

Update on Facility- Based Mobile Source Measure Development for Marine Ports

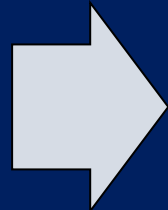
Board Meeting

February 4, 2022

Board Direction in August 2021

August 2021

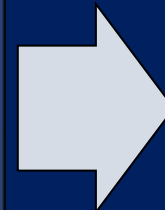
Continue to pursue an MOU-only approach with the Ports for another four months



December 2021

Draft MOUs ready for execution by all parties?

- If yes, continue MOU-only approach
- Otherwise, begin *internal* work on port indirect source rule (ISR) concepts while continuing MOU discussion



February 2022

Draft MOUs ready to be fully executed?

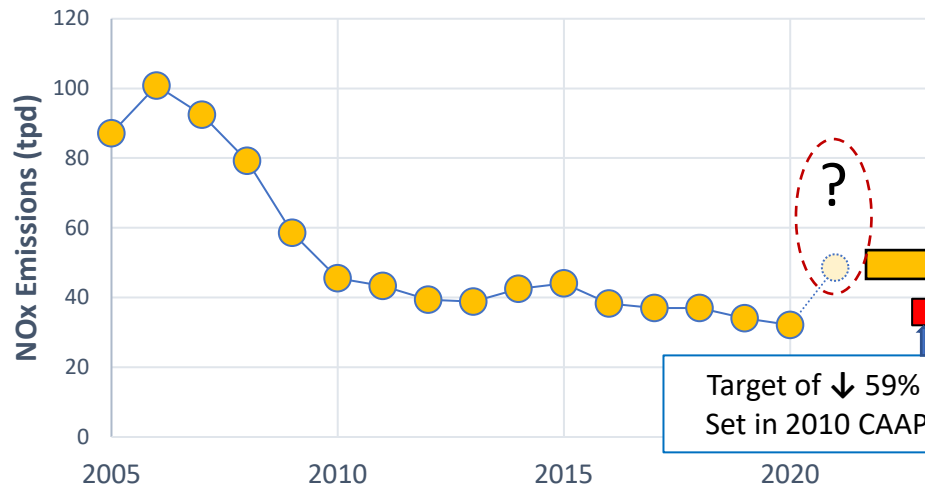
- If yes, bring to Board for consideration and begin implementing MOUs
- Otherwise, pivot to port ISR rulemaking

History

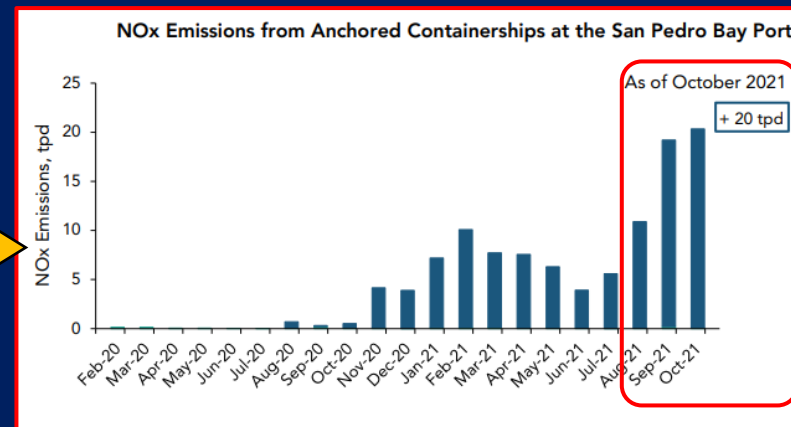
- **Decades-long effort to ensure port emission reductions**
 - 2007 & 2012 AQMPs backstop measures; Proposed Rules 4001/4010/4020
 - Would have established enforceable emission reduction targets based on various criteria
 - Rule development on hold with development of 2016 AQMP and 2017 CAAP*
 - 2016 AQMP included a facility-based mobile source measure for ports
 - Assists in implementing Further Deployment measures (i.e., “black box” measures)
 - Significant portion of emission reduction needs are associated with port operations
 - 2019 AB 617 Community Emissions Reduction Plan
 - Key action for Wilmington/Carson/West Long Beach
- **Missed opportunities by Ports for port projects**
 - China Shipping
 - Southern California International Gateway (SCIG)

History (cont.)

