

# SOLAR LOGISTICS

## Business Profile

- 3,103,700 modules were used in this project, using 62,074 pallets
- The installation site covered 2,000 acres
- The total value of the project was over \$750 million dollars

## Business Challenge

Manage customs clearance, importing, inland transportation, warehousing, and final distribution of over 3 million solar panels over an 11-month time period

## Logistics Plus® Solution

A dedicated five-person team of cross-functional Logistics Plus experts was assembled to manage all aspects of the project from start to finish using both in-network and out-of-network resources

## Results

- 0 modules were damaged in transit to the Phoenix warehouse
- Only 1 individual panel (out of 3,103,700) was damaged under the care of the Logistics Plus project team
- The world's largest solar panel plant (at that time) was completed on-time and on-budget

# Solar Industry Logistics

## Business Profile

This massive solar project involved the construction of a utility-scale photovoltaic power plant, located in southern California, approximately 100 miles east of San Diego.

The plant, which is owned by global solar power company, was created through a joint venture involving both private and public development and funding. The global solar power company is in the business of selling electricity under long-term power sale arrangements primarily to electricity grid operators, regulated utilities and other creditworthy counterparties.

Construction was completed in May 2014 and commercial operation was expected to begin later in the year. When operational, it will be among the largest single-axis tracker solar power plants in the world. It will produce enough energy to power 80,000 homes in California.

A 25-year power purchase agreement was signed with a regional electric company to purchase the plant's power output.

## Business Challenge

Successfully importing, warehousing, and transporting over 3 million modules to the final construction site. The solar panels would need to be received from two locations: Perrysburg, OH and Kulim, Malaysia. Warehousing and transportation of modules would need to occur over an 11-month time period.

Management of customs clearance and changing import duties would be important to keeping the project on-time and within budget. Timing of deliveries to construction site, and visibility would also be critical to the success of the project.



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**“We could not have completed this project on-time and within budget without the complete management oversight and expertise provided by the Logistics Plus team.”**

**- Project Owner  
Global Solar Power Company**

### **Logistics Plus® Solution**

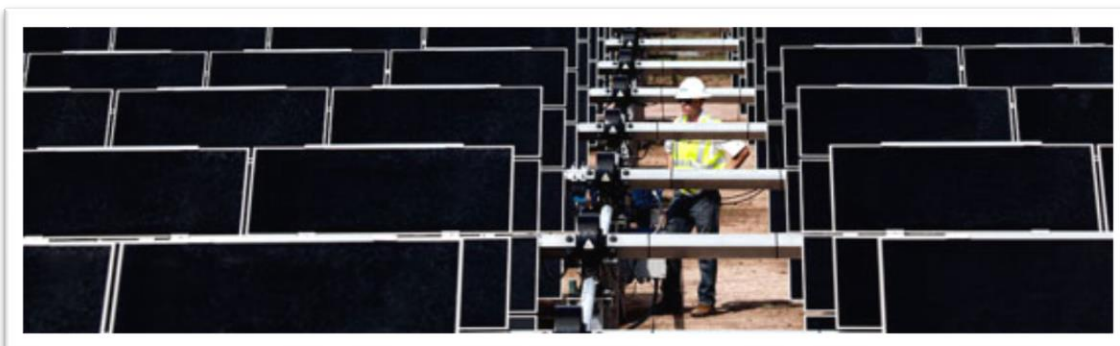
Logistics Plus created a dedicated, five-person team to manage this solar cargo logistics project. The role of Logistics Plus was to manage all aspects of transportation and logistics. This included all customs related guidance, paperwork and filings (ISF, Customs clearance, Customs Officer’s responses etc.), receiving and monitoring of FTLs and Ocean Containers with a very strict receiving process to ensure accuracy, ensuring that all pallets were positioned 24 hours prior to shipping, and then monitoring final deliveries inbound to the construction site. Another key component was to manage the reporting and visibility at all levels, including “flash data” management.

Two different warehouse locations in Phoenix, AZ were secured. Both remained under the supervision of Logistics Plus and a second partner designated by the client. There were two separate locations due to the module designations; Cash Grant and Non-Cash Grant. The combined locations included over 100,000 square feet of floor space. Modules were distributed to the Phoenix warehouse locations from Perrysburg, OH and Kulim, Malaysia. The modules from Perrysburg, OH were brought in on dry van tractor trailers in quantities of 28 pallets per unit, requiring a total of 460 truckload movements. The modules imported from Kulim, Malaysia were packed in containers in quantities of 28 pallets per unit, requiring a total of 1,758 containers. 2,102 truckload moves were coordinated to ship the modules out of both Phoenix warehouses to the installation site in southern California.

### **Results**

Logistics Plus successfully managed the transportation of panels from Ohio to Arizona, and then served as a strategic liaison between the manufacturer, the developer and the second logistics partner for on all other transportation movements. A total of 2,562 tractor trailers and 1,758 containers were used during the 11-month duration of this project. No modules were damaged in transit to the Phoenix warehouse. Only 1 individual panel (out of 3,103,700) was damaged under the care of the Logistics Plus project team.

The world’s largest solar panel plant (at that time) was completed on-time and on-budget. The plant will mitigate approximately 356,000t of carbon dioxide a year, which is the equivalent of what approximately 15 million trees would displace annually.



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