



*Meeting No. 2022-28*

**San Pedro Bay Ports  
Sustainable Supply Chain Advisory Committee  
*March Meeting Summary***

**Date:** March 16<sup>th</sup>, 2022 | 11:00 am – 3:00 pm

**Location:** Via phone conference

**Attachments:** Attachment A - Attendees  
Attachment B - Meeting Agenda  
Attachment C - Presentation - Committee Meeting

***Meeting Summary***

1. Review & Approve January Meeting Summary
  - a. The meeting summary was approved. *GNA will post it on the Committee's website.*
2. Review & Approve Draft Recommendations
  - a. AHJ Permitting Efficiency & Responsiveness
    - i. GNA updated the Committee that the members are working to identify a time to meet and discuss proposed edits before the May committee meeting. *GNA will continue to support this effort.*
3. Port Opening Remarks
  - a. Both ports continue to operate in a primarily remote working environment but are separately approaching hybrid models. The ports do not have an expected timeline for the SSCAC to convene in-person.
  - b. The port complex continues to see positive results from its vessel management system introduced in late 2021 to address the record at-anchor congestion in San Pedro Bay. As of March 14<sup>th</sup>, three ships were at-anchor within the Safety and Air Quality Zone, 42 ships were staged just outside of the zone, and another 40 were slow-steaming towards the ports. This is significantly reduced from the January 9<sup>th</sup>, 2022 peak of 109 ships at-anchor.
    - i. PMSA commented that the system is having a significant, positive effect on emissions not just in the SPBP area but also globally. Slow-steam vessel activity generates fewer emissions than fast-steaming travel.
  - c. The ports added that the announced fees for container dwell time continue to reduce dwell times. Latest records show that they are now 51% of the early November 2021 level and that the share of empties is only 33% (down from 40% in that same time frame). This downward trend suggests that the industry is correcting, and so the fee has not been implemented while this correction takes place.



- d. The POLA shared that it is focused on several environmental programs. Its Green Corridor program is expected to launch in November 2022 to support emissions reductions in the marine vessel segment. The port is actively engaged with shipping lines, fuel providers, and the port of Shanghai about emissions targets and measurement methodologies. Staff noted that the international geopolitical landscape is presenting some challenges but that all parties are working to remain focused on a timely program launch. The port is also working with the Port of Seattle to define infrastructure requirements for its new cruise ship program.
- e. Both ports emphasized that their work on technology adoption and emissions reductions are being conducted with a shared goal of establishing sister corridor dynamics between major partner ports of call, rather than competitive dynamics.
- f. Finally, both ports reported that they are actively tracking funding and grant opportunities for zero emission (ZE) technology with a focused interest in hydrogen hubs. Ports staff invited Committee members' insights and recommendations.

#### 4. SSCAC Member Priorities & Activities

- a. SSCAC Members Open Forum
  - i. EarthJustice noted that there is a large amount of funding available from the state and federal governments over the next six months. This week, the South Coast AQMD is also expected to discuss funding opportunities that it will be releasing to support drayage trucks. Finally, some modifications were made to existing programs such as CMAQ which open the door for freight applications. EarthJustice is assembling a tracker to understand the size and status of these funding programs and asked if the ports could advise on their strategy to pursue and apply these resources towards the CAAP goals.
    - Both ports welcomed the observation and asked if the tracker could be shared to support a group discussion, noting that such a resource would be useful for their funding applications and advocacy efforts. POLA requested that an agenda item for this conversation be added to a future meeting. POLB emphasized that some funding resources that previously did not support port applications are being re-defined, and that as the landscape of resources changes it's important for the ports to involve partners and thinking regionally.
    - EarthJustice added that approaching funding applications with a focus on benefits to the local community is a valuable strategy.
  - ii. FuturePorts supported the request for a master list of funding resources and potential applications but cautioned that the CMAQ program is an important resource for transportation organizations in San Bernardino, Riverside, and Orange counties. FuturePorts recommended that the ports proactively engage these groups to identify synergies and co-benefits of sharing these funding resources.
    - EarthJustice offered to compare the latest-published guidelines for the program with prior guidelines to confirm what terms have changed regarding use of funds for freight applications. This information will be circulated in the coming weeks.



- b. New Representatives: ILWU, Teamsters
    - i. ILWU representative Sal DiCostanzo provided a self-introduction to the Committee, noting that 50% of ILWU’s membership lives within 5 miles of the port complex, and 75% within 10 miles - they are directly affected not just at work but also at home by the ports’ operations and planning decisions. Teamsters representative Rob Nothoff also introduced himself to the Committee, noting that as an employee of the LA County Federation of Labor (of which the Teamsters is a member) he provides a diversified and broad lens on labor issues. The Federation has 300 locals in Los Angeles representing approximately 800,000 workers in a variety of trades including drayage truck driving. Both representatives expressed enthusiasm for working towards shared goals with the Committee.
  - c. New Member TBD: CEC
    - i. GNA updated the Committee that Commissioner Patti Monahan’s office is evaluating an invitation for the CEC to join the SSCAC as a member.
5. Update on CARB Activities
- a. Advanced Clean Fleet (ACF) rulemaking
    - i. CARB updated the Committee that it is monitoring the impacts of global geopolitical dynamics, including the COVID-19 pandemic and the war in the Ukraine, on the vehicle and fuel industries’ supply chains. The agency is also collaborating with partner agencies and organizations to understand the impacts of such market forces on the ACF’s regulated entities and incorporate exemptions and exclusions as needed to accommodate these impacts.
    - ii. The agency is currently addressing comments received on its draft rule on several topics which include: ZEV infrastructure availability and installation timelines; ZEV manufacturing lead times; inflation; small business sensitivities in a volatile market; and public health concerns. CARB intends to host a working group meeting on infrastructure in April, and a public meeting to share the updated draft language and discuss breakthrough truck categories, timelines and other key changes in May. In the interim, CARB staff notified the Committee that the CEC is producing a report on ZEV Infrastructure Planning which will address near- and long- term implications of California’s ZEV targets for the electric grid, permitting requirements, interconnection concerns, and charging standardization. CARB expects that this report will add some useful quantitative results to the industry’s discussion of the ACF.
    - iii. Representatives from Mayor Eric Garcetti’s office expressed concern that CARB’s proposed timeline for implementation and compliance under ACF does not align with known, real timelines and economics of ZEV adoption. In one example discussed, a fleet recently reduced its ZEV purchase plan from 100 units to 30 based on the voucher limits applied to HVIP for 2022 and instead ordered 70 natural gas vehicles to make up the difference. These trucks will be on the road for approximately 10 years as a result of limited funding and poorly aligned emissions reduction requirements.
      - CARB responded that it is working to move the regulation through the approval process as quickly as possible so that fleets can plan



accordingly with the available resources. Incorporating exemptions and extensions are also an important piece of the rulemaking so that the rule may be relevant in an ever-changing business environment. Limitations on the HVIP program were acknowledged as a common concern, and CARB shared that the agency is discussing this in more detail over the next funding year. Its policies are intended to ensure an equitable distribution of funds.

