



SAN PEDRO BAY PORTS CLEAN AIR ACTION PLAN

Clean Truck Fund Rate

Joint Meeting of the
Port of Long Beach Harbor Commission &
Port of Los Angeles Harbor Commission

March 9, 2020



Proposed Action

Today's Board Action:

- Consideration of Joint Port of Los Angeles/Port of Long Beach Resolution
 - Identifies Clean Truck Fund (CTF) Rate and exemptions
 - No authority to collect CTF Rate until future Board actions

Future Board Actions:

- Consideration of contract with the CTF Rate collection mechanism vendor
- Consideration of Tariff Amendments to implement the CTF Rate
 - To be presented to the Boards after California Air Resources Board (CARB) adopts a heavy-duty low nitrogen oxides (NOx) engine manufacturing standard
- Consideration of structure for allocating incentive funds

Clean Trucks Program

CAAP Goal of 100% Zero Emission Trucks by 2035

Objectives:

- Reduce emissions to improve community health, meet criteria pollutant and greenhouse gas reduction goals
- Minimize economic impacts and disruption
- Utilize Port's authority within our jurisdiction





Guiding Principles from the 2017 CAAP Update

- Expeditiously reduce our fair share of air emissions and associated health risk from port-related operations
- Remain economically competitive and maintain our market position
- Support our vibrant workforce
- Continue to develop and foster strong partnerships with all stakeholders in order to achieve and sustain successful outcomes for all
- Assure that the CAAP implementation process is transparent and responsive to stakeholder input



Then Versus Now

2008

CARB In-Use Regulations

Small technology transition

Small cost differential for new trucks and available used market

Short term program (4 years)

Many trucks financed by LMCs

2020

No applicable CARB In-Use Requirements

Requires a significant technology change to emerging technologies with limited infrastructure

Large cost differential for new technologies

Long term program (15+ years)

Financing for drivers uncertain



Joint Ports' CTP Today

- 18,421 trucks are in the Port Drayage Truck Registry (PDTR)
- 4,339 2014+ trucks registered in the PDTR since October 1, 2018
- 10,881 trucks in the PDTR with engines meeting 2010 EPA standards
- 41% trucks in the PDTR are 2007 EPA Compliant
- 58% of the moves are being done by trucks with 2010 EPA engines
- 687 LNG/CNG trucks are in the PDTR
- 4% of the moves are being done by LNG/CNG trucks
- ~130 trucks with the natural gas fueled 0.02g/bhp-hr NOx engines are in the PDTR
- >9 ZE trucks in the PDTR



Approach for the CTF Rate Development

2017 CAAP Update Discussions

CTP Concept, including Rate

Truck Technology Assessment

Stakeholder Input on Rate Concept

Staff Recommendation on CTF Rate

Stakeholder Input

CTF Rate Proposal

Economic Study



CTF Rate as described in the 2017 CAAP Update

Beginning in 2020, a Clean Truck Fund (CTF) Rate will be charged to the beneficial cargo owners that move loaded containers in and out of port terminals with trucks that do not have CARB-certified low NOx engines or better

- Contingent on:
 - Truck Feasibility Assessment, including evaluation of availability of trucks – **Completed**
 - Clean Truck Rate Economic Study – **Completed**
 - Establishment of rate collection mechanism - **Underway**
 - CARB adoption of low NOx manufacturing standard – **Anticipated June 2020**



Truck Feasibility Assessment

- Snapshot in time, 2018-2021
- Assessed for technical viability, commercial availability, operational feasibility, infrastructure availability, economic workability
- Ultra-low NOx natural gas trucks technically and operationally feasible, and available today
- Battery-electric trucks in demonstration and not available today; could be feasible in the next several years
- Availability is different than anticipated when CAAP was adopted in late-2017



Economic Study for the CTF Rate

- Approach to the evaluation:
 - Review of previous studies and analyses
 - Modeling to estimate potential diversion and truck turnover for a range of potential rates
 - Evaluation of the current port industry competitive environment
 - Input from stakeholders



Key Findings of the Economic Study

- Range of rates studied (\$5 - \$70/TEU) not sufficient to force the transition to cleaner trucks given the high cost differential for those trucks
 - Generating a fund and providing incentives will be the key to promote truck turnover
- Concludes that diversion for local cargo may be low/moderate in the near term, but if the rate increases, potential for diversion of local cargo and discretionary cargo increases in the medium and long term
 - Factors other than cost and time have an influence on diversion



