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**Port of Long Beach Comments on 20-FINANCE-01 RFI - Clean  
Transportation Financing and Investment**

*Additional submitted attachment is included below.*

April 13, 2020

California Energy Commission  
Docket Unit, MS-4  
1516 Ninth Street  
Sacramento, CA 95814-5512

**Re: Port of Long Beach Comments on 20-FINANCE-01: RFI Clean Transportation Financing and Investment**

To the Members of the California Energy Commission;

The Port of Long Beach (Port) appreciates the opportunity to provide comment to the California Energy Commission's (CEC's) Request for Information Strategies to Attract Private Investment in Zero Emission Vehicle Charging Infrastructure and Other Clean Transportation Projects (Docket #20-FINANCE-01).

The Port has adopted some of the world's most aggressive clean-air strategies, including goals of zero-emissions terminal equipment and trucks within the next 15 years. The Port has led the way in helping to develop and demonstrate emerging seaport technologies, in designing and constructing heavy-duty charging infrastructure, and in developing tools to inform our next steps. Among these tools is the CEC-funded Port Community Electric Vehicle Blueprint (PCEVB),<sup>1</sup> the first stakeholder-driven roadmap for achieving zero emissions in a seaport environment, which includes a comprehensive analysis of the barriers to private investment in EV charging infrastructure.

As a result of our experience, the Port understands the critical need for private investment in EV charging infrastructure, particularly for heavy-duty port fleets. Our comments below aim to identify challenges and opportunities for public funding programs, which will continue to be necessary in the near term; to identify barriers and potential solutions to private investment; and to propose concepts to demonstrate pilot financing mechanisms.

**PUBLIC FUNDING**

First, the Port strongly believes that public funds will continue to be necessary to encourage private investment in the near term. Indeed, the Port estimates that achieving the 2030 goal of zero-emissions terminal operations could require more than \$14 billion in investment within the next 10 years.<sup>2</sup> Given the high costs and unproven performance of early-stage EV port equipment, investment in infrastructure is fraught with risk for private investors. Government subsidies – in whole or in part – can help defray this risk, bringing private investors to the table even at early stages of technology development. As evidence, the Port's private terminal operators have been

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<sup>1</sup> The Port Community Electric Vehicle Blueprint can be found online at [www.polb.com/zeroemissions](http://www.polb.com/zeroemissions)

<sup>2</sup> San Pedro Bay Ports Clean Air Action Plan 2017 Update, [www.cleanairactionplan.org](http://www.cleanairactionplan.org).

willing to invest their own funds in emerging technology demonstrations when paired with government grants and subsidies that offset the costs, and thus the risks, of investment. Therefore, the Port cautions against reducing the publicly available incentives too early along the adoption curve, as it could reduce the likelihood and pace at which these technologies are adopted by industry, particularly by small and underrepresented businesses.

That said, public funding programs themselves are not always attractive. The PCEVB identified several barriers to the uptake of public fund programs as well as strategies to address these barriers, as noted below.

- *Eliminate scrapping requirements.* At this early stage of zero-emission technologies, many operators are unwilling to scrap a piece of functioning diesel equipment for a zero-emissions version with uncertain performance and reliability. Programs that allow operators to test emerging technologies without scrappage defray the risk and encourage uptake of new equipment.
- *Simplify applications.* Public funding application processes are often cumbersome and complicated, requiring cost-effective analyses, emissions calculations, and other technical components. Many operators need outside expertise to complete these applications, which is an expense without a guarantee of success. CEC should consider ways to streamline the application process, particularly as equipment becomes more commercialized and presumably requires less documentation of likely success.
- *Re-evaluate compliance requirements.* Public funding demands strict accountability for taxpayer funds and thus imposes stringent reporting, accounting, and auditing requirements on recipients. Many operators do not have the resources to manage ongoing reporting and grant administration requirements. These often onerous requirements are a deterrent to many otherwise willing operators. CEC should consider ways to ease the administrative compliance burden and/or provide resources to assist private operators.
- *Extend liquidation deadlines.* By legislation, funding agencies often have prescribed windows of time by which to encumber and liquidate the grant funds, often within 2-3 years of award. Given the legal mandates for competitive bidding, procurement, and permitting, these timelines are often unworkable. Longer liquidation deadlines would greatly enhance the diversity and scale of zero-emissions demonstration projects. In addition, full transparency of the encumbrance and liquidation deadlines would allow applicants to better assess whether or not the project timeline is truly feasible.

