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# Update on Development of MOU with Ports of Los Angeles and Long Beach

Governing Board Meeting

March 6, 2020

# Summary of Board Direction on Facility-Based Mobile Source Measures (May 2018)

Sector	Direction
Airports	Pursue MOUs to implement airport clean air action plans (non-aircraft airport sources)
Ports	Pursue MOUs to implement specific CAAP measures; Pursue introduction of cleaner vessels
New/Redevelopment	Continue to work with stakeholders to develop rule concepts and preliminary costs/benefits
Warehouses	Develop rule concept; Conduct economic impacts study to inform rule concept
Rail yards	Pursue rulemaking; Explore potential for new agreements/MOUs beyond the 1998 and 2005 agreements



# Key CAAP Measures

## Drayage Trucks

- Implement Clean Trucks Program – differential truck rate to turn over fleet

## Cargo Handling Equipment (CHE)

- Accelerate ZE and NZE CHE deployment working with terminal operators with a 100% ZE CHE goal by 2030

## Ocean-Going Vessels (OGV)

- Reduce OGV emissions through new and enhanced incentive programs: Vessel Speed Reduction, Green Ship Incentives and Clean Ship Program

## Harbor Crafts

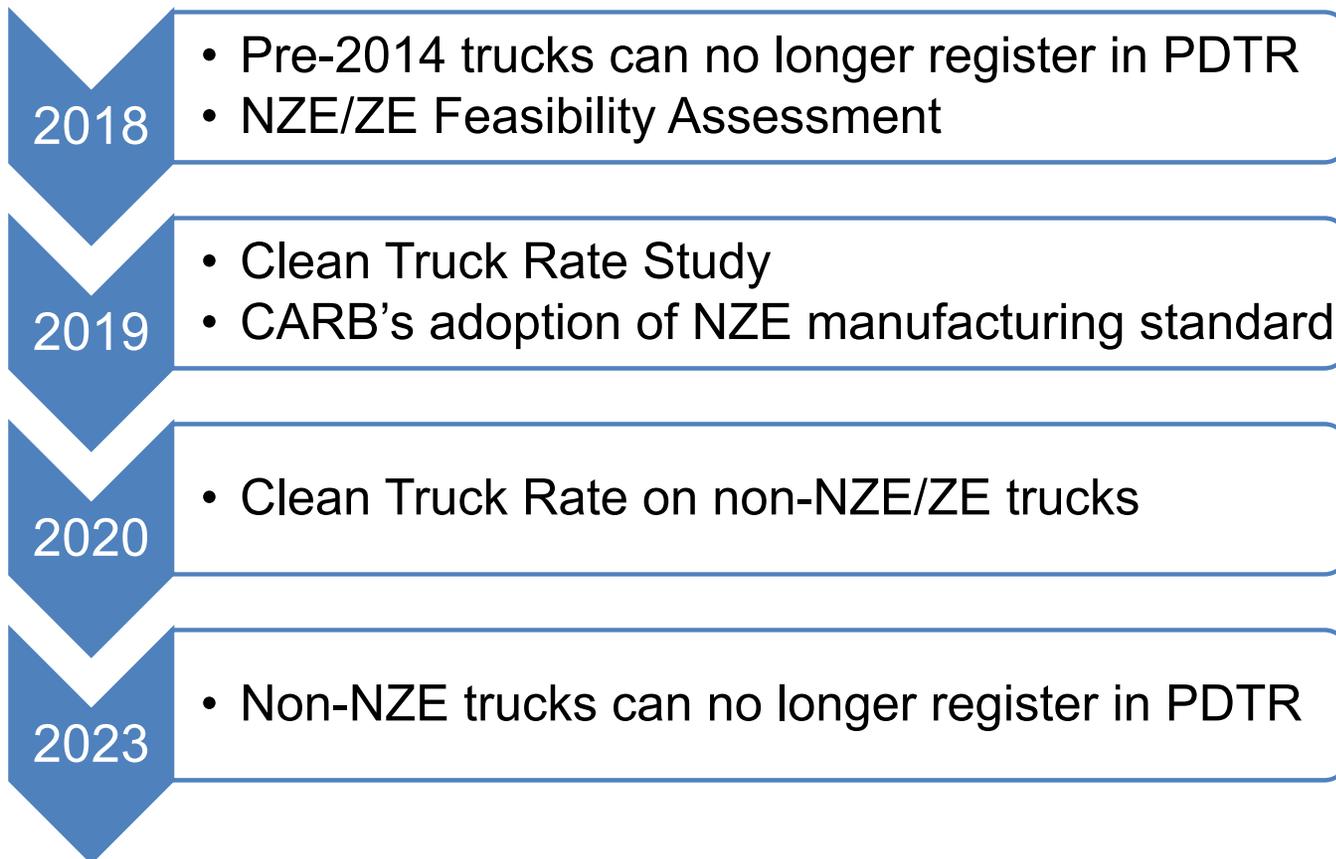
- Develop incentive program to upgrade harbor crafts with cleanest engines

