



BARKSDALE AFB

BOSSIER CITY, LA



SAFETY RECORD

ZERO Recordable Events



PROJECT SIZE

\$7.7M



CONTRACT METHOD

UESC



SAVINGS INFORMATION

Energy and operational savings
over \$660,000 annually



Barksdale Air Force Base houses the Second Bomb Wing, the oldest bomb wing in the United States Air Force, covering 22,000 acres of land in Northwest Louisiana. Barksdale was seeking to improve its energy and water efficiency and to increase resiliency and mission assurance. Barksdale also wanted to comply with the Executive Order 13693, which states by the end of the fiscal year 2025 federal installations must reduce energy use by 2.5% annually, relative to the baseline of the agency's building energy use in FY 2015. Barksdale partnered with ESG to design and develop energy and water conservation projects for the base to help them achieve its goals.

SOLUTIONS

- Design and retrofit of 23,237 fixtures and associated controls, including interior, exterior, parking lot, street, and MSA lighting
- Turnkey solutions for the design and retrofit of 297 toilets, 54 urinals, flow restrictors on 1,566 lavatory sinks, 96 kitchen faucets, and 960 shower heads
- Building automation system upgrades into new areas of the base to address waste from poorly controlled systems including base lodging, facility heating and cooling, compressed air systems, thermostats, domestic hot water recirculation pumps, and building ventilation
- Heating system upgrades, including tuning 63 boilers in 57 buildings to optimize combustion efficiency and restoring 15 enthalpy wheels in four buildings into operation.
- Replacement of forced air heating systems with infrared heaters in five maintenance buildings and hangars

RESULTS

From Barksdale AFB's partnership with ESG, the base's annual energy intensity has lowered by 7.7%, representing 31% of the goal in Executive Order 13693. The project saves over seven million kWh of electricity per year, reducing Barksdale's base-wide power demand by 1.72 MW, a 12.8% reduction in average monthly power demand, and reducing natural gas consumption by 6.2% and 13,294 MMBtu, and propane consumption by 1,450 gallons per year. The water conservation aspect of the project reduces water consumption and sewer discharge at Barksdale by 5.4%