



Project Highlight

U.S. Marine Corps Air Station Cherry Point, NC

AMERESCO 

\$38M Infrastructure Modernization
Project to Enhance Energy Efficiency,
Resiliency, Reliability & Cybersecurity

Technology Type:

Controls | Cybersecurity | Energy Efficiency |
Energy Savings | HVAC | LED Lighting | Metering |
O&M | Water Efficiency | Wireless LAN | UESC

Utility Energy Services Contract Size

\$38 Million

Annual Energy Savings

90,576 MMBTu

Total Scope of Project

3.29 Million Sq Ft

Annual Energy Cost Savings

\$2.2 Million



Summary

Naval Facilities Command Mid-Atlantic (NAVFAC MIDLANT) awarded Duke Energy and Ameresco a \$38 million utility energy services contract (UESC) at U.S. Marine Corps Air Station (MCAS) Cherry Point.

Ameresco will make critical improvements to enhance energy efficiency, resiliency, reliability, and cybersecurity at MCAS Cherry Point, while reducing the site's energy consumption and costs.



Solution

MCAS Cherry Point is the largest airfield operated by the U.S. Marine Corps spanning more than 13,000 acres in Havelock, NC. There are approximately 10,000 Marines, Sailors and students stationed at the base, which is also the only air station in operation 24 hours a day, 7 days a week, year-round.

The UESC scope provided by MCAS Cherry Point includes 3.29 million square feet of buildings, across which Ameresco will replace building lighting systems, modernize HVAC systems, and upgrade energy management, control systems and cybersecurity across 139 buildings. The contract also features the modernization of site electrical distribution systems and water conservation upgrades, including a reclaimed water system at the base's wastewater treatment plant. The improvements will be supported by ongoing persistent commissioning for 20 years to ensure ongoing performance of the improvements.

Ameresco provides energy and hurricane resilience through energy efficient innovative technologies including:

- **Lighting system improvements:** Modernizing airfield Precision and Approach Path Indicators lighting. New building-level lighting and controls, simplifying material stock supply while reducing electrical load.
- **Wastewater treatment plant improvements and stormwater flow optimization:** Implementing controls capability to manage flow during emergency conditions, and remote monitoring and diagnosis of issues across 79 locations serving the WWTP to improve plant operations and stormwater management.
- **HVAC Improvements:** Replacing aging, inefficient equipment including R-22 HVAC systems, air handling units, and boilers. Improving heating system reliability through a steam trap management program.
- **Advanced Controls and Meter Upgrades:** Installing advanced controls sequences and central monitoring for ability to quickly diagnose critical energy issues. Expanding AMI for energy performance monitoring.
- **Cybersecurity:** EMCS and Network will be upgraded with FIPS 140-2 Security Level 2 encryption compliance and new managed networking switches, allowing for secure FARS (Fire Alarm Response System) traffic in the future. Secure wireless LAN provides redundancy and resilience for UMAC network.



Benefits

Under contract with Duke Energy for the airfield, Ameresco will make key improvements across 139 buildings to enhance energy efficiency, resiliency, reliability, and cybersecurity, while reducing energy consumption and costs.

- Increase energy and hurricane resilience through comprehensive infrastructure modernization
- Save more than \$2.2 million in annual costs (including O&M savings)
- Reduce overall energy consumption by 17% and reduce water consumption by 9%
- Improve reliability of electrical systems to serve mission critical infrastructure in the event of a substation outage
- Recommissioning for 20 years to identify equipment & system weaknesses before operation disruption

Ameresco's team of energy experts can assist you in identifying the solution that fits your needs.

For more information about Ameresco and our full-range of energy efficiency and renewable energy solutions, please call **1-866-AMERESCO** or visit **ameresco.com**.

