



**California Air Resources Board (CARB), Truck and
Engine Manufacturers Association (EMA), Ford
Clean Truck Partnership:
Ensuring Clean Trucks for the Future**

NACAA Briefing
July 25, 2023

Outline

- Background
- Objectives of the Agreement
- Elements of the Agreement
- Next Steps
- Benefits of the Agreement

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

- Established lower oxides of nitrogen (NO_x) and particulate matter emission standards starting in 2024 model year (MY)
- Approved by Office of Administrative Law (OAL) in December 2021
- Provided legacy engine provisions to ease transition to 0.05 gram per brake horsepower hour (g/bhp-hr) NO_x standards
 - 0.20 g/bhp-hr legacy engines can be sold
 - All additional emissions must be offset with HD zero-emission vehicles (ZEV), or, in limited cases, other credits
- Caps on allowable legacy engines:
 - 2024 MY: Up to 45 percent of manufacturer's total California (CA) HD diesel engines
 - 2025 MY: Up to 25 percent of manufacturer's total CA HD diesel engines



U.S. Environmental Protection Agency (U.S. EPA)

Clean Trucks Plan (CTP)

NOx Rule



- Finalized: January 23, 2023
- Same elements as Omnibus
- Slightly stricter NOx standards for 2027-2030 MYs
- Slightly less stringent than Omnibus for 2031 and later MYs
- On March 27, 2023, CARB petitioned U.S. EPA
 - Requesting reconsideration of certain elements of the NOx rule that weaken the standards (temperature adjustment, compliance margin)

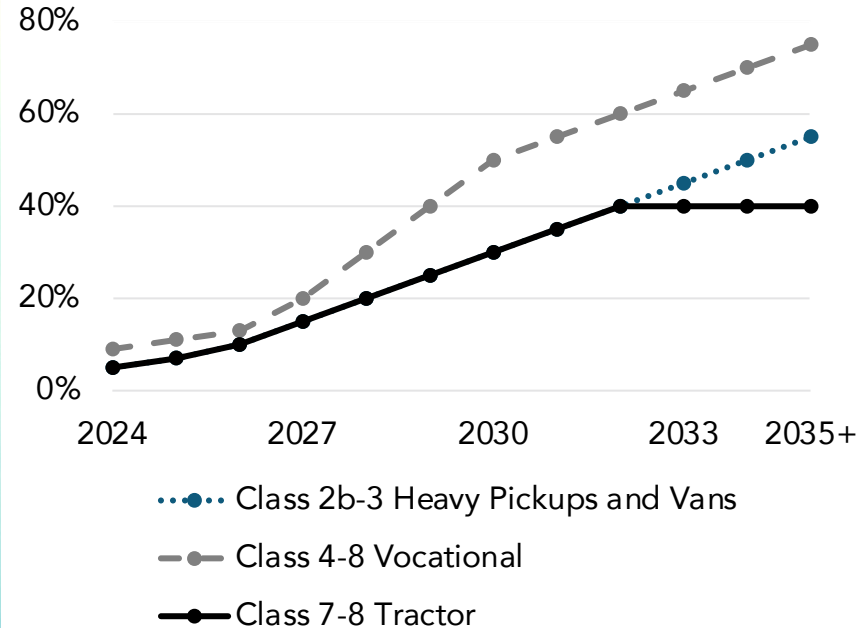
Advanced Clean Trucks (ACT) Regulation

- Approved by OAL in March 2021
- Affects vehicles with gross vehicle weight rating >8,500 lbs.
- Historic rule aimed at requiring manufacturers to transition from making combustion-powered HD trucks to HD ZEVs
- Manufacturers to sell ZEVs as a percentage of total sales*
- Credit for early sales
- Flexibility to shift sales between categories



*Partial credit for near-zero emissions vehicles (NZEV) with minimum all-electric range

