CONTAINER

SOLAR ENERGY PROJECT

Special Project Case Study

Updated February 13, 2024

its logistics

INTRODUCTION

MANAGEMENT OF INBOUND CONTAINERS AT BUSY WEST COAST PORTS AND OUTBOUND DELIVERIES TO A RURAL JOB SITE

The world's largest solar thermal project, with an installed capacity of 110-megawatt (MW) and 1.1 gigawatt-hours of energy storage, was under development from 2011 to 2014 near Tonopah, Nevada. Consisting of 17,179 heliostats (mirrors) on 1,600 acres, the project relied upon advanced molten salt energy storage technology to operate.

The molten salt was manufactured in China and delivered in super sacks to two US ports: Oakland and Los Angeles. The project required management of inbound containers at busy West Coast ports and outbound deliveries to the site in Tonopah, Nevada. The deliveries required precise and timely coordination due to the hazardous nature of materials being transported and the order in which the molten salt had to be mixed. A missed delivery could lead to additional costs of up to $1 million, in addition to potential health and safety hazards. The project scope required a national 3PL provider with capacity across multiple markets.

DETAIL

To deliver the hazardous materials successfully to Tonopah, ITS Logistics assigned a dedicated operations team, which included a manager with executive oversight. This team interfaced with the company to understand its needs, provided consultation, and custom designed a network with specific standard operating procedures (SOPs). That team was then trained on each SOP before beginning operations and assigning team members to specific roles within the project.

The design phase focused on identifying the optimal route of goods from both the Port of Los Angeles and the Port of Oakland to final destination. From the Port of Los Angeles, the team would coordinate the retrieval and transportation of super sacks via drayage for cross docking at a nearby facility. Once processed, the team would coordinate delivery via truckload for processing and storage at an ITS facility in Reno, NV. For super sacks coming from the Port of Oakland, the goods would be retrieved and transported via drayage to the facility in Reno for processing and storage. From the Reno facility, the goods could be shipped out 200 miles to Tonopah on an as needed basis. The project site lacked an offloading facility, so ITS Logistics planned to build a mobile dock to offload from the 53' containers.

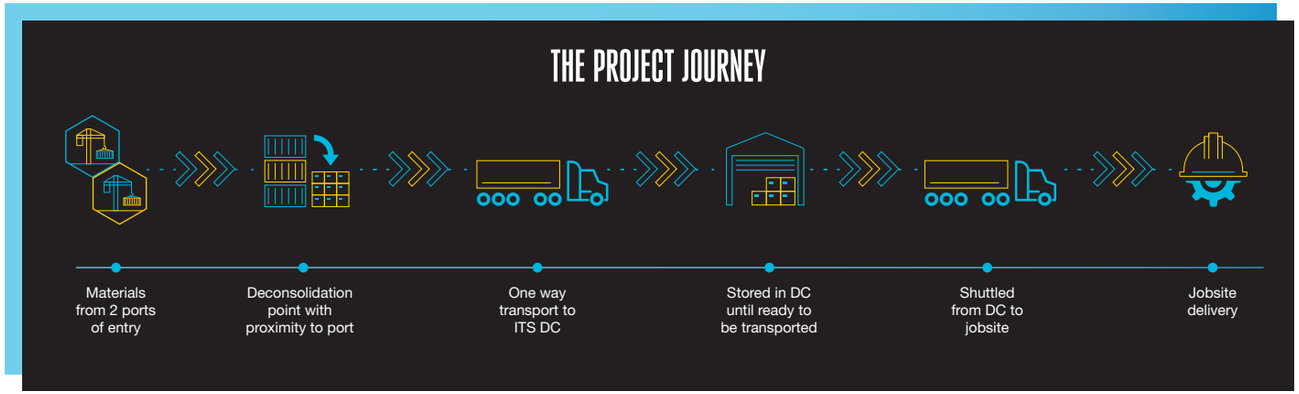
The deliveries required precise and timely coordination

S.O.P

Custom and dedicated project procedures.

Processing and storage at ITS facilities.

THE PROJECT JOURNEY



EXECUTION

The dedicated team at ITS was able to interface with all facilities and third parties on the company's behalf to oversee and manage operations.

ITS Logistics managed drayage carriers in Oakland and Los Angeles to retrieve the inbound super sacks from the ports. The super sacks from LA were taken to a facility in Rancho Dominguez, CA for cross-docking and loaded onto ITS trailers for delivery to Reno. The owned assets provided visibility into the shipments via trucking milestones and increased the likelihood of on-time delivery. The Port of Oakland is less than 200 miles from Reno, allowing the super sacks to be retrieved and taken directly to Reno via drayage.

Once the goods were sorted and segregated in the warehouse, carriers were sourced and managed in Reno to deliver via truckload to Tonopah. A mobile dock was built at the site in Tonopah for offloading.

In total over the course of 40 days, 1,521 total truckloads of palletized hazmat super sacks—each weighing 2,700 lbs—were delivered from Reno, NV and Los Angeles, CA to Tonopah, NV.

1,521 total truckloads of palletized hazmat were transported and delivered.

200 miles traveled to final delivery, from Reno, NV to Tonopah, NV.

100% of the truckloads delivered on time.

RESULTS

The project benefitted from having a trusted partner in the region with a team dedicated to managing and facilitating operations. This allowed the company to have a firsthand view of the project without the need to staff the remote project location. The total cost of the project was $1 billion, and 100% of the product arrived intact and undamaged. In addition, 100% of the truckloads delivered on time. This meant that there were ZERO unforeseen costs for this project when it came to its domestic supply chain.