

Proposed Advanced Clean Fleets (ACF) Regulation Provisions Workgroup

July 26, 2022

Today's Outline

- Background
 - High Priority and Federal (HPF) Fleets
 - State and Local Government Fleets
- Draft exemptions and process
- Zero-emissions vehicle (ZEV) availability
- Next steps



Today's Meeting Materials

- On "<u>Meetings and Events</u>" page on Advanced Clean Fleets (ACF) webpage (https://ww2.arb.ca.gov/ourwork/programs/advanced-clean-fleets/advanced-clean-fleetsmeetings-events)
- Submit comments to <u>informal comment docket</u> (https://www.arb.ca.gov/lispub/comm2/bcsubform.php?listn ame=acf-comments-ws&comm_period=1)
 - Informal comment docket available until mid-August. Formal comment docket opens early September
 - Early feedback on concepts is welcome





Background

Advanced Clean Trucks (ACT)

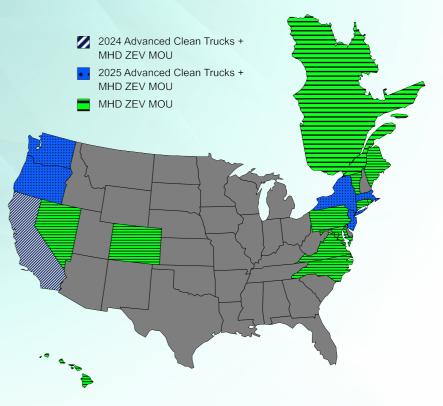
- Major manufacturers must sell ZEVs as a percentage of sales*
- Credit for sales start in 2021
- Minimum tractor sales
- Flexibility to shift sales between categories
- Approved June 2020

Model Year (MY)	Class 2b-3	Class 4-8	Class 7-8 Tractors
2024	5%	9%	5%
2025	7%	11%	7%
2026	10%	13%	10%
2027	15%	20%	15%
2028	20%	30%	20%
2029	25%	40%	25%
2030	30%	50%	30%
2031	35%	55%	35%
2032	40%	60%	40%
2033	45%	65%	40%
2034	50%	70%	40%
2035+	55%	75%	40%



California is not Alone...

- Section 177 of the Clean Air Act allows states to adopt California motor vehicle standards
- Adopted ZEV regulations
 - Advanced Clean Cars 12 states
 - Advanced Clean Trucks 6 states
- Medium- and heavy-duty ZEV commitments
 - 17 states and DC
 - Province of Quebec, Canada





Most Trucks Travel <100 Miles Per Day

of Vehicles in Mileage Bin	100% 90% 80% 70% 60% 50% 40% 30% 20%			2										2										Ĩ											■ 300+ mi. ■ 200-300 mi. ■ 150-200 mi. ■ 100-150 mi.
Percent c	0%	Water	Sweeper	On-Road Yard Tractor	Car/Suv	Van-Step	Off-Road Yard Tractor	Drill Rig	Vacuum	Beverage Truck	Garbage Side Loader	Van-Passenger	Tow	Crane	Garbage Packer	Van-Cargo	Other	Service Body	Pickup Bed	Dump	Boom/Bucket	Concrete Pump	Garbage Front Loader	Flatbed Or Stake Bed	Bus-Shuttle	Box Dry Van	Tank	Garbage Roll-Off	Bus-Other	Concrete Mixer	Tractor Day Cab	Car Carrier	Tractor Sleeper Cab	1	■<100 mi.

