

# SAN PEDRO BAY PORTS

# CLEAN AIR ACTION PLAN

## Clean Air Action Plan Implementation Progress Report Fourth Quarter 2021

### ACCOMPLISHMENTS

#### GENERAL

- The Ports held their twelfth CAAP Implementation Stakeholder Advisory Group meeting on October 19, 2021.
- The Ports posted a third quarter of 2021 Clean Air Action Plan Implementation Progress Report in December of 2021.

#### COVID-19 IMPACTS

- The Ports continued to experience high cargo throughput in Q4 2021. These high volumes are due to an uptick in goods-based spending and e-commerce as people continue to spend discretionary income on goods manufactured overseas. The Ports continue to monitor the situation very closely.
- Due to the ongoing COVID-19 pandemic future CAAP stakeholder meetings will continue to take place via webinar.
- Both Ports are developing plans for return to in-person work at this time. However, it is unclear exactly when staff will return to the office and when in-person, public meetings will commence once again.
- COVID-19 impacts to the Ports' technology demonstrations are addressed below under Early Demonstrations and Deployments within the Trucks and Terminal Equipment headings.

#### TRUCKS

- **Clean Truck Fund (CTF) Rate.** The Ports have made continued progress on the development of each Port's respective Clean Truck Fund Rate tariff and the rate collection mechanism (described below). The POLA and POLB Boards of Harbor Commissioners approved their respective CTF Rate tariff, which covers exemptions and spending priorities, on November 4, 2021 and November 8, 2021, respectively. Collection of the CTF Rate is scheduled to commence on April 1, 2022.
- **Rate Collection Mechanism.** In anticipation of the CTF Rate, the Ports released a Request for Proposals (RFP) in 2019, which included minimum requirements for how to collect a rate from Beneficial Cargo Owners. An agreement with the selected contractor, PortCheck, was approved by the POLB Board of Harbor Commissioners on March 26, 2021, and the POLA Board of Harbor Commissioners on May 20, 2021. Federal Maritime Commission (FMC) approval was obtained on August 20, 2021. PortCheck is currently developing the rate collection system and a user manual. The Ports have scheduled

outreach to the trucking industry, beneficial cargo owners (BCOs), and BCO agents to explain the CTF Rate collection system under development by PortCheck for the first quarter of 2022.

- **Large-Scale Zero Emission (ZE) Truck Deployment Pilot Project.** On November 19, 2020, the California Air Resources Board (CARB) and the California Energy Commission (CEC) released a unique joint funding opportunity for a large-scale ZE truck deployment within the state. The Ports coordinated with the South Coast Air Quality Management District (AQMD) and other regional partners on the development of a project proposal, including 100 ZE battery electric trucks and associated charging infrastructure, for this solicitation. The AQMD proposal was awarded nearly \$27 million. The grant agreement between AQMD and CARB was executed on June 4, 2021 and the grant agreement between AQMD and CEC was approved at the CEC business meeting on July 15, 2021. The Ports and AQMD are reviewing the final draft of the three-party Memorandum of Understanding (MOU), which will include \$1.5 million in match funding from each Port towards the project and is expected to be brought to each Port's respective Board of Harbor Commissioners in Q2 2022.
- **Early Deployment and Demonstrations.** The Ports continue to manage several grant-funded demonstrations of ZE trucks, including over 20 hydrogen fuel cell and battery electric trucks as part of supply chain pilots. The Ports have also committed to supporting regional demonstrations. This includes the deployment of near-zero emission natural gas drayage trucks through a CEC grant secured by AQMD that is expected to fund up to 140 low NOx trucks. Approximately 40 near-zero emission trucks have been registered and deployed thus far with Ports' funds through the AQMD program. There are approximately 28 ZE trucks registered in the Ports' Drayage Truck Registry with access to both Ports. COVID-19 continues to have an impact on the future estimated delivery times of both the low NOx trucks and ZE trucks. On November 23, 2021, POLA released an RFP for projects to deploy at least 10 zero emission trucks. POLA will be providing \$3 Million in grant funds to support the awarded project. Preliminary award selection is expected to be made in Q1 2022.
- **Proposition 1B Support and the Kickstart Incentive Program.** The Ports supported AQMD with outreach to the drayage community regarding the Proposition 1B (Prop 1B) Program, which had \$50 million available in incentives to turn over the dirtiest pre-2010 diesel trucks to clean low NOx or ZE trucks. The open solicitation period closed on April 30, 2021. POLB provided application support to 22 drayage truck drivers, resulting in 10 application submissions to replace a total of 21 diesel trucks. Two applications were subsequently withdrawn, and one was deemed ineligible, resulting in 9 eligible trucks to be replaced with ZE trucks, and 4 to be replaced with low-NOx trucks through Prop 1B. To further accelerate the transition to cleaner trucks, POLB has provided an additional \$1 million for low NOx and ZE drayage trucks as part of the "Kickstart Incentive Program." This program, approved by the POLB Board of Harbor Commissioners on April 26, 2021, is a supplement to the AQMD-administered Prop 1B Program, and will fund additional drayage truck applications from the solicitation that closed in April 2021.
- **Advanced Clean Trucks/Fleets Regulation.** As a companion to the Advanced Clean Trucks (ACT) Regulation that CARB passed in June 2020, CARB continues to move ahead with establishing the requirements for large entities and fleets. CARB continues to hold a series of workshops related to different aspects of the transition to zero emissions trucks, and Ports' staff continue to attend and participate. Ports' staff will continue to monitor the development and implementation of these regulations.

