



U.S. ARMY FORT KNOX, AIRFIELD

Fort Knox, Kentucky



\$56K

Verified Annual Savings

100%

LED Lighting

50K+ LBS

Annual Water Savings

At a glance

CEG Solutions revitalized Godman Army Airfield at Fort Knox through an ESPC phase, replacing outdated systems with resilient electrical infrastructure and modern LED lighting to make it the Army's first airfield with 100% LED runways and taxiways.

OVERVIEW

In 2019, a failure of Godman Army Airfield's lighting system created urgent safety and operational risks. Building on prior work at Fort Knox, the Army Corps of Engineers engaged CEG to restore and modernize the airfield. The scope covered two runways, three ramps, multiple parking areas, and five taxiways. The mission: deliver resilient, code-compliant infrastructure while cutting energy and O&M costs.

Project Highlights

- First & only Army airport with 100% LED runways & taxiways
- \$56K annual savings
- Expedited project development (completed in less than 4 months)
- 50,000+ pounds of scrap metal recycled



STRATEGIES

Energy & Operational Efficiency, Performance Assurance, Performance Contracting, Resiliency



Awards

- Recognized by the Secretary of the Army: 2021 Energy & Water Management Award, Innovation & New Technology

Energy Conservation Measures

- Full LED lighting retrofits (runways, taxiways, helipads, parking areas)
- Replacement of ~180,000 ft of airfield cable & ~4,000 ft conduit
- Replacement of Constant Current Regulators
- New Airfield Lighting Control & Monitoring System
- Separation of 2400VAC system from airfield lighting
- Demolition & repair of threshold light bars (30 total lights)

SOLUTIONS

CEG deployed a comprehensive set of electrical and lighting upgrades: ~180,000 linear feet of new airfield cable, ~4,000 feet of conduit, LED retrofits across all runways, taxiways, and helipads, new Constant Current Regulators, and a modern Airfield Lighting Control & Monitoring System. The project also separated the 2400VAC system from the lighting circuits for improved reliability and installed new threshold light bars. Together, these measures restored safety, streamlined maintenance, and ensured FAA-compliant performance.

RESULTS

The project delivered \$56K in verified annual savings while providing Fort Knox with safer, more reliable airfield operations. It eliminated frequent ground faults, replaced obsolete equipment, and reduced maintenance complexity. With 100% LED runways and taxiways, the project set a new Army benchmark for resilient, efficient airfield design. Over 50,000 pounds of scrap metal were recycled as part of construction, furthering sustainability goals.