ACT Large Entity Reporting Data, owned vehicles

ARB

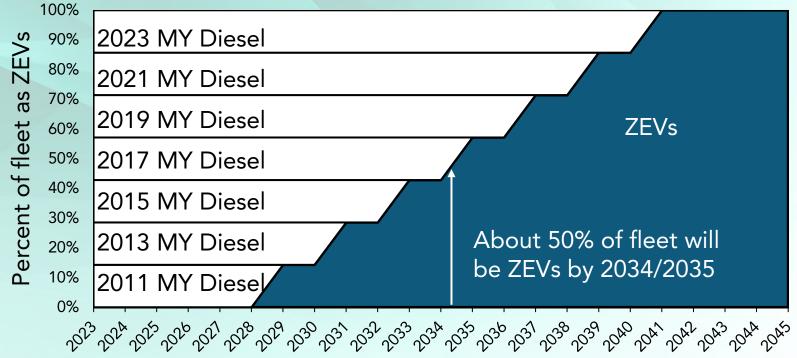
7

Model Year Schedule

- Starting January 1, 2024 all additions to the California fleet must be ZEV
- Remove existing trucks at the end of their useful life
 - At 800,000 miles or 18 years, no less than 13 years
- January 1 compliance date
- Report by February 1 annually
- Provisions allow for limited exceptions



Model Year Schedule Example



EX: 140 truck fleet, 18-year average replacement cycle, purchase 20 new vehicles every 2 years

ZEV Milestones (Option)

- Meet fleet milestones regardless of year and mileage
- Compliance date January 1
- Report by February 1 annually
- Provisions allow for limited exceptions



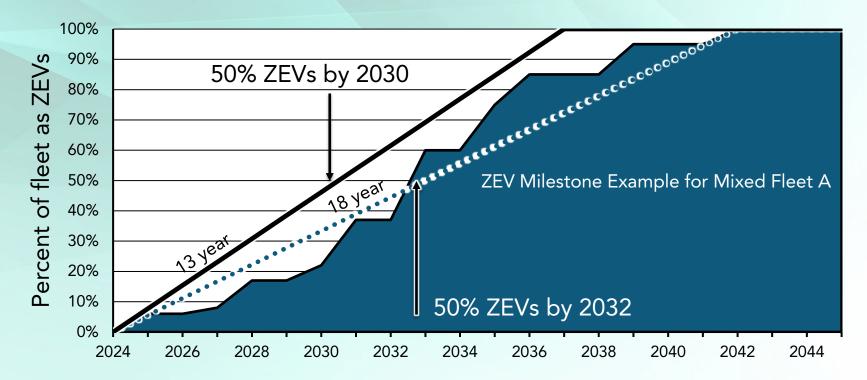
ZEV Milestones Fleet Percentage	10%	25%	50%	75%	100%
Box trucks, vans, two-axle buses, yard trucks, light- duty package delivery vehicles	2025	2028	2031	2033	2035
Work trucks*, day cab tractors, three-axle buses	2027	2030	2033	2036	2039
Sleeper cab tractors and specialty vehicles	2030	2033	2036	2039	2042

*Work truck means any single-unit truck that is not a box truck, van, bus, or specialty vehicle

ZEV Milestone Example for Mixed Fleet A

Vehicle Type	# of Vehicles	ZEVs in 2025	ZEVs in 2029	ZEVs in 2033	ZEVs in 2037	ZEVs in 2041	ZEVs in 2045
Box trucks, vans, two-axle buses, yard trucks	60	6	15	45	60	60	60
Work trucks, day cab tractors, three-axle buses	20	0	2	10	15	20	20
Sleeper cab tractors and specialty vehicles	20	0	0	5	10	15	20
ZEV Milestones	100	6	17	60	85	95	100

Example for Mixed Fleet A





State and Local Government Fleets

State and Local Government Fleets

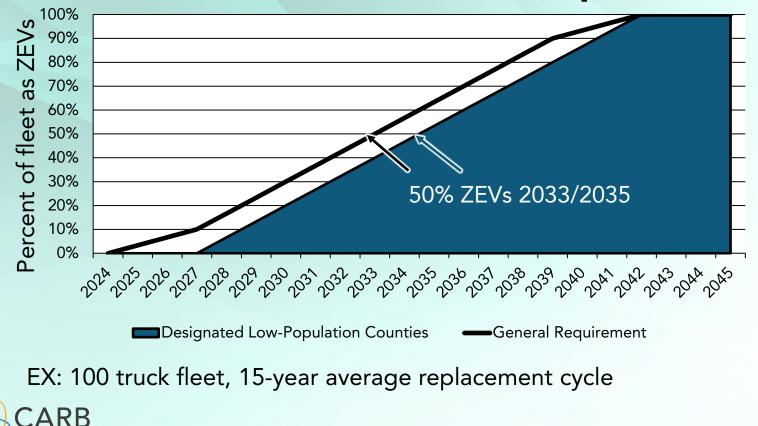
- Percent of vehicle additions to the fleet must be ZEV
 - 50 percent ZEV additions from January 1, 2024-2026
 - Except for fleets in designated low population counties
 - 100 percent new additions starting January 1, 2027
- Report by April 1 annually
- Provisions allow for limited exceptions