### **PRIVATE FINANCING**

Port operators rely on private financing for their equipment purchases, and they are very familiar with this model for conventional, diesel-fueled equipment and trucks. The switch to zero-emissions cargo handling equipment, however, introduces new complexities in terms of the uncertainty of equipment performance and availability, charging and fueling infrastructure, and

the sheer expense of this new equipment, which can be two to three times higher than today's diesel equipment. Also, given their 24/7 operations and rigid shift schedules, port terminals have few charging opportunities and are likely to require innovative, custom-designed infrastructure solutions that deliver energy to high numbers of equipment all at once.

Lastly, the tenant-landlord relationship at most seaports complicates investment in EV charging infrastructure. In this scenario, the costs of electrical upgrades may be borne by the owner (the Port), while the benefits are enjoyed mainly by the tenants (terminal operators). Conversely, if tenants bear the zero-emissions infrastructure upgrade costs, their tenancy may be too short to reap the full benefits over the lifetime of the equipment.

All of these barriers increase the uncertainty of success, elevate the risks, and thus deter private investment in EV charging infrastructure. The following strategies may help alleviate these barriers.

***Provide resources to develop more “electric blueprints” or project master plans.***

Financing the transition to zero-emission terminals requires a tailored approach for each operator and project. There is a wide diversity of public and private options and no one-size-fits-all approach. Understanding and accessing these different funding options requires expertise, time, and resources. CEC funds for the development of project-specific blueprints or master plans would encourage project proponents to conceptualize thoughtful, comprehensive approaches to EV charging infrastructure deployment in the near- and long-term with all the necessary and appropriate partners at the table, including landlords, lessees, engineers, and private financing companies. By identifying project costs and schedules, all viable funding mechanisms, potential pitfalls, risk assessments, and roles and responsibilities, these blueprints/master plans can lessen uncertainty and pave the way for risk-averse private financiers to invest in infrastructure deployment.

***Encourage collaborative procurements and bulk purchasing throughout the State and across state lines.***

Collaborative procurement programs have long been utilized by government agencies to access discount bulk pricing, gather required capital threshold for improved financing rates, and to create administrative efficiency through reduced procurement barriers and knowledge transfer. Also, private operators are looking to standardize their equipment purchases and identify technologies and infrastructure suitable for their many corporate locations within – and beyond – California. Thus, CEC should consider offering funds for collaborations among operators within California, and ideally, outside of California, in order to take advantage of bulk pricing and the inherent need to standardize equipment purchases.

***Make the results of current EV charging and demonstrations projects easily and publicly available to highlight the risks for potential investors.***

CEC and other state agencies have invested significant dollars in a wide diversity of EV projects; broadly sharing the results of these projects, even as these projects are underway, can highlight the



specific challenges of deploying EV charging infrastructure, thereby reducing the uncertainty for private investors.

### **PROJECT PROPOSALS**

In light of the comments above, the Port proposes the following concepts for future funding under the Clean Transportation Program in order to better attract private investment.

#### ***Master plans for EV charging infrastructure deployment***

Project-specific master plans will result in engineering designs, construction plans, and comprehensive financing strategies that greatly enhance a project's chance of near-term execution and long-term sustainability. There are almost no ways to finance a master plan as an end deliverable; thus, public funding, particularly from the CEC, would play a critical role. A thoughtful master plan identifies all potential risks and provides clarity on the return-on-investment in the near term, thus attracting private investors in the mid- to long-term to execute the plan and deploy the infrastructure and equipment. Such plans for a port terminal are estimated to cost \$500,000-\$1,000,000.

#### ***Bulk purchasing programs***

If possible, CEC should explore collaborations with other states, particularly on the West Coast, to expand bulk purchasing opportunities, and/or explore awarding funds to innovative private collaborations rather than a single entity. Such programs could bring down costs and uncertainty for private investors.

### **CONCLUSION**

The Port of Long Beach would be very interested in participating in one-on-one meetings and clean transportation financing and investment workgroup meetings. We thank you for the opportunity to comment and look forward to continuing to partner with the State and the Energy Commission to cost-effectively and rapidly achieve our mutual goals of strengthening our economy while reducing emissions to safeguard human health and the environment. If you have any questions about any of these comments, please e-mail Morgan Caswell, Manager of Air Quality Practices at [morgan.caswell@polb.com](mailto:morgan.caswell@polb.com) or call her at (562) 519-2807.

Sincerely,

Matthew Arms  
Acting Director of Environmental Planning  
Port of Long Beach