- iv. POLB asked for clarification on CARB’s coordination with GoBIZ and the Governor’s office, and whether there is a clear and shared definition of a “new normal” business environment. POLB noted that while the ports remain firmly committed to their CAAP that this work is affected by decisions made by CARB and other government offices, and the assumptions used by these entities may not align or may change in a short period of time.
  - CARB said that it is in touch with GoBIZ about aligning market trends “on the ground” with the regulation, and added that staff are preparing to discuss new and emerging challenges in detail with the Board when they present the rule for approval at the end of the year.
  - EarthJustice observed that the regulation, and the ports, should be looking at updated economic and environmental data equally when considering the regulation’s impact. The quality and understanding of emissions data in the freight industry has changed since the last CAAP update in 2017, for example. EarthJustice advised that the “new normal” will make it harder for the region to achieve air quality attainment targets, which are goals that CARB shares with the South Coast AQMD. EarthJustice urged that accounting for economic shifts should not delay the regulation.
  - The Harbor Trucking Association (HTA) countered that compliance expectations should be adjusted based on fleets’ current experiences with supply chain constraints. For example, many will operate old and/or used trucks longer than they may have otherwise.
  - GNA asked whether CARB is addressing the possibility that a significant share of the ports’ drayage fleet drops out of the registry at the end of 2022 if they cannot meet the proposed ZE standard.
    - a. CARB responded that they are currently reviewing letters and comments on this subject and that they aim to design funding programs to prevent fleets from being forced to choose diesel.
- v. PMSA shared three concerns about the interaction between CARB’s proposed ACF rule and the Truck and Bus rule:
  - First, fleet requests for exemptions under the Truck & Bus rule are due on 1/31/23 which is after requirements under the ACF go into effect. How will the ports know which trucks have received an exemption and therefore may continue to provide drayage service?
    - a. CARB clarified that the request for an extension due to manufacturer delay is due by 9/30/2022, and that the fleet is only required to report against that by 1/31/2023. Staff also advised that it is developing a consolidated database for vehicle



- compliance status and records. Based on PMSA's comment, they will continue to think through what types of exemptions and extensions may be required.
- b. HTA and PMSA agreed that, as written, the rule is not clear on how CARB, or the ports, would know if a vehicle is operating under an exemption between 1/1/23 and 1/31/23. CARB staff agreed to consider a revision to its language, and coordinate with the agency's team on the Truck & Bus rule.
- Second, a fleet that orders a truck at least four months ahead of the ACF deadline but doesn't receive it before the ACF's in-service deadline of 11/1/2023 would risk being penalized.
  - Utility timelines to provide supporting infrastructure are approximately 24 months for Tier 3 operating requirements, the level that would most commonly be required for port services. An 11/1/2023 deadline for port drayage operations does not allow the ports and utilities enough time to provide necessary supporting infrastructure for the vehicles that could be deployed by that date.
    - a. CARB reported that it is asking utilities for more specifics on their timelines, noting that prior forecasts were general. More details on this element of ZEV adoption will be discussed in the agency's public meetings, in the spring.
- vi. POLB noted that CEQA is a consistent challenge for project development, in and outside of the port complex. It requested that agencies and stakeholders consider CEQA requirements and timelines as they develop regulations and provide support for obligated parties to navigate this process. Streamlined procedures and funding support were recommended.
    - CARB staff acknowledged the comments and advised that its current round of stakeholder discussions and comment review attempts to move the infrastructure discussion from the 50,000-foot level and into more granular details that obligated entities will encounter.
  - vii. HTA advised that it would help fleets to see exemption reporting requirements as soon as possible so that they can prepare. Additionally, it cautioned that while linking reporting systems for vehicle registration and compliance is key, there should be no risk to fleets of a registration being terminated or suspended prematurely due to lack of communication between a regulatory agency and the DMV when a fleet's vehicle is granted an exemption.
    - GNA requested that CARB provide more details on equity considerations, noting that the drayage industry is comprised of many lower income, minority and/or immigrant individuals as well as small business. These drivers cannot afford new trucks and have few economic opportunities if they are no longer able to work in the port sector. The Teamsters called the Committee's attention to State Bill 338 and Assembly Bill 794, passed in 2021, which stipulated labor law compliance requirements for the drayage industry and the broader goods movement and logistics industry as they receive funding for and



transition to ZE technologies. Enforcement of these rules is crucial and must be considered by any agency drafting affiliated regulations.

- CARB responded that while labor enforcement is outside of its domain it is in discussion with relevant labor groups to ensure alignment.
  - ILWU reminded the group that the San Pedro Bay community has undergone several economic transitions and is familiar with the health risks of poverty. Movement on the environmental agenda must incorporate economic considerations. GridAlternatives expressed support for this statement and flagged concerns that the health care system may be overwhelmed not just during the pandemic but in the long term as well, and unable to support communities that are disproportionately impacted by air pollution and the high costs of compliance.
- viii. GNA encouraged CARB to invite members of its Truck and Bus rule team to participate in future meetings regarding equity and fleet compliance with upcoming ZEV regulations.
- Members of the Committee expressed appreciation for CARB’s participation in this conversation, and attendance to their expressed concerns. The San Pedro Neighborhood Council noted that as another variant of the COVID-19 virus emerges in China, supply chain volatility remains top of mind and a paradigm shift towards US manufacturing may be on the horizon with numerous implications.
- b. eTRU
- i. CARB updated the Committee that it completed the board review process for the 2022 amendments to the eTRU rule in February and is now preparing the Final Statement of Reason and submitting the rule to the Office of Administrative Law. The rule was first adopted in 2004 and was amended in 2010 and 2011; the next version is expected to become effective on July 1, 2022. This version primarily addresses requirements for truck eTRUs (e.g. devices that are attached to a straight truck), but the 2025 amendment to the eTRU rule is expected to specify compliance rules for eTRUs connected to trailers, railcars and shipping containers.
  - ii. The 2022 amendments address emissions by stipulating refrigerant specifications and establishing PM standards starting with model year 2023. Based on a 15% annual turnover rate in the truck eTRU market, CARB anticipates that the fleet will be fully rotated by 2029.
  - iii. Comments about compliance timelines are currently being addressed with provisions and exemptions.
  - iv. CARB added that it is separately conducting an eTRU technology assessment which it will workshop publicly in May 2022.

## 6. Drayage Truck Electrification

### a. Status update - Clean Truck Program Implementation (Ports)

- i. The ports gave a joint presentation on the Clean Truck Program (CTP) (Attachment C). The fee collection is on track to begin on April 1, 2022, with costs being charged to the Beneficial Cargo Owner (BCO).