State and Local Government Fleets

ZEV Purchases Example





Exemptions and Extensions

Goals for Rule Provisions Discussion

- Match ZEV suitability with fleet needs
- Identify clear objective criteria and simple process
- Minimize administrative burden
- Protect against misuse
- Hold ZEVs to same standards as ICE vehicles
- Encourage fleets to act early, and plan ahead



Key Provisions Summary

Provision	State and Local Government	HPF ZEV Milestones	HPF Model Year Schedule
Backup Vehicles	Can add ICE as a backup, and can exclude emergency miles	Exclude existing ICE vehicle from milestones, can exclude emergency miles	Keep existing ICE vehicle beyond useful life, can exclude emergency miles
Vehicle Delivery Delay	Not needed because is compliance based on purchase date	May continue to use existing ICE and treat it as a ZEV	May use existing ICE truck beyond useful life
Infrastructure	Allows for ZEV order to be	Allows for ZEV order to be delayed	Allows for ZEV order to be
Construction Delay	delayed		delayed
Declared Emergency	Not needed because no limits	Temporary exemption for	Temporary exemption for
Response	on vehicle usage	emergency response	emergency response
Mutual Aid	Exempt up to 25% of fleet	Exempt up to 25% of fleet	Exempt up to 25% of fleet
	from being ZEVs	from being ZEVs	from being ZEVs
Daily Usage	Duty cycle exemption for	Duty cycle exemption for	Duty cycle exemption for
	available ZEVs	available ZEVs	available ZEVs
ZEV Unavailability	Allows for ICE purchases if vehicle configuration on list	Allows for ICE purchases if vehicle configuration on list	Allows for ICE purchases if vehicle configuration on list



Backup Vehicle Exemption

- Allows backup vehicles used less than 1000 miles per year to be excluded from annual ZEV requirements
 - Excludes miles in support of declared emergency



Backup Vehicle Process

- Report vehicles as a "backup" during open reporting
 - Enter odometer reading
- Report odometer readings annually
 - Report annual emergency miles if applicable

Vehicle Identification Number (VIN)	12345443332
Your Own ID	Alpha
Vehicle Model Year	2012 *
Vehicle Make/Model	MCI v)/F250
Vehicle Type	Tanker Tractor Trailer 👻
Fuel Type	Desel v
Vehicle Class (GVWR)	Please Choose *
Registration Type	[369 v
License Plate	1232123
Registration State / Province	California, USA 🗸 🗸
Date Purchased (YYYY-MM-DD)	2011-12-12
Engine Information	
Engine Family Name (Example WCPXL14.6ERK)	WCPNL 14, 6ERK
Engine Manufacturer	MAOK +
Engine Year	2004 💌
Flexibility Options	
Compliance Option	2022 Low Use Exemption V
Odometer Reading - No Decimals or Commas	
Read Date (YYYY-MM-DD)	
Emergency Miles	
Hub Serial Number (Only if applies)	



Vehicle Delivery Delay

- Addresses situations where ZEV or ZE powertrain lead time or delivery delays are longer than one year
- Purchase order must be for immediate delivery and 1 year in advance of next deadline



Vehicle Delivery Delay Process

- Email TRUCRS@arb.ca.gov during annual reporting
 - VIN of existing vehicle to be replaced
 - Attach copy of purchase order
- Executive Officer will
 - Approve within 30 days and will update vehicle compliance status in fleet owner's account
- Report new ZEV when received and remove existing truck from California fleet



