

Rule Provisions Truck Regulation Implementation Group - Meeting 5

December 10, 2024

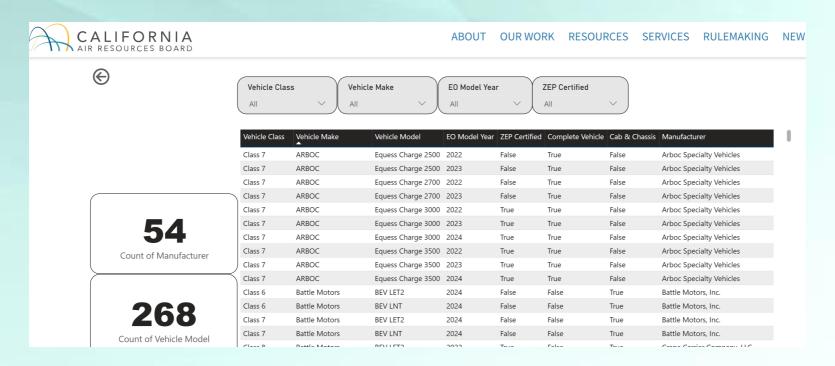
Overview

- List of Certified Medium and Heavy-Duty Zero-Emission Vehicles (ZEVs)
 - Updated to reflect comments from last meeting
- ZEV Purchase Exemption
 - Process
 - Requirements
- Streamlined ZEV Purchase Exemption List Development
 - Background
 - Method
 - ZEV configurations
- Draft layout for the Streamlined ZEV Purchase Exemption List



List of Certified Medium and Heavy-Duty ZEVs

- Incorporated changes based on feedback from the last meeting.
- List of Certified Medium and Heavy-Duty ZEVs





Standard ZEV Purchase Exemption Process

- Fleet owners may request an exemption to purchase a new internal combustion engine (ICE) vehicle if a needed configuration is not available to purchase as a ZEV or near-zero emission vehicle (NZEV) and fleet owner cannot comply without the exemption
- Must meet eligibility requirements to use exemptions
- Fleet owner submits application
- CARB reviews and responds within 45 days
- Details in regulation and in online resources:
 - Zero-Emission Vehicle Purchase Exemption Fact Sheet
 - Advanced Clean Fleets ZEV Purchase Exemption Checklist



Basic Eligibility Requirements for ZEV Purchase Exemption

- The California fleet must be in compliance
- ZEV Milestones Option:
 - All other ICE vehicles in the fleet have obtained exemptions
 - Must use or request exemption no later than 1 year ahead of a compliance deadline
- Model Year Schedule:
 - Must be replacing a vehicle at least 16 years old or over 700,000 miles
 - Must use or request exemption no later than 1 year ahead of the end of useful life
- ZEV Purchase Schedule:
 - Must be replacing a vehicle at least 13 years old
- Report purchased vehicle in Truck Regulations Upload, Compliance, and Reporting System (TRUCRS) account and submit required photos to TRUCRS@arb.ca.gov within 30 days of receiving new ICE vehicle
- Keep records



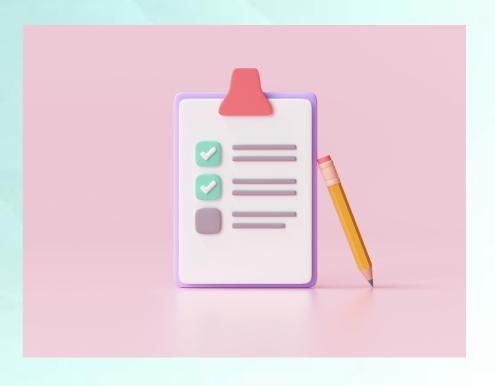
Is a ZEV Purchase Exemption Necessary?

