

ESPC Experience with Work Scope Technologies

Luke Air Force Base, Arizona

Luke Air Force Base (AFB), located 20 miles northwest of Phoenix, Arizona, is home to the largest fighter pilot training base in the world.

Technology Highlights

- Upgraded 874 military family housing units, installing new heating and air conditioning systems and replacing aging lighting with energy-efficient fixtures
- Major lighting upgrades (including significant daylighting) for over 260 buildings, including two aircraft engine maintenance facilities
- Installation and expansion of Staefa energy management control system (EMCS) in 163 buildings.
- Major upgrade of building's heating, ventilation, and air conditioning (HVAC) systems.
- Central Plant Upgrade –Replaced Chillers, converted to VFD pumping, Thermal Storage, valves, switchgear
- Photovoltaic Solar Roof- 375 kW
- Water Treatment Services- Base wide- 7000 Tons & 150 Boilers



Program Highlights

Total Contract Amount (\$)

\$ 25,620,659

Annual Energy Savings (\$/yr.)

\$ 2,477,001

Annual Ancillary Savings (\$/yr.)

\$ 473,000

Project Term (years)

20 (average)

Simple Payback (years)

7 (average)

Delivery Orders (#)

4 awarded

Facility Size (sq. ft.)

5,050,000

Number of Buildings

900

Contract Vehicle

USAF Regional & DOE

Award Date

06/06

Delivery Order Status

Ongoing, Construction and Maintenance Phases

ESPC Technology Categories

- Boiler Plant Improvements
- Chiller Plant Improvements
- Building Automation Systems
- HVAC
- Lighting Improvements
- Building Envelope Modifications
- CHW, HW, and Steam Distribution Systems
- Electric Motors and Drives
- Refrigeration
- Distributed Generation
- Renewable Energy Systems
- Energy/Utility Distribution Systems
- Water and Sewer Conservation Systems
- Energy Cost Reduction through Rate Adjust.
- Energy Related Process Improvements
- Energy Surveys
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Honeywell