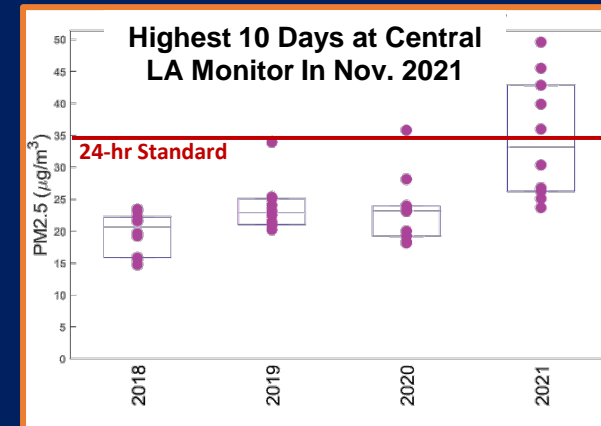
- **Ports' 2010 CAAP set a 2023 NO_x target of 59% reduction below 2005 levels**
 - Consistent with 'defined measures' from 2007 AQMP, but did not include additional reductions needed from "black box" measures
 - 59% target not updated in 2017 CAAP – "black box" needs remain unaddressed
- **A full year of port congestion has reversed progress achieved a decade ago, with limited relief starting only in recent weeks due to new vessel queueing system**
 - If congestion continues, even the insufficient target of 59% may not be met



Data sources: NO_x emissions reported in POLB & POLA annual emissions inventory reports, with 2005 and 2019 numbers updated based on the 2020 reports.

