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

<table>
<thead>
<tr>
<th>Manufacturer ZEV Sales</th>
<th>Large Entity Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Must sell ZEVs as a percentage of annual sales</td>
<td>• One time reporting in 2021</td>
</tr>
<tr>
<td></td>
<td>• Vehicles, facilities, contracted vehicle services</td>
</tr>
</tbody>
</table>

More information on Advanced Clean Trucks: [https://ww2.arb.ca.gov/rulemaking/2019/advancedcleantrucks](https://ww2.arb.ca.gov/rulemaking/2019/advancedcleantrucks)
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

<table>
<thead>
<tr>
<th>Model Year (MY)</th>
<th>Class 2b-3</th>
<th>Class 4-8</th>
<th>Class 7-8 Tractors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2024</td>
<td>3%</td>
<td>7%</td>
<td>3%</td>
</tr>
<tr>
<td>2025</td>
<td>5%</td>
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<tr>
<td>2029</td>
<td>13%</td>
<td>37%</td>
<td>13%</td>
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<tr>
<td>2030¹</td>
<td>15%</td>
<td>50%</td>
<td>15%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Category</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Businesses: &gt;$50 Million</td>
<td>With facilities in California (May or may not own vehicles)</td>
</tr>
<tr>
<td>Large Fleets: Own 100+</td>
<td>With facilities in California</td>
</tr>
<tr>
<td>Brokers: Directing 100+</td>
<td>To or from California</td>
</tr>
<tr>
<td>Government: All Levels</td>
<td>Municipalities, State, Federal</td>
</tr>
</tbody>
</table>
## Initial Large Entity Reporting Summary

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
</table>
| General Entity        | • Business type, size, contact  
                       • Subcontractor/subhauler information                                   |
| Grouped Facility      | • How many of each type, list of addresses  
                       • Where goods are being moved  
                       • Typical service or freight contract types                             |
| Representative Facility | • Number of truck trips in 1 week sample  
                       • Detailed facility characteristics, supplier counts                    |
| Grouped Vehicles      | • 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
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

BEV: Battery-electric vehicle, FCEV: Fuel cell electric vehicle, SUV: Sport Utility Vehicle
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

* Excludes Class 7-8 on-road tractors
**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 Class 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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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

<table>
<thead>
<tr>
<th>Section</th>
<th>Potential Changes</th>
</tr>
</thead>
</table>
| Scope, Applicability, §2012                   | • 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              | • Minor changes for clarity                                                                                                                                 |
| Facility Questions §2012.2                    | • Remove entire section  
• Use contractor to collect representative sample data                                                                                                                                 |
| Vehicle Questions §2012.3                     | • 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