- ii. Reviewing the latest data from the PDTR, the ports noted that there are now 682 natural gas trucks in the registry, with 320 units certified to the 0.02g/bhp-hr NOx standard. While these natural gas trucks represent 3% of the drayage truck inventory, they are very active and performing 5% of the container moves.
- iii. The ports' fee collection software is going through final testing, and the ports will host a workshop on March 22<sup>nd</sup> to prepare fleets for the transition. They will also open their registration portal a few days before the launch date of April 1, 2022, to avoid the system being overwhelmed and allow a few days for any remaining technical glitches to be resolved. Fleet outreach is being conducted in partnership with the HTA.
- iv. Responding to questions about a backup plan, the ports added that their tech support team will be available seven days a week, and that staff time will be dedicated over the first week or so of the program to monitoring and addressing issues as they arise. Additionally, the system was designed to resemble systems that drayage truck drivers and fleet managers used previously.
- v. ILWU reported that at least one marine terminal operator had encountered problems with the system prematurely blocking truck access to the terminal. The ports said that this had not been reported to them and they would follow up to learn more and address the issue.
- vi. Addressing the use of CTP funds, the ports shared their respective first year spending plans - each has a strong focus on supporting ZEV purchases with vouchers using a program design similar to CA's HVIP program. Recipients must demonstrate compliance with labor laws and must use the truck in a drayage application.
  - The Committee questioned POLA's dedication of funds to trucks only in year 1, and subsequent allocation of funds through a Technology Advancement Program (TAP). Members stated that infrastructure is a key concern once trucks do arrive and pointed out that reserving funds for technology demonstration suggests that the ports don't believe that the vehicles are commercially ready. POLA responded that manufacturer lead times indicate that trucks ordered in year 1 will not necessarily be delivered in that same period, and that the port believes the first step is to support fleets placing orders. Regarding the TAP program, POLA pointed out that technologies are continually evolving, and that future generations of ZEV trucks may benefit from additional funding to support innovations that are important for the drayage segment. Additionally, the ports' respective spending plans after Y1 are subject to board approval each year, and therefore are subject to change according to the need.
- vii. Addressing next steps, the ports said that they will be implementing program monitoring systems and engaging the public on their long-term spending plans. They are particularly attentive to protecting drivers from program fees.
- viii. Mayor Eric Garcetti's office requested specifics regarding when program funds would become available to fleets, how infrastructure funding would be distributed, and how programs would be administered when partners such as CALSTART are involved.



- The ports were unable to provide a fixed date for funding availability, noting that the program's rate of revenue accumulation would only be determined with time. The ports added that they are also considering the most efficient methods for transferring and awarding funds. Monitoring program performance is an important first step to refining the funding plan. The ports do not plan to provide additional funding to kickstart the program.
  - Where possible, the ports are seeking to partner with organizations that have experience or are currently providing ZEV infrastructure funding to streamline the process. POLA added that it will bring a proposal from CALSTART to its board on March 24<sup>th</sup> along with the ports' own funding plan, and request approval of both simultaneously so that there is no delay implementing a partnership to manage and distribute voucher funds. POLB will also be considering information gathered from an RFI regarding ZEV infrastructure development for port drayage operations, which is currently active (see item 6.b.iv.).
- ix. HTA pointed out that many fleets do not own the land they occupy and that this creates a fundamental barrier to adopting fueling infrastructure. Although POLB has presented a study on potential sites for public charging hubs, HTA found that POLA's support for fleets is lacking. Overall, POLA's efforts to develop public charging facilities was considered absent or insufficient.
- POLA clarified that while its Y1 funding will focus on truck acquisitions it expects to address the infrastructure question in the period between issuing vouchers and vehicle delivery. It expects that the results of its study under the Volvo LIGHTS project will provide valuable information.
  - POLB added that it is proposing that 25% of its funds be used to offset infrastructure capital costs, and that through its RFI it hopes to evaluate opportunities for public charging inside the port gates. Adding that the ports' boards will determine whether their funding allocation proposals are appropriate, POLB encouraged HTA to share its concerns with the boards.
- x. EarthJustice commented that the program is not intended to be a major emission reduction program and that the 2020 analysis on the truck fee likely under-estimated the real fee amount required to have a measurable climate effect. EarthJustice supported the proposed use of funds including dedicating a share to continued technology development.
- b. Zero Emission Infrastructure for HD Trucks
- i. CARB Incentive Financing
    - Due to time constraints, this agenda item was addressed first.
    - CARB staff summarized their available truck loan programs and enrollment requirements, noting that they has been successful across several technology types and that the agency continues to see demand. Per State Bill 372, CARB will continue to work with state agencies to introduce funding programs that support the ZEV transition goals adopted across the state. The agency noted that additional funding is





needed to fully support ZEV funding in the HD segment. A meeting will be held on March 22<sup>nd</sup> for public discussion.

- HTA commented that its members could provide some useful information in shaping these incentive programs, and the two organizations agreed to discuss separately.
- ii. Overview of regional blueprint projects
  - GNA presented a summary of the regional blueprint projects that were awarded and/or active in 2021 and 2022 with varying degrees of relevance to the joint ports. GNA observed that nearly 30 projects are active or in development, and that results are expected to become available in 12-24 months. The CEC intends to coordinate a series of public workshops for these results to be shared, although a timeline is not yet available. For individual project details, see **Attachment C**.
- iii. Volvo LIGHTS Infrastructure Study
  - GNA provided a summary of the preliminary findings from the Volvo LIGHTS project's study of the potential for public BEV Class 8 drayage truck charging near POLA. The study considered two adjacent parcels in the Wilmington, CA area which could host a total of 40 150 kW DC fast chargers for dedicated drayage truck charging. These sites would support inland-bound drayage trucks requiring sufficient charging to return to their home base, where complete charging would be provided.
  - The preliminary findings included that a majority of the target truck trips could be facilitated with charging sessions lasting 48 minutes or less, but that utility upgrades would be required to meet peak load. These upgrades would require the site owner to choose between power capacity and charger quantity, due to space constraints.
    - a. Mayor Eric Garcetti's office noted that industrially-zoned land allows for locating utility equipment off the ground, and recommended that site selection consider this as a criteria insofar as it addresses space constraints. HTA recommended that POLA include industrial zoning in its criteria for community as well as safety reasons, and emphasized that the port should be attending to all needs and considerations in order to support HTA's members who will rely on public charging.
      - i. POLA recommended that it schedule a separate conversation with HTA about how to address its members' charging needs.
    - b. ILWU asked whether an appointment system would be adopted, and GNA clarified that the study was not intended to address that level of detail. As potentially the first such truck charging hub, however, the implementation could include a number of standard and innovative drayage truck features. GNA added that one parcel was capable of supporting fully-loaded trucks, while another was only capable of supporting bobtail trucks (or, trucks without their cargo). HTA and ILWU noted that this limitation is an important feature to address during design



since communities are sensitive to trucks staging their containers and cargo on public streets.

