

Nextracker and Borrego Solar Deliver One of Largest Airport-Based Solar Power Plants

Project Overview

For the more than 10 million travelers flying through Sacramento International Airport (SMF) annually, the sun powers their journey as it shines on the largest airport solar array in California and one of the largest airport solar power plants in the country. Financed and owned by NRG and built and maintained by Borrego Solar, the Borrego Solar Sacramento International Airport Project incorporates 7.9 MW_{DC} of installed PV capacity across a pair of tracker-array fields. The system generates more than a third of the airport's electrical needs and will save the airport authority about \$850,000 annually over the course of the 25-year-term power purchase agreement (PPA) with the Sacramento Municipal Utility District (SMUD). Successfully combining SMF's commitment to clean, renewable energy and reduced operating costs with Nextracker's vision and global manufacturing footprint, the power plant makes a compelling economic case for airport-located solar facilities around the world.

Name of Project	Borrego Solar Sacramento International Airport
Location	Sacramento (CA) International Airport
Project Size	7.9 MW _{DC}
Modules	23,237 LG modules
Developer / EPC	Borrego Solar
Owner	NRG



The Challenge

Regulatory requirements on airport land unique to public airports across the country pose significant challenges when solar power plants are proposed. Three inches of asphalt on the east site and irregular soft soil on the north site further complicated project development at SMF. But hundreds of hours of specialized design, project engineering, and on-site installation training by Nextracker's responsive support team helped facilitate the fully operational PV system, which tracks the sun's path from east to west over the course of the day, maximizing efficiency and optimizing energy production.

Nextracker Solution

Nextracker's local deployment, installation and services support took flight from day one. Numerous site visits and meticulous analysis of geotechnical reports prior to the build demonstrated a proactive approach to ensure rapid project velocity by arriving with tailor-made design engineering solutions unique to each site. Streamlining the tight two-week delivery schedule, Nextracker supported Borrego Solar by setting best practices on receiving and tracking inventory.

After clearing mounds of dirt and proper grading, the soft, shifting soil on the 20-acre north site necessitated custom spread footing. With no row linkages to complicate anchoring of the foundations, NX Horizon's balanced architecture adapted to the challenges posed by the dynamic terrain. Nextracker assisted the 12-person installation team in driving shortened piers on the 15-acre east site, where three inches of asphalt blanketed the area and risked damage to the piers. When more than a dozen piers hit refusal, Nextracker stepped in with a contingency plan to pull the pier out, pre-drill and insert a slurry mix to secure at the accurate depth. Tying off with the project's operation and maintenance team on-site, Nextracker provided hands-on O&M training on the tracker's drive system that moves easily in and out of cleaning position.

Benefits

The Sacramento International Airport Project provides thousands of megawatt-hours of clean, reliable electricity to SMF, allowing solar power to flow out during the day and grid power in at night under a net metering agreement with SMUD. The airport, which seeks to reduce its energy needs by 15% by 2020, will offset nearly 289,000 metric tons of harmful carbon dioxide emissions over the life of the system, equivalent to taking over 2,000 cars off the road and planting 4,000 trees annually.

Features & Benefits

Approx. **\$850,000**

annual savings over 25-year PPA

12 Million kWh

of clean electricity produced annually, enough to power

1,600 homes

Avoids **289,000**

metric tons of CO₂ emissions over life of the system



We selected Nextracker based on the company's ability to deliver an exceptional product and service. Deliveries were on-time, and we had excellent technical expertise on a moment's notice.

— **Aaron Hall,**
President, Borrego Solar