- **Feasibility Assessment for Trucks.** As part of the 2017 CAAP update, the Ports committed to developing assessments for drayage trucks at least every three years. The Feasibility Assessments evaluate the current snapshot of emerging zero-emission and near-zero emission truck technologies. The first report, [2018 Feasibility Assessment for Drayage Trucks](#), was released in April 2019, with an update later in May 2020. The Ports began work on the second Feasibility Assessment for Drayage Trucks in Q1 2021. Data collection and outreach were completed in Q3 2021. Initial drafting of the report was completed in Q4 2021 with third party reviews to begin in Q1 2022. The Draft 2021 Feasibility Report for Trucks is expected to be released in late Q1 2022 for public review and comment.
- **Public Truck Charging.** POLB completed and released a [Public Charging and Fueling Study](#) in September 2021. To build on this effort, POLB released a Request for Information to obtain information regarding the near-term development of publicly accessible electric-charging facilities for drayage trucks at four sites on POLB property.

## TERMINAL EQUIPMENT

- **Early Deployment and Demonstrations.** The Ports continue to manage several grant funded demonstration projects, including ultra-low NOx and electric yard tractors, electric top handlers, and electric rubber-tired gantry cranes, as well as innovative approaches to charging infrastructure including micro-grid controls with distributed generation and battery storage.

At POLA, as part of the Green Omni Terminal project, two battery electric yard tractors continue to be used: one BYD and one Kalmar Ottawa. The second BYD yard tractor is under repair due to charging issues that have not been resolved. Two TransPower/Kalmar battery electric yard tractors and three TransPower battery electric heavy-duty forklifts continue to be evaluated by third-party engineers to comply with OSHA requirements at Pasha. They will be put in service when this evaluation is complete. At Everport, two battery electric Taylor top handlers are in use. The BYD battery electric yard tractors at Everport were not in use during this quarter due to repairs. Smart Charging, developed by Cavotec, is being installed at Everport for demonstration expected to begin in Q1 2022. BYD yard tractors are expected to be put in service to use these chargers. Additionally, Everport continues to operate 20 Capacity ultra-low NOx renewable natural gas yard tractors. The grant demonstration periods for these 20 yard tractors and two battery electric Taylor top handlers are complete and Everport will continue to operate the equipment in revenue service. The Advanced Infrastructure Demonstration (AID) Project that will demonstrate wireless charging stations for battery electric yard tractors at West Basin Container terminal began phase 1 construction in Q4.

At POLB, a total of 16 pieces of ZE cargo handling equipment (CHE) have been commissioned to date with supporting ZE infrastructure. At LBCT, one battery-electric yard tractor continues to be tested while performing revenue service. As of December 2021, six eRTG cranes were in operation at SSA. The remaining three eRTGs are anticipated for commissioning by the end of 1<sup>st</sup> quarter 2022. All four LNG plug-in hybrid electric trucks have been placed into revenue service at TTSI.

The Ports have documented various impacts and delays to terminal equipment technology demonstrations as a result of COVID-19 and the unprecedented spike in container volumes. Demonstration projects continue to experience difficulty acquiring necessary equipment parts for production and/or repairs, delayed project execution due to extended permitting timeframes, and prohibitions on overseas personnel traveling to California to

conduct in-person testing and trainings on new equipment. Ports' staff will continue to monitor these impacts.

- **Feasibility Assessment for Terminal Equipment.** As part of the 2017 CAAP update, the Ports committed to developing assessments for terminal equipment at least every three years. The Feasibility Assessments evaluate the current status of clean terminal equipment technologies and infrastructure. The first report, [2018 Feasibility Assessment for CHE](#), was released in September 2019. The Ports commenced the second Feasibility Assessment for Terminal Equipment in Q1 2021. Data collection and outreach were completed in Q3 2021. Initial drafting of the report was completed in Q4 2021 with third party reviews also conducted shortly after. The Draft 2021 Feasibility Report for Terminal Equipment is expected to be released for public review and comment in Q1 2022.

