

**DOCKETED**

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*Comment Received From: Jacqueline Moore*  
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**Port Of Long Beach Comment Letter on 2019-2020 Investment Plan Update**

*Additional submitted attachment is included below.*



Port of  
**LONG BEACH**

*The Green Port*

March 14, 2019

California Energy Commission  
1516 Ninth Street  
Sacramento, CA 95814

Submitted electronically to:

RE: Port of Long Beach Comments on FY 2019-20 Investment Plan Update for the  
Alternative and Renewable Fuel and Vehicle Technology Program

To the Members of the California Energy Commission:

The Port of Long Beach (Port) appreciates the opportunity to comment on the California Energy Commission's (CEC) FY 2019-20 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP). The ARFVTP program is aligned with the Port's Clean Air Action Plan Update (CAAP), which adopted aspirational, industry-leading goals to substantially reduce port-related emissions and transition to zero-emission operations by 2035. The Port has worked aggressively, in partnership with terminal operators and the maritime goods movement industry, to reduce emissions from port-related operations. Funding assistance programs such as ARFVTP are critical to helping transition to zero-emissions and thus advance our shared clean-air initiatives.

The Port would like to commend the CEC on the significant amount of funding awarded to date, which has deployed numerous cleaner vehicles and associated infrastructure. Additionally, the Port has benefitted greatly from CEC funds to develop the nation's first "Port Community Electric Vehicle Blueprint," which lays out the actions necessary to achieve our 2030 and 2035 zero-emissions goals. Our blueprint will be finalized in May; however, the Port has already identified several key areas primed for CEC investment over the next 1 to 3 years:

- Additional demonstrations of port-related zero-emissions equipment in duty cycles, fuel configurations, and/or applications not yet tested;
- Demonstrations of innovative zero-emissions charging and fueling infrastructure approaches, particularly for simultaneous and mass charging of large fleets;
- Infrastructure design planning for port terminals;
- Workforce programs, specifically at community colleges, to support training for the incumbent workers and to prepare the next generation of workers for the zero-emissions transition;

The following sections describe these findings in more detail, specifically as they relate to the FY 19-20 ARFVTP Investment Plan.

**Increase funds for advanced freight and fleet technologies.**

The ARFVTP Investment Plan identifies \$17.5 million for advanced freight and fleet technologies, which includes the cutting-edge technology development and demonstrations necessary to fully transition the goods movement sector to zero-emissions. Although the Port appreciates the dedication of funds to this category, we believe this level of funding underestimates the near-term needs and opportunities to accelerate ZE cargo-handling (CHE) and drayage truck technologies, particularly in applications that have not been tested.

For example, the ports sector could benefit from investments in **hybrid-electric equipment** as an interim step to zero emissions, specifically for equipment with high power needs, such as top handlers and rubber-tired gantry cranes. To go fully zero-emissions, this equipment requires unprecedented sizes of on-board batteries and significant charging infrastructure; hybrid versions could allow the industry to perfect the engineering to eventually scale to zero-emissions once battery and fuel-cell technologies advance.

To accelerate real change in this industry, the Port strongly urges CEC to increase the proposed FY2019-20 amount of \$17.5 million for advanced freight and fleet technologies in order to take advantage of the immediate opportunities and to provide near-term air quality benefits to local disadvantaged communities.

**Increase investments in heavy-duty zero-emission and alternative fuel infrastructure.**

The Port also urges CEC to increase investments in heavy-duty alternative fuel infrastructure. The Port commends the historical investments in this infrastructure for the light-duty sector and believes this funding has played a pivotal role in accelerating adoption of zero-emissions passenger cars. The Port strongly urges CEC to give similar consideration to infrastructure investments for the heavy-duty sector.

Infrastructure is fundamental to carrying ZE technologies to market; without the necessary fueling or charging infrastructure, the private industry will be reluctant to make early investments in this equipment and these vehicles. Heavy-duty infrastructure presents its own set of challenges and requires unique solutions, and the costs are substantial relative to the equipment it would support. In addition to funding charging stations or fueling outlets, the Port asks CEC to consider funding the far more significant

costs of **upstream equipment**, such as substations, transformers, electrical conduit, and lines to convey additional power. So as not to hamper the pace of zero-emissions development, the Port recommends boosting funds for ZE infrastructure, particularly **innovative charging solutions** suitable for mass charging in a tightly scheduled port environment, and allowing upstream equipment as an eligible expense. The Port believes CEC is well-positioned to lead the charge for this sector.

**Dedicate funding for zero-emissions infrastructure design planning.**

The Port EV Blueprint has identified a significant need for infrastructure design plans at each of our terminals in order to advance the deployment of zero-emissions equipment. These design plans would map out a comprehensive approach for installing permanent infrastructure and include equipment specifications, site layouts, utility planning, rough cost estimates, and schedules. Full zero-emissions deployment is not possible without this step, which is expected to cost up to \$1 million per terminal for each of our 5 terminals.

The proposed investment plan allocations seem to be lacking designated design funding. In fact, the Emerging Opportunities activity as part of the Zero-Emission Vehicle Infrastructure category, which could be a source of funding for this effort, is absent from the proposed investment plan. In the past decade, CEC has awarded millions of dollars for regional readiness planning projects which directly aided in the rapid deployment of ZE vehicles and infrastructure; however, it is inaccurate to claim that the need for planning grants "has diminished" as there is still much to be realized in the heavy-duty and regional goods-movement sector. While Phase II type of projects "may be funded through the vehicle charging infrastructure allocations," this may not be the appropriate activity proposed for Phase II. Thus, the Port recommends adding an Emerging Opportunities allocation to the Related Needs and Opportunities category, specifically for zero-emissions infrastructure design planning.

**Increase funds for Workforce Development.**

The Port applauds the proposed allocation of \$1.5 million towards workforce development and recognizing the significant demand for workforce training and retraining that is required. However, this is still a severely underfunded opportunity relative to past fiscal year allocations, with over double that approved for FY 2017-18. As many agencies, specialized training facilities, and community colleges are refocusing on this need, even more funding resources will be required. Workforce development programs are incredibly important, and more analysis and recommendations on augmenting current programs to teach the skills needed to operate and maintain the

electrified equipment and infrastructure are needed. Thus, the Port strongly urges CEC to increase the proposed FY2019-20 amount of \$1.5 million.

The Port appreciates the opportunity to provide comments on the FY 2019-20 ARFVTP Investment Plan, and we thank you allowing us to provide input. We are eager to continue discussions on any of the suggestions provided and we look forward to continuing to work with you on advancing our shared clean air goals. We are available to continue discussion on any of the suggestions provided.

Sincerely,

A handwritten signature in blue ink, appearing to read "Matthew Arms", with a long horizontal flourish extending to the right.

Matthew Arms  
Acting Director of Environmental Planning