



FEDERAL AVIATION ADMINISTRATION NCT

Mather, CA

Showcase solar PV project serves as a model for innovative financing of renewable energy projects.

Northern California TRACON (NCT) is operated by the Federal Aviation Administration (FAA) to provide separation of aircraft operating within the assigned space. The facility operates 24 hours per day, 7 days per week, managing thousands of operations each day. Although the facility was well-maintained and efficiently operated, NCT needed to satisfy federally mandated renewable energy production targets and meet energy and water reduction goals.

NCT partnered with NORESKO to develop an Energy Savings Performance Contract (ESPC) project that included \$2.1 million in Energy Conservation Measures that meet their objectives and expands on the energy efficient infrastructure improvements already implemented by NCT staff. In addition, headlining this project is a 1-MW photovoltaic (PV) system developed as an Energy Services Agreement (ESA) estimated at \$7.1 million. Under this innovative financing approach, a third-party owner installs, owns, operates, and maintains the PV system located on NCT property. All power is sold to NCT at a rate lower than that currently billed by the local utility. Any power not consumed by NCT is fed back into the grid and credited to NCT's electric bill. NORESKO worked with the third-party owner to identify and leverage federal grants and local utility incentives that further lower the cost of power sold to NCT. The project also included other energy and water system improvements that, combined with the PV system, will generate \$335,000 in first year guaranteed savings and \$9.4 million in guaranteed savings over the contract term.

This project is FAA's largest green initiative and was the recipient of the Outstanding Department of Transportation Sustainability Achievement Award.

Project Cost: \$7.1 Million PV ESA
\$2.1 Million ESPC

Total Cost Savings: \$9.4 Million

Contract Term: 20 Years

Contract Type: Federal ESPC

Technical Highlights:

- PV system – fixed array and carport with electric vehicle charging stations
- Lighting retrofits and controls on 1,375 fixtures
- Water conservation retrofits
- Energy management controls system upgrade
- Chilled and hot water system optimization

Environmental Impact:

- 50 percent of NCT's annual electricity use is produced by PV
- 40 percent reduction in energy and water use
- 46 percent reduction in CO₂
- Equivalent to removing 125 cars from the road annually
- Prevents 61,000 tires from going to landfills by using locally recycled tire rubber for hardscape
- Saves 5,282 kgal of water annually

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