

BOARD MEETING DATE: October 6, 2017

AGENDA NO. 26

REPORT: Marine Port Committee

SYNOPSIS: The Marine Port Committee held a meeting on Thursday, August 31, 2017 at the Hilton Long Beach hotel. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Joe Buscaino, Chair
Marine Port Committee

PMF:IM:ML:AP

Committee Members

Present: Council Member Joe Buscaino/Chair, Supervisor Marion Ashley (teleconference), Dr. Joseph Lyou, Council Member Judith Mitchell, and Council Member Dwight Robinson

Absent: None

Call to Order

Chair Buscaino called the meeting to order at approximately 1:15 p.m.

INFORMATIONAL ITEMS:

1. Update on the San Pedro Bay Ports Draft Clean Air Action Plan.

Lisa Wunder, Marine Environmental Manager for the Port of Los Angeles and Heather Tomley, Director of Environmental Planning for the Port of Long Beach presented the Draft 2017 Clean Air Action Plan (CAAP) Update. Following the presentation, Council Member Buscaino asked for more details on the proposed CAAP Update implementation cost estimates. Port staff described some of the parameters for the low- and high-end estimates, and added that there had been criticism that the cost estimates were too low because they included estimates for

equipment not yet commercially available. Councilmember Buscaino then asked for a summary of comments from the Draft CAAP Update public meeting held on August 30, 2017. Ms. Tomley stated that there was interest in the increased use of zero-emission technologies, while others thought near-zero technologies could be a more cost-effective solution. The overarching theme was a request to reduce emissions as quickly as possible. Ms. Wunder noted there were concerns expressed by truck operators about increased compliance costs.

Council Member Robinson asked about at-berth emission reduction programs (shore power), impediments to increasing the use of on-dock rail, development of the truck appointment system, changes to the truck reduction strategies between the Draft Discussion Document and the Draft CAAP Update, and details on the proposed truck Smog Check program. Ms. Tomley noted that the increased use of larger ships had impacted the use of shore power but this was being addressed with California Air Resources Board (CARB) and terminal operator staff. She described that port staff is working with rail operators to address rail car storage and loading issues and is currently proposing a new rail yard to facilitate greater use of on-dock rail. She further described improvements needed to the truck appointment system to account for all parts of a truck's visit, not just gate crossings. Ms. Tomley then described that the current CAAP Update's truck emission reduction plan now encourages the increased near-term use of near-zero and zero-emission trucks and that Ports will work with CARB on a Smog Check program based on exhaust opacity and a tailpipe measurement system.

Dr. Lyou requested information on anticipated truck turnover rates and noted that truck operators from the August 30, 2017 public meeting indicated they couldn't transition to cleaner trucks without funding assistance. Dr. Lyou also requested that the future process for establishing the differential rate structure for truck operators include a discussion of associated public benefits from cleaner air and that the Ports try to minimize economic impacts to protect truck drivers, especially individual owner/operators. Ms. Tomley agreed on the importance of including health benefit information in public presentations and that the Ports would work with truck operators to minimize economic impacts by seeking additional funding sources. Ms. Wunder added that impacts to truck operators are a significant concern to Port staff and based on past experience, every effort will be pursued to reduce economic impacts to truck operators. Lastly Dr. Lyou noted that efforts to increase on-dock rail should also increase the use of the cleanest locomotive technologies.

Council Member Mitchell asked for clarification about the CAAP Update's NOx emission reduction targets, the cost estimates for the Plan's strategies, and the infrastructure planning efforts related to the increased electrical loads needed for zero-emission equipment. Ms. Tomley noted that the San Pedro Bay Standards are emission reduction targets based on input from CARB, the SCAQMD, and Port