- Exemptions address situations where fleet owners cannot comply for reasons beyond their control
- Examples where the ZEV Purchase Exemption is not applicable
 - ZEV Milestones Option
 - If other vehicles in the California fleet can be replaced with a ZEV, an exemption is not applicable
 - Model Year Schedule
 - If the vehicle is not required to be replaced (ie. near the end of its useful life), it is not eligible for an exemption
 - ZEV Purchase Schedule
 - Until 2027, if 50% of vehicle purchases in the calendar year are available as a ZEV an exemption is not applicable



Streamlined ZEV Purchase Exemption Background

- List of eligible vehicle configurations and weight class will be posted January 1, 2025
- Streamlines exemption process to purchase listed vehicle configurations without submitting a ZEV Purchase Exemption application
- Fleet must still meet basic eligibility requirements





Configurations to be Evaluated for Streamlined ZEV Purchase Exemption List

- Configurations are specified in section 2015.3(e)(1)(A):
 - Bucket truck, boom truck, dump truck, flatbed truck, stake bed truck, front-loader refuse compactor truck, side-loader refuse compactor truck, rear-loader refuse compactor truck, refuse roll-off truck, service body truck, street sweeper, tank truck, tow truck, water truck, car carrier truck, concrete mixer truck, concrete pump truck, crane, drill rig, vacuum truck
 - The list will not include the following configurations: pickups, any buses, box trucks, vans, or any tractors



"Available to Purchase" Evaluation Criteria

- Criteria to consider a ZEV or NZEV available to purchase
 - Is Zero-emission Powertrain (ZEP) certified, where applicable
 - Is available to be ordered in a model year 18 months or less from the date an exemption is requested (e.g., roughly the same or next model year)
 - Is not solely for demonstration, test, or experimental purposes
 - Is not offered as a temporary placeholder for a vehicle that may or may not be offered for sale in the future



Data Sources for Initial Streamlined ZEV Purchase Exemption List

- Emails and phone calls with manufacturers, upfitters, and dealers
- Survey responses from manufacturers, upfitters, and dealers
- Manufacturer, dealer, and upfitter brochures and websites







Photo Credit: International



Photo credit: Battle Motors

Streamlined ZEV Purchase Exemption List Updates

- Will be updated as new information becomes available
- If listed configuration and weight class becomes available to purchase as a ZEV:
 - List will be updated with the expiration date
 - The expiration date shall be the first day of the month after 180 calendar days of posting the change
- If a listed configuration and weight class are no longer available for purchase or no longer meets the evaluation criteria
 - List will be updated with date added





Initial ZEV Configuration Evaluation

Bucket Truck

- Class 2b Yes
- Class 3 No
- Class 4 Yes
- Class 5 No
- Class 6 Yes
- Class 7 Yes
- Class 8 Yes



ZEV photo credit: <u>Utility Fleet Professional</u>



Boom Truck

- Class 2b Yes
- Class 3 No
- Class 4 Yes
- Class 5 Yes
- Class 6 Yes
- Class 7 Yes
- Class 8 Yes



ZEV photo credit: Bollinger Motors



Concrete Mixer Truck

- ZEV Available
 - Class 2b NA
 - Class 3 NA
 - Class 4 Yes
 - Class 5 Yes
 - Class 6 No
 - Class 7 Yes
 - Class 8 No



ZEV photo credit: International Trucks



Crane

- Class 2b NA
- Class 3 NA
- Class 4 Yes
- Class 5 Yes
- Class 6 Yes
- Class 7 Yes
- Class 8 No



ZEV photo credit: Mack Trucks



Dump Truck

- Class 2b Yes
- Class 3 Yes
- Class 4 Yes
- Class 5 Yes
- Class 6 Yes
- Class 7 Yes
- Class 8 Yes



ZEV photo credit: <u>eMVTM Series</u> International®



Drill Rig

- ZEV Available
 - Class 2b NA
 - Class 3 NA
 - Class 4 Yes
 - Class 5 Yes
 - Class 6 No
 - Class 7 No
 - Class 8 Yes



ZEV photo Credit: Battle Motors



Flatbed Truck

- Class 2b Yes
- Class 3 Yes
- Class 4 Yes
- Class 5 Yes
- Class 6 Yes
- Class 7 Yes
- Class 8 Yes



ZEV photo credit: Zeus Electric Chassis



Front-loader Refuse Compactor Truck

- ZEV Available
 - Class 2b NA
 - Class 3 NA
 - Class 4 Yes
 - Class 5 Yes
 - Class 6 Yes
 - Class 7 Yes
 - Class 8 Yes



ZEV photo credit: Battle Motors



Service Body Truck

- ZEV Available
 - Class 2b Yes
 - Class 3 Yes
 - Class 4 Yes
 - Class 5 Yes
 - Class 6 Yes
 - Class 7 Yes
 - Class 8 No