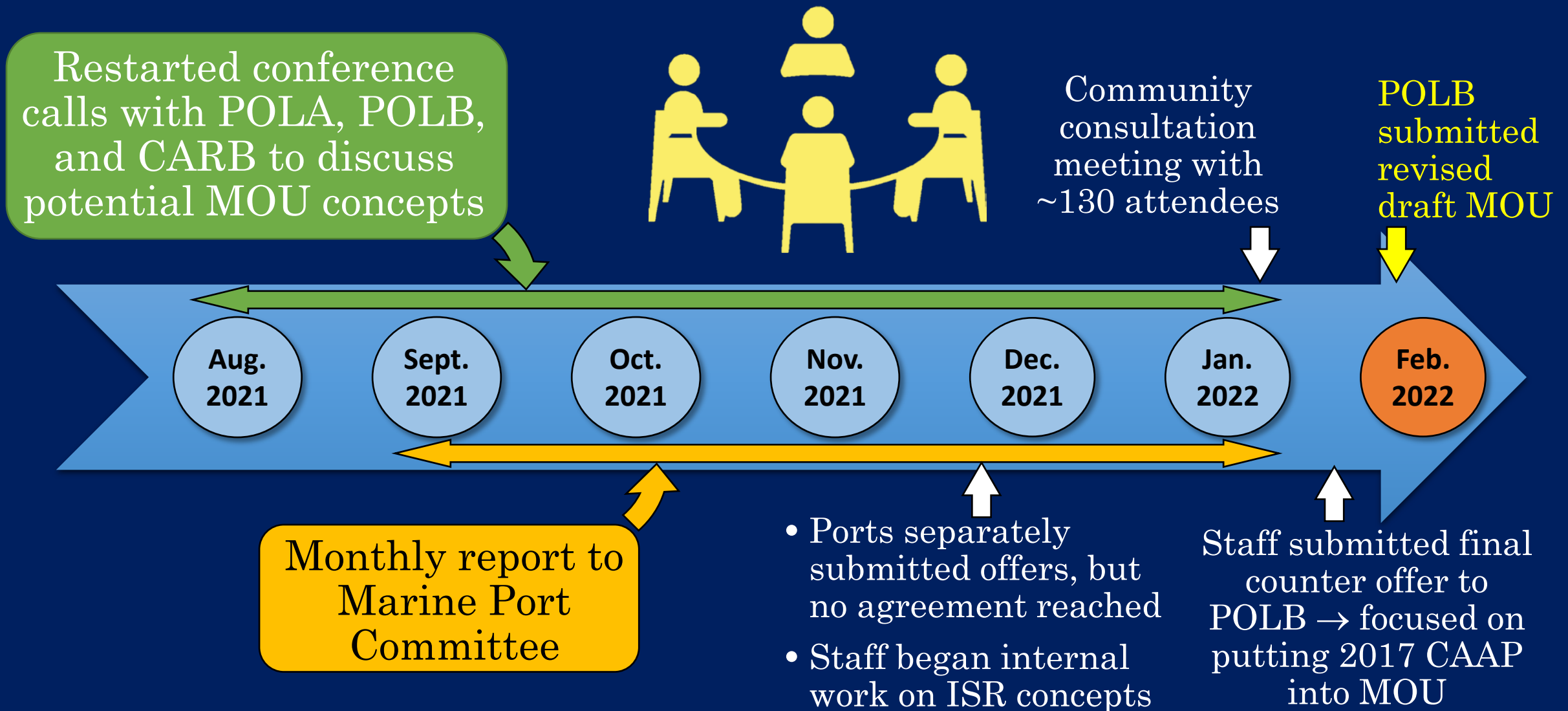


Nov. 2021 CARB updated chart for anchorage emissions



South Coast Air Basin attained the 2006 24-hour PM_{2.5} in 2020 and was on track to maintain this attainment status until November this year

Process Over Past Six Months



Key Public Feedback Received*

Businesses and Maritime Industry

- Finalize MOU with POLB and do not pursue ISR
- Resume technical working group meetings
- Concerns about ISR:
 - Discourages voluntary emission reductions
 - Disrupts supply chain
 - Could hurt jobs and economy
 - Loses near-term reductions from POLB's advanced funding for clean trucks

Labor

- Concerns that ISR will reduce port jobs
 - Terminal automation and/or reduced port throughput
- ZE infrastructure development can create jobs
- Up-front funding needed for trucks, especially independent drivers

Environmental Groups and Local Community

- Begin ISR rulemaking now to reduce emissions from all port sources
- Mandate ZE technologies
- Engage more with public
- Concerns about MOU:
 - Process already too long with emission reductions delayed and too low
 - Weak provisions
 - Doesn't protect public health enough

*There is diversity in viewpoints among individuals within each group shown here.

Staff Focus in MOU Discussions

Ports are largest
NO_x source in
Basin

~20 tons/day of NO_x reductions
from port sources needed to
meet federal air quality
standards in 2023 & 2031

Port emissions cause
higher PM_{2.5}
throughout Basin

CAAPs not sufficient to
achieve ports' fair share
reductions for meeting federal
air quality standards

Port actions in recent
years do not meet
their own projections
in 2017 CAAP

Any MOU must
be enforceable

Key Focus Areas on Potential MOU Offers

- **Staff focus**

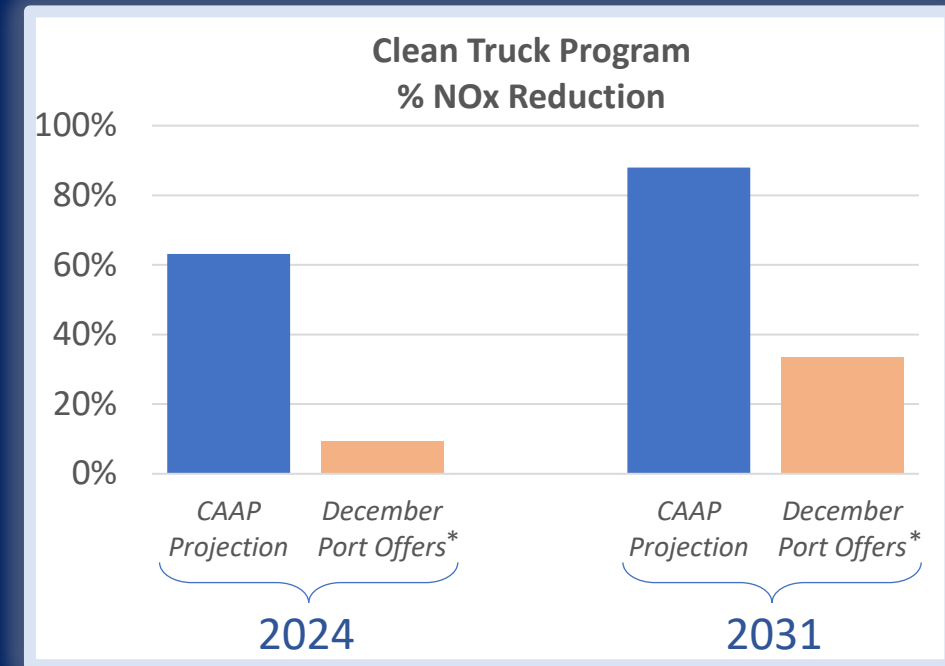
- Port offers did not include all 2017 CAAP measures
 - Even more is needed beyond 2017 CAAP to satisfy attainment needs
- Several legal concerns, including lack of enforceability