iv. Port RFI - Public Charging Technology and Infrastructure Needs

- POLB presented on its currently-active RFI for BEV drayage truck charging requirements. Based on the results, the ports will consider issuing a formal RFP; engaging with a respondent on a particular effort; and if no productive action is apparent, not taking any immediate steps forward. All responses are due by March 29<sup>th</sup> and the review process will take place over the subsequent weeks.
- EarthJustice asked POLA whether it would consider a similar RFI or approach, reiterating HTA's comment that it is not clear how POLA is taking actions to support drayage truck fleets. POLA noted that it does not have much available land that could support public charging efforts, but that it hopes to reconsider its opportunity to develop public charging in its conversation with HTA.

c. Discussion - Funding Advocacy

- i. GNA prompted the group to reflect on funding opportunities. Mayor Eric Garcetti's office suggested that bundled acquisitions that include land and charging infrastructure installations could be one approach. EarthJustice observed that thinking about funding opportunities is required across all port technologies, not just trucks. It proposed evaluating known funding resources for what the estimated SPBP fair share allocation would be, to develop an informed estimate of available funds.
  - ILWU noted that fair share has been a challenge for many years, and it supported a creative approach on this issue.

7. Conclusion & Next Steps

- a. Next Meeting: May 18<sup>th</sup>, 2022 - Marine Vessels
- b. Upcoming Agendas:
  - i. July: Increased Efficiency & On-dock Rail
  - ii. September: Workforce development
  - iii. November: ZE Trucks & CHE implementation



**Attachment A**  
List of Meeting Participants

<b>SSCAC Committee Members</b>	
Marnie Primmer	FuturePorts
Michele Grubbs	PMSA
Thomas Jelenic	PMSA
Matt Miyasato	South Coast AQMD
Richard Boyd	CARB
Chris Chavez	CCA
Stella Ursua	Grid Alternatives
Sal DiCostanzo	ILWU-13
Adrian Martinez	EarthJustice
Louis Dominguez	San Pedro Neighborhood Association
Matt Schrap	Harbor Trucking Association
Rob Nothoff	International Brotherhood of Teamsters (rep'd by the LA County Federation of Labor)
<b>Los Angeles Port &amp; City Staff</b>	
Teresa Pisano	Port of Los Angeles
Chris Cannon	Port of Los Angeles
Tim DeMoss	Port of Los Angeles
David Libatique	Port of Los Angeles
Michael Samulon	Mayor Eric Garcetti's Office
David Ou	Mayor Eric Garcetti's Office
<b>Long Beach Port &amp; City Staff</b>	
Heather Tomley	Port of Long Beach
Rick Cameron	Port of Long Beach
Eleanor Torres	Port of Long Beach
Wei Chi	Port of Long Beach
Leela Rao	Port of Long Beach
Morgan Caswell	Port of Long Beach
<b>Meeting Facilitation Staff</b>	
Erik Neandross	GNA
Eleanor Johnstone	GNA
Patrick Couch	GNA
Christopher Davis	GNA
<b>Other Stakeholders</b>	
Jacob Haik	Councilman Joe Buscaino's Office
Lea Yamashita	CARB



Danielle Lawrence	CARB
Annmarie Rodgers	CARB
Andre Freeman	CARB
Regina Hsu	EarthJustice



## **Attachment B**

### **Meeting Agenda**

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2. Review & Approve Draft Recommendations
  - a. AHJ Permitting Efficiency & Responsiveness
3. Port Opening Remarks
4. SSCAC Member Priorities & Activities
  - a. New Representatives: ILWU, Teamsters
  - b. New Member TBD: CEC
5. Update on CARB Activities
  - a. ACF
  - b. eTRU
6. Drayage Truck Electrification
  - a. Status Update - Clean Truck Program Implementation (Ports)
  - b. Zero Emission Infrastructure for HD Trucks
    - i. Overview of regional blueprint projects (GNA)
    - ii. Volvo LIGHTS Infrastructure Study (GNA)
    - iii. Port RFI - Public Charging Technology and Infrastructure Needs
    - iv. CARB Incentive Financing
  - c. Discussion - Funding Advocacy
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**Attachment C**  
Presentation - Committee Meeting

# San Pedro Bay Ports

## Sustainable Supply Chain Advisory Committee Meeting

March 16<sup>th</sup>, 2022



# Agenda

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2. Review & Approve Draft Recommendation
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4. SSCAC Member Priorities & Activities
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  2. eTRU
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1. Review & Approve January Meeting Summary

## 2. Review & Approve Draft Recommendation

- a. AHJ Permitting Efficiency & Responsiveness

### 3. Port Opening Remarks



## 4. SSCAC Member Priorities & Activities

- a. New Representatives: ILWU, Teamsters
  - i. Sal DiCostanzo, ILWU Local 13
  - ii. Rob Nothoff, Policy Director, LA County Federation of Labor
- b. New Member: CEC
  - i. Patti Monahan, Commissioner

## 5. Update on CARB Activities

- a. ACF
- b. eTRU

## 6. Drayage Truck Electrification

- a. Status update – Clean Truck Program Implementation (Ports)
- b. Zero Emission Infrastructure for HD Trucks
  - i. Overview of regional blueprint projects (GNA)
  - ii. Volvo LIGHTS Infrastructure Study (GNA)
  - iii. Port RFI – Public Charging Technology and Infrastructure Needs
  - iv. CARB Incentive Financing
- c. Discussion – Funding Advocacy



SAN PEDRO BAY PORTS | CLEAN AIR ACTION PLAN



SAN PEDRO BAY PORTS  
**CLEAN AIR ACTION PLAN**

**Clean Truck Fund Rate**

**Year 1 Spending Plan Proposals**

Sustainable Supply Chain Advisory Committee  
March 2022





## Joint Port Trucks Snapshot\*

- 20,176 trucks are in the Port Drayage Truck Registry (PDTR)
- 8,547 2014+ trucks registered in the PDTR and make 54% of moves
- 73% of trucks in the PDTR have engines meeting 2010 EPA standards
- 27% of trucks in the PDTR are engine year 2007-2009
- 682 LNG/CNG trucks are in the PDTR and perform 5% of moves
- 28 Zero Emission trucks in the PDTR

\* Data from January 2022





## Clean Truck Fund Rate

- Beginning April 1, 2022, charge \$10 per loaded TEU or \$20 per loaded FEU
  - Charged to BCOs for loaded containers hauled by truck
  - Zero emission trucks exempt
  - Specific exemptions for early purchases of low NOx trucks
- Potential to generate approximately \$80-90 million per year initially (both ports combined)



## CTF Rate Implementation Outreach

- Software development by Port Check – ready to launch
- Tutorial Workshops for System Users
  - January 25 & March 22
- Port Check User Experience Guide
- Outreach to Harbor Trucking Association
- E-blasts, press releases, FAQs, Fact Sheets, etc.

