

Truck Regulation Implementation Group Rule Provisions Workgroup Handout March 21, 2024

Please review the agenda and this additional information prior to the meeting so that the time can be spent on identifying solutions and having a constructive dialogue. This is background information to be discussed at the meeting.

Initial Reporting

- Report in Truck Regulation Upload, Compliance and Reporting System (TRUCRS)
 - High Priority Fleets (HPF) February 1, 2024¹
 - State and Local Government (SLG) Fleets April 1, 2024
- Report California fleet as it existed starting January 1, 2024

Zero-emissions Vehicle (ZEV) Purchase Exemption

Please review the relevant sections of the [ZEV Purchase Exemption FAQ](#) and regulation language regarding the ZEV Purchase Exemption identified below:

- [High Priority Fleets](#): Sections 2015.1(c)(5), 2015.2(f)(5), 2015.3(e), 2015.4(c)(2)(Q), 2015.4(i), and 2015.5(j).
- [State and Local Government Fleets](#): Sections 2013(n)(4), 2013.1(d)(1), 2013.2(g), and 2013.3(e).
- [\(ZEV\) Purchase Exemption frequently asked questions \(FAQ\)](#)

Process for Requesting a ZEV Purchase Exemption

Send an email to TRUCRS@arb.ca.gov requesting the exemption and include the following information about the vehicle being replaced:

- The vehicle identification number (VIN), vehicle make, model, weight class,
- Any necessary frame attachments needed to perform the vehicle's primary intended function (such as stabilizing outriggers or rail wheels)
- Whether the vehicle has a crew cab, is a cabover, or has all-wheel drive;
- The make and model of the body added to the chassis, if applicable
- A description of the vehicle body configuration (for example, bucket truck, box truck, concrete pump truck, pickup, dump truck, digger derrick, drill rig, stake bed truck, etc.)

¹ [See Advanced Clean Fleet Regulation December 28, 2023 enforcement notice.](#)

- Clear and legible photos of both entire left and right sides of the vehicle with the doors closed showing its configuration and if using the model year schedule provide a picture of the odometer reading
- Written statements from at least two manufacturers that offer the vehicle/chassis as a ZEV or NZEV in the needed general configuration showing they do not offer the vehicle for purchase as a ZEV or NZEV to meet the same primary intended function of the vehicle being replaced. If no manufacturer makes ZEVs or NZEVs with the same general configuration, the statements can come from any other medium- and heavy-duty vehicle manufacturer.

CARB shall rely on information gathered from fleet owners or manufacturers, manufacturer websites, manufacturer documentation, authorized dealers, CARB-issued Executive Orders, and their good engineering and business judgement to determine whether the configuration is available for purchase as a ZEV or near zero-emissions vehicle (NZEV) from any manufacturer, and whether the identified body submitted, or a body from another manufacturer, can perform the same primary intended function can be installed on the offered ZEV or NZEV.

Other Eligibility Criteria

HPF following Model Year Schedule:

- The model year of the vehicle being replaced has reached 16 years, or the odometer has exceeded 700,000 miles, whichever occurs first.

SLG following ZEV Purchase Schedule:

- Replacing a vehicle in the California fleet for a vehicle model year that is at least 13 years old.
- The total number of vehicle exemptions approved will not exceed the number of ZEV purchases needed to meet the applicable ZEV purchase requirement.

ZEV Milestones Option - HPF and SLG Fleets:

- No other ICE vehicle in the fleet can be replaced with a ZEV of the same configuration.
- The total number of exemptions approved will not exceed the number of ZEVs needed to meet the next applicable ZEV Milestone requirement.

Question and Answer (Q&A) Sessions

CARB has been conducting monthly Q&A sessions. These Q&A sessions are open to everyone and are held via ZOOM. Each session is focused on topic and is a forum to ask questions and receive real-time answers from CARB staff.

- Two recent Q&A sessions were held in March 2024
 - a. TRUCRS Q&A session (3/5/24), and
 - b. State and Local Government fleet requirements (3/12/24).

- c. Additional sessions are being scheduled monthly
- d. Information is available on the ACF [Meetings & Events webpage](#)

Example Draft List of Zero-Emission Vehicle Manufacturers

The following is a sample of ZEV models available by weight class and gross vehicle weight rating (GVWR) including manufacturers and powertrain type. The example list identifies ZEVs certified in classes six, seven, and eight, with class seven and eight tractors listed separately. The certification information for the vehicles can be found in CARB’s [certification database](#), under the heading “HDZEP.”