staff. The CAAP Update uses the same NOx reduction goals as the 2010 CAAP but that long-term goals have been added to the 2017 Update for reduction of greenhouse gas (GHG) emissions. Ms. Tomley also clarified that the 2017 Update cost estimates represent incremental costs above traditional equipment costs, and that there were increased costs for cargo handling equipment infrastructure. Ms. Wunder also noted that the Port of Los Angeles was working very closely with their sister agency, the Los Angeles Department of Water and Power (LADWP), to make sure future electrical infrastructure needs are met. Council Member Mitchell also requested that a 2030 emission reduction target year and a phase-out plan for trucks older than 2010 be added to the CAAP. Council Member Mitchell reiterated the importance of upgrading older trucks and described the difficulties smaller fleets have in participating in incentive programs. Council Member Mitchell then asked the Ports to consider a potential control strategy where larger fleets which participated in near-zero truck incentive programs could be encouraged to turn over their replaced cleaner trucks to smaller port truck fleets. Ms. Tomley stated that the Ports were looking to implement any feasible measure to accelerate cleaner truck transitions; this could include working with local utilities to provide electrical infrastructure at larger trucking facilities close to the terminals to support transition to zero-emission vehicles, but the Ports were not necessarily targeting programs based on any particular fleet size.

Public testimony was then received on the Port's presentation (handouts provided by the public are included as Attachment A). Requests for changes to the CAAP Update from members of the public included asking that stronger measures be added to improve public health, that the Ports immediately shift away from diesel technologies, that the Ports accelerate the use of zero and near-zero emission technologies where available, and that they focus on increasing Port efficiency as a means to reduce pollution. Equipment providers made comments related to the widespread availability of low-emission equipment currently in use, requests for funding to help operators switch to cleaner vehicles, and a request that the truck differential rate structure be established earlier than 2023 to encourage truck operators to switch to cleaner vehicles. A representative from a local utility provider requested an analysis of the 2017 CAAP Update strategies be made in relation to the State GHG emission reduction requirements for 2030. A trade association representative commented that projected Port growth is overstated, noting activity has only recently met pre-recession levels, and a truck operator representative noted truck diesel particulate emissions are already well controlled through State regulations which require 99 percent efficient particulate traps. Dr. Lyou requested that near-zero and zero-emission equipment manufacturers in the audience provide updated equipment cost information to Port and SCAQMD staff.

2. **Preliminary Staff Comments of Draft Clean Air Action Plan**

Ian MacMillan, Planning & Rules Manager, provided a presentation of preliminary staff comments on the Draft 2017 CAAP Update. Council Member Robinson asked questions related to State Implementation Plan (SIP) credit discussions with the Ports. Mr. MacMillan indicated there have been many SIP credit discussions between SCAQMD and Port staff and questions have focused on enforceability and determining if emission reductions are surplus. Mr. MacMillan added that there appeared to be more opportunities today for SIP credit than a few years ago.

Dr. Lyou stated that it appeared Senate Bill (SB) 1 legislation provided exemptions for incentive programs and asked if this would allow accelerated implementation of the CAAP Update's proposed differential rate structure. Dr. Fine, Deputy Executive Officer/Planning, Rule Development & Area Sources stated that from a policy perspective early implementation of the differential rate structure would allow staff more time to review the program's effectiveness in turning over higher-emitting trucks. Barbara Baird, Chief Deputy Counsel, added that from a legal perspective the preferential fee structure proposed by the Ports for near-zero and cleaner trucks would fall within the SB 1 exemptions for incentive programs and could be implemented earlier than 2023. Dr. Lyou requested more information on Port tenant lease expiration dates and whether Port staff has alternative tools for implementing incentive programs other than attaching requirements to newly re-negotiated leases. Dr. Lyou noted attaching additional fees or requirements to new leases may result in shippers using other terminals to avoid the new requirements, which could then inadvertently encourage shippers to use terminals that haven't invested in low-emission technologies.

Council Member Mitchell asked for clarification on the Port's proposed revisions to its cancer risk threshold. Staff indicated the State Office of Environmental Health Hazard Assessment (OEHHA) had adopted a new methodology for cancer risk assessments and the Port is considering changes to its threshold in response to the change in calculation methodology. Council Member Mitchell stated that there has been an increase in larger ships at the Ports and asked about the impact of these ships on the Ports' emissions. Mr. MacMillan stated that larger ships have larger engines which could increase emissions but in some cases these larger ships are newer, yielding a lower emission profile per container. The primary concern is emissions per unit of time (e.g., tons per day), regardless of the number of ships. Council Member Mitchell asked for staff input on the CAAP Update's truck program and how to phase out older trucks. Mr. MacMillan indicated the Port has expressed concerns about banning any trucks, but that there is a lot of gray area between a ban and a preferential rate system that isn't set at a high enough level to turn over trucks to cleaner technologies. He stated that the CAAP Update is a policy document and that the targets for phasing out older trucks are a policy decision, so either they should be set with the CAAP, or at a minimum, the process for

determining the targets should be set. Council Member Mitchell inquired about obtaining SIP credit for the CAAP Update and Mr. MacMillan replied that the elements needed to obtain SIP credit likely will not be in place when the CAAP Update is considered for adoption in November, but that there is time after that to work out details.

