The Maritime Clean Air Strategy

The Maritime Clean Air Strategy (MCAS) is a strategic planning document the Port of San Diego Board of Port Commissioners adopted in October 2021 to help the Port identify future projects and initiatives that reduce emissions while also supporting efficient and modern maritime operations. The MCAS recognizes that bold and transformative action is urgently needed to improve air quality and public health. In pursuit of “Health Equity for All”, the MCAS identifies several aspirational, near-term goals and objectives to be accomplished by 2026 and long-term goals for 2030.

**The MCAS addresses emissions from seven sources and advances three stakeholder driven priorities:**

**Emission Sources:**
- Cargo Handling Equipment
- Commercial Harbor Craft
- Shipyards
- Heavy Duty Trucks
- Port of San Diego Fleet
- Oceangoing vessels
- Rail

**Stakeholder-Driven Priorities:**
- Community Enrichment
- Public Health
- Enabling
Funding

By identifying ambitious, comprehensive strategies, the MCAS places the Port and its tenants in a competitive position to acquire the necessary funding and resources to accelerate emission reductions by electrifying as much as we can, as fast as we can. Below is a summary of the Port’s commitment to electrification.

The Port has committed approximately $60 million to electrification to-date, including but not limited to:

- **$14,700,000** Electric crane system purchase for Tenth Avenue Marine Terminal (TAMT)
- **$11,500,000** Maritime air emissions capture and control system at District cargo terminals
- **$9,600,000** Design and Construction of infrastructure components of TAMT Microgrid Project
- **$8,900,000** Electric crane system charging infrastructure at TAMT
- **$7,200,000** Shore power at National City Marine Terminal (NCMT)
- **$3,500,000** Shore power for B Street Pier Cruise Ship Terminals
- **$1,080,000** Clean trucks corridor deployment
- **$1,000,000** Electrification of Port fleet
- **$1,000,000** Zero Emission Heavy Duty Truck Incentive Program

Vessel Speed Reduction Program

The Port’s Vessel Speed Reduction (VSR) Program is a voluntary strategy to reduce air pollutants and greenhouse gas emissions from vessels calling to the Port by reducing speeds in the vicinity of San Diego Bay. The VSR Zone extends 40 nautical miles seaward from Point Loma. The Port asks vessel operators entering or leaving San Diego Bay to observe a 12-knot speed limit for cargo and 15-knot for cruise ships. Participation in the program encourages that 90% of vessel trips within the VSR zone follow the requested speed limits. From July 2022 to June 2023, the Port saw:

- **26 Vessel Operators Participated in the VSR Program**
- **122 Reduced-Speed and Reduced-Emission Trips**
Community Outreach and Engagement

The Port is committed to meaningful, thoughtful, and consistent outreach opportunities to engage the community and ensure that the public can participate in guiding MCAS actions that reduce emissions. This year, the Port has engaged in 28 outreach events with over 1,100 people encountered and has reached out to over 70 stakeholders located throughout various communities including Barrio Logan and National City.

Tenant Spotlight: Terminalift

Terminalift operates heavy equipment and trucks out of the Tenth Avenue Marine Terminal and has been a champion for zero emissions port operations for a decade. “Terminalift’s objective is to be completely carbon free within the next two years. We have successfully electrified golf carts, energy storage systems, a reach stacker, forklifts and semi-trucks. Terminalift is implementing and revolutionizing the way we produce and use energy. It is Terminalift’s goal to demonstrate that going green is both a functional and achievable business model.”

– Larry Schmitz, Owner
Completed Initiatives This Year:

**Health Risk Assessment - July 2022**
- A Health Risk Assessment (HRA) was completed that provided data and information on the health risks associated with marine terminal activities. In the spring, an HRA Fact Sheet and Frequently Asked Questions were developed to better communicate results of the research.

**Tree Planting - November 2022**
- 20 new trees were planted at Cesar Chavez Park increasing tree canopy coverage in the Portside Community of Barrio Logan.

**Shore Power at B Street Cruise Ship Terminals - January 2023**
- Dual shore power became operational in January; the first shore power system has been in operation since 2010.

**Heavy-Duty Zero Emission Truck Transition Plan - January 2023**
- Launched a Zero Emission Truck Technical Assistance Program.

**Port EV Fleet Transition - June 2023**
- Three electric trucks and four electric cargo vans were added to the Port’s fleet.

**First All-Electric Mobile Harbor Cranes - July 2023**
- The two electric cranes arrived at the Tenth Avenue Marine Terminal this summer and will be operational by the end of the year.

Questions or comments on the MCAS?
Please email Port staff at: mcas@portofsandiego.org
Cruise Ship Terminals - Shore Power Enhancement
To enable vessels to establish connections from the starboard side, an alternative connection point is being added on the east side of B Street Pier’s southern berth, increasing shore power capabilities for cruise.

Tenth Avenue Marine Terminal - Electrification Infrastructure and Microgrid
The next phase of TAMT electrical modernization and increasing energy resiliency is underway.

Arrival of Crowley E-Tug
The e-Wolf tugboat will be the first-of-its-kind harbor craft demonstrating technological feasibility.

Zero Emission Trucks
Assist Port truck operators with acquiring zero emission trucks.

Zero Emission Truck Stop
Recommendations will be brought to the Board on next steps to implement a ZE Truck Stop to support ZE charging for trucks calling to and from the Port’s marine terminals.

Harbor Drive 2.0
Proposed modern roadway, including an intelligent transportation system and managed lanes, for more efficient movement of trucks, passenger vehicles, bikes, and pedestrians.

Port Fleet EV Transition
Board approved purchase of ten additional electric vehicles.

National City Marine Terminal – Shore Power
The first phase of shore power infrastructure at NCMT will begin construction with anticipated completion by 2025.

Bonnet System – Emissions Capture Control System
This at-berth emission capture and control system will support emissions reductions for roll-on/roll-off vessels that are not yet equipped to connect to shore power.