Infrastructure Construction Delay

- Allows a one-year extension to delay delivery of ordered ZEVs due to unexpected infrastructure delay
- ZEV orders and ZEV refueling station construction must begin 1 year prior to upcoming compliance deadline
- Eligible delays include
 - Change of a general contractor, delays for obtaining power from a utility, delays due to unexpected safety issues, discovery of resources described in the California Environmental Quality Act, or natural disasters



Infrastructure Construction Delay Process

- Email the following to TRUCRS@arb.ca.gov:
 - Letter from responsible official
 - With explanation of reason for delay
 - Why retail infrastructure could not be used by the fleet
 - Estimated completion date
 - Supporting documentation of reason for delay from 3rd party
 - Copy of executed contract for infrastructure installation
 - Copy of executed ZEV purchase order
- EO will respond within 30 days of receiving complete application package if all conditions met and update fleet owner account
- Report ZEVs when received



Declared Emergency Response

- Temporarily exempts existing ICE vehicles when supporting a declared emergency
 - Exclude emergency mileage if using back-up vehicles
 - Can bring in out-of-state vehicles without changing compliance
- Must be dispatched by local, state, federal, or other responsible emergency management entity in support of a declared emergency event



Declared Emergency Response Criteria and Process

- No reporting or CARB approval required to ensure timely emergency response
- Fleet owners must keep records only for ICE vehicles that would otherwise be out of compliance
- Track emergency mileage and report emergency miles if used back-up vehicles during annual reporting



Mutual Aid Exemption

- Is a ZEV purchase exemption to support declared emergency events outside normal service territory
- Must have mutual aid agreement in place
- 75 percent of fleet must be ZEV or NZEV
- Applies to vehicles with GVWR >14,000 lbs. except for pickups, two-axle buses, box trucks, vans, and tractors
- Must show mobile fueling options cannot refuel ZEV from 10 to 80 percent capacity within 1 hour



Mutual Aid Process

- Email the following to TRUCRS@arb.ca.gov:
 - Letter explaining reason for exemption request with information about ICE vehicle to be purchased
 - Include information about charging speed for the comparable ZEVs and compatible mobile fueling options
 - Include copy of mutual aid agreement
- EO will respond within 30 days of receiving complete application package if all conditions met



Daily Usage Exemption

- Allows for an ICE vehicle purchase exemption for up to one year for a given vehicle configuration if all available ZEVs cannot meet the fleet's daily duty-cycle
- Exemption limited to vehicles with GVWR >14,000 lbs.
- 10 percent of fleet must already be ZEVs
- Not applicable if NZEV or hydrogen fuel cell vehicles of needed type are commercially available
- Sunsets for vehicle categories when:
 - Class 7 or 8 tractors or 3-axle buses have equivalent to 500 mile range
 - Class 4 through 8 have equivalent of 250 mile range



Daily Usage Criteria

- Approved if comparable ZEV with highest rated capacity cannot meet maximum needed range
 - Fleet data must show that comparable ZEVs cannot meet fleet needs at least 4 out of 30 consecutive workdays
 - Vehicle energy usage data may be used in lieu of mileage range



Daily Usage Application Process

- Submit the following by email to TRUCRS@arb.ca.gov: •
 - Identify configuration of ICE vehicle to be replaced and equivalent • available ZEV with highest rated miles
 - ZEV performance data may be submitted in lieu of rated range
 - Daily usage report for all ICE vehicles of same weight class and • configuration for a 30-day consecutive period within the last year
 - Demonstrate the daily range ٠
 - Description of the following: ٠
 - Daily assignments or routes
 - Why available ZEVs could not be fueled during the workday at the depot, within 1 mile of routes where ZEV fueling is available, and why opportunity fueling could not be used during driver rest breaks
- EO will respond within 30 days of receiving complete application package if all • conditions met 30

Mileage Determination Sample

- 30 consecutive days of data for existing vehicles of needed configuration from within last 12 months
- Identify lowest mileage value for each day
- Remove 3 highest values
- Compare ZEV mileage to next highest value



Example Daily Usage Report

- Fleet data shows highest remaining mileage of 55 in the square
- Comparable ZEV box truck has a 160-mile range
- Shows the ZEV mileage is suitable