- **POLB focus**

- December offer includes significant clean air investments
 - \$100M up front for trucks
 - Use leases to negotiate cleaner cargo handling equipment (CHE) and renewable diesel fuel
 - Vessel speed reduction (VSR) down to 10 knots
 - ZE infrastructure plans for CHE and develop 100 on-port trucks chargers by 2028
 - Continue on-dock Pier B rail project

- **POLA focus**

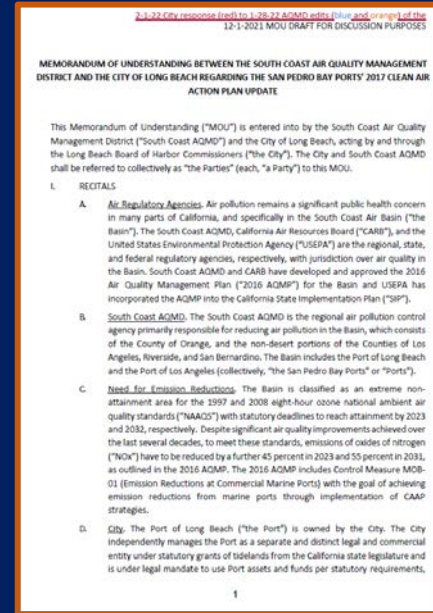
- Believes sole purpose of MOU is to quantify implementation of 2017 CAAP
 - \$3M up front for trucks
 - Explore enhanced or new programs for ships (VSR, OGV Incentives, Green Shipping Corridor)



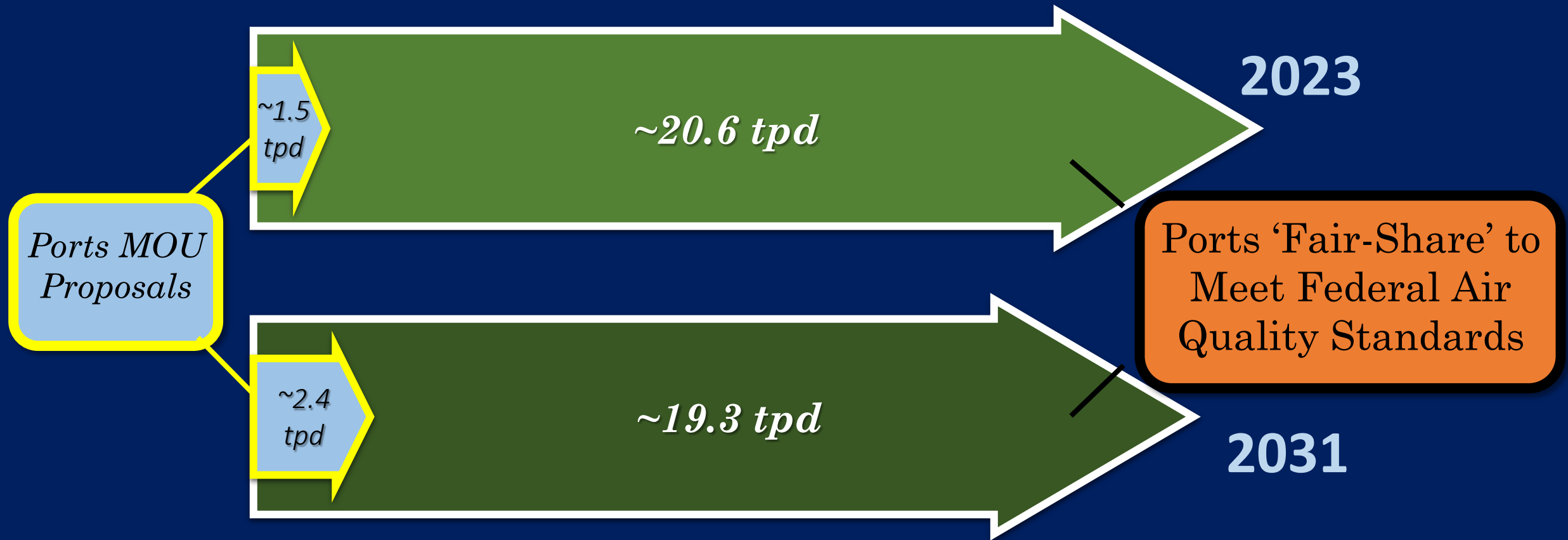
**Estimated emission reductions approximately equal between both ports*

