Today’s Outline

- Introduction
- Zero-emission vehicle (ZEV) market
- Fleet regulation proposal
  - Public fleet requirements
  - Drayage fleet requirements
  - Private and federal fleet requirements
- Encouraging use of zero-emission fleets
- Alternatives
California Truck Populations

Class 7-8 Tractors
143,000 (7%)

Class 4-8 Straight Trucks and Buses
618,000 (32%)

Class 2b-3 Trucks and Vans
1,164,000 (61%)

Source: EMFAC 2021, 2021 Calendar Year, includes California IRP, excludes out-of-state IRP trucks, motor homes, transit buses, and school buses
Transportation Is Largest Source of Greenhouse Gases (GHGs)

- California’s climate change targets
  - 40% below 1990 levels by 2030
  - 80% below 1990 levels by 2050
  - Carbon neutrality by 2045

- Clean electricity
  - 33% renewable by 2020
  - 60% renewable by 2030
  - Zero-carbon by 2045

2018 CA GHG Emissions By Economic Sector

- Transportation 41%
- Industrial 24%
- Agriculture and Forestry 8%
- Residential 7%
- Electricity Generation (In State) 9%
- Electricity Generation (Imports) 6%
- Commercial 5%

Note: Mobile sources represent ~50% of GHG inventory when including emissions from fuel production

California GHG Inventory: https://ww2.arb.ca.gov/ghg-inventory-data
Major NOx and PM$_{2.5}$ Emission Reductions Needed

- California has the worst air quality in the nation
- Key challenges in San Joaquin Valley and South Coast
- Heavy-duty trucks and federal sources remain largest contributors
- Action beyond current programs needed by 2031
  - Nearly all heavy trucks to have 2010 model year engines by 2023
Assembly Bill 617 directs CARB to identify community level strategies
Communities seek action on transportation and freight emissions
Seek rapid transition to zero-emissions
Zero-Emission Key to California’s Future

- Multiple NOx and GHG reduction plans
- Core strategies
  - Zero-emissions everywhere feasible
  - Cleaner fuels and cleaner combustion everywhere else
Suite of CARB Regulations

Zero-Emission Requirements

- Innovative Clean Transit
  - ZE Airport Shuttle
  - ZE Powertrain Cert
- Clean Transit ZE powertrain cert
- Truck smoke Test
- Ocean-Going Vessels at Berth
- Advanced Clean Trucks
- Advanced Clean Fleets (Including Drayage)
- Zero-Emission Transport Refrigeration Units (Trucks)
- Locomotives
- Forklifts
- Zero-Emission Transport Refrigeration Units (trailers/containers)
- Seaport and Railyard Cargo Handling Equipment

Cleaner Combustion Requirements

- CA GHG Phase 2
- Truck OBD
- Truck Smoke Test
- Commercial Harbor Craft
- Locomotives

Updated February 18, 2021

Reflects final or proposed hearing dates
Executive Order N-79-20

100% ZEV sales by 2035

Full transition to ZEV short-haul/drayage trucks by 2035

Full transition to ZEV buses & heavy-duty long-haul trucks by 2045*

Full transition to ZE off-road equipment by 2035* *where feasible

Multistate ZEV Truck Targets

- 15 states and the District of Columbia signed a memorandum of understanding to support rapid expansion of ZEV truck market
- Sets ZEV sales targets
  - 30% sales by 2030
  - 100% sales by 2050
- Develop truck ZEV action plan

### Advanced Clean Trucks (ACT) Overview

- **Heard June 2020**

<table>
<thead>
<tr>
<th>Manufacturer Sales</th>
<th>Large Entity Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero-emission vehicles as a percentage of annual sales</td>
<td>One time reporting in April 2021</td>
</tr>
<tr>
<td></td>
<td>Where and how existing vehicles are operated</td>
</tr>
</tbody>
</table>
### ACT - Manufacturer ZEV Sales