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Box Truck 1	45	100	50	65	50	50	50	30	50	50	100	50	50	60	60	60	120	100	90	50	50	100	50	50	50	45	50	100	50	50
Box Truck 2	55	50	55	50	65	50	50	50	50	50	50	100	30	60	55	55	100	75	80	50	50	50	50	50	100	50	50	50	45	50
Box Truck 3	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	100	75	75	75	100	75	75	75	75	75	75	75	75	75
Box Truck 4	50	50	30	150	50	50	50	50	100	100	50	150	50	55	55	55	150	50	80	150	45	50	100	50	150	50	50	50	50	50
Box Truck 5	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Lowest Daily Mi.	45	50	30	50	50	50	50	30	50	50	50	50	30	55	55	55	80	50	50	50	45	50	50	50	50	45	50	50	45	50



Rental Vehicle Provision

- Applies to rental fleets using the ZEV Milestones option
- Provides smooth transition to ZEVs by 2035 for highly transient interstate rental vehicles
- Rental fleet owners may exclude individual transient interstate rental vehicles from the ZEV milestone calculations and meet milestones based on the average
- Annual updates during annual reporting



Rental Vehicle Criteria and Process

- Must be an interstate rental fleet owner
- Take 4 quarterly snapshots of the number of rental vehicles in California that are:
 - Under contract to leave California
 - Under contract to be picked up and dropped off in California
 - In California and not under contract
- Alternatively, use telemetry data to show number of rental vehicles in California on snapshot dates
- Annually report non-rental California fleet and calculated average annually



ZEV Unavailability Exemption and Process

- Addresses when ZEVs/NZEVs are not commercially available
- CARB hosts a list of vehicle configurations that are not commercially available as ZEVs/NZEVs
- Fleet owners check the list and purchase ICE vehicles on the list, report when they receive vehicle, keep records
- No separate CARB review/approval needed





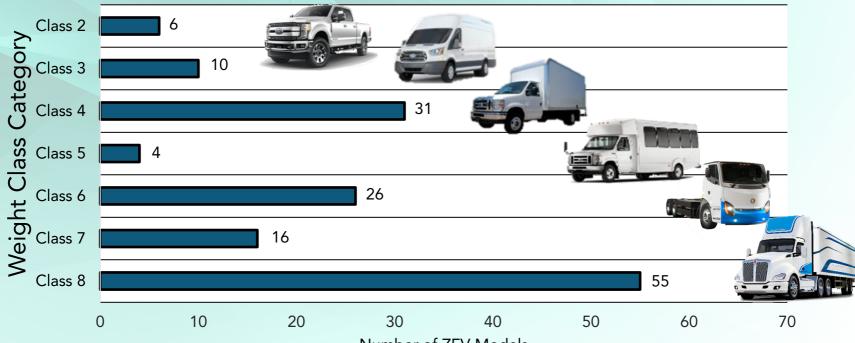
What Vehicles Are Not Available As A ZEV

ZEV Availability Discussion

- Complete vehicles
 - Already available as ZEVs for common vehicle type such as pickups, tractors, vans, 2-axle buses
 - Uncommon or specialized vehicles to be determined
- Cab and chassis
 - ZEVs already available in every weight class
 - Each chassis can be upfit with several bodies
 - Need to determine which chassis/bodies can be upfit
- New ZE drivetrain conversions
- Some large fleets make custom designs and orders



ZEV Models in US



Number of ZEV Models

135 models already delivered to fleets, 148 different models are available to be ordered/pre-ordered,



More than 500 ZEV models available worldwide

ZE Tractor Commercial Availability



• BYD 8TT

- Nikola TRE
- Freightliner eCascadia Peterbilt 579
- Kenworth T680E
- Lion Electric LION8
- SEA Cascadia
- Volvo VNR Electric









