

CASE STUDY

Green Omni Terminal Revolutionizing Marine Terminal Operations

We partnered with Pasha and the Port of Los Angeles to eliminate pollution from port-related operations to help improve the health, quality of life and economy of the local harbor area community. Pasha and the Port of Los Angeles are collaborating to develop new demonstration technologies as scalable solutions for other marine terminals worldwide.



Challenge

As a premier gateway for international commerce, the Port of Los Angeles consists of more than 7,500 acres of land stretching along 40 miles of waterfront. The port features both passenger and cargo terminals, including automobile, breakbulk, container, dry and liquid bulk, and warehouse facilities. North America's leading port by container volume and cargo value, the Port of Los Angeles has a strong commitment to developing sustainable operations that benefit Southern California's quality of life, including the elimination of pollution from port operations.

Together with Pasha and the California Air Resources Board, the Port of Los Angeles launched the Green Omni Terminal Demonstration Project, designed to showcase how sustainable, clean energy solutions can revolutionize marine terminal

Project Stats

Client

Port of Los Angeles

Location

San Pedro, Los Angeles, California

\$27M

TOTAL PROJECT COST

1,686

METRIC TONS OF CO₂
REDUCED PER YEAR

7.5K

ACRES OF LAND ACROSS
40 MILES OF WATERFRONT



operations. The project is a proving ground for how zero and near-zero emissions technologies can dramatically reduce pollutants and improve energy resiliency at marine terminals and industrial facilities all around the world.

Solution

We partnered with Pasha to provide design-build and management services for the \$27 million project, which can serve as a model to upgrade the other port terminals. Executed as a design-build project allowed for no interruption to ongoing terminal operations while the complex upgrades were made. Our team also oversaw construction coordination and collaborated with multiple permitting agencies and technology providers.

Funded in part by a California Air Resources Board grant resulting from our written grant application, the project features a clean energy microgrid that allows terminal operations to continue in the event of a widespread power outage.

Another key feature of the project included the deployment of the ShoreKat Marine Exhaust Treatment System, which has the ability to capture more than 90% of criteria pollutant air emissions from auxiliary engine stacks of berthed ships at the

terminal. Berthed ships are the largest sources of greenhouse gases and criteria pollutants at marine ports worldwide.

Results

All the improvements at the Green Omni Terminal Demonstration Project are expected to reduce carbon dioxide emissions by 1,686 metric tons per year, diesel particulate matter by 0.6 ton per year, nitrogen oxides by 26 tons per year, and reactive organic gases by 1.4 tons per year. These improvements will be the equivalent of removing 6,700 vehicles from the roadways in Southern California. At full build-out, this will be the first marine terminal able to generate all of its energy needs from renewable sources.

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