## Locomotives

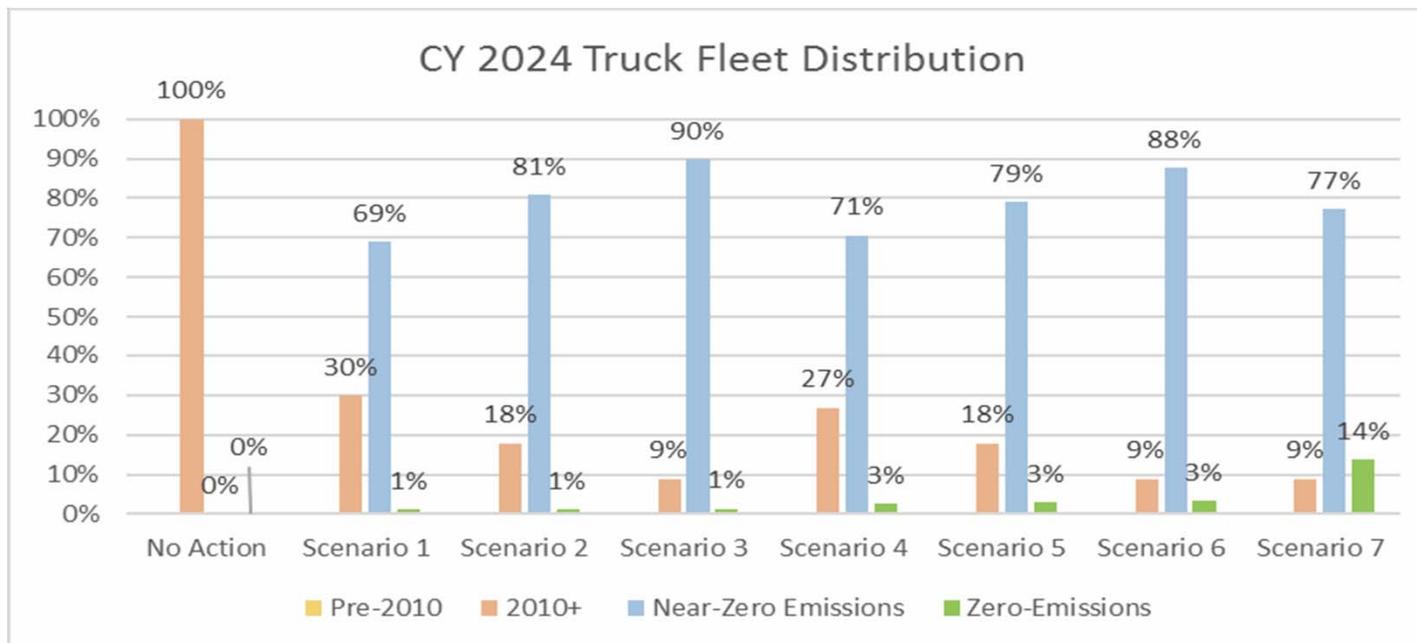
- Increase on-dock rail cargo moves to 35% and seek to utilize cleanest locomotives



# CAAP's Proposed Clean Trucks Program



# CAAP's 2024 Projected Truck Fleet Distribution



# Draft MOU Concept

## Ports



- Implement and track CAAP measures specified in the MOU
- Submit annual reports to South Coast AQMD on implementation of CAAP measures in the MOU
- Seek grant funding and implement incentive programs

## South Coast AQMD



- Quantify SIP creditable emission reductions for CAAP measures in the MOU
- Provide federally enforceable commitments and report emission reduction benefits to U.S. EPA
- **Cover potential shortfall**

The Ports would have a contractual relationship with South Coast AQMD  
South Coast AQMD would commit to EPA for emission reductions



South Coast  
Air Quality Management District

# Ports MOU Development Process

- Slow start due to Ports initial reluctance
- 20+ meetings/calls with Ports staff
- Multiple draft MOU iterations
- Multiple Public Working Group and Technical meetings
  - Three working group meetings
  - Twenty three bi-weekly technical working group meetings
- Originally scheduled for GB - November 2019
  - Delayed due to Ports delay in developing Clean Trucks Program