ZEV Sales Percentage



Advanced Clean Fleets (ACF) Regulation

Board adopted on April 28, 2023

100 Percent ZEV Sales

Requirement starts 2036

Drayage Trucks

Legacy trucks until end of useful life
Full transition to ZEVs by 2035

State and Local Government Fleets

50% ZEV purchases 2024
100% ZEV purchases 2027

High Priority Fleets

Legacy trucks until end of useful life
Full transition to ZEVs by 2042

Timeline



Objectives of the Agreement

- Ensure the emission benefits of CARB's regulations
- Avoid litigation risk from EMA and Its OEMS
- Promote the transition of the HD vehicle industry to zero-emissions
- Minimize market disruption as manufacturers adjust to the new lower Omnibus NOx emission standards
- Maintain a strong and viable industry
- Provide certainty and stability for the HDOH industry and its customers

Elements of the Agreement

- Commitments from CARB to propose:
 - Omnibus Regulation
 - Amendments to Legacy Provisions (2024-2026 MY)
 - Omnibus / CTP NO_x Rule Harmonization (2027+ MY) except for two important elements
 - ACT / ACF
- Commitments from EMA and all member HDOH OEMs:
 - Not to sue or help others sue regarding the Omnibus, ACT, or ACF rules, plus other HD regulations
 - To comply with Omnibus and ACT irrespective of any legal challenges or outcomes in the courts
 - 100 percent HD ZEVs in 2036

Legacy Engine Amendments

- Revising the legacy engine caps
 - Publication of 45-Day Notice no later than August 29, 2023
 - Other revisions - 15-Day changes
- Manufacturers Advisory Correspondence (MAC):
 - MAC to describe process for reporting & verifying CA engine sales
 - MAC describing mitigation projects targeted at CA disadvantaged communities. Workshop will be conducted prior to release of the MAC

2027+ MY Omnibus / CTP NOx Alignment

- Align 2027 and later MY Omnibus Regulation with CTP NOx Final Rule
 - With some modifications to the in-use standards
 - Propose a single national Averaging, Banking, and Trading program starting in 2027 MY
 - First workshop: no later than 1st quarter of 2024
 - Rulemaking Notice: no later than 3rd quarter of 2025

Omnibus / CTP NO_x Rule Harmonization

- Propose to largely align with the U.S. EPA CTP NO_x Rule but with two important modifications:
 - Interim Compliance Allowance
 - 15 mg/hp-hr applicable to MHDD and HHDD* for 2027-2034 MYs
 - No compliance allowance for 2035 and later MYs
 - Temperature Adjustment
 - 2027-2030 MYs: the in-use off-cycle standards for bins one and two would remain constant at temperatures above 20 °C. The temperature adjustment would apply to temperatures between 5 to 20 °C
 - 2031 and subsequent MYs: the temperature adjustment would only apply to the 0 to 5 °C range

*HHDD: Heavy Heavy-Duty Diesel

Omnibus / CTP NOx Rule Harmonization (Continued)

- CARB is not committing to issue “deemed to comply certifications” based on U.S. EPA certifications
- Areas where CARB will maintain separate programs:
 - Certification program
 - On-Board Diagnostic Program
 - Emissions Warranty Information Reporting Program
 - HD in-use compliance program for both diesel and otto-cycle engines (with adopting 2-bin moving average window methodology)
 - Clean Idle Label requirement

ACT and ACF Regulations

- CARB issued guidance on ACT credit reporting in 2023
- CARB will propose to initiate a rulemaking action to that effect in calendar year 2024
- CARB will propose to lengthen the number of years a manufacturer has to make up a deficit from one year to three years
- In 2023, CARB will introduce the concept of credit pooling across states via a public workshop
- In 2023, CARB will hold a public workshop to discuss the appropriate role of hydrogen-fueled internal combustion engines towards meeting the requirements of the ACT and ACF regulations