- Zero-emission vehicles as a percentage of annual sales*
- Begins with 2024 model year
- Credit for sales start in 2021
- Minimum tractor sales
- Flexibility to shift sales between categories

<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>5%</td>
<td>9%</td>
<td>5%</td>
</tr>
<tr>
<td>2025</td>
<td>7%</td>
<td>11%</td>
<td>7%</td>
</tr>
<tr>
<td>2026</td>
<td>10%</td>
<td>13%</td>
<td>10%</td>
</tr>
<tr>
<td>2027</td>
<td>15%</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>2028</td>
<td>20%</td>
<td>30%</td>
<td>20%</td>
</tr>
<tr>
<td>2029</td>
<td>25%</td>
<td>40%</td>
<td>25%</td>
</tr>
<tr>
<td>2030</td>
<td>30%</td>
<td>50%</td>
<td>30%</td>
</tr>
<tr>
<td>2031</td>
<td>35%</td>
<td>55%</td>
<td>35%</td>
</tr>
<tr>
<td>2032</td>
<td>40%</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>2033</td>
<td>45%</td>
<td>65%</td>
<td>40%</td>
</tr>
<tr>
<td>2034</td>
<td>50%</td>
<td>70%</td>
<td>40%</td>
</tr>
<tr>
<td>2035+</td>
<td>55%</td>
<td>75%</td>
<td>40%</td>
</tr>
</tbody>
</table>

* Partial credit for plug-in hybrids with minimum all electric range
ACT – Projected ZEV Population

Based on ACT ZEV sales percentage in 2019 EMFAC analysis
ACT - Large Entity Reporting

- About vehicles with GVWR >8,500 lbs. by April 1, 2021
  - Vehicle type, usage, and home base information
- Report vehicle information if any of the following apply:
  - Total annual revenue >$50 million
  - Government agency
  - Own, direct or dispatch >50 vehicles
- Reporting process summary
  - Download a reporting spreadsheet
  - Complete the spreadsheet on your own computer
  - Return to upload the data

Large Entity Reporting: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks/large-entity-reporting
ACT - Board Resolution

- Return by the end of 2021 with a zero-emission fleet rule
- Support transition California to zero-emissions where feasible
  - 2035 – Drayage, public fleets, last mile delivery
  - 2040 – Refuse, buses, utility fleets
  - 2045 – For all other trucks and buses where feasible
- Work with sister agencies
  - Workforce development
  - ZEV infrastructure

Zero-Emission Vehicle Market Overview
Zero-Emission Truck and Bus Market

- Wide variety of zero-emission trucks and buses available
  - New and start-up manufacturers lead the way
  - Major manufacturers entering market
  - Major parts suppliers introducing commercial components

- Continued improvements expected
  - Technology advancement
  - Continued incremental cost reductions
  - Infrastructure build-out

Image Source: Rivian
Straight Truck Availability

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Models</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>93</td>
</tr>
<tr>
<td>2023</td>
<td>109</td>
</tr>
</tbody>
</table>

Source: CalStart Zero Emission Technology Inventory
ZEV Tractor Commercial Availability

Today
• BYD 8TT
• Lion Electric LION8

2021
• Peterbilt 579EV
• Kenworth T680E
• Volvo VNR Electric
• Tesla Semi

2022
• Freightliner eCascadia
• Hyundai XCIENT

2023
• Nikola One/Two

Source: CalStart Zero-Emission Inventory Tool
SB 350 Transportation Electrification

- California utilities supporting battery electric truck and bus deployments
- $686 million approved through 2023 for three largest utilities
  - Supports charging for 18,000 trucks, buses, and off-road vehicles
  - Pay for design and electrical service upgrades on customer property
  - Rebates for chargers in disadvantaged communities
- New electricity rates to encourage electric vehicles

Transportation Electrification (SB 350): [www.cpuc.ca.gov/sb350te/](http://www.cpuc.ca.gov/sb350te/)
Infrastructure Coordination