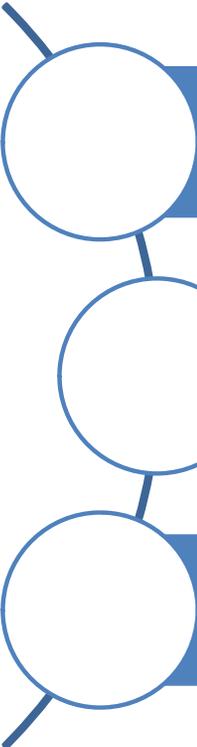


# Status of MOU Development

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- Focus on CTP
  - Only CAAP measure with quantitative performance target (\$/TEU)
  - Only reporting requirements for other CAAP measures
- No agreement on MOU language regarding CTP after multiple rounds of edits and 18 months of process

# Concerns Regarding Ports Latest MOU Revisions



No firm commitment to adopt a particular rate

Proposed rate not sufficient to achieve CAAP goals

Uncertainty regarding spending of revenues and incentive program structure

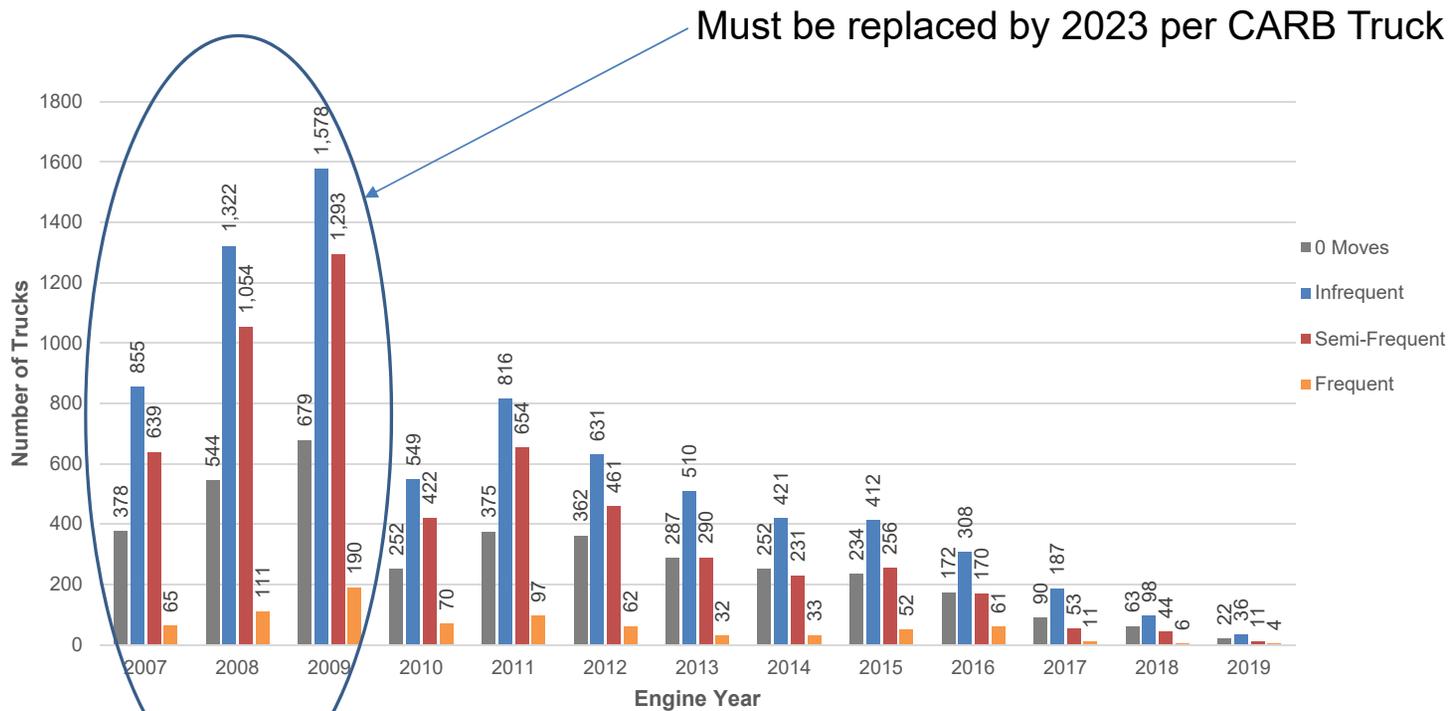


# Proposed Clean Trucks Program (December 2019)

- Informed by economic study evaluating potential impact to cargo diversion from truck rate
- Revenues from the collection of the CTF Rate to be used for incentives to purchase low-NOx, NZE and ZE trucks
  - Changed focus from the CAAP goals which emphasized changes in behavior resulting from truck rate
  - New concern re: low-NOx v. NZE trucks
- Proposing rate of \$10/TEU – generate ~\$90 million/year
  - Low end of the range of truck rate discussed in CAAP
  - Economic study estimated little diversion over a range of \$5-70/TEU
  - \$10/TEU not sufficient to turnover fleet, even for the least aggressive CAAP scenario schedule