Topics for discussion

- Is the HVIP website sufficient to identify available zero-emissions vehicles (ZEVs)?
- Is it helpful to have a list similar to the one showed below to help fleet owners identify manufacturers making ZEV chassis or complete vehicles?
- Is having links to the certification executive orders beneficial?

Class 6 (19,500 lbs. < GVWR ≤ 26,000 lbs.) - Discussion Draft

Manufacturer	Powertrain Type	ZEV Models
Battle Motors, Inc.	Battery-electric	Battle Motors BEV LNT, BEV LET2
Blue Bird Body Company	Battery-electric	Blue Bird All American, Blue Bird Vision
BYD Auto Industry Company Limited	Battery-electric	BYD S82N01; BYD 6F (T011N01); BYD (Heavy-Duty All Electric Vehicle) K7M
Daimler	Battery-electric	FCCC MT50e Chassis; Thomas Built Buses Saf-T-Liner C2; Freightliner FCCC eM2 (106, 112) MT50e Chassis; Thomas Built Buses Saf-T-Liner C2 Jouley Electric Bus
Hexagon Purus Systems USA LLC	Battery-electric	Hexagon Purus eM2, eXL (Heavy-Duty All Electric Vehicle)
Motiv Power Systems, Inc.	Battery-electric	Motiv (Heavy-Duty All Electric Vehicle) EPIC F-59, EPIC F 53, EPIC S, EPIC SL (Incomplete vehicle)
Navistar	Battery-electric	Navistar IC School Bus (eCE); International eMV
Paccar	Battery-electric	Peterbilt Model 220; Kenworth K370E, K270E
SEA Electric	Battery-electric	SEA SV6 (Heavy Duty All Electric Vehicle)
The Lion Electric Co USA Inc.	Battery-electric	Lion LIONC (Heavy-Duty All Electric Vehicle)
Unique Electric Solutions, Inc.	Battery-electric and hydrogen fuel-cell	UES UEVCC-CS6 Class 6; UES UES F550; UES UES F600; UES UES F650; UES UES F750; UES UES F53; UES UES F59; UES UES MT55; UES UES 6500; UES UES Isuzu NQR; UES UES Isuzu FTR; UES UES Isuzu FVR

Vicinity Motor Corporation, LLC	Battery-electric	Vicinity (Heavy-Duty All Electric Vehicle) Vi28
Volvo	Battery-electric	MACK MD Electric
Xos, Inc.	Battery-electric	Xos SV

Class 7 (26,000 lbs. < GVWR ≤ 33,000 lbs.) - Discussion Draft

Manufacturer	Powertrain Type	Models Available
Arboc Specialty Vehicles	Battery-electric	ARBOC Specialty Vehicles X1-5s-230; ARBOC Equest Charge 2500; Equest Charge 2700; Equest Charge 3000; Equest Charge 3500
Battle Motors, Inc.	Battery-electric	Battle Motors BEV LNT, BEV LET2
Blue Bird Body Company	Battery-electric	Blue Bird All American, Blue Bird Vision
BYD Auto Industry Company Limited	Battery-electric	BYD S82N01; BYD 6F (T011N01); BYD (Heavy-Duty All Electric Vehicle) K7M
Daimler	Battery-electric	FCCC MT50e Chassis; Thomas Built Buses Saf-T-Liner C2; Freightliner FCCC eM2 (106, 112) MT50e Chassis; Thomas Built Buses Saf-T-Liner C2 Jouley Electric Bus
Hexagon Purus Systems USA LLC	Battery-electric	Hexagon Purus eM2, eXL (Heavy-Duty All Electric Vehicle)
Motiv Power Systems, Inc.	Battery-electric	Motiv (Heavy-Duty All Electric Vehicle) EPIC F-59, EPIC F 53, EPIC S, EPIC SL (Incomplete vehicle)
Navistar	Battery-electric	Navistar IC School Bus (eCE); International eMV
Paccar	Battery-electric	Peterbilt Model 220; Kenworth K370E, K270E
SEA Electric	Battery-electric	SEA SV6 (Heavy Duty All Electric Vehicle)
The Lion Electric Co USA Inc.	Battery-electric	Lion LIONC (Heavy-Duty All Electric Vehicle)
Unique Electric Solutions, Inc.	Battery-electric and hydrogen fuel-cell	UES UEVCC-CS7 Class 7; UES UES F550; UES UES F600; UES UES F650; UES UES F750; UES UES F53; UES UES F59; UES UES MT55; UES UES 6500; UES UES Isuzu NQR; UES UES Isuzu FTR; UES UES Isuzu FVR
Volvo	Battery-electric	Volvo VNRe; MACK MD Electric
Xos, Inc.	Battery-electric	Xos SV