Lead-time and Stability Commitments from CARB

- CARB's Executive Officer will direct staff to propose, and recommend that the Board adopt, minimum four-year leadtime and three-year stability periods for all future criteria emissions rulemakings affecting new on-road HD engines and vehicles
 - Will apply to ACT 2 rulemaking
 - Will not apply to 2027 MY amendments (Omnibus / CTP NO_x Rule Harmonization)

EMA and OEMs Commit not to Challenge HD Truck Regulations

- EMA and all member HDOH OEMs will not:
 - Challenge CARB's issuance of the HD Truck Regulations:
 - Omnibus regulation
 - ACT regulation
 - Zero-Emission Airport Shuttle regulation
 - Zero-Emission Powertrain Certification Procedure
 - 2018 HD Warranty Amendments
 - ACF regulation
 - File a Petition for Review or otherwise challenge any U.S. EPA waiver or authorization granted for such regulations
 - File amicus briefs supporting challenges to such waivers or authorizations, or such regulations
 - Support stay motions or similar motions practice challenging such waiver or authorization decisions, or such regulations

EMA and OEMs Commit to Meet the HD Truck Regulations Even Despite Litigation Uncertainty

Irrespective of the outcome of any litigation challenging the waivers or authorizations for the CARB HD Truck Regulations, or CARB's overall authority to implement those regulations, the OEMs commit to the following:

- In CA:
 - Meet the relevant provisions of the CARB HD Truck Regulations
- In states that have opted into CA program (current Section 177 states):
 - Comply or abide by the requirements specified in the HD Truck Regulations (for Omnibus, 2027+ MY)
 - Put forth best efforts to sell as many zero-emission trucks as reasonably possible
- In states considering opting into CA's program:
 - Support adoption for Omnibus for 2027+ MY, and be neutral for Omnibus 2024-2026 MYs
 - If ACT adopted, put forth best efforts to sell as many zero-emission trucks as reasonably possible

OEMs and CARB Work Together to Make Programs a Success

OEMs and CARB mutually agree to work together to resolve issues that may require regulatory amendments to the Omnibus regulation, and/or ACT regulation



Next Steps

- Amendments to Omnibus Legacy Provisions
 - Release Notice of Public Comment Period no later than August 29, 2023
- Amendments to Omnibus 2027+ MY Requirements (Omnibus / CTP NOx Rule Harmonization) – Calendar Year (CY) 2025/2026
 - First workshop – no later than the first quarter of 2024
 - 45-day notice – no later than the third quarter of 2025
- ACT 2 – CY 2026
 - To increase the ZEV sales requirements in later years to better align with the current and future fleet requirements

Benefits of the Partnership

- CARB staff have worked with the OEMs to:
 - Ensure CA and Section 177 states can reap the benefits of the cleaner trucks and a transition to HD ZEVs
 - Create an emissions-neutral and cost-neutral glidepath for compliance with our HD Truck Regulations that will work for OEMs/fleets/dealers and prevent disruption, shortages
 - Ensure OEMs support CA's zero-emission truck regulations

Benefits to States

- The Agreement will prevent OEMs and EMA from opposing and filing litigation against the HD Truck Regulations or waivers or authorizations granted for those regulations
- Per Section 177, in states that have adopted ACT/Omnibus, OEMs to abide by the requirements specified in the HD Truck Regulations (for Omnibus, 2027+ MY), and to put forth best efforts to sell as many zero-emission trucks as reasonably possible, irrespective of the outcome of any litigation
- OEMs to work cooperatively on transition to zero-emission truck future

Benefits to Communities

- Ensure zero-emission trucks and clean trucks will come to CA, irrespective of the outcome of any litigation
- OEMs to work cooperatively on transition to zero-emission truck future
- Cleaner trucks and cleaner air for communities, no matter what happens in court
- Communities in CA and Section 177 states can reap the benefits of the cleaner trucks and a transition to HD ZEVs

Further Information

- Press release: [CARB and truck and engine manufacturers announce unprecedented partnership to meet clean air goals | California Air Resources Board](#)
- Agreement language: [CARB and the Truck and Engine Manufacturers Association Agreement](#)