

# ESPC Experience with Work Scope Technologies

## Fort Bragg Army Post, North Carolina

Located on 11,000 acres in Fayetteville, NC and established in 1918, is the principal U.S. Army Airborne training center, the site of the Special Warfare School and one of the largest Army bases in the world.

### Technology Highlights

- ❑ Installation of a new 5 MW, dual fuel, Combined Heat & Power Project. A demonstration project for D.O.E.
- ❑ Installation of new natural gas-fired steam and hot water boilers to replace existing outdated central steam plant
- ❑ Installation of a base energy metering, procurement, and distribution system interfacing with the post-wide EIS system (Integrated Energy Services pilot for the Army)
- ❑ Installation of a post-wide high-efficiency lighting technology including lamps and ballasts
- ❑ Central Plant upgrades with full service maintenance
- ❑ Extend existing post-wide automation and monitoring system to DDC control to provide 24-hour monitoring of mechanical systems.

### ESPC Impact on Facilities Mission:

- Increased comfort and security for officers and enlisted staff through modernized housing
- Reduced complexity of Fort Bragg through upgrades on more than 5,400 buildings
- Energy Security through load management



### Program Highlights

#### Total Contract Amount (\$)

\$ 66,600,000 (to date)

#### Annual Energy Savings (\$/yr.)

\$ 15,135,366

#### Annual Ancillary Savings (\$/yr.)

\$ 2,900,000

#### Project Term (years)

18 (average)

#### Simple Payback (years)

8 (average)

#### Delivery Orders (#)

25 Completed

#### Facility Size (sq. ft.)

More than 30,000,000

#### Number of Buildings

More than 6,000

#### Contract Vehicle

Army 4 State ESPC IDIQ

#### Award Date

1/97

#### Delivery Order Status

All project phases ongoing

### 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
- Electrical Peak Shaving/Load Shifting
- Energy Cost Reduction through Rate Adjust.
- Energy Related Process Improvements
- Energy Surveys