

Sustainable Supply Chain Advisory Committee
Zero-Emission Fueling Infrastructure Recommendation
September 2020

The San Pedro Bay Ports Sustainable Supply Chain Advisory Committee (Committee) submits the following recommendation for reducing air pollution and greenhouse gas emissions at the San Pedro Bay Ports to the Mayor of Long Beach, Robert Garcia; the Mayor of Los Angeles, Eric Garcetti; the Executive Director for the Port of Long Beach, Mario Cordero; and the Executive Director for the Port of Los Angeles, Gene Seroka.

This recommendation is made in alignment with previous SSCAC (formerly SFAC) recommendations made in support of the joint ports' Clean Truck Program (CTP) for achieving emissions reductions from drayage trucks as identified in their Clean Air Action Plan (CAAP). Prior recommendations stress the accelerated adoption of trucks meeting the CARB Ultra-Low NOx emission standard (90% lower than the in-use NOx levels which may equate to 0.02g/bhp-hr) in order to meet air quality targets in the South Coast Air Basin, as well as the long-term goal of transitioning 100 percent of the joint ports' existing drayage fleet to equipment that provides zero tailpipe emissions by 2035.

Committee Research and Findings

Over several years of collaborative research and stakeholder engagement, the SSCAC has observed that the clean truck goals described under the CAAP are not supported by a clear roadmap illustrating the drayage truck fleet's transition in terms of technology type, fleet volume, and timeline. There thus remains a lack of certainty, which is significantly impeding industry stakeholders from making tangible public and private capital investments in the fuel and fueling infrastructure needed to support the successful implementation of the CAAP and CTP.

Although several truck manufacturers are in the early stages of demonstrating and commercializing zero-emission truck technologies, they have indicated that these products are several years away from being technically suitable to port drayage applications, and available at the price points required for commercial adoption in this market. Manufacturers have also emphasized that bringing a new technology to market at a commercial scale is a phased process heavily defined by customer demand. At the SSCAC's November 2019 Truck Stakeholder Roundtable, leading manufacturers for the zero emission drayage truck segment agreed that a key determining factor is the availability of fuel. These representatives identified not only a lack of fueling and charging infrastructure in the San Pedro Bay Ports' area but also a lack of plans for this infrastructure as key limitations to their vehicle commercialization plans.

This observation was echoed by the fuel and infrastructure providers at the SSCAC's May 2020 Fueling Infrastructure Stakeholder Roundtable. Representatives from leading utilities and retailers of natural gas, hydrogen, and electricity for transportation advised that clear demand in the form of truck deployments is a pre-requisite for infrastructure investments - and that that demand is absent in the San Pedro Bay Ports' area. Natural gas fuel and infrastructure providers expressed interest in providing 100 percent of the private capital required to build the infrastructure needed to support the implementation of the CTP. Additionally, all three of the clean fuel providers (natural gas, hydrogen, electricity) agreed that more specific and reliable information on clean truck deployment volumes, timelines, and regional travel patterns are needed to make initial investments in refueling infrastructure.

Committee Recommendation for Port Action

Based on the findings described above, the SSCAC asserts that prompt, tangible action is required by the joint ports to ensure that both the vehicle and fueling industries can make timely investments supporting the goals of the CAAP and its CTP. The SSCAC recommends that the ports take the following specific actions.

- Within 90 days of this recommendation's approval, develop and release an illustrative model of various deployment scenarios that detail the anticipated deployment of clean trucks by type, approximate volumes, and year that will result from the implementation for the SPBP CTP.
- Within 90 days of releasing the illustrative model, develop and release a proposed structure for the Clean Truck Incentive Program that will be used to identify milestones, establish timelines, and fund the clean trucks indicated in the model.
- Survey existing truck fueling/charging locations in the vicinity of the port complex to identify opportunities to co-locate NZE/ZE fueling infrastructure at these existing locations.
- Assess several fueling and charging infrastructure scenarios to support the joint ports' near- and long-term needs for hydrogen and natural gas fueling (including renewable variations) and electric vehicle charging, and share these findings with agencies working on regional fueling and charging infrastructure planning (i.e. SCAG, LA Metro, Caltrans, CTC, PUC, CEC, Gateway Cities COG).
- Leverage existing information to identify truck use patterns that can inform future fuel infrastructure planning, while making sure to protect trucker data privacy.