Recent MOU Offer

- On February 2, POLB provided a proposed revised draft MOU
 - Includes the clean air investments in the December offer
 - Removes enforceability provisions
 - Removes performance targets that match the CAAP
 - Re-extends MOU duration to 2032
 - Re-inserts penalty for South Coast AQMD to leave the MOU



Preliminary Estimate of NO_x Emission Reductions from December MOU Proposals



Existing Low NO_x Technologies Have Not Been Widely Implemented by Industry/Ports

Nonroad Cargo
Handling
Equipment



Tier 4F
Effective
2014-2015

Harbor
Craft



Tier 4
Phased in
2014-2017

Rail
Locomotives



Tier 4
Effective
2015

Ocean-going
Vessels



Tier III
Effective
2016

Heavy-Duty
Trucks



**Optional
Low-NO_x**
Available in
2018

~32%

<1%

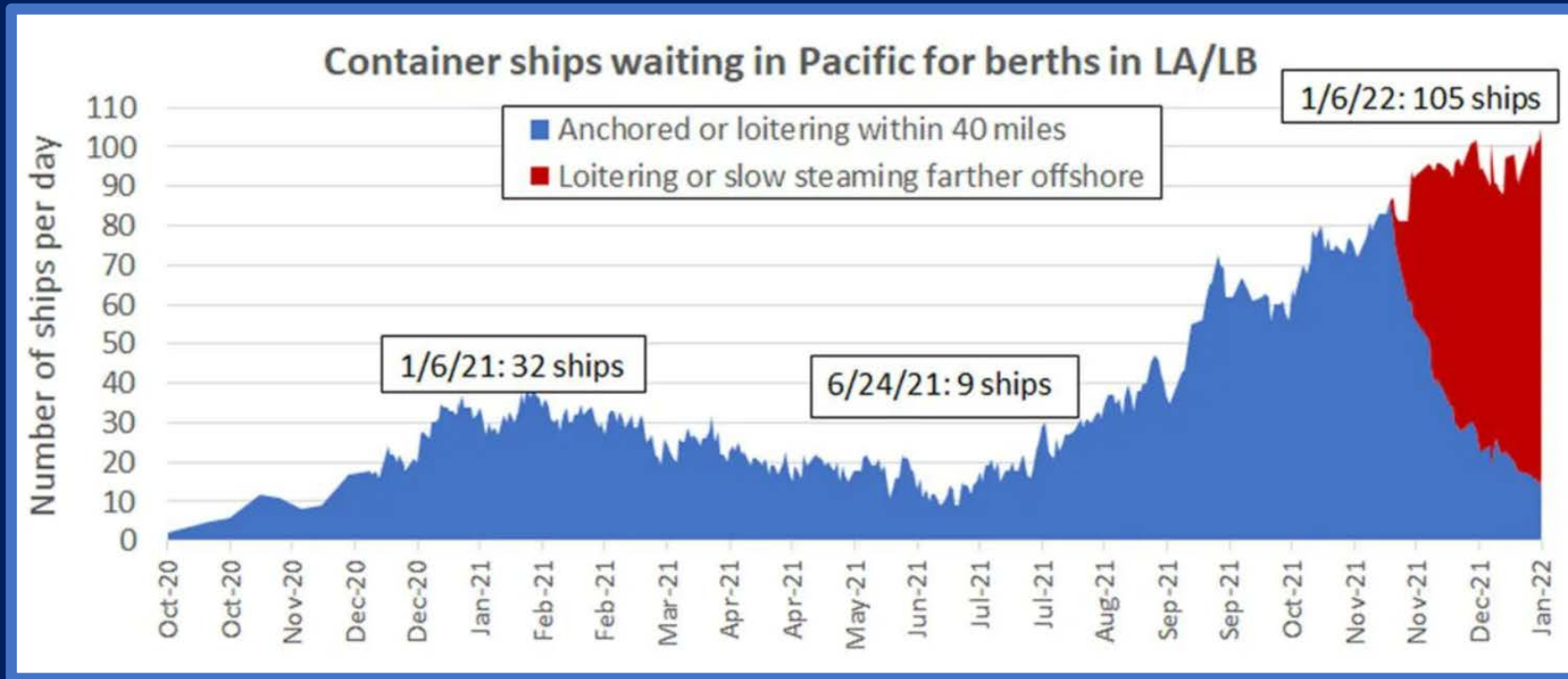
~5%

~2%

~5%

Percent of vehicle/equipment use at ports of LA/LB as reported in their emission inventories