- California Energy Commission
  - Biennial statewide charging infrastructure assessment (AB 2127)
  - Light-duty, heavy-duty, off-road
  - Spatially model future infrastructure and energy demand
- California Public Utility Commission
  - Developing Transportation Electrification Framework
  - Support SB 350 and other transportation electrification goals
- Go-BIZ coordinating infrastructure support and deployment
LCFS Can Lower ZEV Fuel Costs

- Low-Carbon Fuel Standard (LCFS) regulation
  - Market driver for low carbon fuels
- Credit goes to station owner/operator
  - Charging station
  - Hydrogen station
- Credits sales offset fuel costs

More information on LCFS: https://ww3.arb.ca.gov/fuels/lcfs/lcfs.htm
Example Battery Electric Fuel Cost Saving

<table>
<thead>
<tr>
<th>Electric vs Diesel</th>
<th>Airport Shuttle</th>
<th>Package Delivery</th>
<th>Local Drayage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel Savings w/o LCFS</td>
<td>$1,200</td>
<td>$4,000</td>
<td>$9,400</td>
</tr>
<tr>
<td>Fuel Savings w LCFS</td>
<td>$2,700</td>
<td>$8,400</td>
<td>$27,900</td>
</tr>
</tbody>
</table>

Note: Example assumes average fuel prices of $3.40/gal. per EIA 12/28/20, $0.18/kWh (includes transmission, energy, fixed fees, and demand charges), and LCFS credit value at $125 per credit

- Airport Shuttle at 25,000 miles/yr, 0.6 kWh/mile BEV compared to 22 mpg diesel
- Package Delivery at 25,000 miles/yr, 1.0 kWh/mile BEV compared to 10 mpg diesel
- Local Drayage at 50,000 miles/yr, 2.1 kWh/mile BEV compared to 6 mpg diesel
Advanced Clean Fleets
Proposed Regulation
Advanced Clean Fleets (ACF) Overview

- Initial focus on high priority private fleets, drayage and government
- Applies to vehicles with a gross vehicle weight rating >8,500 lbs.
- Proposed implementation timeframe from 2023 to 2045
- Contribute to full transition to zero-emissions where feasible
- Complement Advanced Clean Trucks sales requirement
- Prioritize benefits in disadvantaged communities
- First hearing December 2021
ACF – Proposal Outline

- General scope summary
- Proposed zero-emission fleet requirements
  - Public fleets*
  - Drayage trucks
  - Federal and high priority fleets
- Recognition for using zero-emission fleets

* Excludes federal
General Scope Summary

- Fleet vehicles include all of the following
  - Any vehicle with a GVWR above 8,500 lbs.
  - Off-road yard tractors

- Excludes the following
  - Transit vehicles subject to the Innovative Clean Transit regulation
  - Military tactical vehicles as described in 13 CCR 1905
  - Emergency vehicles defined in Vehicle Code Section 165
  - Motorhomes for non-commercial private use
  - School buses
Public Fleet ZEV Purchases

- Scope includes cities, counties, special districts, state agencies*
  - Entities with exempt plates from DMV
- ZEV purchases required when adding to the fleet
  - 50% of 2024-2026 model year vehicles must be ZEVs
  - 100% of 2027 and newer model years must be ZEVs
- Three-year exemption in designated counties until 2027
- Plug-in hybrids (NZEVs) count same as ZEVs until 2035

* Federal fleets addressed with private fleets

NZEV: Near-zero-emission vehicle as defined in ACT regulation
Public Fleet Designated Counties

- Three-year exemption counties
- Included low population counties
  - Alpine, Amador, Calaveras, Colusa, Del Norte, Glenn, Inyo, Lake, Lassen, Mariposa, Mendocino, Modoc, Mono, Nevada, Plumas, Sierra, Siskiyou, Sutter, Tehama, Trinity, Tuolumne, and Yuba
- Include Butte, Humboldt, Shasta
  - Surrounded by low population counties
- Exclude San Benito
Public Fleet Exemptions