Class 8 (33,000 lbs. < GVWR) - Discussion Draft

Manufacturer	Powertrain Type	Models Available
Battle Motors, Inc.	Battery-electric	Battle Motors BEV LNT, BEV LET2
Blue Bird Body Company	Battery-electric	Blue Bird All American (Heavy-Duty All-Electric Vehicle); Vision (Heavy-Duty All-Electric Vehicle)

BYD Auto Industry Company Limited	Battery-electric	BYD C8M, C8MS, C9M, C10M, C10MS; BYD Type-D Electric School Bus; BYD Type-C Electric School Bus; BYD K7M ER, K8M, K9M, K9MD, K11M, 8R
Daimler	Battery-electric	Thomas Built Buses Saf-T-Liner C2 Jouley Electric Bus
Gillig LLC	Battery-electric	Low floor (Heavy-Duty All Electric Vehicle)
Greenpower Motor Company Inc.	Battery-electric	GreenPower EV250, EV350, EV550, BEAST, Synapse Shuttle (Heavy-Duty All Electric Vehicle)
Hyzon Motors Inc	Hydrogen fuel-cell	Hyzon HyHD8
Motor Coach Industries	Battery-electric	J4500 CHARGE, D45CRT CHARGE (Heavy-Duty All Electric Vehicle)
Navistar	Battery-electric	Navistar IC School Bus (eCE)
New Flyer of America Inc	Battery-electric	New Flyer XE35, XE40, XE60, XT35, XT40, XT60 (Heavy Duty All Electric Vehicle)
New Flyer of America Inc	Hydrogen fuel-cell	New Flyer XHE35, XHE40, XHE60 (Heavy Duty Fuel-Cell Vehicle)
Oshkosh Corporation	Battery-electric	Oshkosh BEV RCV
Paccar	Battery-electric	Peterbilt Model 520; Kenworth K370E, T680E
Proterra	Battery-electric	Proterra ZX5
SEA Electric	Battery-electric	SEA DE EV
Temsa Skoda Sabanci Ulasim Araclari A.S.	Battery-electric	Temsa TS 45E
Volvo	Battery-electric	Volvo VNRe; Volvo LRUE; Nova Bus LFSE

Class 7 Tractor (26,000 lbs. < GVWR ≤ 33,000 lbs.) - Discussion Draft

Manufacturer	Powertrain Type	Models Available
Daimler	Battery-electric	Freightliner eCascadia 116/126
Volvo	Battery-electric	Volvo VNRe

Class 8 Tractor (33,000 lbs. < GVWR) - Discussion Draft

Manufacturer	Powertrain Type	Models Available
Battle Motors, Inc.	Battery-electric	Battle Motors BEV LNT
BYD Auto Industry Company Limited	Battery-electric	BYD 8TT; BYD 8Y
Daimler	Battery-electric	Freightliner eCascadia 116/126

Hexagon Purus Systems USA LLC	Battery-electric	Hexagon Purus TXR-660 (Heavy-Duty All Electric Vehicle)
Hyundai Motor Company	Hydrogen fuel-cell	HYUNDAI XCIENT Fuel Cell
Nikola Corporation	Battery-electric	RNKC4ELCPR01
Nikola Corporation	Hydrogen fuel-cell	RNKC4FCLPP01
Paccar	Battery-electric	Peterbilt Model 579; Kenworth T680E
Tesla Inc	Battery-electric	Tesla Semi Long Range (Heavy-Duty All-Electric Vehicle)
Volvo	Battery-electric	Volvo VNRe
Xos, Inc.	Battery-electric	Xos HDXT (Heavy-Duty All-Electric Vehicle)