- Hyundai XCIENT
 Nikola One/Two
- XOS HDXT

2022

• Tesla Semi

2023

Class 2 - 3



BrightDrop Zevo 250 Mi Range Available



FORD T350 Cutaway 126 Mi Range Available



FORD T350 Cargo Van 126 Mi Range Available



FORD F150 Lightning 230 Mi Range Available



GMC Hummer EV¹ 350 Mi Range Available



Lightning Electric Cargo 170 Mi Range Available



Rivian R1T 300 Mi Range Available



Class 4 - 7





BYD 6F 124-155 Mi Range Available

BYD 6R 125 Mi Range Available



Envirotech Cutaway 170 Mi Range Available



Envirotech Logistic Van 170 Mi Range Available



Envirotech Urban Truck 170 Mi Range Available

CARB



Freightliner Custom Chassis MT50e 170 Mi Range Available



GreenPower EV Star 150 Mi Range Available



Kenworth K270E/K370E 200 Mi Range Available

Class 4 - 7









Lightning eMotors E-450 Box Truck 80-120 Mi Range Available

Lion Lion6 180 Mi Range Available



Motiv Epic F-59 105 Mi Range Available

Lightning eMotors F-53/F-59 110-170 Mi Range Available

Motiv Epic E-450 105 Mi Range Available

Lightning eMotors E-450

130 Mi Range Available



Motiv Epic E-450 Service Truck 105 Mi Range Available



Class 4 - 7





Optimal EV E1 125 Mi Range Available

Peterbilt 220 EV 100-200 Mi Range Available



Phoenix ZEUS 500 70-160 Mi Range Available



SEA Electric MD Chassis 170-200 Mi Range 7 Models Available



SEA Electric MD Cutaways 170-200 Mi Range 4 Models Available

SEA Electric MD Straight 200 Mi Range 8 Models Available



Volvo 4x2 Straight 150 Mi Range Available



Xos Delivery Van 120-150 Mi Range Available



Xos CC Truck 120-150 Mi Range Available



Class 8 – Yard Trucks



BYD 8Y 10+ Hour Range Available



Kalmar Ottawa T2E+ 8-20 Hour Range Available



Lonestar SV S12, S22 12-22 Hour Range Available



OrangeEV 24 Hour Range Available



Class 8



Lion Lion8 Straight 170 Mi Range Available



Peterbilt 520 EV 100 Mi Range Available





SEA Econic EV Available



Lion Lion8 Bucket 130 Mi Range Available



SEA M2 106 EV Available



Mack LR Electric 100 Mi Range Available



Volvo VNR Electric 6x4 190 Mi Range Available



Class 8 Tractors



BYD 8TT 125 Mi Range Available



Freightliner eCascadia 250 Mi Range Available



Kenworth T680 150 Mi Range Available



Lion Lion8 T 260 Mi Range Available



Nikola TRE BEV 350 Mi Range Available



Peterbilt 579 EV 150 Mi Range Available



SEA Cascadia EV 230 Mi Range Available



Volvo VNR Electric 175-275 Mi Range Available in 4x2, 6x2 and 6x4 configurations



Same ZEV Chassis with Multiple Configurations







Truck Types Owned by Commercial Fleets

Percentage of Total %0 %0 %0 %0 %0 %0 %0 %0 %0 %0 %0 %0 %0	Concrete Pump I	Beverage Truck I	Drill Rig I	Sweeper I	Bus-Other I	Car Carrier	Vacuum I	Garbage Front Loader 🛯	Bus-Shuttle	Crane 🔲	Water	Garbage Roll-Off	Garbage Side Loader 🗖	Van-Passenger 🗖	Tank 🔲	Van-Step	Concrete Mixer	Yard Tractor	Garbage Packer	Dump	Boom/Bucket	Box Reefer	Other	Van-Cargo	Flatbed or Stake Bed Internet Platbed	Box Dry Van	Pickup Bed	Service Body	Tractor Sleeper Cab	Tractor Day Cab
								Ű						Por											ш				•	

