# PARTNERING ON A RESILIENCY SOLUTION FOR SEAPORT EMISSIONS

**A Port of Oakland/TraPac zero-emissions project that reduces impacts on the West Oakland community.**

**2023 Port Infrastructure Development Program (PIDP) Fact Sheet**

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## BACKGROUND

In 2019, the Port of Oakland formalized its commitment to becoming a zero-emissions Seaport by adopting the *Seaport Air Quality 2020 and Beyond Plan: the Pathway to Zero Emissions (2020 and Beyond Plan)*. The *2020 and Beyond Plan* lays out the framework and strategy for the Port of Oakland's transition to the use of zero-emissions equipment for operations at its marine terminals and off-dock facilities.

## PROJECT DESCRIPTION

The TraPac Terminal is the second-busiest marine terminal at the Port of Oakland, and services shipping lines that connect importers and agricultural exporters and manufacturers to markets around the world. TraPac currently utilizes 94 pieces of fossil fueled cargo handling equipment (CHE) every day, with each piece of equipment being used from 500 to 3,000 hours per year. The Project will **replace conventional diesel-powered cargo handling equipment** (26 off-road yard tractors and 7 container handling top picks) with **battery electric zero-emissions equipment** that will be sourced domestically. The Project will also include charging equipment and related infrastructure consisting of 10 Battery Electric Storage System containers (BESS) and ancillary electrical system upgrades. The charging system includes innovative resiliency features that enables terminal equipment to charge directly from the BESS containers during peak times with the battery recharging during off-peak hours. This feature will reduce TraPac's electricity demand charges and minimize strain on the grid. With this Project, one-third of TraPac's current fossil fueled equipment fleet will be transitioned to human operated zero-emissions technology and will advance critical emission reductions initiatives.

Additionally, the Project will:

- Greatly enhance the terminal's efficiency, safety, and reliability by switching to manually operated zero-emissions equipment with state-of-the-art safety features.
- Require less maintenance downtime, which effectively translates into 30% more operating hours per equipment per year.
- Improve community health and air quality, minimize greenhouse gas emissions, and support good-paying, unionized seaport and manufacturing jobs.

This Project will set in motion the terminal's zero emissions vision and help provide charging for future equipment and terminal vehicles as the 10 BESS containers can provide additional charging capacity beyond the scope of this initial vehicle procurement. The Project has an estimated 3-1/2 year timeframe from design to operations, and aligns with TraPac's vision for a transition to zero-emissions for its entire equipment fleet.

**Zero-emissions container handling equipment**

**Fully electric yard/terminal tractor**


**TraPac Terminal area**


PORT OF OAKLAND

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