Additional Challenges as Port Congestion Continues



Port throughput in 2021 up 18% above 2019 (pre-pandemic)

As of 1/28/22, **100** container ships waiting for a berth at POLA/POLB

Anticipated high throughput for foreseeable future will continue to result in higher emissions

Air Quality Challenges Also Require Upsized Investment

California, U.S. Department of Transportation Announce Partnership on Supply Chain Infrastructure Program to Create Long-Term Stability



Published: Oct 28, 2021

Innovative federal-state partnership to identify potentially billions in financing for infrastructure projects that create sustainable solutions for goods movement chain

PORT OF LOS ANGELES APPLAUDS GOV. NEWSOM'S PLAN TO INVEST \$2.3 BILLION IN CALIFORNIA PORTS



Port of Long Beach Sets Annual Record With 9.38 Million TEUs
Milestone for 2021 marked by increased consumer spending during pandemic



Port of Los Angeles Reports Record 10.7 Million TEU Throughput in 2021

Federal Funding for Ports:
An investment in the future.



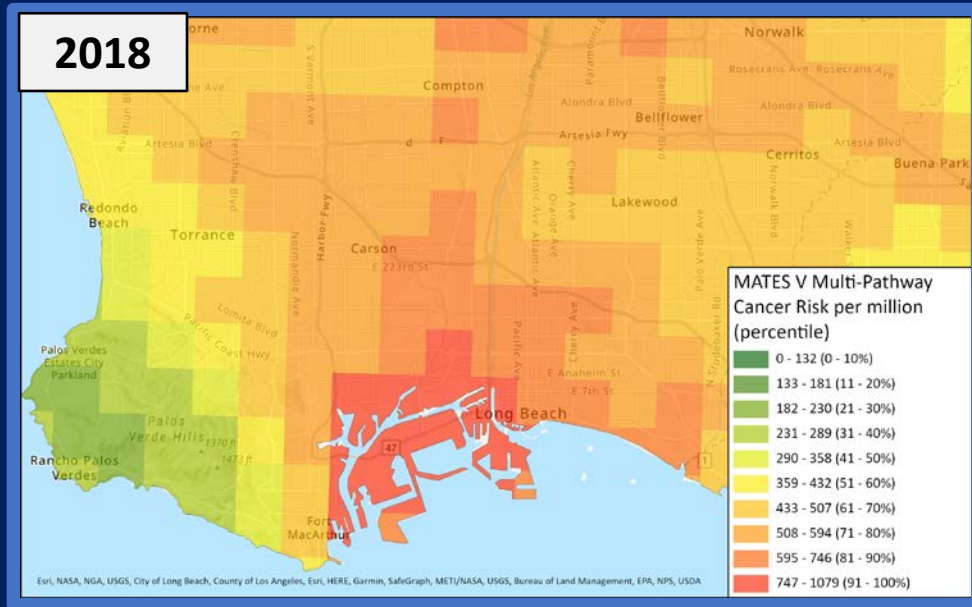
Infrastructure Investment and Jobs Act

Port-Specific = \$5.2B

Port-Eligible = \$27.1B



Adverse Health Impacts on the Surrounding Community and Throughout the Region



- **Local Impacts***: Communities adjacent to the ports are in the 96th percentile for air toxics cancer risk in SCAQMD, and have higher asthma rates
- **Regional Impacts****: Ports account for ~10% of total Basin NO_x emissions. Ozone and PM from this NO_x affect public health throughout the region

Asthma Attacks



Premature Deaths



School & Work Absences



* MATES V, WCWL AB 617 CERP

** 2016 AQMP

Summary

- ✓ No MOUs ready to be adopted and fully executed after additional six months of MOU process
 - ✓ More progress made with POLB than with POLA
- ✓ The Port's proposals do not meet the AQMP reduction needs or the goals set forth in the 2017 CAAP
- ✓ Additional air quality and public health challenges continue to occur with record-breaking cargo volume
- ✓ Move from internal to external ISR effort

Anticipated ISR Rulemaking Next Steps

- Immediately initiate external outreach including working group meetings, community meetings, individual stakeholder outreach, web resources, etc.
- Develop potential rule concepts for Proposed Rule 2304
- Quarterly updates to Mobile Source Committee
- Targeting 12-18 months to develop Proposed Rule 2304 for Board consideration