



Proposed Advanced Clean Truck Sales Regulation Potential Modifications

Sacramento, California

February 20, 2020

Today's Overview

- Initial staff proposal and Board direction
- How to increase zero emission vehicle (ZEV) sales
- How to streamline fleet reporting
- Next steps



Initial Staff Proposal and Board Direction

As Proposed December 12, 2019

Initial Advanced Clean Trucks Proposal

Manufacturer ZEV Sales	Large Entity Reporting
<ul style="list-style-type: none">• Must sell ZEVs as a percentage of annual sales	<ul style="list-style-type: none">• One time reporting in 2021• Vehicles, facilities, contracted vehicle services

Initial ZEV Sales Proposal

- Manufacturers with California sales
 - Exemption for <500 annual sales
- Zero-Emission Powertrain Certification
- Credit for near-zero-emission vehicles
 - Minimum all-electric range
 - Up to 75% of a ZEV credit
- Credits tradable across weight classes
- Minimum tractor sales required



Model Year (MY)	Class 2b-3 ¹	Class 4-8	Class 7-8 Tractors
2024	3%	7%	3%
2025	5%	9%	5%
2026	7%	11%	7%
2027	9%	13%	9%
2028	11%	24%	11%
2029	13%	37%	13%
2030 ²	15%	50%	15%

1. Excludes pickups until 2027 MY

2. 2030 MY requirements continue after 2030

Note: Class 2B-3 (GVWR: 8,501-14,000 lb.), Class 4-8 (GVWR: >14,000 lb.), Class 7-8 tractor (GVWR: >26,000 lb.)

Initial Large Entity Reporting Scope

Businesses: >\$50 Million in Revenue

- With facilities in California (May or may not own vehicles)

Large Fleets: Own 100+ Vehicles

- With facilities in California

Brokers: Directing 100+ Vehicles

- To or from California

Government: All Levels

- Municipalities, State, Federal

Initial Large Entity Reporting Summary

Section	Description
General Entity	<ul style="list-style-type: none"> • Business type, size, contact • Subcontractor/subhauler information
Grouped Facility	<ul style="list-style-type: none"> • How many of each type, list of addresses • Where goods are being moved • Typical service or freight contract types
Representative Facility	<ul style="list-style-type: none"> • Number of truck trips in 1 week sample • Detailed facility characteristics, supplier counts
Grouped Vehicles	<ul style="list-style-type: none"> • Operational characteristics, purchase patterns • Where assigned, existing on-site infrastructure

Why Large Entity Reporting is Needed

- Support zero emission (ZE) regulatory frameworks
 - Fleet standards, fleet purchases, contracting with ZE fleets, ZE zones
- Ensure level playing field
 - Large fleets vs small fleets
 - Own trucks vs outsourced truck services
- Assess infrastructure needs
 - Energy demand, barriers, build-out planning
 - On-route fueling location and potential facility requirements
- Match technology with duty cycles
 - Understand fleet specific use cases
 - Compare to available vehicle capabilities

Board Direction from Initial Hearing

- Increase the number of zero-emission trucks sold and deployed
- Evaluate EMA proposal of 100% ZEV sales by market segment
- Accelerate benefits in disadvantaged communities
- Work with industry to streamline the reporting requirement
- Expedite complementary zero-emission fleet rules
- Establish pathway to 2045 carbon neutrality
- Additional considerations
 - (eg. extend near-zero emission vehicle (NZEV) credit)

Comments, Questions, Clarifications?



Updates Since December

Steps Since December

- Meetings with CalChamber, CCEEB, EMA, NGO's, CTA and fleets
- ACT Fleets workshop on February 12, 2020
 - ZEV goals by market segment
 - Discussed EMA proposal
- Compiled new announcements for ZEV truck models

CalChamber – California Chamber of Commerce,
CCEEB – California Council for Environmental and Economic Balance
NGO – Non-Government Organizations
CTA – California Trucking Association

Established Aggressive Goals and Pathway to 2045 Carbon Neutrality

- All ZEV fleet by 2035
 - Drayage trucks
- All ZEV fleet by 2040
 - First/last mile delivery, refuse trucks, and local buses
- All ZEV or NZEV by 2040
 - Utilities and government fleets
- All ZEV or NZEV by 2045
 - All other truck segments where feasible

EMA Proposal

- 100% ZE sales by segment
 - 2023 – School buses and stepvan sales to municipalities
 - 2024 – All sales to public utilities and all yard tractor sales
 - 2025 – All stepvans, airport service vehicles, all shuttle bus sales
 - 2026 – All refuse trucks
 - 2027 – Concept continues for other segments
- Discussed at ACT Fleet workshop on February 12, 2020

EMA Proposal Considerations

- Cannot incorporate into manufacturer sales proposal by May 2020
 - Would require new rulemaking for 100% ZEV purchases by fleets
 - Scope of notice for manufacturer sales did not include fleet rules
- Challenges require more time to address
 - Need more exceptions if 100% purchases start earlier
 - Variable use, small fleet, infrastructure barriers, emergency use
 - Use case for tractors not known to manufacturer at time of sale
 - Drayage, last mile delivery, short-haul, other
- Proposing that ACT Fleet rule include 100% ZEV purchases where/when feasible
 - Initial staff proposal accelerated; estimated in 2021/2022

Recent ZEV Pickup Truck Announcements

- Multiple ZEV pickup truck announcements
 - Bollinger Motors – Medium-duty BEV pickup and SUV by 2021
 - Ford – BEV F-150 pickup anticipated 2021
 - GM – Electric pickup anticipated 2021, BEV Hummer
 - Nikola – BEV and FCEV pickup truck announcement
 - Rivian – BEV pickup and SUV starting 2020
 - Tesla – medium-duty Cybertruck starting 2021
- Some to be in Class 2b or Class 3



