



Case Study

First Solar Constructs Project in Record Time for Sempra Generation

Project Overview

- Location: Boulder City, Nevada
Co-located next to El Dorado Energy Power Plant
- Commissioned: December, 2008
- Land Area: 88 acres
- Size: 10MW, to be expanded to 58MW
- Energy Production: 23,200MWh/year
- Number of Modules: 167,000
- Installation Time: 137 days

Sempra Generation, a subsidiary of Sempra Energy, is committed to expanding their renewable energy portfolio by investing in clean energy infrastructure to address global climate change and energy independence. In 2008, Sempra Generation selected First Solar to engineer, procure, and construct a 10MW solar generation plant and required that the project be completed by the end of the year to meet a tax incentive deadline.

"We were impressed with First Solar's ability to deliver our 10MW solar power plant in Boulder City, Nevada within budget and ahead of schedule. This project has exceeded our expectations and will play an important role in expanding our renewable energy portfolio."

Michael W. Allman
President and CEO
Sempra Generation



(continued on reverse)

www.firstsolar.com



Challenges

Construction began in the sweltering August heat, leaving only 5 months to build-out the 10MW PV power plant safely, economically, and on-time. In addition to 100+ degree days and a tight deadline, the plant's completion would be a unique challenge for one more reason—a PV plant of this size had never been built before in this time frame.

Solution

First Solar constructed the plant next to Sempra's existing El Dorado Energy natural gas power plant to simplify transmission and interconnection. By co-locating next to an existing plant with major electric transmission power lines and an electric infrastructure already in place, First Solar completely eliminated the need for siting, permitting, new power lines or substations.

To streamline installation, First Solar's Engineering, Procurement, and Construction teams (EPC) developed an assembly-line method, utilizing over 100 workers at any given time, installing modules at a rate up to 6,000 per day. First Solar also created "cool-off areas" around the worksite to combat the desert's brutal heat, monitoring each worker's condition daily.

In Conclusion

Due to the highly modular nature of First Solar power plants, the expertise of First Solar's EPC teams, and the ability to co-locate with an existing power plant, the 10MW PV plant was commissioned safely, on budget, and on-time—within 5 months and a full nine days ahead of schedule. Based on the success of this project, Sempra Generation has decided to expand the site to 58MW.

Over the next 25 years, the initial 10MW plant will produce approximately 580,000 megawatt-hours of clean, renewable power, preventing an estimated 362,500 metric tons of greenhouse gas emissions from being released into the environment.

350 West Washington Street
Suite 600
Tempe, Arizona 85281
Tel: 602 414 9300
Fax: 602 414 9400

© Copyright 2009, First Solar, Inc.



www.firstsolar.com