# Unique window to convert 8,000 pre-2010 port trucks to NZE and ZE trucks by 2023



The \$10/TEU rate effectively guarantees that most of the pre-2010 MY trucks will be replaced by newer diesel models instead of NZE/ZE

# Projected Cargo Diversion Rate Based on Ports Draft Economic Study\*

CTF Rate (\$/TEU)	Annual Container Diversion (TEU)	% Decrease in Container Throughput
\$5	17,000	-0.1%
\$20	69,000	-0.4%
\$35	120,000	-0.7%
\$50	172,000	-1.0%
\$70	241,000	-1.4%

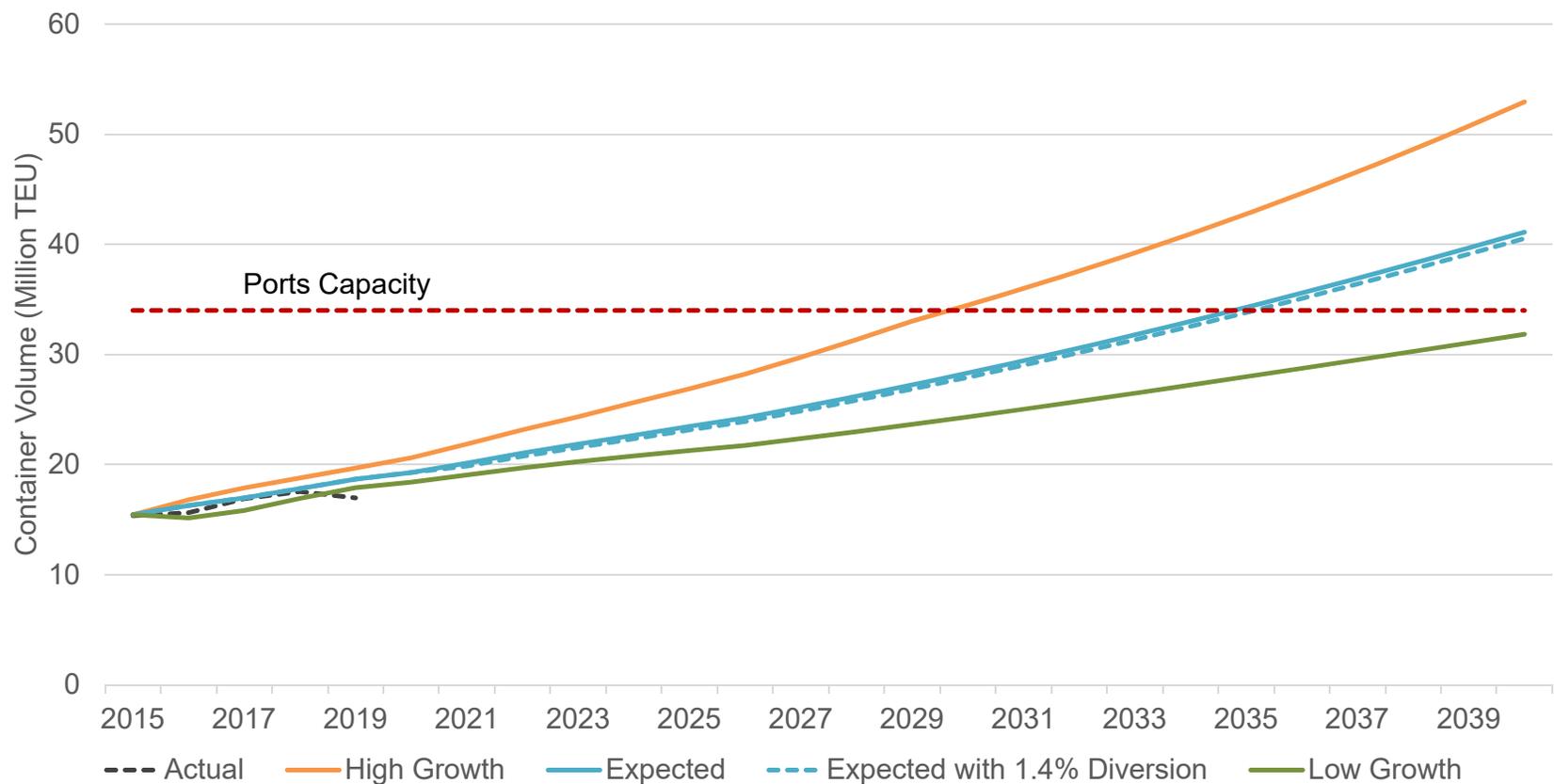
\* Draft Economic Study for the Clean Truck Fund Rate, December 2019