Council Member Buscaino reiterated the importance of obtaining funding to implement the emission reduction strategies and noted SCAQMD staff had conducted economic analyses for the 2016 Air Quality Management Plan (AQMP) which used different methodologies than the Ports. He asked staff for clarification on the cost estimate methodologies and for an update on estimated funding needs. Mr. MacMillan indicated that the cost estimates are different for a variety of factors, including rapid changes in the cost of cleaner technologies, and the different purposes of the AQMP cost estimates compared to the Ports' (e.g., inclusion of infrastructure costs), but that ultimately, for District purposes, we can rely on the AQMP cost estimates.

Council Member Buscaino then turned the meeting over to public comment. Several members of the public agreed with SCAQMD staff and expressed concerns over the lack of specifics for the CAAP Update's emission reduction strategies and requested that air pollution emissions be reduced as quickly as possible to reduce near-term adverse health impacts. Other speakers requested information on what types of SCAQMD rulemaking can be done to reduce emissions beyond what is being proposed by the CAAP Update.

OTHER MATTERS:

3. Other Business

There was no other business.

4. Public Comment Period

An environmental group representative provided a study of commercially available zero-emission and near-zero emission equipment (included in Attachment A) and noted their group is also working on a study for construction and dredging equipment. An environmental consulting firm representative noted that a truly zero-emission truck or car does not exist due to emissions from tire wear, brake wear and power generation and that any decisions focusing on high-cost "zero-emission" technologies compared to lower-cost, near-zero technologies must include all forms of pollution. A member of the public asked for clarification on the assumptions used in the I-710 Environmental Impact Report (EIR). A provider of renewable natural gas noted that their organization had received two awards, one from the League of Conservation Voters and one from the Coalition for Clean Air, for their work to increase the use of renewable natural gas. A member of the public stated that

renewable natural gas should be used for fuel cell energy production, not for truck fuel, while another member of the public countered that fuel cell energy production is very expensive.