## SHIPS

- **Vessel Speed Reduction.** 94% of vessels visiting the Ports in Q4 2021 slowed down to 12 knots within 20 nautical miles of Point Fermin, and 89% of vessels slowed within 40 nautical miles. Additionally, the two Ports continued reviewing the vessel speed reduction programs for opportunities to achieve greater emissions benefits this quarter.
- **Ship Incentive Programs.** The Ports continue to collaborate with other West Coast ports on ways to enhance participation in their clean ship incentive programs. POLB adopted a revised Green Ship Incentive Program at their May 10, 2021 Board Meeting. The revised program incorporates the Environmental Ship Index, an international voluntary incentive program which calculates the performance of vessels based on their NOx, sulfur oxides, carbon dioxide emissions, and fuel consumption. Tier III vessels will now be eligible for up to \$9,000 per call, which is the greatest Tier III incentive of any ship program worldwide.
- **At Berth Regulation.** CARB's Board approved the latest update to the At Berth Regulation at their Board meeting on August 27, 2020. The Ports engaged affected terminals and shipping operators in order to coordinate on development of Terminal/Port Plans. The Ports received and reviewed several draft Terminal Plans in Q3 2021. The completed and signed Port and Terminal Plans were submitted to CARB by December 1, 2021.

## HARBOR CRAFT

- **Commercial Harbor Craft Regulation.** Staff for both Ports are actively working with CARB on the development of this regulation. On November 19, 2021, CARB held the first Board hearing to consider the Commercial Harbor Craft Regulation. Port staff submitted a comment letter in advance of this meeting regarding the regulatory text posted on September 21, 2021. Ports' staff will continue to monitor the development of this regulation and provide comments to CARB.

## OTHER

- **2020 Emissions Inventories.** Both Ports completed their respective 2020 annual Inventory of Air Emissions and released the reports in Q4 2021, demonstrating significant emissions reductions: <https://cleanairactionplan.org/results/emission-reductions/>.
- **Air Quality Monitoring Program.** The Port of Los Angeles completed and released its 16<sup>th</sup> annual monitoring report covering the period from May 2020 to April 2021. The reports for both Ports can be viewed at: <https://monitoring.cleanairactionplan.org/reports/>.

- **Technology Advancement Program.** The Ports received a total of nine project concepts in 2021. Of the nine, three project concepts did not conform to the criteria outlined in the TAP Guidelines. The remaining six project concepts are currently under consideration and review.

Projects currently in demonstration have made significant progress last quarter. Pacific Tugboat continued collecting the 1,000 hours of activity on the Nett Technologies BlueMAX™ NOVA 320e aftertreatment system required to demonstrate durability for CARB verification; Nett expects to complete collection of the durability hours in first quarter 2022 and complete the required emissions testing in the summer of 2022. Under a separate demonstration, installation of the water-in-fuel (WIF) system developed by MAN Energy Systems was completed on the vessel with commissioning planned for the end of the year. Lastly, Pasha is building two new vessels and repowering one vessel under two related projects. One of the two new-build vessels is anticipated for delivery in March 2022. The second new-build vessel will be delivered in May 2022. The repowered vessel will be delivered at the end of 2022. All three vessels will be installed with dual-fueled engine technology capable of burning LNG or diesel in the propulsion system, with the system optimized for LNG.

The Ports continue to engage and support interested stakeholders. This includes holding TAP bi-weekly meetings between the two Ports, leading the TAP AC meetings every 8 weeks with agency partners, responding to general inquiries, and participating in virtual meetings to provide updates on technology demonstrations.

#### **PLANNED ACTIONS NEXT QUARTER**

- 13<sup>th</sup> CAAP Implementation Stakeholder meeting on February 1, 2022.
- Complete development of the rate collection mechanism for the CTF Rate.
- Outreach to trucking industry, BCOs, and BCO agents on the CTF Rate collection mechanism.
- Finalize each Port's respective spending plan for the Clean Truck Fund Rate
- Continue coordination with AQMD on a Large-Scale ZE Truck Deployment project.
  - Finalize a three-party MOU with AQMD to provide match funding from the two Ports.
- Complete and release the drafts of the Cargo Handling Equipment Feasibility Assessment and Drayage Trucks Feasibility Assessment for public review.
- Continue to evaluate the vessel speed reduction programs.
- Continue to evaluate TAP proposals with a recommendation to fund those that are selected.

Send any questions or comments to the CAAP email at: [caap@cleanairactionplan.org](mailto:caap@cleanairactionplan.org)