

## **CALIFORNIA ISO SOLAR POWER GENERATION FACILITY**

*Folsom, California*

### **Project Overview**

The Solar Power Generation Facility is a design-build-finance contract for a 755-kilowatt solar photovoltaic power generation facility for CAISO's new headquarters in Folsom, CA. The installation exemplifies CAISO's commitment to the environment and the project was able to attain LEED Platinum certification by the U.S. Green Building Council.

The facility is comprised of 3,616 modules and two different racking systems in two different locations within the CAISO campus. Vanir designed a roof-mounted solar system on the mission critical building and solar shade structures in the parking lot in order to maximize available property space, while minimizing CAISO's dependence on the local utility.

The rooftop includes a 305-kilowatt SkyMount® solar rooftop system, which is mounted on CAISO's mission critical building. It also includes 1,472 SP-205-FP52 modules connected to an SMA 250-kilowatt inverter. The SkyMount® racking system uses a flashed penetration method that maintains the current manufacturer's roofing warranty in its entirety. The parking lot solar shades are comprised of 450-kilowatt Peaq™ solar canopies installed in the western parking lot. There are 11 separate solar canopy arrays consisting of 2,144 SP-210-FP12 modules connected to a Satcon® 375 kilowatt inverter.

### **A Commitment to Green**

The Peaq™ solar arrays use high pressure sodium lighting fixtures to be compliant with LEED "Dark Sky" requirements. They have a full soffit, covering all existing wiring, as well as providing a surface for the up lighting to maintain specified foot candle distance. The solar canopies provide shade for approximately 200 cars.

CAISO's Solar Power Generation Facility will likely create the following approximate environmental offsets:

- Saving 1,200,000 annual kilowatts of energy use
- Avoiding 1,800,000 annual pounds of CO<sub>2</sub> emissions
- Sparring 1,636,800 miles driven annually by cars
- Cleaner air as a result of 4,500 planted trees



### **PROJECT INFORMATION**

**Client:**

California Independent System Operator Corporation

**Solar Integrator:** Vanir Energy, LLC

**Contractor:**

Vanir Construction Management, Inc.

**Project Delivery Method:**

Design-Build-Finance

**Construction Cost:** \$4 million

**Completion:** December 2010

**Awards:**

- 2011 CMAA Northern CA Chapter/ Project of the Year Award for buildings over \$25 million
- 2011 WCCC Chairman's Award/ Buildings Category
- DBIA Western Pacific Region/Excellence Award
- AIA Central Valley/Merit Design Award
- AGC California/Finalist for Excellence in Project Management (over \$10M)
- Sacramento Business Journal Real Estate Project Awards/Judges' Choice
- Structural Engineers Association of Central California/Excellence in Structural Engineering: Best Award for Sustainable Design