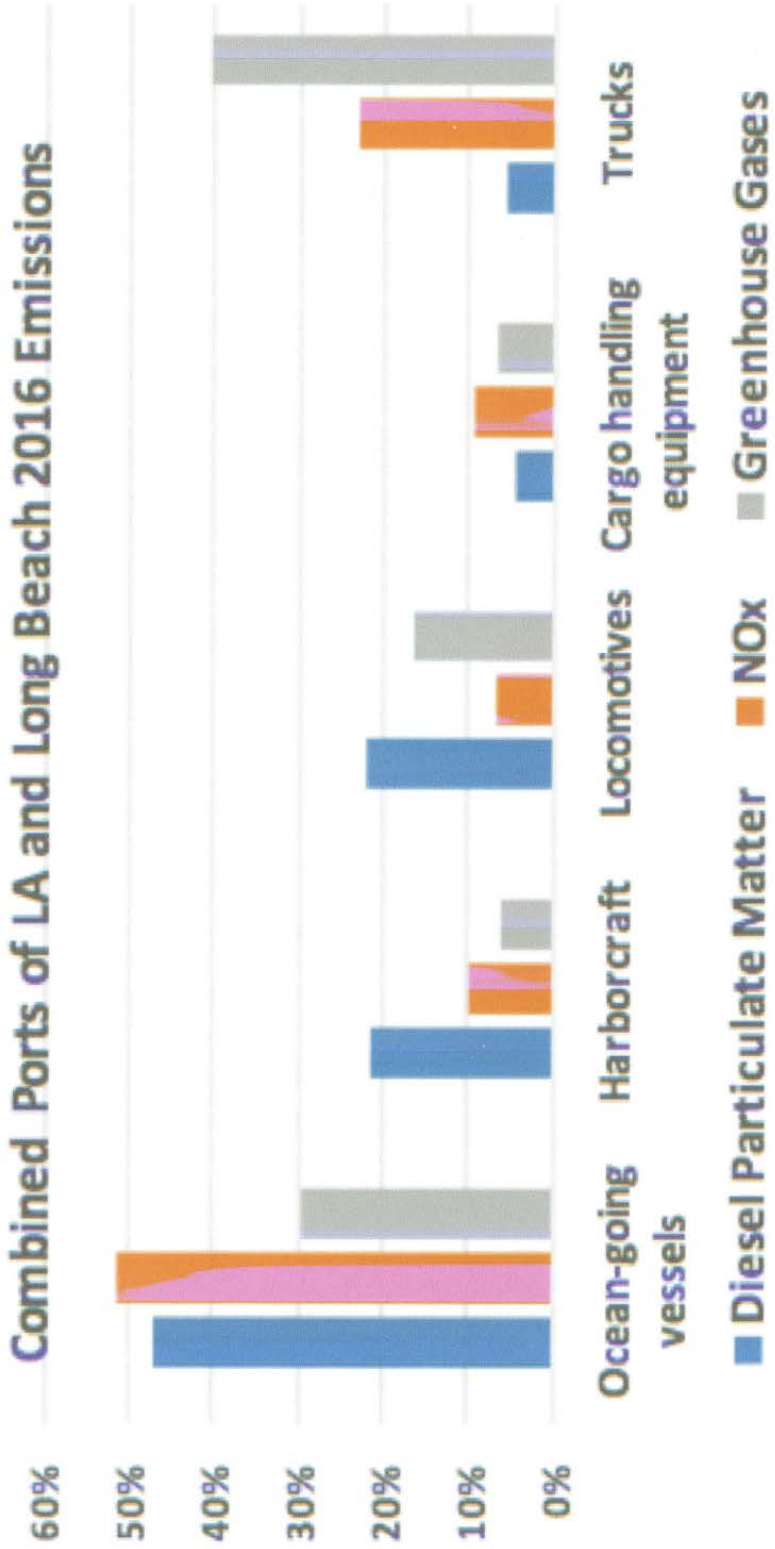
Adjournment

The meeting was adjourned at approximately 4:00 p.m.

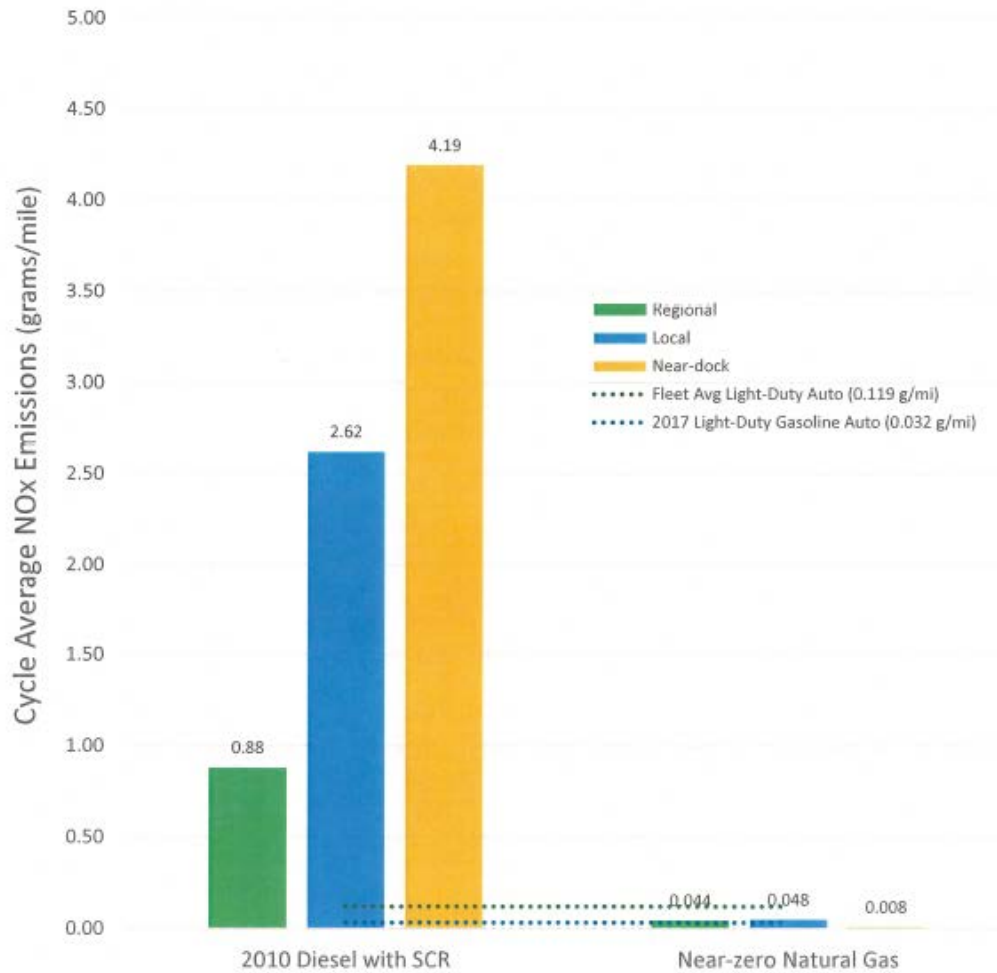
Attachment A - Handouts Provided by the Public