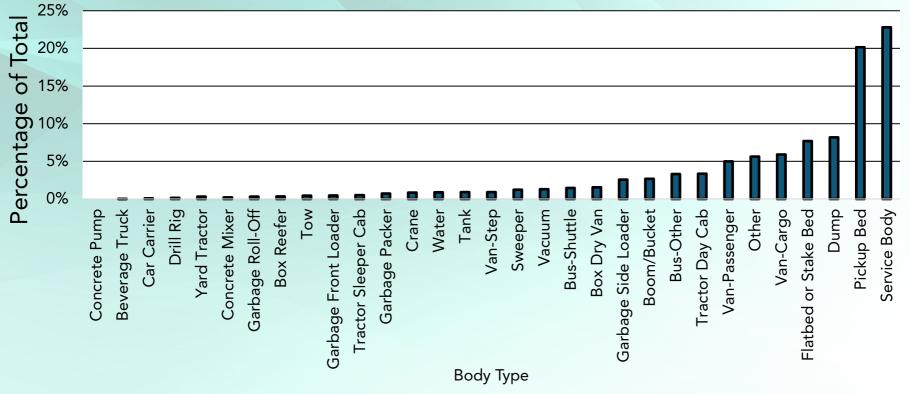
Body Type



200/

Source: <u>LER Statewide Aggregated Data</u> (https://ww2.arb.ca.gov/sites/default/files/2022-02/Large_Entity_Reporting_Aggregated_Data_ADA.pdf)

Truck Types Owned by Public Fleets



Source: <u>LER Statewide Aggregated Data</u> (https://ww2.arb.ca.gov/sites/default/files/2022-02/Large_Entity_Reporting_Aggregated_Data_ADA.pdf)

49

Exempt From Regulation

- School buses
- Dedicated snow removal vehicles
- Heavy cranes
- Two-engine trucks except two engine street sweepers and workover rigs







Example Flatbed Trucks



Flatbed Truck Chassis



Flatbed Hay Truck



Flatbed Roll-off Truck



Flatbed Stake Truck



Flatbed - Attenuator Truck



Tractor Trucks







Sleeper Cab



Reefer Trailer



Beverage Trailer



Curtain Side Trailer



Lowboy Trailer

Conventional Day Cab



Tank Trailer



Flatbed Trailer



Drayage Trailer



Dry Van Trailer

Cab Over Day Cab



Bottom Dump Trailer



End Dump Trailer







ZEV Availability/Unavailability

Vehicle Configuration	РТО	Certification	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8
Bus - School (Exempt)	N	Complete	TBD	TBD	Available	Available	Available	Available	Available
Bus - Motorcoach	N	Complete				N/A	Available	Available	Available
Bus - Shuttle	N	Complete			Available	Available	Available	Available	
Light-Duty Package Delivery	N	Complete	Available						
Sweeper (1 Engine or 2 Engine)	Y	Complete			Available	Available	Available		
Van - Step	N	Complete		Available	Available	Available	Available	Available	Available
Van - Cargo	N	Complete	Available	Available	Available				
Van - Passenger	N	Complete	Available	Available					
Pickup Truck	N	Complete	Available	Available	Available				
Tractor - Day Cab City (4x2)	N	Complete						Available	Available
Tractor - Day Cab Over the Road (6x)	N	Complete						Available	Available
Tractor - Sleeper Cab Over the Road	N	Complete						Available	Available
Tractor - Yard Tractor	N	Complete							Available
Tractor - Dump / Construction/Ag	Y	Complete						TBD	TBD
Tractor - Heavy Haul	N	Complete							TBD
Tractor - Toter Truck	N	Complete						TBD	TBD
Tractor - Cab Over	N	Complete						Available	Available
Hay Squeeze	N	Complete			Unavailable	Unavailable	Unavailable		
Car Carrier	Y	Complete/Upfit					TBD	TBD	TBD
Concrete Mixer	Y	Complete/Upfit						TBD	TBD
Concrete Pump	Y	Complete/Upfit						TBD	TBD

Available: Configuration is available for order, has confirmation of an order, or has a confirmed delivery to a customer To Be Determined (TBD): More information is needed to determine if configuration is available for order Unavailable: Configuration is not currently available as a ZEV and is highly unlikely to electrify in the near future