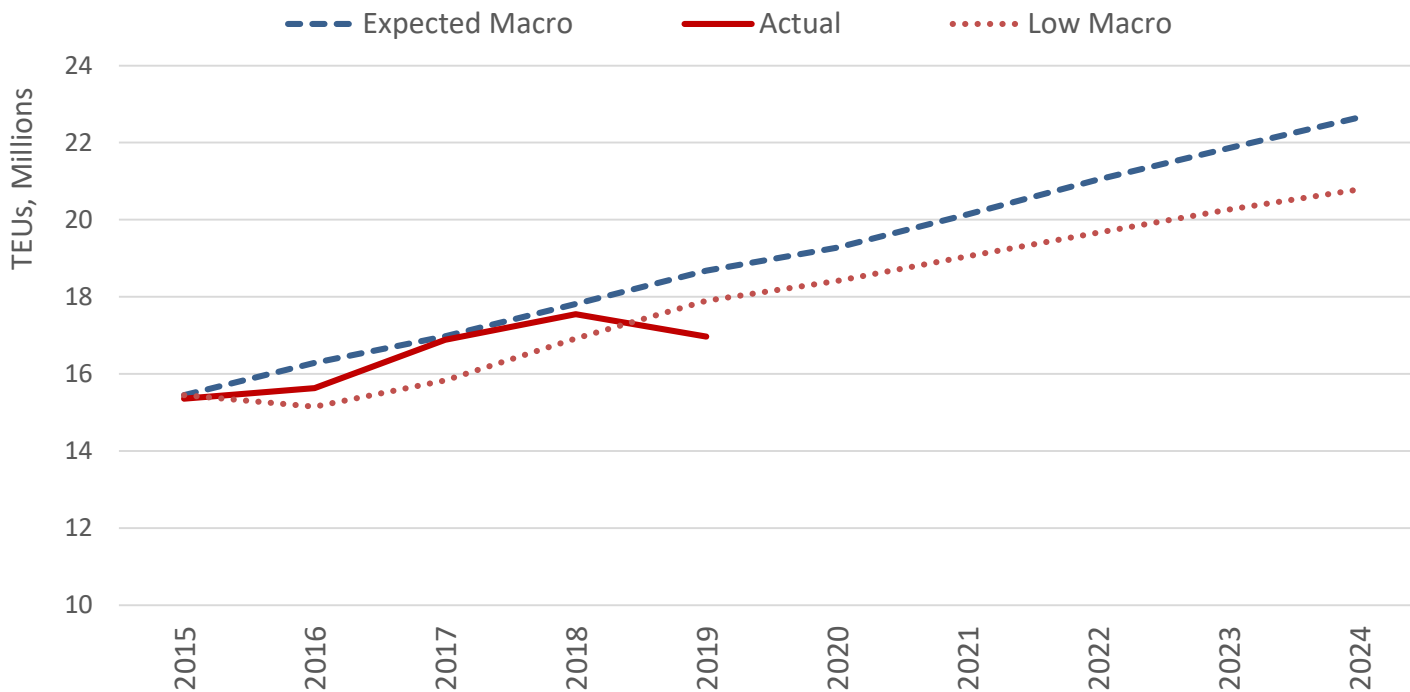
Key Findings of the Economic Study

- Identifies steady losses (especially in recent years) in LA/LB market share of containerized imports from Asia
- Recommends the Ports should exercise caution in setting a rate, starting at a lower CTF Rate to try to limit diversion while still generating a substantial grant fund



Actual Cargo Volumes Versus Forecast

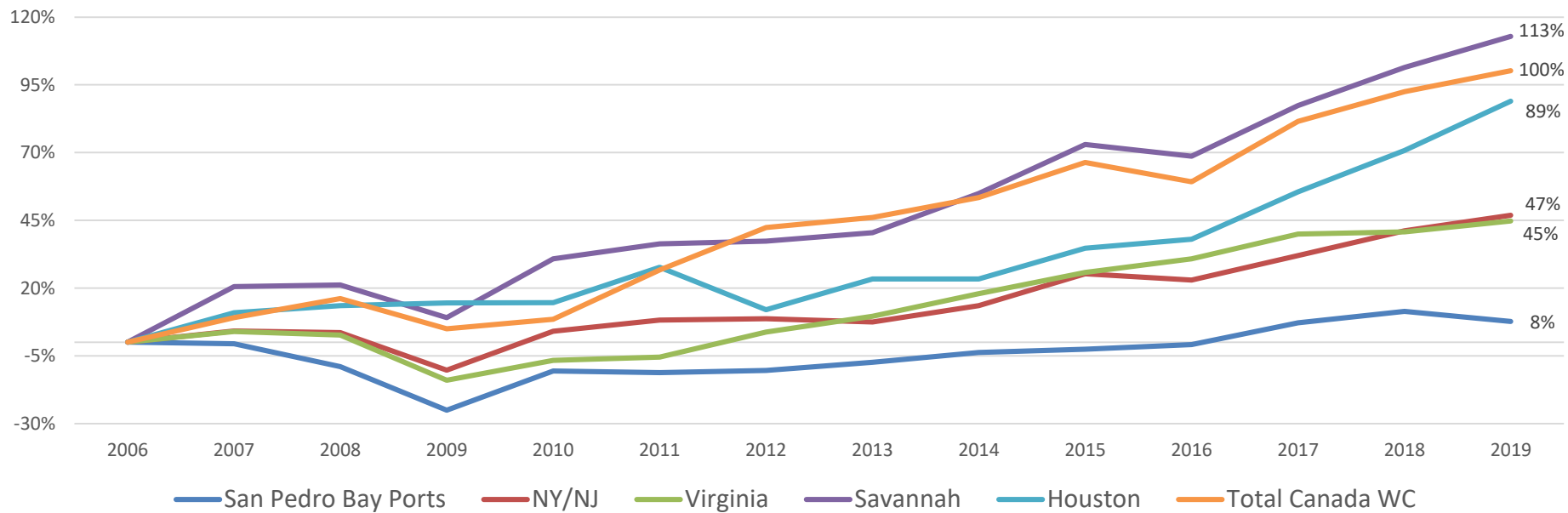
Expected and Low Growth Macro Forecast Scenarios vs. Actual TEUs





