SAN PEDRO BAY PORTS
CLEAN AIR ACTION PLAN

November 2017
FINAL CAAP 2017 UPDATE

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Air Quality Context for 2017 CAAP Update

- **Diesel Particulate Matter:** DOWN 87%
- **Nitrogen Oxides:** DOWN 56%
- **Sulfur Oxides:** DOWN 97%
- **Greenhouse Gases Equivalent:** DOWN 18%

10% TEUs UP 2023 77%
2023 59%
2023 93%

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2017 CAAP Update - Background and Purpose

• Build on successes and plan for the future
  • Cleanest Port complex in the world
  • Leaders in strategies to reduce environmental impacts
• Ports must be green in order to continue to grow
  • Need to balance environmental stewardship, economic competitiveness, and jobs
• Must continue to reduce pollutants and health risk
New danger from Climate Change

• Must commit to reduce greenhouse gases
• Importance of zero emission technologies, as emphasized by Mayors’ declaration

CAAP is a planning document

• Sets framework and guidelines
• Details will be developed as part of CAAP implementation process
New CAAP Focus on Greenhouse Gases

2005: 18%
2016: 40%
2030: 80%
2017 CAAP Update Schedule

Public Comment and Over 70 Stakeholder Meetings
2015 - Ongoing

Draft Discussion Document
Released 11/17/16

Draft CAAP 2017
Released 7/19/17

Joint Board Meeting
11/2/17

Final CAAP 2017
Joint Boards of Harbor Commissioners to consider approval

Public Workshop
10/2015

Public Workshop
1/2017

Public Workshop
8/2017

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Recurring Comment Themes

- Carbon footprint
- Accountability
- Zero-emissions
- Infrastructure
- Workforce
- Climate change
- Community health
- Economic competitiveness
- Interim milestones
- Stakeholder process
- Costs
- Feasibility assessments
- Near-zero emissions
- Funding

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Guiding Principles

- Expeditiously reduce air emissions and associated health risk
- Remain economically competitive and maintain our market position
- Support our vibrant workforce
- Continue to develop and foster strong partnerships with all stakeholders
- CAAP implementation process must be transparent and responsive to input
Overview

2017 CAAP Update Strategies
Ocean-Going Vessels

- Capture up to 100% of vessel at-berth emissions by 2030
- Modify Vessel Speed Reduction Program to maximize participation to 40 nm
- Incentivize energy-efficiency improvements and use of cleaner technologies
- Impose differential rate system to incentivize newer, cleaner vessels
Heavy-Duty Trucks

- Transition trucks to near-zero in the near-term and ultimately zero emissions by 2035
- Implement Port Truck Reservation System
Terminal Equipment

- Transition terminal equipment to zero emissions by 2030
- Establish a terminal equipment idling reduction program
- Develop charging standards for electric terminal equipment
Additional 2017 CAAP Update Strategies

• Incentivize harbor craft repowers to Tier 3 and Tier 4
• Expand use of on-dock rail
• Develop a Green Terminal Program
• Identify and implement supply chain efficiencies
• Develop and implement energy strategies and supporting infrastructure
Updates and Clarifications

Response to Comments on the Draft
Feasibility Assessments

- Technical Viability
- Operational Feasibility
- Availability of Supporting Infrastructure and Fuels
- Economic Considerations
- Commercial Availability
Cargo Handling Equipment

• Goal of zero emission cargo handling equipment by 2030
• Participate in development of CARB’s regulation to achieve up to 100% ZE for CHE by 2030
• Conduct feasibility assessments starting in 2018 and updating every three years
Cargo Handling Equipment

• Terminals to submit an equipment inventory and 10-year procurement schedule for new equipment starting January 1, 2019.

• Beginning in 2020, new purchases must be zero-emission, or best available if zero-emission is not yet feasible, as determined by the Feasibility Assessment.

• Accelerate deployment of near-zero and zero-emission equipment through leases and grants.
Previous Clean Trucks Program Timeline

2018
- New Registration Requirement for MY 2014+

2023
- New Registration Requirement for NZE
- Initiate Rate with Exemptions for NZE & ZE

2035
- Goal for all trucks to be ZE
- Modify Rate with Exemptions only for ZE

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### New Clean Trucks Program Timeline

- **2018**: New Registration Requirement for MY 2014+
- **2020**: Initiate Rate with Exemptions for NZE & ZE
- **2023**: New Registration Requirement for NZE
- **2035**: Goal for all trucks to be ZE
  - Modify Rate with Exemptions only for ZE

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Additional Key Comments and Clarifications

- Economic Competitiveness
- Truck Driver Conditions and Financing
- Implementation Milestones
- Transparency and Reporting
Next Steps

• We’re at the starting point

• Near-Term Actions
  • CAAP Implementation Advisory Workgroup
  • Technology Demonstrations
  • Feasibility Assessments
  • Clean Trucks Program
  • Port Truck Reservation System
  • Terminal Equipment
Next Steps

- Funding Advocacy
  - Education and Engagement
  - Grant Opportunities
    - U.S. Environmental Protection Agency
    - California Air Resources Board
    - California Energy Commission
    - South Coast Air Quality Management District