

SAN PEDRO BAY PORTS

CLEAN AIR ACTION PLAN

Clean Air Action Plan Implementation Progress Report First Quarter 2021

ACCOMPLISHMENTS

GENERAL

- The Ports held their eleventh CAAP Implementation Advisory Working Group meeting on January 27, 2021 via webinar.

COVID-19 IMPACTS

- The Ports continued to experience high cargo throughput in Q1 2021. These high volumes are due to an uptick in e-commerce as people continue to spend money shopping online. The Ports continue to monitor the situation very closely.
- Due to the California Stay-At-Home order, future 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.
- Port of Long Beach (POLB) staff furloughs will conclude on April 26, 2021. Port of Los Angeles (POLA) staff have two additional furlough days scheduled for April 2, 2021 and May 28, 2021.
- COVID-19 impacts to the Ports' technology demonstrations are addressed below under Early Demonstrations and Deployments within the Trucks and Terminal Equipment headings.
- The Ports are starting to see the return of cruise vessels that left US waters during the onset of the pandemic lockdowns. These vessels are repositioning to get the necessary safety and CDC certifications to resume passenger sailings at a future date. Vessels may dock at the San Pedro Bay Ports for resupply. Notably, not all cruise vessels at anchorage within the San Pedro Bay will visit either port.

TRUCKS

- **Clean Truck Fund (CTF) Rate.** Implementation of the rate remains temporarily on hold while the Ports' Executive and business teams evaluate the impacts and uncertainties stemming from COVID-19. Staff continue to refine the implementation proposal and plan to bring a tariff amendment to the respective Boards of Harbor Commissioners (Boards) later in 2021.
- **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. The Ports have tentatively selected a contractor and are negotiating the contract for services. The Ports plan to bring separate contracts to their respective Boards for consideration in Q2 2021.

- ***Comprehensive Long-Term Strategy for Zero-Emission (ZE) Trucks.*** At the March 9, 2020 joint Board meeting, Ports' staff were directed to develop a comprehensive long term strategy plan on how the Ports would meet the CAAP goal for 100% ZE trucks entering and exiting the ports by 2035. Initial work on the plan began in April 2020, with each Port providing an update to their individual Board in July of 2020 on the approach and progress to date. On September 23, 2020, Governor Gavin Newsom issued Executive Order N-79-20, which calls for ZE drayage trucks in California by 2035. As a result of this Executive Order, the Ports are preparing a draft of the long-term strategy which better aligns with the new State goal.
- ***Large-Scale 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 containing 100 ZE battery electric trucks including charging infrastructure for this solicitation. AQMD, the lead applicant, submitted the application before its due date on February 12, 2021. The project received a preliminary award on April 5, 2021.
- ***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. AQMD has begun contracting with trucking companies to deploy the low NOx trucks; approximately 30 near-zero emission trucks have been registered and deployed thus far with Ports' funds. There are approximately 29 ZE electric trucks registered in the Ports' PDTR 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.
- ***Proposition 1B Support and the Kickstart Incentive Program.*** The Ports are supporting the AQMD with outreach to the drayage community regarding the Proposition 1B (Prop 1B) Program, which has \$50 million available in incentives to turn over the dirtiest pre-2010 diesel trucks to clean low NOx or ZE trucks. POLB is also providing application support for drayage truck drivers. To further accelerate the transition to cleaner trucks, both Ports plan to seek Board approval in Q2 2021 to allocate an additional \$1 million per port for low NOx and ZE drayage trucks as part of the "Kickstart Incentive Program." This program will be administered by the AQMD utilizing the Prop 1B Program guidelines.
- ***Advanced Clean Trucks/Fleets Regulation.*** As part of 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. The Office of Administrative Law approved the regulation on March 15, 2021. The regulation requires, among other obligations, large fleet owners, including government agencies, to report information about their heavy-duty vehicles. The reporting deadline was extended from April 1, 2021 to May 1, 2021. Ports' staff will continue to monitor the implementation of these regulations.
- ***City of Los Angeles ZE Truck Financing Request For Information.*** POLA released a Request for Information (RFI) from private financing companies to provide potential pathways to financing the turnover to a ZE drayage fleet at the Ports. In January

2021, RFI responses were received from various entities, including truck manufacturers, infrastructure manufacturers, zero-emission program developers, and investment banks. Responses are under review and POLA is considering next steps.

- **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 are underway and release of the Draft 2021 Feasibility Report for Trucks is anticipated by the end of 2021.

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 BYD battery electric yard tractors and the ShoreKat treatment system, which scrubs emissions from vessels at berth, continue to be operated. Two TransPower/Kalmar battery electric yard tractors and three TransPower battery electric heavy-duty forklifts are being 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 and five BYD battery electric yard tractors are in use. Additionally, Everport continues to operate 20 Capacity ultra-low NOx renewable natural gas yard tractors. The grant demonstration period for these 20 yard tractors is complete and Everport will continue to operate the equipment in revenue service.

