



## Everport Advanced Cargo Handling Demonstration Project

In 2006, the Port of Los Angeles in partnership with the Port of Long Beach adopted the Clean Air Action Plan (CAAP), which was updated in 2010 and 2017 (<https://cleanairactionplan.org>). The CAAP identifies strategies to reduce air pollution from every source including ships, trucks, trains, harbor craft, and cargo handling equipment. Successful technology demonstrations of near-zero and zero emission technologies may accelerate the availability of clean technologies that are necessary to implement existing strategies outlined in the CAAP or to develop future control measures, alternatives, or mitigation measures.

### Project Summary

The Port of Los Angeles in conjunction with the project partners is demonstrating pre-commercial zero emissions cargo handling equipment. The Everport Advanced Cargo Handling Demonstration project expands on existing demonstrations of zero emission goods movement technologies by taking the next step toward implementation of a zero emission pathway for loading and unloading cargo throughout an entire marine container terminal. The project is funded in part by a \$4,524,000 grant from California Energy Commission's Alternative and Renewable Fuel and Vehicle Technology Program. The Port of Los Angeles and project partners are targeted to contribute over \$3,000,000 in match share, with the project scheduled for completion in 2023.



### Vehicles & Equipment Funded

- 2 battery electric top handlers
- 3 battery electric yard tractors
- Charging Infrastructure
- Smart Charging System

### Project Partners

- California Energy Commission
- Everport Terminal Services Inc.
- BYD Motors Inc.
- Taylor Machine Works Inc.
- Cavotec

## Taylor battery electric top handlers



## Project Components

The project completed demonstration of two (2) Taylor battery electric top handlers and associated infrastructure and is currently demonstrating three (3) BYD next generation battery electric yard tractors energized by the Cavotec Smart Charging System. The top handlers, which were the world's first zero emission top handlers, were charged with standard electric vehicle support equipment (EVSE). The yard tractors are utilizing the Smart Charging System to demonstrate another approach for charging zero emission cargo handling equipment. The Port of Los Angeles completed the design and construction of the necessary electrical infrastructure to deliver power to all pieces of equipment. The electrical infrastructure was designed with enough charging capacity to potentially support up to 25 additional battery electric yard tractors.

## Contact

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## Taylor battery electric top handlers