJECT DATA

SIZE

1 Building
288,000 Square Feet
\$5.2 Million Implementation Cost

CONSTRUCTION DATES

Start: 02/2017
Completion: 02/2018

TERM

15-month construction period
20-year performance measurement period

GUARANTEE STATUS

In performance period

FINANCING

Tax exempt lease purchase



- Refurbishment of the aged and deteriorating air handling units, restoring the air handler's metal surfaces while replacing motors, coils, and dampers, as well as replacement of reheat boxes with new variable air volume boxes
- Replacement of original, aged pneumatic controls with a new direct digital control energy management system and electric control device actuators to allow for optimal equipment operation
- Water sub-metering to eliminate sewer charges for water that does not enter the sanitary sewage system at the cooling towers and fire pad
- Replacement or retrofit of interior and exterior fluorescent, incandescent and high intensity discharge lighting fixtures with new LED technology
- Installation of occupancy and daylight harvesting sensors is incorporated into this IGA to further maximum savings and extend the life of equipment
- Replacement or retrofit of the existing high flow bathroom fixtures along with the installation of faucet aerators with new low flow fixtures
- Installation of high efficiency ozone generating equipment to allow staff to perform laundry services with fewer cycles, thereby reducing the required amount of hot water
- Installation of a new 1,000 gallon grease trap to bring the existing trap to code and adequate sizing

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PROJECT DATA

ENERGY CONSERVATION MEASURES/IMPROVEMENTS

- Domestic Hot Water Heaters
- Cooling Towers
- Vending Machine Controls
- Air Handling Units
- Lighting Improvements
- Water Conservation Measures
- Energy Management and Controls System



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