ZEV photo credit: International Trucks



Side-loader Refuse Compactor Truck

- Class 2b NA
- Class 3 NA
- Class 4 Yes
- Class 5 Yes
- Class 6 No
- Class 7 Yes
- Class 8 Yes



ZEV photo credit: <u>Battle Motors Introduces an</u> <u>Advanced Battery Electric Vehicle Refuse</u> <u>Truck</u>



Stake Bed Truck

- Class 2b Yes
- Class 3 Yes
- Class 4 Yes
- Class 5 Yes
- Class 6 Yes
- Class 7 Yes
- Class 8 Yes



ZEV photo credit: <u>GreenPower Unveils All-Electric</u>, <u>Aluminum Utility Stake Bed Truck - The EV Report</u>



Street Sweeper

- ZEV Available
 - Class 2b NA
 - Class 3 NA
 - Class 4 Yes
 - Class 5 Yes
 - Class 6 No
 - Class 7 Yes
 - Class 8 Yes



ZEV photo credit: Battle Motors



Rear-loader Refuse Compactor Truck

ZEV Available

- Class 2b NA
- Class 3 NA
- Class 4 Yes
- Class 5 Yes
- Class 6 Yes
- Class 7 Yes
- Class 8 Yes



ZEV Photo credit: BYD



Refuse Roll-Off Truck

- Class 2b NA
- Class 3 NA
- Class 4 Yes
- Class 5 Yes
- Class 6 Yes
- Class 7 Yes
- Class 8 Yes



ZEV Photo credit: Battle Motors



Tank Truck

- ZEV Available
 - Class 2b NA
 - Class 3 NA
 - Class 4 Yes
 - Class 5 Yes
 - Class 6 No
 - Class 7 Yes
 - Class 8 Yes



Photo Credit: Battle Motors



Tow Truck

ZEV Available

- Class 2b NA
- Class 3 NA
- Class 4 Yes
- Class 5 Yes
- Class 6 Yes
- Class 7 Yes
- Class 8 Yes



Photo credit: Xpak Industries



Water Truck

- ZEV Available
 - Class 2b NA
 - Class 3 NA
 - Class 4 Yes
 - Class 5 Yes
 - Class 6 No
 - Class 7 Yes
 - Class 8 Yes



Photo Credit: Battle Motors



No ZEVs Available

- Concrete Pump Truck
 - Class 2b 3: NA
 - Class 4 8: No
- Car Carrier Truck
 - Class 2b 3: NA
 - Class 4 8: No
- Vacuum Truck
 - Class 2b 3: NA
 - Class 4 8: No



Photo Credit: Weiler's Concrete Pumping



Photo Credit: Deluxe Auto Carriers Inc.



Photo Credit: Vac Con



Preliminary Draft Streamlined ZEV Purchase Exemption List Layout

Configuration	Weight Class	Added	Removed
Bucket Truck	3, 5	//2025	NA
Boom Truck	3	//2025	NA
Car Carrier Truck	4, 5, 6, 7, 8	//2025	NA
Concrete Mixer Truck	6, 8	//2025	NA
Concrete Pump Truck	4, 5, 6, 7, 8	//2025	NA
Crane	8	//2025	NA
Drill Rig	6, 7	//2025	NA
Service Body Truck	8	//2025	NA
Side-loader Refuse Compactor Truck	6	//2025	NA
Street Sweeper	6	//2025	NA
Tank Truck	6	//2025	NA
Water Truck	6	//2025	NA
Vacuum Truck	4, 5, 6, 7, 8	//2025	NA

31

ZEV Purchase Exemption Process Comparison

Requirement	Standard Application	Streamlined List
Meet basic eligibility criteria	Yes	Yes
Exemption must be necessary	Yes	Yes
Must be replacing existing vehicle	Yes	Yes, except ZEV Milestones
Need manufacturer documentation	Yes	No
Must assess same and next higher weight class	Yes	No
Submit application	Yes	No
CARB responds within 45 days	Yes	NA
Identify vehicle to be replaced	Yes	Yes
Report ICE vehicle after it is received	Yes	Yes
Submit info about ICE purchased	Yes	Yes



Next Steps

- Submit comments by December 20, 2024 to ZEVfleet@arb.ca.gov
- Publish initial list by January 1, 2025
 - Updates when information changes

