

SEA-CHANGE:

*Sustainable Equipment Adoption:
Community, Harbor, and Neighborhood Growth & Empowerment*

THE PORT
OF LOS ANGELES 



The Port of Los Angeles (POLA), in collaboration with its tenant-partners Yusen Terminals LLC (YTI), Everport Terminal Services, TraPac, Fenix Marine Services, APM Terminals, and the Harbor Community Benefits Foundation (HCBF), received over \$411.7 million in Environmental Protection Agency (EPA) Clean Ports Program funding for **SEA-CHANGE: Sustainable Equipment Adoption: Community, Harbor, and Neighborhood Growth & Empowerment**. This project will support POLA's PIERS (Port Infrastructure Energy Resilience Strategy) blueprint to transition the port to 100% zero-emissions (ZE) terminal operations by 2030. POLA and its partners will match \$200 million for a total project cost of over \$600 million.

This ambitious project will significantly reduce air pollution at the port, including reducing emissions of greenhouse gasses (GHG) by nearly 39,000 tons, aligns with the EPA's objectives to support the port industry's transition towards sustainable and resilient infrastructure, and centers community engagement and benefits for frontline, disadvantaged communities.

SEA-CHANGE WILL ACHIEVE THIS BY:

1 EQUIPMENT



Acquiring and deploying >380 pieces of battery electric ZE cargo-handling equipment (CHE), including top handlers, forklifts, and yard tractors, and 250 heavy-duty drayage trucks, in partnership with leading manufacturers committed to the Build America, Buy America (BABA) provisions. Replacing diesel powered equipment will eliminate 39,000 tons of GHG emissions, 77 tons of NOx and 3.8 tons of particulate matter. This comprises about 20% of the diesel equipment used at the Port's marine terminals and will eliminate over 25% of the total GHG emissions for CHE at the Port.

2 INFRASTRUCTURE



Upgrading and expanding ZE charging infrastructure, including 300 new charging ports, to support a growing fleet of ZE medium to heavy duty CHE and off-road vehicles, leveraging existing capacities and deploying four cutting-edge power management systems and solar arrays to maximize the use of renewable energy sources. POLA will also install ship-to-shore power at its main auto terminal, eliminating at-berth ship emissions.

3 COMMUNITY BENEFITS



POLA's program sets a new standard for environmental stewardship in the maritime industry by funding a \$50 million community benefits program, including workforce development programs and a community-directed grant program that puts the power in the hands of impacted community members to direct funding to their highest priority ZE projects. POLA has engaged with the community through a comprehensive outreach strategy—including multiple meetings with local environmental justice and community stakeholders that will continue through the life of the project—ensuring that the SEA-CHANGE and the transition to zero emissions is inclusive.

EMISSIONS REDUCED ANNUALLY:

- 77 tons of NOx
- 3.8 tons of PM2.5
- 39,692 tons of CO2
- Over 3.4 million gallons of diesel fuel eliminated



383 PIECES CARGO HANDLING EQUIPMENT INCLUDING:

282

Battery
Electric
Yard Tractors

73

Battery
Electric Top
Handlers

22

Battery
Electric Heavy/
Fork Lifts

6

Other Battery
Electric
Equipment

7

BESS
Systems

2

Solar
Arrays

300+

Chargers

1

Vessel Shore
Power
Connection

250

ZE Drayage
Trucks

SELLING POINTS:

1 Emission Reductions and Public Health Benefits in Near Port Disadvantaged Communities:

The project will directly fund the replacement of 383 pieces of diesel cargo handling equipment and 250 heavy-duty drayage trucks with cutting edge ZE alternatives, eliminating 39,692 of CO2 emissions and improving public health impacts in the disadvantaged, Justice40 communities that neighbor the Port.

2 Innovative Use of Technology:

The project showcases an innovative approach to integrating renewable energy and advanced power management systems, setting a precedent for large-scale electrification in port operations.

3 Community Engagement and Job Creation:

The project has been developed from the inception with input from the port community. Emphasizing community involvement and workforce development, including through partnerships with organized labor, the project anticipates not only environmental benefits but also educational opportunities and the creation of high-quality jobs.

4 Scalability and Replicability:

Designed with scalability in mind, the successful implementation of this project can serve as a model for other ports worldwide, as well as drive commercialization of technologies and reducing equipment manufacturing costs, promoting a global shift towards cleaner and more efficient maritime operations.

5 Project Readiness:

With detailed port wide and terminal specific plans for infrastructure upgrades, equipment procurement, and community engagement, as well as coordination with PIERS major electric grid capacity expansion project, the project is on a clear path to commencement. Engineering assessments and preliminary designs are already underway, indicating a high level of project readiness.

6 Project Timeline:

Spanning from January 2025 to December 2028, the project will see the phased introduction of zero-emission technologies and infrastructure enhancements. During this period, POLA and its partners will not only significantly reduce emissions but also engage in continuous community outreach and training programs to ensure the long-term success and sustainability of the initiative.

7 This project represents a critical step towards full implementation of the PIERS blueprint and achieving POLA's 2030 zero-emission goals, contributing to cleaner air, a healthier community, and a more sustainable maritime industry.



A TraPac Terminal:

\$60 Million requested (\$100M total)

- 62 Yard Tractors
- 21 Top Handlers
- 55 Chargers
- Solar/Battery Energy Storage (BESS)

B Everport Marine Services (EMS)

\$145 Million requested (\$238M total)

- 137 Yard Tractors
- 31 Top Handlers
- 13 Forklifts
- 168 Chargers

C Yusen Terminal (YTI):

\$23 Million requested (\$46M total)

- 13 Yard Tractors
- 12 Top Handlers
- BESS

D Fenix Marine (FMS):

\$20 Million requested (\$32M total)

- 30 Yard Tractors
- 20 Chargers

E APM Terminal (APMT):

\$50 Million requested (\$81M Total)

- 40 Yard Tractors
- 9 Top Handlers
- 9 Forklifts
- 2 Reach Stackers
- 4 Cone Carts
- 64 Chargers
- Solar/BESS

F WWL

\$15 Million Requested (\$20M total)

- Shorepower deployment at auto terminal

G ZE Truck Program* \$50 Million Requested (\$75M total)

- 250 Battery Electric Trucks