--: Configuration does not typically exist within the indicated class

ZEV Availability/Unavailability

Vehicle Configuration	РТО	Certification	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8
Cab and Chassis	N	Cab and Chassis	Available						
Armored Truck	N	Cab and Chassis				TBD	Available	TBD	TBD
Flatbed Fixed (Stake)	N	Cab and Chassis			Available	Available	Available	Available	TBD
Flatbed Tilt (Dump, Roll Off, Retriever)	Y	Cab and Chassis			TBD	TBD	TBD	TBD	TBD
Auger - Digger Derrick	Y	Cab and Chassis			TBD	TBD	TBD	TBD	TBD
Boom Truck (Grapple, Crane)	Y	Cab and Chassis			TBD	TBD	TBD	TBD	TBD
Box Truck (Shredder, Reefer, Dry Van)	Y/N	Cab and Chassis			Available	Available	Available	Available	
Bucket Truck	Y	Cab and Chassis			TBD	TBD	Available	Available	TBD
Car Hauler	Y	Cab and Chassis					TBD	TBD	TBD
Crane Truck	Y	Cab and Chassis			TBD	TBD	TBD	TBD	TBD
Dump Truck	Y	Cab and Chassis			TBD	TBD	TBD	TBD	TBD
Tank - Fuel Truck / Lube Truck	Y	Cab and Chassis			TBD	TBD	TBD	TBD	TBD
Tank - Septic Truck	N	Cab and Chassis			TBD	TBD	TBD	TBD	TBD
Tank - Water Truck	N	Cab and Chassis			TBD	TBD	TBD	TBD	TBD
Tank - Vacuum Truck	Y	Cab and Chassis			TBD	TBD	TBD	TBD	TBD
Tank - Spreader/Other	Y	Cab and Chassis			TBD	TBD	TBD	TBD	TBD
Garbage Packer - Rear Loader	Y	Cab and Chassis					Available	Available	Available
Garbage Packer - Front Loader	Y	Cab and Chassis					TBD	TBD	TBD
Garbage Packer - Side Loader	Y	Cab and Chassis					Available	Available	Available
Service/Utility Truck	Y	Cab and Chassis		Available	Available	Available	Available	Available	Available
Self Loading (Grapple, Crane, Hooklift, Knucklboom)	Y	Cab and Chassis			TBD	TBD	TBD	TBD	TBD
Tow Truck - Roll Back	Y	Cab and Chassis			TBD	TBD	TBD	TBD	TBD
Tow Truck - Wrecker	Y	Cab and Chassis		TBD	TBD	TBD	TBD	TBD	TBD

Available: Configuration is available for order, has confirmation of an order, or has a confirmed delivery to a customer

To Be Determined (TBD): More information is needed to determine if configuration is available for order



Unavailable: Configuration is not currently available as a ZEV and is highly unlikely to electrify in the near future

N/A: Configuration does not typically exist within the indicated class

ZEV Unavailability List Criteria

- ICE vehicle of same type must be available
- Vehicles with GVWR <14,000 lbs. excluded
 - Pickups, two-axle buses, box trucks, vans, and tractors do not need to be included because they are already available
- Manufacturer determines chassis not compatible with body or configuration
- Body cannot be put on safely by any authorized installer



Process to Add Vehicles to CARB List

- Submit the following by email to TRUCRS@arb.ca.gov:
 - Information about commercially available ICE vehicle needed
 - Signed statements (for chassis in same vehicle class and next one up)
 - Manufacturers available ZEV chassis not compatible with needed configuration
 - Body installers each authorized installer must attempt and fail for safety reasons to install needed body on ZEV chassis
- EO will add to the list within 30 days of receiving complete application package if all conditions met
- Vehicles come off list 6 months after commercially available



Regulation Resources

- Informal comments can be submitted to CARB through a <u>comment docket</u> located on CARB's website. (https://www.arb.ca.gov/lispub/comm2/bccommlog.php?listn ame=acf-comments-ws)
- Workshop information including this presentation and a recording of this webinar can be found on <u>CARB's website</u>. (https://ww2.arb.ca.gov/our-work/programs/advanced-cleanfleets/advanced-clean-fleets-meetings-events)



Next Steps

- For more information, please contact CARB staff by <u>email</u> (zevfleet@arb.ca.gov)
- 45-Day rulemaking package early September 2022
- Board recommendation October 2022