Market Share Trends

Port Cargo Growth (2006-2019)
Selected Gateways





CTF Rate Proposed for Public Discussion

- \$10 per loaded TEU or \$20 per loaded FEU
 - Charged to BCOs for loaded containers hauled by truck
 - Specified exemptions if hauled by a zero emission truck or a low NOx truck
- Potential to generate approximately \$90 million per year initially



CTF Rate Public Engagement Process

- Numerous small group meetings and discussions
- August 1, 2019 - First Public Workshop
 - To receive initial comments on CTF Rate concept and process
- December 18, 2019 - Second Public Workshop
- January 15, 2020 - Third Public Workshop
 - Second and third workshops held to receive input on Draft Rate Study and Proposed CTF Rate
- Ports received more than 40 written comments



Comments on the Proposed CTF Rate

- Ports should pick a different rate amount (too low/too high)
- Now is not the right time
- Economic study was flawed
- Federal pre-emption issues
- Exemptions for low-NOx trucks should be different (end sooner/end later)
- Timeline is too aggressive because there aren't enough trucks available today
- Rate can't be paid by the truckers



Comments on the Proposed CTF Rate

- Truckers can't afford the high cost for the new trucks
- Use the optional low-NOx engine standard
- Wait for the federal engine standard
- Accelerate funding for low-NOx trucks
- Only provide funding for ZE trucks
- Proposed CTF Rate won't achieve CAAP goals
- Not enough detail on how the generated revenues will be used
- Diversion will lead to greater Greenhouse Gas emissions

Why is \$10 per TEU being recommended?



Why is \$10/TEU being recommended?

- Current market conditions:
 - Global trade policy and tariffs appear to be leading to further cargo volume declines in 2020
 - Coronavirus adds uncertainty with an unknown timeline
 - Export market even more sensitive to cost
 - Movement of cargo to other gateways may be hard to recapture



