



NASA GLENN RESEARCH CENTER

CLEVELAND, OH



AWARDS

2019 DOE Federal Energy Management Program - Energy and Water Management Award



PROJECT SIZE

\$14.8M



CONTRACT METHOD

ESPC



SAVINGS INFORMATION

Energy and operational savings of over \$25 million over a 20-year performance period



National Aeronautics and Space Administration (NASA) Glenn Research Center (GRC), located near Cleveland Hopkins International Airport and the Rocky River Reservation, researches, designs, develops, and tests innovative technology for aeronautics and spaceflight. GRC was seeking to carry out a comprehensive energy conservation measure (ECM) assessment to analyze how they could implement energy-efficient infrastructure to align themselves with NASA energy mandates. GRC partnered with ESG to carry out this assessment, meet mandates, and ultimately implement a successful energy savings performance contract (ESPC).

SOLUTION

- 737 thermal blanket systems on valves, fittings, and tanks that were uninsulated
- Over 21,500 light fixtures retrofitted or replaced
- Dedicated cooling towers for the chillers
- Condensed water pumps
- Occupancy controls
- Replaced infrared heating system
- 730 urinals, sinks, faucets, and water closet fixtures
- Four chilled water fan coil cooling units
- Variable frequency drives and humidity and oxygen sensors to control a 75 HP exhaust fan
- Pump control programming that will automate the sequencing of three 700 HP pumps

QUOTE

“This project helps support our ongoing multi-year effort to renovate or replace World War II era buildings and facilities to meet NASA’s 21st century missions and create a consolidated energy efficient center.”

- Tom Hartline, Director of Facilities, Test and Manufacturing, NASA GRC

RESULTS

This ESPC project has reduced GRC Lewis Field’s energy intensity by 7% based on a 2015 baseline. It will also help GRC meet 28% of its site energy intensity reduction goals through 2025 while reducing power demand by 1.5 megawatts.