At POLB, a total of nine pieces of ZE cargo handling equipment (CHE) are currently in testing and demonstration. All of the nine pieces of CHE are supported by commissioned ZE infrastructure. Under the C-PORT Project, the Kalmar yard tractor and Taylor top handler are in demonstration at LBCT. Under the Zero-Emission Equipment Transition Project, a total of six BYD yard tractors and one BYD yard tractor adapted for the Cavotec Smart-Plug System (SPS) have been placed into revenue service at ITS. The first eRTG crane was placed into service at SSA, Pier J in November 2020. A total of two LNG plug-in hybrid electric trucks have been placed into revenue service at TTSL.

The Ports have documented various impacts and delays to terminal equipment technology demonstrations as a result of COVID-19. Although some projects have seen substantial improvements, demonstration projects continue to experience COVID-19 related challenges, including manufacturing businesses and facilities operating at reduced capacity, difficulty acquiring necessary equipment parts from overseas, and prohibitions on overseas personnel traveling to California to conduct in-person testing and trainings on new equipment. Lastly, some technology developers and Original Equipment Manufacturers (OEMs) are working reduced hours due to mandatory furloughs. Ports' staff will continue to monitor impacts related to COVID-19.

- **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 are underway and the release of the Draft 2021 Feasibility Report for Terminal Equipment is anticipated by the end of 2021.

SHIPS

- ***Vessel Speed Reduction Enhancements.*** 96% of vessels visiting the Ports in Q1 2021 slowed down to 12 knots within 20 nautical miles of Point Fermin, and 90% of vessels slowed within 40 nautical miles.
- ***Ship Incentive Programs.*** The Ports continue to collaborate with other West Coast ports as well as the local air district on ways to enhance participation in their clean ship incentive programs. POLB is working on a revision of their Green Ship Incentive Program, collaborating with ocean carriers and other stakeholders, which will further encourage reduction in NOx emissions from ships. An amendment to the Green Ship Incentive Program will be brought to the Long Beach Board of Harbor Commissioners for consideration in Q2 2021.
- ***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 are engaging affected terminals and shipping operators in order to coordinate on development of Terminal/Port Plans, which are due in December 2021.
- ***Emission Capture and Control Technology Demonstration for Tankers.*** In September 2020, CARB released a \$10 million solicitation to demonstrate technologies capable of capturing emissions from oil tanker vessels at berth. In response, STAX Engineering in partnership with AQMD developed a proposal and submitted it to the Ports' Technology Advancement Program (TAP) for match funding in October 2020. The TAP Advisory Committee (AC) and the Ports made the recommendation to fund this project pending successful award from CARB under their solicitation and approval from the Ports' respective Boards of Harbor Commissioners. AQMD was awarded the full \$10M in grant funds in December 2020, and the Ports will request approval to provide match funding from their respective Boards in Q2 2021.

HARBOR CRAFT

- ***Commercial Harbor Craft Regulation.*** Staff for both Ports are actively working with CARB on the development of this regulation. On March 16, 2021, CARB held a public workshop to discuss additional changes to the draft proposed Commercial Harbor Craft (CHC) Regulation. The Ports are reviewing the draft regulation texts and will provide comments in a formal joint Ports' comment letter in Q2 2021.

OTHER

- ***Technology Advancement Program.*** Since the TAP RFI was released in January 2020, the Ports have received six concept papers. Of the six concept papers submitted to date, Ports' staff have invited five applicants to each submit a full proposal. Four full proposals have been received, although one proposal was later rescinded due to significant changes in the project scope and team. Two full proposals have been reviewed by the TAP AC and were recommended for funding consideration.

The first project recommended by the TAP AC for funding will be led by AQMD to develop, test, and demonstrate an at-berth emissions control system designed for tanker vessels. The project is primarily funded through a \$10M CARB grant and would evaluate the system with the goal of achieving certification under CARB's At Berth Regulation. The project is pending the Ports' respective Boards of Harbor Commissioners approvals.

The second project recommended by the TAP AC for funding will be led by Toyota Tsusho America (Toyota) to repower a diesel top handler with hydrogen fuel cell technology and a small supplemental battery. The project will also involve demonstration of a hydrogen mobile refueler technology. The project is pending both Ports' upper management reviews and approvals.

The third full proposal received is currently under TAP AC review.

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, participating on numerous virtual meetings to provide updates on technology demonstrations, as well as providing support on projects outside of TAP to bolster technology advancement.

PLANNED ACTIONS NEXT QUARTER

- Continue development of the structure for the incentive program to be funded by the CTF Rate.
- Complete and approve the joint contract for collecting the CTF Rate.
- Seek approvals from the Ports' respective Boards of Harbor Commissioners to provide \$1 million each as part of the Kickstart Incentive Program.
- Continue development of the Comprehensive Long-Term Strategy Plan for ZE Trucks.
- Continue coordination with AQMD on a Large-Scale ZE Truck Deployment project.
- Continue working with CARB on updating the CHC Regulation.
- Continue outreach to the industry regarding the new At Berth Regulation and the development of Port/Terminal Plans.
- Finalize MOU with AQMD and seek approvals from the Ports' respective Boards of Harbor Commissioners to provide TAP funding for a capture and control system demonstration for oil tankers.
- Receive approval to enter into contract negotiations with Toyota to provide TAP funding to repower a diesel top handler with zero-emission hydrogen fuel cell technology.
- POLB staff will take proposed modifications to the Green Ship Incentive Program to their Board of Harbor Commissioners.

Send any questions or comments to the CAAP email at: caap@cleanairactionplan.org