- Apply to situations beyond fleet control
- Exemptions if new ZEVs are not available
  - ZEV chassis or complete vehicle is not available from more than one manufacturer
  - Available chassis cannot be upfitted to meet fleet needs
- Vehicle manufacturer delays
Public Fleet Reporting

- Report compliance annually by May 1
  - Within 30 days of adding vehicles to the fleet
- General entity information
- Vehicle information
  - VIN, fuel/drivetrain type, vehicle body type
What It Means for Public Fleets

- ZEV purchases only required at time of normal replacement
  - Aligns with normal purchase cycle
  - Consistent with AB 739 for state fleets
  - No requirements to replace
- More time for fleets in low population counties
- Exemption process if needed
  - If no ZEV is available or cannot meet fleets needs
Proposed Drayage Truck Requirements
Drayage Truck Proposal Considerations

- Current drayage truck regulation sunsets in 2022
  - Trucks will have to meet 2010 MY engine standards beginning in 2023
- Impacts to disadvantaged communities
  - The intermodal seaports and railyards under the current Drayage Truck Regulation are all located in or within ~1 mile of a disadvantaged community
2035 Zero-Emission Drayage Goal

- Transition all Class 7 and 8 drayage trucks operating at California’s intermodal seaports or railyards to full zero-emission by 2035

Zero Emission Drayage Trucks by 2035
2035 Zero-Emission Drayage Transition

- Truck must meet the following requirements to continue drayage operations:
  - Report odometer annually for vehicles with a model year engine older than 13 years
  - Have <800,000 miles and be less than 18 years old
- Trucks must visit a California seaport or railyard at least once in 2023, to remain in CARB Drayage Truck Registry
- After January 1, 2023, only zero-emission trucks are eligible to be added to the CARB Drayage Truck Registry
Current Drayage Truck Definition

§ 2027. In-Use On-Road Diesel-Fueled Heavy-Duty Drayage Trucks.

Drayage trucks *are*:
Any in-use on-road vehicle with a gross vehicle weight rating (GVWR) greater than 26,000 pounds that is used for transporting cargo, such as containerized, bulk, or break-bulk goods, that operates:

- on or transgresses through a port or intermodal railyard property for the purpose of loading, unloading or transporting cargo, including transporting empty containers and chassis or,

- off port or intermodal railyard property transporting cargo or empty containers or chassis that originated from or is destined to a port or intermodal railyard property.
§ 2027. In-Use On-Road Diesel-Fueled Heavy-Duty Drayage Trucks.

Drayage trucks **are not**:

- Vehicles operating off of port or intermodal railyard properties that transport cargos that have originated from a port or rail yard property but have been off-loaded from the equipment (e.g., a trailer or container) that transported the cargo from the originating port or rail yard

or

- Vehicles operating off of port or intermodal railyard properties that transport cargos that are destined for a port or rail yard but will be subsequently transferred into or onto different equipment (e.g., a trailer or container) before being delivered to a seaport or intermodal railyard.
Port and Rail Reporting Requirements

- Truck Reporting
  - Owner information
  - VIN, engine MY, license plate
  - Odometer reading if engine is over 13 years old

- Seaport and Railyard Reporting
  - Report truck visit information annually
    - VIN, license plate, and visit frequency
  - Reporting for 2023 will establish baseline drayage fleet
Drayage Truck ZE Fleet Transition

- Trucks currently registered with 2010 or newer model year engines
- Non-ZEV Trucks with 800,000 miles, or engine model year 18 years old, and that have not visited a seaport or intermodal railyard in 2023