# Key Points from Draft Economic Study

- **Cargo that is delivered locally or transloaded to truck is not susceptible to diversion (35% of cargo in 2018)**
  - NY/NJ and the SE ports truck catchment areas do not overlap with POLA/POLB area
  - Houston has some overlap, but is twice as expensive and takes twice as long to ship cargo from China
  - Oakland not competitive with POLA/POLB due to more expensive drayage rates and longer shipping times
- **Cargo shipped by rail without transloading (IPI cargo) most vulnerable to diversion**
  - 31% of POLA/POLB cargo in 2018
  - Bulk of the market share loss experienced at Ports since 2007 is from IPI cargo
  - NY/NJ growing but even with Panama Canal expansion it is still over 10 days longer to ship cargo from China to Chicago than shipping through POLA/POLB

# SPBP Container Volume Growth Forecast



# Impact of CTP Truck Rate

Truck Rate (\$/TEU)	# of NZE Trucks Funded	# of ZE Trucks Funded	Total # of Trucks Funded	% of All Trucks	% of All Pre-2010 Trucks	2023 NOx Reductions (tpd)	2024 NOx Reductions (tpd)
\$10	1,868	23	1,891	11%	22%	1.14	-
\$25	4,306	46	4,352	24%	50%	2.63	-
\$50	7,051	55	7,106	40%	82%	4.29	-
\$68	12,142	141	12,283	69%	-	-	7.43

**Assumptions:**

- Incentive funding of \$100,000 for NZE and \$200,000 for ZE trucks
- Based on two years of replacements (2021 and 2022) except for the \$68 truck rate which is based on three years of replacement (2021 – 2023)
- 4 TEUs/truck/day (2.5 TEUs/truck/day for \$68); Annual operating days: 312; Daily VMT: 164 miles per day (from EMFAC 2014)
- Baseline Truck: 2016 Model Year
- Admin. Cost: 5%
- % Revenue for ZE: 0% in 2021, 5% in 2022, 5% in 2023



# Options Presented to Mobile Source Committee

## Option 1

- Continue with MOU at \$10/TEU truck rate

## Option 2

- Continue with MOU with increased truck rate

## Option 3

- Pivot to rulemaking



# Option 1 – Continue with MOU at \$10/TEU Rate

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- Rate represents bare minimum considered in Ports economic study
- Significant opposition from many stakeholders
- Uncertainty in potential emission reductions due to uncertainty on how revenues will be allocated

## Option 2 – Continue with MOU with Increased Rate

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- Work with ports on increasing truck rate to reasonable level (\$50-70/TEU) and reach agreement on revenue expenditure
- Higher truck rate supported by Ports economic study
- More emission reductions expected depending on revenue allocation

## Option 3 – Pivot to Rulemaking

- Consider Indirect Source Rule (ISR) on terminal operators
  - Terminals control truck visits, equipment, and vessels
  - Number of terminals manageable for plan-based approach
- Covers more categories (trucks, equipment, vessels, harbor craft and potentially locomotives); more reductions
- Could help accelerate emission reductions from CARB's regulations and from ships
- Possible opposition from terminal operators, ports, labor unions
- Rule development expected within one year

# Public Comments at Mobile Source Committee

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- Ports
  - Support MOU approach and Option 1 (\$10/TEU)
  - Concern with cargo diversion and loss of market share
- Environmental organizations
  - Support higher truck rate (\$35-\$50)
  - Support ISR approach if MOU is not agreed upon
  - Health impacts not considered in Ports truck rate study
- Natural gas industry
  - Significant opportunity to replace pre-2010 diesel trucks
  - Suggest Ports adopt requirement for newly registered trucks to be near-zero or zero-emission trucks



# Mobile Source Committee Recommendation

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- Continue MOU negotiations with the Ports with the objective of reaching a meaningful agreement
  - Staff is continuing to meet with the Ports executive directors to explore possible options