- Combined Ports of LA and Long Beach 2016 Emissions;
- Comparing NOx emissions in Port Truck Applications;
- Port Cargo Growth (2006-2016);
- Comparison of Cargo Handling Equipment Emissions to South Coast Air Basin emissions; and
- Coalition for a Safe Environment, Status Availability of Zero Emission & Near Zero Emission Class 8 Drayage Trucks and Yard Tractors

Attachment A – Handouts Provided by the Public

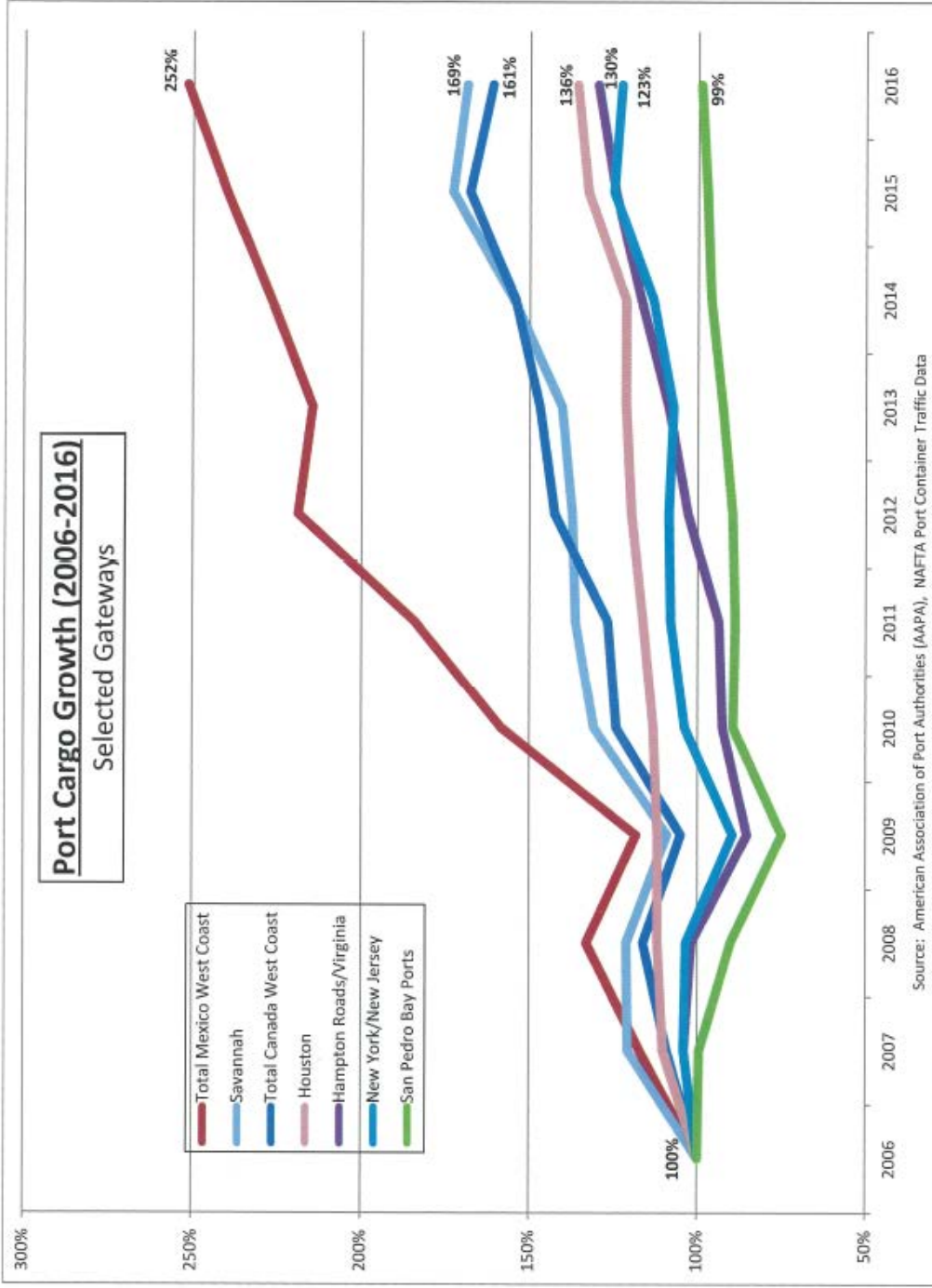


Comparing NOx emissions in Port Truck Applications EPA 2010 Diesel vs Near-Zero Natural Gas

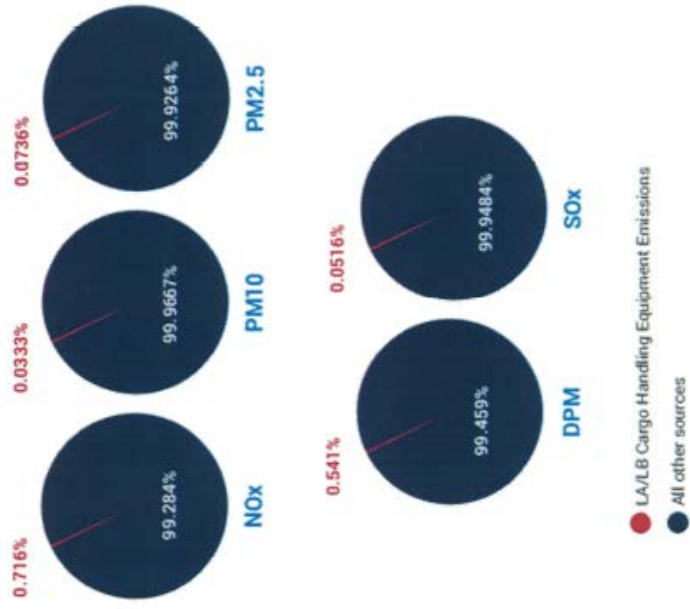


DATA SOURCES:

- SCR Diesel emissions - From Miller et al, "In-Use Emissions Testing and Demonstration of Retrofit Technology for Control of On-Road Heavy Duty Engines", July 2014
- NZ Natural Gas emissions – From Johnson et al, "Ultra-Low NOx Natural Gas Vehicle Evaluation – ISL G NZ", Nov 2016
- Light Duty Auto emissions – California Air Resources Board, EMFAC 2014 model run for calendar year 2017, statewide totals.



**By The Numbers:
Port of Los Angeles and Long Beach Cargo Handling
Equipment Contribution By Percentage To South Coast Air
Basin Emissions (2015)**



Source: Port of Los Angeles and Port of Long Beach 2015 Emissions Inventory Report.

Coalition For A Safe Environment

Status Availability of Zero Emission & Near Zero Emission Class 8 Drayage Trucks & Yard Tractors

6.3.2017

A. Zero Emission Class 8 Electric Trucks

There are currently six (6) Zero Emission Class 8 Electric Trucks commercially available for sale.

- a. TransPower - Electric Class 8 Truck - ElecTruck
- b. BYD - Electric Class 8 Truck - 8TT/T9
- c. US Hybrid - Electric Class 8 Truck - eTruck
- d. US Hybrid - Electric Class 8 Truck - H2Truck
- e. Toyota - Electric Class 8 Truck - Hydrogen Fuel Cell
- f. Nikola - Nikola One - Electric Class 8 Truck

B. Zero Emission Class 8 Electric Yard Tractors

There are currently four (4) Zero Emission Class 8 Electric Yard Tractors commercially available for sale.

