



Keesler Air Force Base ESPC

(Photo courtesy of 81st Training Wing History Office/Released)

Keesler Air Force Base (AFB) is home to the 81st Training Wing, which hosts the 2nd Air Force, the 403rd Wing (AF Reserve), and is the single largest employer on the Mississippi Gulf Coast. Keesler AFB trains more than 28,000 students annually, with an average daily load of more than 2,700 students. The 81st Training Wing is a lead Joint Training Installation, instructing not only Air Force, but Army, Navy, Marine Corps, Coast Guard, and civilian federal agency personnel as well.

The ESPC features a new solar array, configured as a carport structure, that generates over 2 million kWh annually and offsets electricity purchased from the local utility, enhances resilience, and improves mission assurance by diversifying the supply of electric power to the base. The carport canopy provides shade and shelter from inclement weather to nearly 500 cars parked underneath, meets hurricane-force wind design requirements, and includes LED security lighting mounted under the structure.



This **\$32.7 million** ESPC project will generate more than **\$64.6 million** in guaranteed cost savings.



Safety: this project was implemented with **no OSHA violations** or fines.



Energy conservation measures included a **1.5-MW solar photovoltaic carport** array, chiller plant optimization controls, building controls, digital controls, and **LED lighting** upgrades, including parking lot lights.



This ESPC integrated several different legacy control systems into a **single cybersecurity energy management controls system** with over **14,900 points** across **37 buildings**.



This ESPC includes oversight of the controls and **maintenance of the PV array throughout the contract term**, reducing the maintenance burden and helping to ensure reliable operation.



The total job creation impact of this ESPC was approximately **310 jobs**, including the ESCO, installation subcontractors, and manufacturing (Direct Job Impact for ESPC Projects - Federal Performance Contracting Coalition).



This ESPC has **exceeded the annual savings guarantees** in every year of performance.



This ESPC reduced carbon dioxide emissions by **14,044 metric tons**, sulfur oxide emissions by **41 metric tons**, and nitrogen oxide emissions by **12 metric tons**, annually.



This ESPC project was recognized with a **DOE 2022 Federal Energy Management Program Award**.

NORESCO's ESPC work for the U.S. Air Force dates back to 1998 with our project at Cape Canaveral Air Station. Since 1984, NORESKO projects have saved more than 120 million MMBtu of energy, 20 billion kWh of electricity, and 50 billion gallons of water and provided more than \$5 billion in guaranteed energy, water, and resource savings.