# Clean Trucks Fund Rate

How will the funds be used?

## CAAP Strategy:

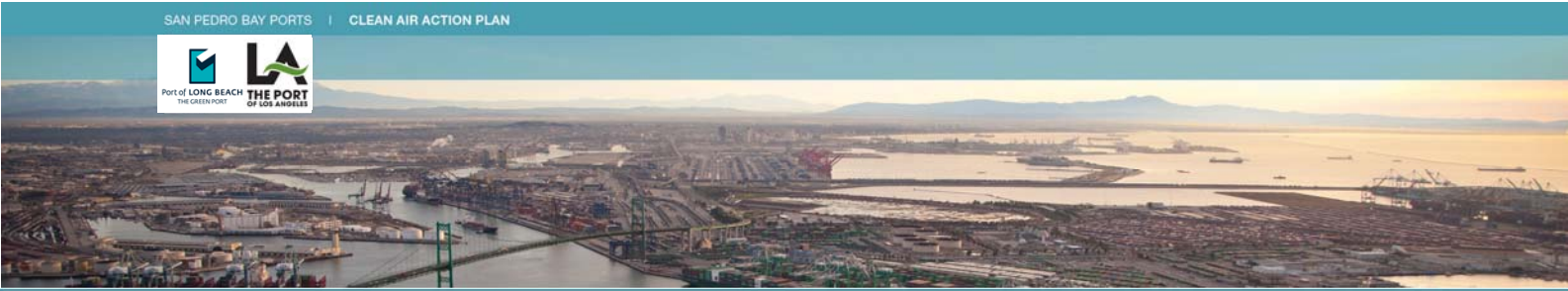
- Direct funds to trucking initiatives
- Accelerate deployment of clean drayage trucks, ultimately achieving 2035 zero emission goal
- Small amount for administrative expenses



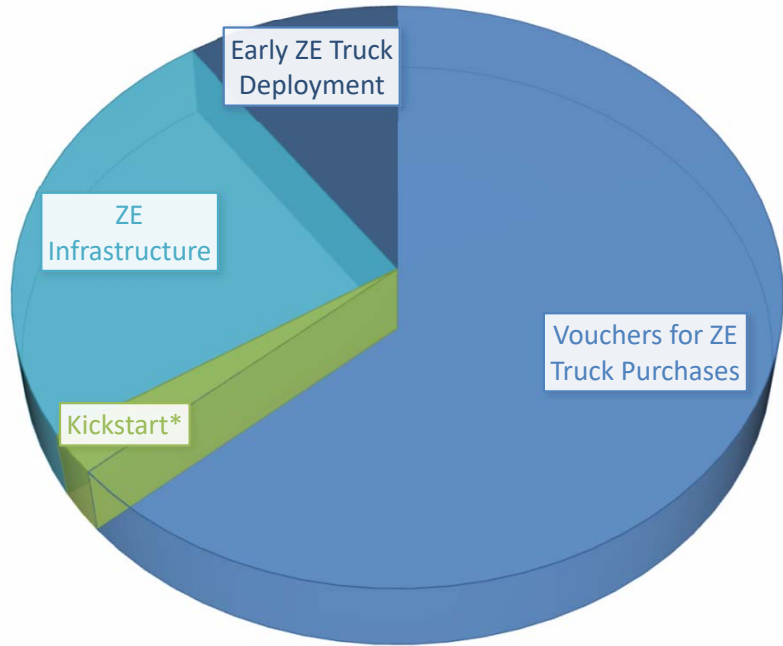


## Funding Objectives for Year 1

- Funded trucks must be deployed in port drayage service
- Support early adopters
- No money to companies identified to have labor law violations
- Leverage CTF Rate funds against other funding programs
- Transparency



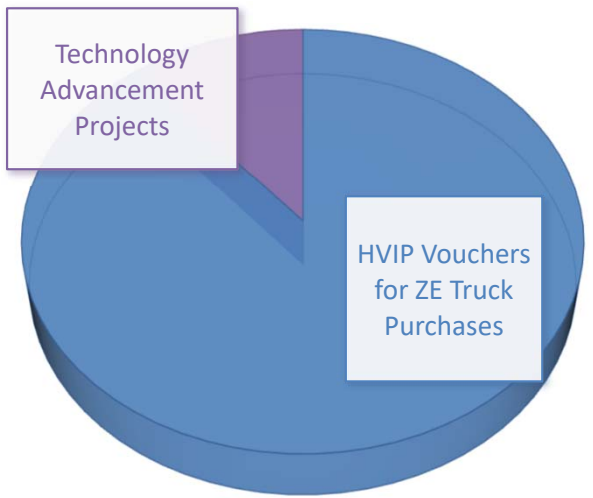
# Proposed POLB Year 1 Spending Plan



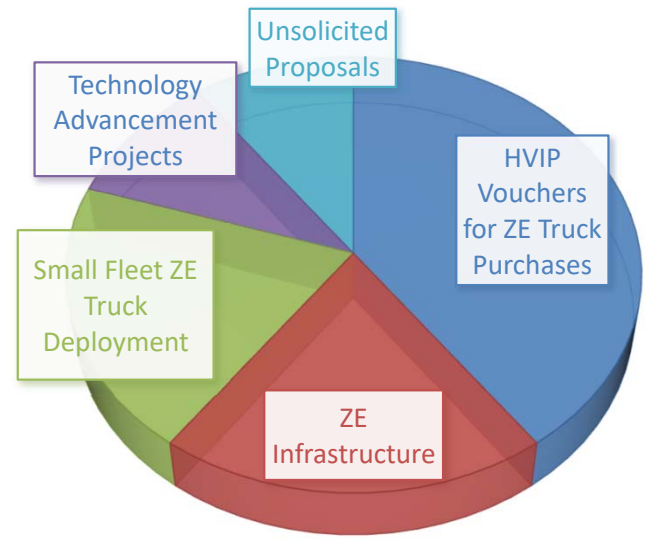
\* Previously approved



# Proposed POLA Spending Plan



Year 1



Future Years (Details TBD)



## Next Steps

- Both ports to closely monitor implementation
- Evaluate if any near-term adjustments needed
- Public engagement and input into longer term spending plan
- Anticipate in early 2023 to seek Board consideration of funding priorities for year 2



Thank you!



## 6.b.i. Overview of Regional ZEV Blueprint Projects

At least 10 blueprint projects are actively developing plans and opportunities for MD/HD ZEV fueling/charging infrastructure in areas that directly support the San Pedro Bay Ports' drayage truck fleet. These are being executed by public and private entities, and are funded by the CEC, CARB, and private sources.