CARB Drayage Truck Registry Beginning 2023

ZEV Trucks

CARB Drayage Truck Registry Beginning 2035

ZEV Trucks

All ZEV Drayage Truck Fleet
## Calendar Year 2019 Drayage Truck Inventory

<table>
<thead>
<tr>
<th>Vehicle Category</th>
<th>Port of Oakland (POAK)</th>
<th>Port of LA/LB (POLA)</th>
<th>Other Seaports*</th>
<th>Railyards **</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instate Class 8† Active Trucks***</td>
<td>4,224‡</td>
<td>13,951‡</td>
<td>1,453‡</td>
<td>TBD</td>
</tr>
<tr>
<td>Instate Class 8 † Inactive Trucks***</td>
<td>n/a***</td>
<td>2,770</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instate POAK Class 8 already in POLA†</td>
<td>136</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 4-7†</td>
<td>22</td>
<td>180</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Out of State†</td>
<td>823</td>
<td>854</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,224</strong></td>
<td><strong>13,951</strong></td>
<td><strong>1,453</strong></td>
<td><strong>TBD</strong></td>
</tr>
</tbody>
</table>

† Non-gasoline
‡ T7 POLA Class 8, T7 POAK Class 8, and T7 Other Ports Class 8 in EMFAC202x
* Estimate based on past Surveys; Requesting updated information from other seaports
** To be determined (TBD); Requesting information from Railroads
*** For POLA, trucks with more than 112 visits/year are considered as “active trucks”. 112 visit/year was determined based on POLA monthly active truck counts. POAK did not provide monthly visit data and therefore all of their class 8 in-state trucks were considered active.
What it Means for Drayage Trucks

- Builds on existing drayage truck registry process
- Drayage trucks registered prior to 2023 continue operating as usual until odometer or age limit exceeded
- Requirements for zero-emission trucks start in 2023
- Achieves all zero-emissions drayage truck fleet by 2035
Private and Federal Fleet Requirements
Private and Federal Fleet Overview

- Applies to high priority private fleets and federal fleets
  - Own vehicles and subhauler vehicles
- Phase-in ZEVs as a percentage of the total fleet
  - Scheduled phased-in by vehicle body type and ZEV suitability
- Reporting required
Private and Federal Fleet Definitions

- Fleet means all vehicles under common ownership and control
  - Owned and operated
  - Rented or leased for a period of one year or longer
  - Subhauler vehicles (3\textsuperscript{rd} party)

- Subhauliers are for-hire motor carriers who provide transportation services on the behalf of another for-hire motor carrier or broker
  - Examples include owner-operators hired by a freight company, vehicles dispatched by a broker
Private and Federal Fleet Examples

Bob Shipping Co.
- Own
  - 50 Box Trucks
  - 10 Day Cabs
- Subhauler 1
  - 50 Box Trucks
- Subhauler 2
  - 90 Day Cabs
- Total Fleet
  - 200 trucks

May Brokers Inc.
- Own
  - None
- Subhauler 1
  - 100 Box Trucks
- Subhauler 2
  - 100 Day Cabs
- Total Fleet
  - 200 trucks
High Priority Fleet Definition

- An entity with more than $50 million annual revenue that operates at least one vehicle in California
- Any entity that owns or controls more than 50 vehicles; or
- Any broker that dispatches more than 50 vehicles per year; or
- Any federal agency that operates vehicles in California

Vehicle means on-road vehicles with a GVWR greater than 8,500 lbs
ZEV Suitability by Body Type

- Vans, box trucks, 2 axle buses, yard tractors
- Work trucks (single-unit trucks used at job site), motor coaches, day cab tractors
- Sleeper cab tractors and specialized equipment
  - Heavy cranes, hay squeezes, two-engine vehicles, log trucks, work-over rigs, others

Note: Suitability primarily based on ACT market segment analysis
### ZEV Target Phase-In Schedule

- High priority fleets and federal fleets
- Meet ZEV targets as a percent of the total fleet
- Target number of ZEVs is based on vehicle body type category
- Target number can be met by any ZEV type within category