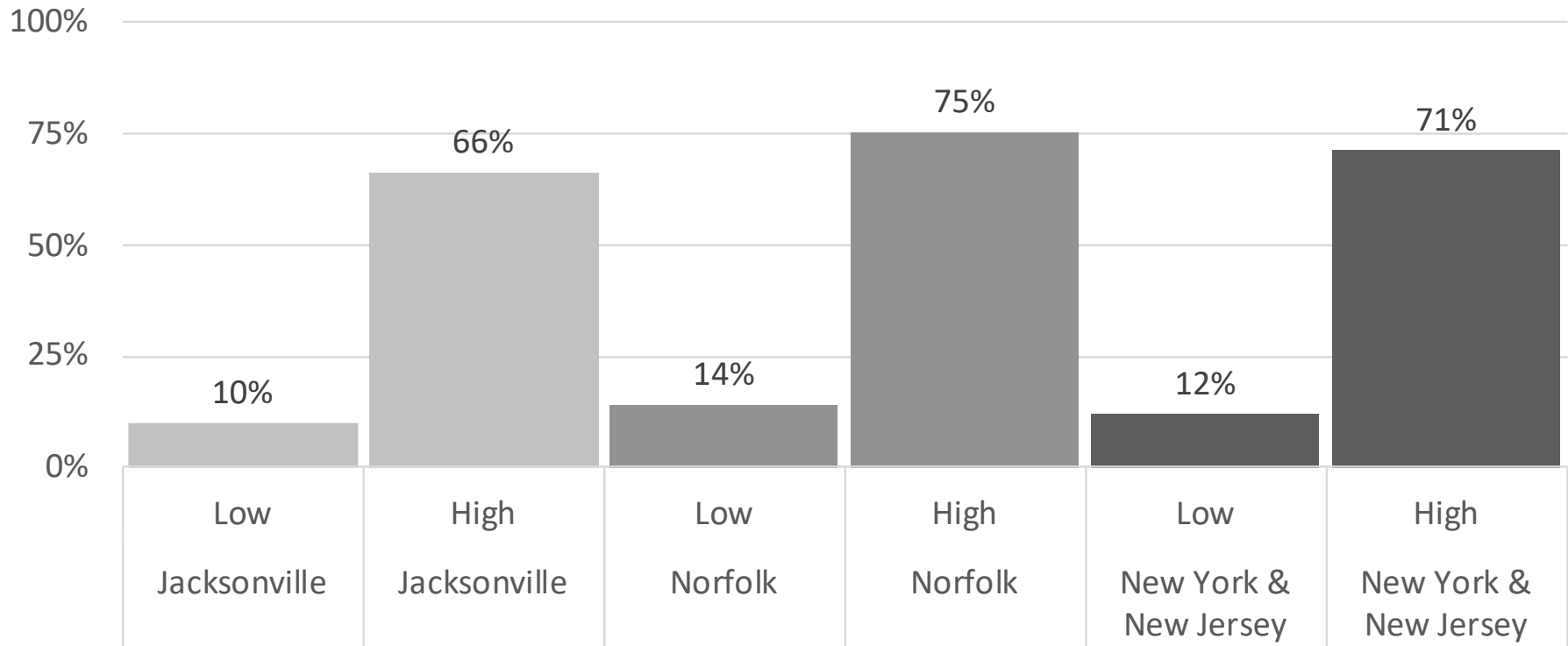
Why is \$10/TEU being recommended?

- Proceed cautiously given current market conditions and potential impacts associated with cargo loss
- Limited availability of new technology trucks and potential to expend funds
- Monitor, evaluate and adjust as warranted



GHG Impacts of Cargo Diversion

Shanghai to Chicago - Ranges of increased CO₂e emissions from diversion



How will the funds be used?



How will the funds be used?

- Details to be developed with stakeholders over the coming months
- Incentives to support transition to low NOx and ZE trucks
 - Must be in port drayage service and remove a truck in the PDTR
 - Identify priorities and opportunities for early action
 - Anticipate initial funding for low NOx and ZE trucks; anticipate transition after 2023 to only incentivize ZE trucks, pending Feasibility Assessment review
- Small amount to cover administrative expenses
 - Anticipate third party administrator of incentive program

**How will the rate help to achieve
the goals of the CAAP?**



Combination of Efforts to Achieve the CTP Goals

- CTF Rate, Exemptions, and Incentives
- Technology Advancement
- Industry Investment
- State and Federal Incentive Funding
- Port Registration Requirements
- Engine Standards and In-Use Regulation
- Regional Infrastructure Planning and Implementation



Collaborative Approach Outlined in the 2017 CAAP Update

- “The Ports will need a long-term vision and a coordinated, collaborative effort with both the industry and the regulatory agencies to realize the needed emission reductions from the maritime goods movement-related sources.” p.27
- “The CAAP cannot be successful, and the industry cannot remain economically competitive, without the significant financial support of the state and federal government.” p.31
- “Substantial funding support by state and federal agencies will be critical to build upon the efforts of the Ports’ CTP strategies to meet the ultimate goal of 100% zero-emissions trucks by 2035.” p.45

**Why proceed with the resolution
to establish the rate now?**



Why proceed with resolution now?

- Proceed on schedule as committed in the 2017 CAAP Update
- Provide certainty to industry about who pays and how much
- Supports discussions with stakeholders on how to structure and prioritize the incentives
- Provide information to support the emission reduction estimates in coordination with air agencies



CTF Rate Next Steps

- Following Board action, continued stakeholder discussions related to structure and priorities of incentive programs
- Determination about administration of the incentive funds
- Contract approval for Rate Collection Mechanism
- Implementation tariff for CTF Rate anticipated to be considered later in 2020, following CARB approval of the low-NOx Standard
- Initiate CTF Rate and launch incentive program
- Annual reporting to Board to monitor progress and revisit the CTF Rate as needed



Recommended Action

- Approve a Joint Resolution to adopt the CTF Rate
 - Sets the CTF Rate at \$10 per loaded TEU or \$20 per loaded FEU for loaded containers hauled by trucks that enter or exit port terminals
 - Exemption if hauled by a zero emission truck
 - Exemption if hauled by a low NOx truck from rate initiation through end of 2031

An aerial photograph of a large city harbor, likely Seattle, showing a dense urban area, a large marina with many boats, and a deep blue body of water. A semi-transparent teal banner is overlaid across the center of the image, containing the text "Thank you!".

Thank you!