Another 16 projects awarded by the CEC are developing or will soon develop blueprints for MD/HD ZEV infrastructure in support of goods movement in California.

Speaking to the SSCAC in May '21, the CEC recognized that it is best situated to coordinate the efforts and results of its funded ZEV blueprint projects to ensure actionable results for the industry.

As of March '22, the CEC continues to work through final steps to issue awarded contracts and a Technical Advisory Committee has not been assembled. The CEC does intend to provide one or more workshops for awardees to present their blueprints and findings to the public and answer questions from fleets and agencies. More details will be provided as blueprints are completed.

*Projects were awarded in Q2 '21 under CEC's GFO-20-601; a second tranche of funding was issued in November '21*

## 6.b.i. Overview of Regional ZEV Blueprint Projects

The following three projects are active or approaching their first phase and are directly relevant to the SPBP's drayage fleet.

Project Name	Funding Agency – Project Size – Partners	Scope	Status
Electric Truck Research Utilization Center (eTRUC; formerly RHETTA)	CEC/EPIC • \$19.3MM • EPRI, CALSTART, Burns & McDonnell, Cambridge Systematics, GNA, GRID Alternatives, MMX, Momentum, ORBCOMM, Paul International, SCE, SCAG, Travel Centers of America, UC Riverside, LBNL & NREL	Create a research hub to develop, test, and implement two high-power BEV charger facilities in the San Pedro area and the Inland Empire for trucks supporting the SPBPs. Create an online freight heatmap, and a plan for a state-wide charging corridor network. Involve impacted communities throughout the project and develop a workforce development strategy.	Active, 2021 – 2026
ZE MD/HD Infrastructure Study (component of eTRUC)	CEC • \$1MM • SCAG	Investigate opportunities for public charging and hydrogen fueling stations intended for the MD/HD vehicle markets; identify cost and timelines to construct facilities at 10 specific sites. Gain a better understanding of the link between vocational requirements and charging/fueling constraints, and the impact on strategies to locate networks for public access charging/fueling infrastructure to support ZE truck adoption in the SCAG region. Produce primer for local governments on creating efficiencies for the transportation industry.	Delayed, expected start in First Half of 2022.
Volvo LIGHTS	CARB • \$90MM • Volvo Group & Trucks, South Coast AQMD, CALSTART, Dependable Supply Chain, DHE, Greenlots, NFI, POLA, POLB, Reach Out, Rio Hondo College, San Bernardino Valley College, SCE, TEC Equipment, UCR CE-CERT	Demonstrate the ability for HD BEV trucks, yard trucks, and forklifts to reliably move freight between the SPBPs and regional warehouses in a cleaner, quieter operation than conventional diesel. Assess regional charging infrastructure requirements to support a fleet-wide deployment of BEV drayage trucks.	Active, 2021 – 2022

## 6.b.i. CEC ZEV Blueprint Projects of Direct Relevance

35 ZEV Blueprint projects were awarded under the CEC's GFO-20-601 in 2021. GNA has identified 10 of direct relevance and 16 of indirect relevance to the SPBP drayage fleet.

Project Name	Award Size – Project Lead	Scope	Status & Projected End Date
City of Long Beach Blueprint for MD/HD ZEV Infrastructure	\$200K - City of Long Beach	Develop & undertake a coordinated, holistic implementation strategy for deploying MD/HD ZEV fueling and charging infrastructure to directly plan its own municipal fleet transition and help enable private fleet transitions within the City boundary.	Active through Q2 '23
A Comprehensive and Replicable Blueprint of MD/HD Fleets in the South Coast Air Basin Transitioning to Zero-Emission Options	\$200K - Regents of UC Irvine	Develop a blueprint for electric charging and fueling infrastructure to support MD/HD ZEVs for the South Coast Air Basin. Vocation-specific requirements will be considered for transit, drayage, and long-haul ZEV deployment.	Active through Q4 '23
Developing a MHD ZEV Infrastructure Blueprint for the South Coast	\$200K - Regents of UC Riverside	Create a roadmap for the South Coast region to 1) identify and develop renewable fuel and electricity sources for HD vehicle refueling/recharging and 2) to design and build critical refueling and maintenance infrastructure.	Active through Q1 '23
A Comprehensive and Replicable Infrastructure Blueprint for MD/HD ZEVs Operating at a Port Terminal	\$200K - Regents of UC Irvine	Develop a comprehensive and replicable infrastructure blueprint to support MD/HD ZEVs and equipment at a marine terminal at the Port of Long Beach.	Active through Q1 '23
SPARC Blueprint Project	\$200K - Oxnard Harbor District - The Port of Hueneme	Develop a planning blueprint that identifies actions and milestones needed to implement MD/HD ZEVs and their related electric charging and/or hydrogen refueling infrastructure for goods movement at the Port of Hueneme.	Active through Q2 '23
An Investment Blueprint for HD Charging to Support Battery-Electric Drayage along the I-710 Corridor	\$199,892 - LACI	Create an investment blueprint for heavy-duty charging depots adjacent to the busy I-710 freight corridor that will support Class 8 BEVs serving the San Pedro Bay Ports. This blueprint will identify priority locations for public and private HDV charging infrastructure.	Active through Q4 '22
Innovate and Empower the Inland Empire to the Ports	\$200K - InCharge Energy	Create a MD/HD Vehicle Blueprint for The Inland Empire and I-710 Corridor.	Active through Q4 '22
MHX Intermodal Electrification Blueprint for Heavy Goods Movement	\$200K - MHX, LLC	With POLB and leading terminal operators SSA Marine, Pasha, Maersk, Union Pacific, and BNSF, plan for and advance the electrification of both the MHX Fleet and its inter-modal partner operations that connect marine, rail, and over-the-road systems.	Active through Q1 '23
Blueprint for High Efficiency HD Hydrogen Refueling Infrastructure	\$199,996 - Linde, Inc.	Plan to build a high-volume renewable hydrogen fueling station to support the pending commercialization of MD/HD FCEV trucks, starting as early as 2024, for those trucks traveling the I-10 and I-15 corridors and from distribution centers in East LA and San Bernardino County.	Pending execution; expected through Q3 '23

