



Project Highlight

US Coast Guard Training Center Petaluma, CA

AMERESCO 

USCG's Energy Security Project
Enhances Resiliency and
Reduces 60% in Consumption

Technology Type:

Energy Efficiency | LED Lighting |
Battery Energy Storage | Distributed Generation |
Energy Savings Performance Contract | Solar

Energy Project Size

\$43 MILLION

Annual CO₂ Reduction

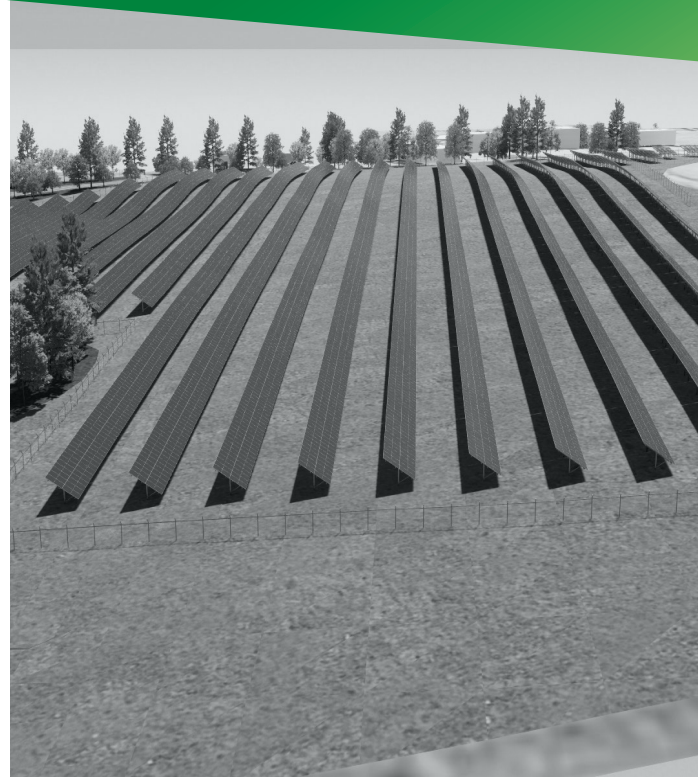
3,930 metric tons

LED Lighting Fixtures Replaced

8,000

Annual Energy Savings

\$1.2 MILLION



Summary

Facing a range of energy security and resiliency challenges from climate-related hazards, the United States Coast Guard (USCG) Training Center "TRACEN" Petaluma entered into an Energy Savings Performance Contract (ESPC) with Ameresco to enhance the site's electric infrastructure and enable continuity of operations. The storage assets, control systems, and infrastructure upgrades included in this two-phase project allow USCG to power the entire site and sustain its training mission in the event of an electric utility outage.



Solution

The ESPC project included the preliminary assessment, investment grade audit, development, design, and construction. The microgrid will integrate a new solar array and battery energy storage with backup generators to power the entire site in the event of a loss of utility. Ameresco retains ownership of the new on-site generation and storage assets. The project is structured to benefit from the Federal Investment Tax Credit.

- 5.0 MW PV system and 2.9MW-11.6MWh battery energy storage system plus 600 kW of emergency backup diesel generators
- Deployment of new power distribution transformers
- Smart controls in 10 buildings across campus
- LED lighting improvements for over 8,000 fixtures
- Installation of new electric vehicle (EV) charging infrastructure
- HVAC equipment upgrades



The use of energy performance contracts allows the Coast Guard to address critical infrastructure improvements in a timeframe that would be unachievable with customary methods and provides holistic solutions to complex issues. Leveraging partnerships and finding unique solutions is how the Coast Guard is able to accomplish mission critical improvements with our limited resources.

Rear Admiral Carola List
Assistant Commandant for Engineering and Logistics (Chief Engineer), US Coast Guard



Benefits

While increasing the energy security and resiliency of USCG's Training Center Petaluma, the project will reduce its annual energy consumption and provide significant annual savings on energy costs. Supporting a base population of approximately 1,200 and training over 4,000 students annually--the largest training center on the West Coast--Training Center Petaluma will also serve as a benchmark for future Federal renewable energy future and microgrid projects. Once completed, the project is designed to provide the following benefits:

- 8.7M kWh of electricity consumption reduction
- 50.8 kgal of propane consumption reduction
- Annual cost savings of over \$1.2M
- Multi-day electric service in the event of an electric utility outage
- Annual reduction of 3,930 tons of CO₂ equivalent emissions
- More clean electricity from PV than its total electric consumption



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**.