How to Increase ZEV Sales

Summary of ACT Sales Concepts

- Start pickup requirements in 2024 (Class 2b-3)
- Align early ZEV sales in Class 4-8* to match EMA proposal sales
- Increase Class 7-8 tractor sales
 - Align with ZE drayage fleet goal by 2035
 - Ensure benefits for disadvantaged communities
- Increase ZEV sales after 2030 MY to align with 2045 ZEV fleet goal
 - Extend NZEV credit
- Other technical changes

Stronger ACT Concept:

Areas to Increase ZEV Sales Numbers

- Increase Class 2b-3 ZEV sales by including pickups
- Increase 2027-2030 ZEV sales
 - Match EMA sales in Class 4-8
 - Increase 2b-3 sales by 2030
 - Increase tractor sales by 2030
- Increase percentages post 2030 to set clear goals on pathway to 2045
- Looking for feedback on how much to increase sales percentages

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2029	13%	37%	13%
2030	15%	50%	15%
2031	15%	50%	15%
2032	15%	50%	15%
2033	15%	50%	15%
2034	15%	50%	15%
2035+	15%	50%	15%

Extend Credits for NZEVs

- Hybrid-electric vehicles with a minimum all-electric range
- Proposing to extend credit from 2030 to 2035
- What should criteria be post 2030?
 - Increase minimum all-electric range to 75 miles
 - Phase out NZEV credit value
 - Other suggestions

Other Technical Changes

- §1963(c)(5) – “Class 4-8 Vehicle Group” definition
 - Clarify intent by explicitly including yard tractors
- §1963(c)(13) – “Manufacturer” definition
 - Modify to exclude powertrain-only suppliers?
- §1963.1(a)(1) – Deficit generation
 - Clarify deficit calculation language
- §1963.2(g) – Limited credit lifetime
 - 5 years from end of model year to match Phase 2 GHG
- §1963.2(i) – No double-counting for Advanced Clean Cars ZEVs
 - Clarifications to prevent double-counting of NZEVs

Other Technical Changes (Continued)

- §1963.3(b) – Requirement to make up a deficit
 - Clarify that manufacturers have one year to make up a deficit
- §1963.3(c) – Credit retirement order
 - Rearrange credit retirement order per manufacturer feedback
 - First to expire are first out, NZEV credits before ZEV credits
- §1963.3(e) – Tractor deficits must be met with tractor credits
 - Provide flexibility to use up to 20 credits from any ZEV category
- §1963.4 – Reporting and recordkeeping
 - Clarify all due dates are 90 days after the end of the model year

Comments, Questions, Clarifications?



How to Streamline Large Entity Reporting

§2012 - §2012.3

Summary of Potential Changes to Large Entity Reporting

- Adjust scope and applicability to fleets
- Clarify definitions
- Use alternative methods to collect facility information
- Clarify vehicle reporting
- Other issues

Modify Scope and Definitions

- §2012 – Scope, applicability, and definitions
- Limit reporting to owners/operators of vehicles >8,500 lb. GVWR
 - Government fleets
 - Fleets with >\$50 million in revenue
 - Other fleets and brokers that own or direct >50 vehicles
- Clarify definitions
 - Broker, subhauler, subcontractor
 - Vehicle backup/spare, where assigned/domiciled
 - Other

Minor Changes to General Entity Questions

- §2012.1 – General entity characteristics
- Clarify questions about sustainability plans
- Ask for number of trucks under contract regardless of contract period

Remove Grouped Facility Questions

- Remove section 2012.2 - Number of facilities by category, characteristics, shipment/service contracts, representative facility details and truck traffic
- Seek to gather information through contractor
 - Identify high traffic facility types, emission hotspots
 - Identify locations for fueling/charging infrastructure at stores, warehouses, cold storage facilities with suitable dwell times
 - What entities contract for different types of truck services
- Work directly with stakeholders for survey participation

Minor Changes to Vehicle Fleet Questions

- §2012.3 – Vehicle type, usage and assigned facility questions
 - Include “goalpost” language to clarify expectations/bins
 - Location sensitivity (clarify no home addresses)
 - Add flexibility to pick baseline date for fleet composition
 - Clarify one address per parcel or for adjacent facilities
 - Optional question for cost of existing infrastructure
- Data to be used for assessing fleet needs for ACT Fleet rule
- Supports early utility planning for infrastructure rollout

Other Reporting Issues

- Revisions to add flexibility and encourage early reporting
- Optional questions do not need to be in rule language
- Exploring how to allow for clarifications of reported information
 - Eg. Staff to contact fleet to address apparent anomalies
- Suggestions to minimize confidentiality concerns

Summary of Proposed Changes to Large Entity Reporting

Section	Potential Changes
Scope, Applicability, §2012	<ul style="list-style-type: none"> • Limit scope to owners/operators vehicle (>8,500 lb. GVWR) • Government fleets, entities with >\$50 million revenue, and • Other fleets/brokers that own or direct >50 vehicles
General Entity Questions §2012.1	<ul style="list-style-type: none"> • Minor changes for clarity
Facility Questions §2012.2	<ul style="list-style-type: none"> • Remove entire section • Use contractor to collect representative sample data
Vehicle Questions §2012.3	<ul style="list-style-type: none"> • Optional baseline fleet date and minor changes

Comments, Questions, Clarifications?

Next Steps

- Revised regulation language to be posted in March 2020
 - Available for 15-Day change comment period
- Final recommendation to Board planned on May 28, 2020