



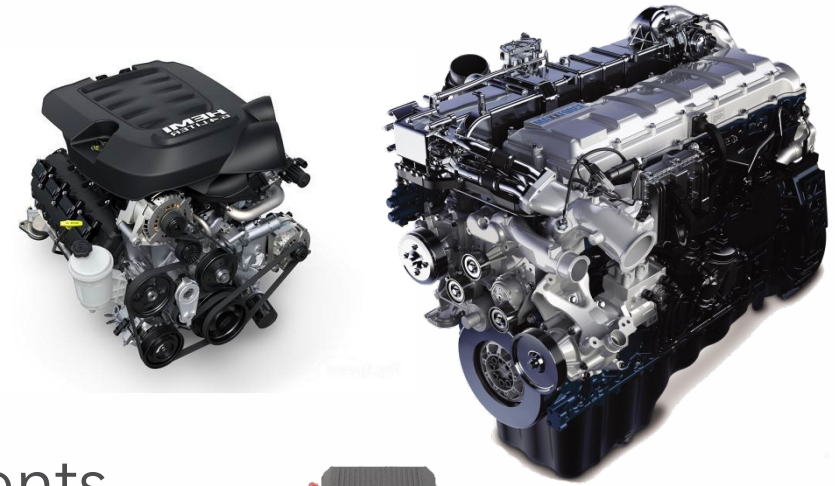
**CALIFORNIA**  
AIR RESOURCES BOARD

# **Proposed Amendments to the Heavy-Duty Engine and Vehicle Omnibus Regulation**

**Executive Officer Hearing  
October 20, 2023**

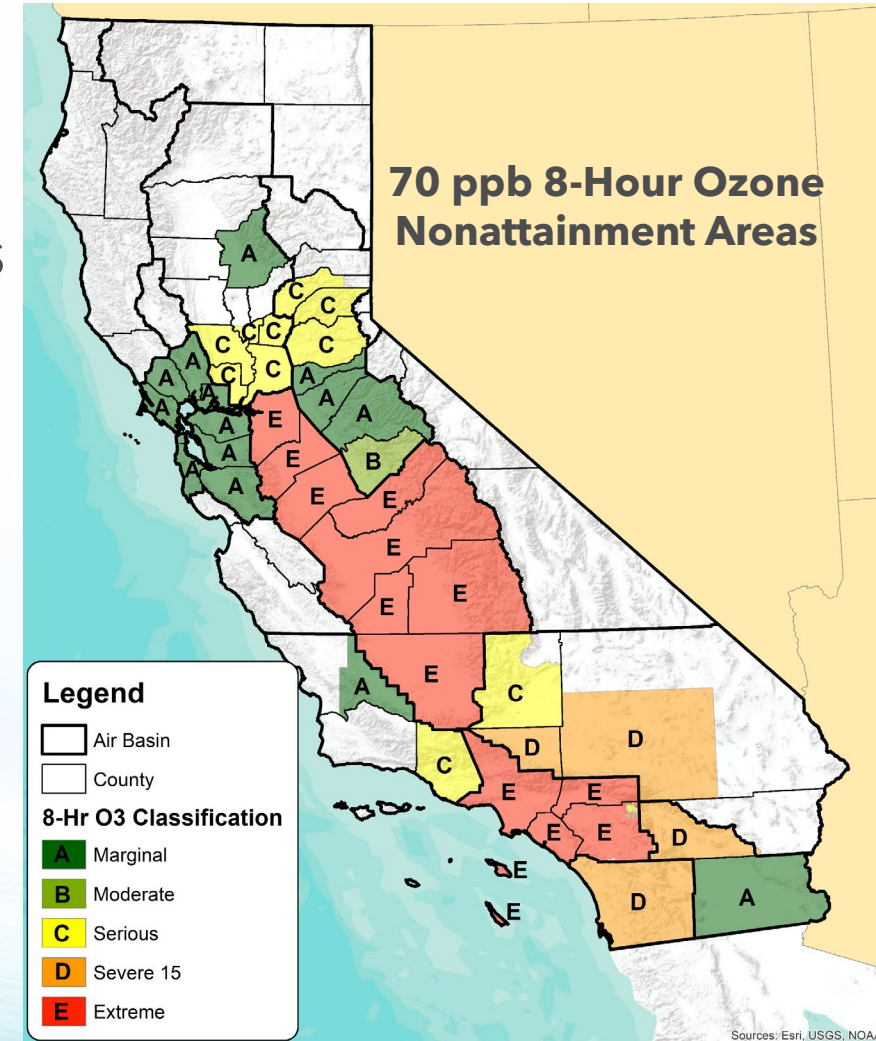
# Outline

- Background
- Current Heavy-Duty (HD) Omnibus Requirements
- Need for Additional Flexibilities
- Staff Proposal
  - Planned 15-Day Changes
- Benefits and Costs
- Staff Recommendation