## 6.b.i. CEC ZEV Blueprint Projects of Indirect Relevance

Project Name	Award Size – Project Lead	Scope	Status & Projected End Date
Central Coast MD/HD ZEV Blueprint	\$200K - Central Coast Community Energy	Develop a blueprint to address the needs of all communities in the five-county region, to integrate with existing electrification initiatives and to comprehensively address vehicle-grid integration issues from a utility perspective.	Pending execution; expected through Q4 '23
ZE MD/HD Vehicle Infrastructure Blueprint for Goods Movement in Alameda and San Joaquin Counties	\$383,398 - East Bay Community Energy	Develop a MD/HD ZEV Infrastructure Blueprint for Goods Movement that when fully implemented will establish Alameda and San Joaquin Counties as a success market for zero-emission Class 3-6 goods movement.	Active through Q1 '23
Kern MD/HD ZEV Infrastructure Blueprint Plan	\$199,929 - Kern Council of Governments	Develop a plan for MD/HD ZEV infrastructure. The Plan will identify major gaps in infrastructure for ZE trucks and buses, community needs, available technology solutions, and ultimately a set of high-impact 'shovel-ready' infrastructure projects.	Active through Q1 '23
San Diego Regional MD/HD ZEV Blueprint	\$200K - San Diego Association of Governments	Create a regionally accepted, comprehensive strategic Blueprint summarizing existing barriers to ZEV adoption, available and emerging innovative ZEV technologies, as well as near- and long-term planning objectives.	Active through Q1 '24
Port of Stockton MD/HD Electrification Blueprint	\$200K - Port of Stockton	ID and address barriers to ZEV adoption relevant to the Port's fleet and utility infrastructure, its tenants, its industry partners, and its own business model. Specifically, the blueprint will seek to address range anxiety, charging duration / timing constraints, impacts to local grid infrastructure, and how localized beachhead electrification projects can spur community and industry adoption of MD/HD ZEV technologies.	Active through Q1 '23
San Francisco's MD/HD EV Blueprint - Ensuring None are Left Behind	\$205,885 - San Francisco Department of the Environment	ID actions, policies, innovations, and incentives to create a charging infrastructure to serve all MD/HD ZEVs, particularly those with fewer than 50 vehicles.	Active through Q1 '24
North Coast MD/HD ZEV Readiness Blueprint	\$200K - The Redwood Coast Energy Authority	ID actions and milestones needed for implementation of MD/HD ZEVs and related charging and/or hydrogen refueling infrastructure in Humboldt County and surrounding areas.	Active through Q1 '24
Sacramento Region MD/HD ZEV Blueprint Planning Project	\$786,884 - Sacramento Municipal Utility District	Determine impact of the 20-year transition of MDV/HDVs from fossil fuels to ZE fuels will impact the local electric grid in Sacramento County and City of West Sacramento. ID potential refueling sites and determine options to integrate the associated electric loads from that vehicle deployment to create a Blueprint Plan that can help guide electric grid and vehicle placements in meeting state greenhouse gas reduction goals.	Active through Q1 '23

## 6.b.i. CEC ZEV Blueprint Projects of Indirect Relevance

Project Name	Award Size – Project Lead	Scope	Status & Projected End Date
Blueprint to Plug-In Porterville project	\$231,150 - CALSTART, Inc.	Develop a comprehensive strategy and plan for the installation of EVSE which will help to accelerate the deployment of MD/HD EVs in and around Porterville, CA.	Active through Q2 '24
Going for Gold: A blueprint to Catalyze MD/HD Charging Infrastructure Investments in the LA Region Preceding the 2028 Games	\$199,259 - LACI	ID how battery-electric options can support the transportation needs of the 2028 Olympic Games while catalyzing regional investment in MD/HD infrastructure to accelerate transformational deployments of ZEVs.	Active through Q4 '24
Blueprint for ZE Concrete Logistics	\$200K - Central Concrete Supply Co., Inc.	Develop an actionable and replicable electrification action plan for deploying MD/HD ZEVs—including material handling equipment, heavy machinery, concrete mixers, and Class 6-8 trucks—throughout its affiliated supply and service chains representing 23 California facilities.	Active through Q1 '23
California ZEV Highway Blueprint	\$200K - Pilot Travel Centers LLC (Pilot Flying J)	ID and address barriers to ZEV adoption relevant to Pilot's clients and its business model. The blueprint will seek to address range anxiety, charging duration / timing constraints, and impacts to professional truck drivers' hours of service regulations.	Active through hQ1 '23
STC Equity-Driven Public Access ZEV Charging Blueprint	\$239,005 - STC Traffic, Inc.	Develop an equity-focused MD/HD ZEV Blueprint to provide cost-effective ZEV charging for all members of the San Diego County freight and goods movement ecosystem, with a specific focus on Independent Owner Operators.	Active through Q1 '23
UNFI California Food Logistics System Electrification Blueprint	\$200K - United Natural Food, Inc.	Develop a replicable plan, where geography, route structure, and incentives are especially favorable to electrification of their 12 distribution centers and/or warehouses in CA.	Active through Q2 '22 (+extension likely)
Agricultural Goods Movement Blueprint	\$200K - SSA Pacific, Inc.	Establish a replicable strategy to create a ZEV on- and off-road logistics chain to support agricultural goods movement in California. The Blueprint effort is designed to focus its efforts on a unique and well-positioned market segment: agricultural goods movement. This focus captures important parts of California's rural economy and critical freight hubs, identifies a core market segment (the rice industry) that can be broadly replicated, and connects the entire goods movement system from food producer and processor to export.	Active through Q2 '23
Blueprint for hydrogen MD/HD vehicle and fueling station rollout	\$200K - Hydrogen Technology Ventures	Blueprint for hydrogen MD/HD vehicle and fueling station roll-out with a focus on Riverside county.	Awarded, agreement in development; timeframe TBD

## 6.b.ii. Volvo LIGHTS Infrastructure Study

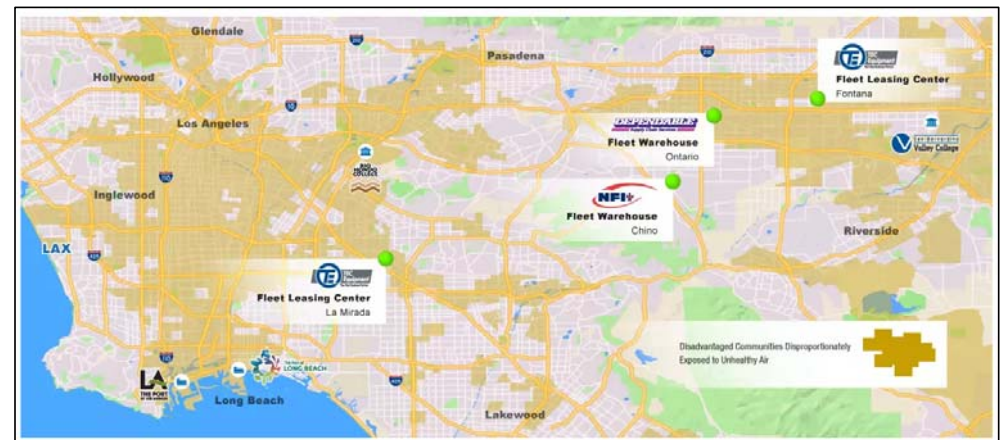


### Project Overview

The Volvo Low Impact Green Heavy Transport Solutions (LIGHTS) project is demonstrating over 30 Class 8 BEVs and eCHE alongside supporting fueling, energy generation and energy storage infrastructure in goods movement operations in Southern California. Fleets DHE and NFI are operating Volvo's VNRs at warehouses and freight facilities with support from dealership TEC Equipment. The project is funded under CARB's Zero and Near Zero Emission Freight Facility program (ZANZEFF) and executed in partnership with South Coast AQMD. It concludes in 2022 and project results are currently being compiled for final reporting.