- a. TransPower - Electric Class 8 Electric Yard Tractor
- b. Orange EV - Electric Class 8 Electric Yard Tractor - T-Series
- c. BYD - Electric Class 8 Tractor - 8Y
- d. Terberg - Electric Class 8 Yard Tractor - Terberg YT202-EV

C. Near Zero Emission Class 8 Trucks

There are currently fourteen (14) Near Zero Emission Class 8 Trucks commercially available for sale.

- a. TransPower - Class 8 Truck - Natural Gas Plug-In Hybrid Drive System
- b. Peterbilt - Class 8 Truck - Model 579 ISX 12 G - LNG
- c. Peterbilt - Class 8 Truck - Model 567 ISX 12 G - LNG
- d. Freightliner - Class 8 Truck - Cascadia 113 Natural Gas - CNG Fuel Tank
- e. Freightliner - Class 8 Truck - Cascadia 113 Natural Gas - LNG Fuel Tank
- f. Freightliner - Class 8 Truck - M2 112 Natural Gas - CNG
- g. Freightliner - Class 8 Truck - M2 112 Natural Gas - LNG
- h. Volvo - Class 8 Truck - Model VNM 200 ISL G - Natural Gas
- i. Volvo - Class 8 Truck - Models VNL 300 ISX12 G - Natural Gas
- j. Volvo - Class 8 Truck - Models VNL 670 ISX12 G - Natural Gas

- k. TranStar - Class 8 Truck - ISL G - CNG
- l. Mack - Class 8 Truck - Pinnacle ISX12 G - CNG
- m. Mack - Class 8 Truck - Pinnacle ISX12 G - LNG
- n. Mack - Class 8 Truck - Pinnacle ISX12 G - RNG

D. Near Zero Emission Class 8 Yard Tractors

There are currently eleven (11) Near Zero Emission Class 8 Yard Tractors commercially available for sale.

- a. Kenworth - Class 8 Tractor - T680 ISL G
- b. Kenworth - Class 8 Tractor - T880 ISL G NZ - Near Zero - CNG
- c. Kalmar T 2 - 4x2 On Road Terminal Tractor ISL G - CNG
- d. Kalmar T 2 - 4x2 On Road Terminal Tractor ISL G - LNG
- e. Kalmar T 2 - 4x2 On Road Terminal Tractor ISL G - RNG
- f. Kalmar T 2 - 4x2 Off Road Terminal Tractor ISL G - CNG
- g. Kalmar T 2 - 4x2 Off Road Terminal Tractor ISL G - LNG
- h. Kalmar T 2 - 4x2 Off Road Terminal Tractor ISL G - RNG
- i. Autocar - ACTT - 4x2 DOT/EPA Terminal Tractor ISL G - CNG
- j. Autocar - ACTT - 4x2 DOT/EPA Terminal Tractor ISL G - LNG
- k. Capacity - Sabre 4x2 DOT Terminal Tractor ISL G - CNG

- Note:
1. CFASE contacted the manufacturer directly to obtain information or information was available on manufacturer website.
 2. CFASE has copies on file of manufacturer information: Brochures, Fact Sheets, Spec Sheets, Cost-Benefit Analysis, Independent Lab/Institute Reports, Website Print Outs etc.
 3. Commercially Available means that the manufacturer is accepting orders for delivery to customer. Time of delivery can vary due to the number of trucks ordered.
 4. Trucks can be new or used and be retrofitted to be zero emission or near zero emission.
 5. RNG is Renewable Natural Gas.
 6. Natural Gas engines can be the same but are specially tuned and adjusted for the specific type of gas used.
 7. CEQA law does not require a technology being considered as a project element or mitigation measure to be certified, verified or validated by any governmental agency. However, the agency and/or project sponsor must do its due diligence to confirm that the technology works for the proposed project application or a part of the project application. i.e Trucks can service short distance hauls but not long distance hauls.
 8. CEQA law allows technologies under development, pilot testing and demonstration testing to be considered as proposed a mitigation measure and does not require a technology to be commercially available at the time of the EIR, but does require the technology to be available and meet all application performance requirements by the project completion date.