# Air Quality Challenges

- Approximately 67% of California's population, 26 million out of 39 million people, live in areas exposed to concentrations above the federal ozone and particulate matter (PM) 2.5 standards
  - 19 nonattainment areas in California
  - Attainment years 2020-2037
  - A disproportionate number of those most impacted by high ozone levels live in low-income and disadvantaged communities
- Key challenges:
  - South Coast ozone
  - San Joaquin Valley PM<sub>2.5</sub>



# Reducing HD Truck Oxides of Nitrogen (NO<sub>x</sub>) Emissions is Critical for State Implementation Plan (SIP) Attainment

- HD trucks remain largest source of NO<sub>x</sub> emissions under CARB authority
- Further NO<sub>x</sub> reductions needed from HD trucks to attain air quality goals
- Needed to achieve our SIP commitments



# Heavy-Duty Engine and Vehicle Omnibus Regulation (Omnibus)

- Critical 2016 State SIP measure for achieving air quality goals
- Adopted by the Board on September 9, 2021
- Established stringent NO<sub>x</sub> and PM emissions standards for HD and medium-duty engines beginning in 2024 model year (MY)
  - NO<sub>x</sub> standard: 0.05 gram per brake horsepower hour (g/bhp-hr) applies to 2024 to 2026 MYs
  - PM standard: 0.005 g/bhp-hr applies to 2024 and subsequent MYs
- Revised certification and in-use test procedures

# Compliance Flexibilities in the Omnibus Regulation

- HD engines rated below 525 hp (legacy engines)
  - 2024-2025 MYs
  - Certify to 0.20 g/bhp-hr NO<sub>x</sub>, 30 g/hour Idle NO<sub>x</sub>, Step 1 Warranty, and California On-Board Diagnostic (OBD) requirements
  - Percentage-of-Sales limits apply:
    - 45% in 2024 MY and
    - 25% in 2025 MY
  - All additional emissions must be offset
    - Credits from the HD zero-emission averaging set
    - Credits from the same HD diesel engine averaging set
    - Projects targeted at California disadvantaged communities
  - Must certify at least one engine family to the Omnibus standards

# Need for Additional Flexibilities

- Manufacturers are currently in the process of certifying Omnibus compliant products for 2024 MY
- CARB staff was notified of late changes to manufacturers' product plans for 2024-2026
- Board Delegation of Authority to the Executive Officer (EO), for a limited time, to consider proposed amendments to Mobile Source Regulations
- Signed Clean Truck Partnership Agreement: July 5, 2023
- Notice of proposed amendments released: August 1, 2023
- Received 27 comments on the request for EO Hearing - October 20, 2023
  - Hearing notice published: September 15, 2023

# Clean Truck Partnership

- Agreement between CARB, EMA and all member HD On-Highway (HDOH) OEM members, and Ford Motor Company
- Signed on July 5, 2023
- Commitments from CARB include proposing:
  - Amendments to Legacy Provisions (2024-2026 MYs)





# Proposed Changes

- To provide additional flexibility during the 2024-2026 transition years, staff is proposing to amend the legacy engine sales caps
- Provides manufacturers two options to choose from:

	2024 MY	2025 MY	2026 MY
Current Omnibus	45%	25%	0%
Proposed Option 1	45%	25%	10%
Proposed Option 2	MHDD* - 60% Other Engine Classes - 15%	MHDD* - 60% Other Engine Classes - 8%	0% 0%

\*MHDD: medium heavy-duty diesel

# Proposed Changes (cont.)

- Emissions deficits from all legacy engine sales need to be offset with existing mechanisms in the regulation
  - Credits from the HD zero-emission averaging set
  - Credits from the same HD diesel engine averaging set
  - Projects targeted at California disadvantaged communities
    - May initiate in 2024 or 2025 MY
- Legacy engine families may be certified prior to Omnibus-compliant engine families
- Legacy engine labeling requirement to indicate legacy engines are certified and intended for sale in California

# Planned 15-Day Changes

## California sales volume modified definition

- New California certified engines, vehicles, or powertrains produced and delivered for sale in California

## Minor clarifications

# Benefits and Costs

Emissions  
neutral



Costs neutral to  
manufacturers  
and fleet  
operators

# Staff Recommendation

- Consider approving the proposed amendments including 15-day changes after staff issues 15-day notice and public comment period closes