### Infrastructure Study Component

As part of this project, POLA evaluated the potential for a nearby charging facility to support a significant portion of the BEV truck trips that will take place in a 2035 ZE drayage truck scenario. The evaluation considers local utility service capacity, available land area, and expected costs of charging.



Volvo LIGHTS Project Map

## 6.b.ii. Volvo LIGHTS Infrastructure Study



### **POLA Infrastructure Study – Preliminary Results**

A prospective near-port location for HD BEV drayage truck charging was evaluated for potential to support inland-based drayage fleets by providing supplemental charging needed to return to their regular charging facilities. Estimated charging demands were based on an analysis of NFI's fleet data for 2019 (via a prior study by Environmental Defense Fund). When applied to the full drayage fleet and combined LA/LB gate moves, an estimated 280 trips per day would require supplemental charging.

The prospective facility spans two parcels – 900 Alameda Street with 15 charging stations, and 1480 East I Street with 25 charging stations (all stations are rated at 150 kW). Preliminary results suggest that:

- 96% of charging demand can be met on an average day; 88% on a peak day, with forty 150 kW DCFCs
- 48 minutes or less of charging would give 87% of trucks enough power to complete their daily route.
- LADWP can support the forecasted load; peak load at the site would represent 0.1% of LADWP's 2020 peak.
- BUT
  - Power delivery to the site is limited to ~3,750 kW at low voltage. The full 6 MW load would require medium voltage delivery. Tradeoffs include adding utility equipment to accommodate a higher power delivery, but reducing the number of charging stations due to space constraints
  - Facility costs are estimated at \$5-\$7M but could be higher once access controls, POS systems, staffing, security, etc. are considered.
  - Delivered cost of electricity is estimated at \$0.22-0.30/kWh.

## 6.b.iii. Port RFI – Port Charging Technology and Infrastructure Needs



## 6.b.iv. CARB Incentive Financing



# **Truck Loan Assistance Program Overview**

# Background

- Provides financing assistance for truckers subject to the In-Use Truck and Bus Regulation for purchasing newer trucks
  - Helps qualified small-businesses that fall below conventional lending criteria, unable to qualify traditional financing
- Administered by the California Pollution Control Financing Authority (CPCFA) in State Treasurer's Office through the California Capital Access Program (CalCAP)

# How the Program Works

- CARB funds reduce risk for lenders so they can offer loans at reasonable rates
- CARB contributes premiums to lender loan loss reserve (LLR) accounts for each enrolled loan based on the size of each lender's LLR
  - 14% of loan amount if LLR less than \$500,000
  - 10% of loan amount if LLR \$500,000 or more

# Program Characteristics

- Loan interest rate limited to 20%
- Prospective borrowers enroll by contacting one of 28 lenders in the program
- Borrower must meet criteria
  - Maximum: 10 vehicles in fleet, 100 employees, \$10 million in annual revenue
  - Vehicle registered with California DMV
- Eligible purchases: trucks with 2010 and newer CARB-certified engines, trailers with eligible tractor

# Loan Program Activity

- Since launch in 2009, nearly \$194 million in contributions has been leveraged into over \$2.4 billion in financing for approximately 35,800 loans
- Continued Program Demand
  - Over 4,000 loans enrolled per year since 2018

# Zero-Emission Plans and the Loan Program

- Governor's Executive Order
  - 100% Heavy-Duty ZE where feasible by 2045 and by 2035 for drayage trucks
- SB 372 Directs CARB and CPCFA to Assist Fleets in Financing Heavy-Duty Zero-Emission Vehicles
  - Additional funding needed to support zero-emission vehicles

## 7. Conclusion & Next Steps

- a. Next Meeting: May 18<sup>th</sup>, 2022 – Marine Vessels
- b. Upcoming Agendas:
  - i. July: Increased Efficiency & On-dock Rail
  - ii. September: Workforce Development
  - iii. November: ZE Trucks & CHE Implementation



# Appendix: Committee Focus in 2022

Date	Theme	Specific Topics	Potential Guests
January 26 <sup>th</sup>	<ul style="list-style-type: none"> <li>SSCAC 2022 Level-Set</li> </ul>	<ul style="list-style-type: none"> <li>Updates from Members, Mayors, Ports on 2022 activities &amp; priorities</li> <li>Updates from CARB, Ports on funding programs, strategies</li> <li>Progress with existing SSCAC recs</li> <li>Definition of “sustainability”</li> </ul>	
March 16 <sup>th</sup>	<ul style="list-style-type: none"> <li>CTP Implementation &amp; ZE Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>CTP Implementation</li> <li>Regional blueprint projects</li> </ul>	<ul style="list-style-type: none"> <li>UCLA</li> <li>CEC</li> </ul>
May 18 <sup>th</sup>	<ul style="list-style-type: none"> <li>Marine Vessels – 2021 activity &amp; technology opportunity</li> </ul>	<ul style="list-style-type: none"> <li>Approach to the 2021 emissions inventory</li> <li>Commercial Harbor Craft regulation hearing</li> <li>SPBP Technology Feasibility Assessment</li> </ul>	<ul style="list-style-type: none"> <li>Thetius (IoT on vessels)</li> <li>Ballard (Fuel Cell propulsion)</li> </ul>
July 20 <sup>th</sup>	<ul style="list-style-type: none"> <li>Increased Efficiency &amp; On-dock Rail</li> </ul>	<ul style="list-style-type: none"> <li>Federal focus &amp; funding</li> <li>Research &amp; resources for needs, impact assessments</li> <li>Short-haul rail ZE opportunities</li> <li>CARB locomotive regulation</li> </ul>	<ul style="list-style-type: none"> <li>Everport Terminal Services</li> <li>METRANS</li> </ul>
September 21 <sup>st</sup>	<ul style="list-style-type: none"> <li>Workforce Development</li> </ul>	<ul style="list-style-type: none"> <li>Training center developments</li> <li>Member activities</li> <li>Research &amp; findings in 2022</li> </ul>	<ul style="list-style-type: none"> <li>Green Workforce Coalition</li> <li>CSULB, UCLA</li> </ul>
November 16 <sup>th</sup>	<ul style="list-style-type: none"> <li>ZE Trucks &amp; CHE Implementation</li> </ul>	<ul style="list-style-type: none"> <li>CTP Update</li> <li>ACF Rulemaking</li> </ul>	<ul style="list-style-type: none"> <li>TBD</li> </ul>