<table>
<thead>
<tr>
<th>Percentage of Fleet that Must be ZEV</th>
<th>10%</th>
<th>25%</th>
<th>50%</th>
<th>75%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box trucks, vans, two-axle buses, yard trucks</td>
<td>2025</td>
<td>2028</td>
<td>2031</td>
<td>2033</td>
<td>2035</td>
</tr>
<tr>
<td>Work trucks, day cab tractors, three-axle buses</td>
<td>2027</td>
<td>2030</td>
<td>2033</td>
<td>2036</td>
<td>2039</td>
</tr>
<tr>
<td>Sleeper cab tractors and specialty vehicles</td>
<td>2030</td>
<td>2033</td>
<td>2036</td>
<td>2039</td>
<td>2042</td>
</tr>
</tbody>
</table>

“Work truck” means any single-unit truck that is not a box truck, van, or bus
NZEVs same as ZEVs until 2035 model year
### Box Truck ZEV Target Phase-In Example

- ZEV target phase-in example 60 box truck fleet

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>2025 (10%)</th>
<th>2028 (25%)</th>
<th>2031 (50%)</th>
<th>2033 (75%)</th>
<th>2035 (100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZEV % for Box Trucks</td>
<td>Number of ZEVs to Meet Target</td>
<td>6</td>
<td>15</td>
<td>30</td>
<td>45</td>
</tr>
</tbody>
</table>

Note: Conventional rounding used if calculated number of trucks is not a whole number.
## Mixed Fleet ZEV Target Phase-In Example

<table>
<thead>
<tr>
<th>Category</th>
<th># of Vehicles</th>
<th>ZEVs in 2025</th>
<th>ZEVs in 2029</th>
<th>ZEVs in 2033</th>
<th>ZEVs in 2037</th>
<th>ZEVs in 2041</th>
<th>ZEVs in 2045</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box trucks, vans, two-axle buses, yard trucks</td>
<td>60</td>
<td>6</td>
<td>15</td>
<td>45</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Work trucks, day cab tractors, three-axle buses</td>
<td>20</td>
<td>0</td>
<td>2</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Sleeper cab tractors and specialty vehicles</td>
<td>20</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>6</strong></td>
<td><strong>17</strong></td>
<td><strong>60</strong></td>
<td><strong>85</strong></td>
<td><strong>95</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
Private and Federal Vehicle Exemptions

- Circumstances beyond fleet control
- Must show no ZEV or NZEV is commercially available
- Must show no other vehicle in the fleet can be zero-emission
  - Available ZEVs do not meet mileage needs
  - Weight limitations
- Back-up vehicles may be excluded from ZEV fleet requirements
  - <5,000 total miles per year until 2040
  - <1,000 total miles per year thereafter
- Vehicles awaiting sale
Private and Federal Reporting

- Owner/entity information
- Vehicle information
  - VIN, Fuel/drivetrain type, vehicle body type
  - Within 30 days of adding non-ZEV vehicles to the fleet
- 3rd party subhauler information (if applicable)
  - Subhauler CARB Fleet ID, start/end date of service
  - Subhauliers must report own fleet information
- Report compliance annually by March 1
What It Means for Fleets

- Places responsibility on controlling party
- Provides flexibility for controlling party to partner with subhaulers
- Requires minimum progress to phase-in ZEVs
- Includes flexibility to meet targets across ZEV vehicle types
- Built in exemptions process if needed
- Annual reporting required for all regulated fleets and subhaulers
- Provides method to recognize any ZEV fleet
Other Considerations

- Record keeping requirements
- Disclosure language when selling vehicles
  - Dealers, auction houses, and others
- Maintain requirement to hire compliant California fleets
- Certificate of reported compliance
Encourage Hiring ZEV Fleets
ZEV Fleet Hiring Concept

- Method to recognize entities that hire ZEV fleets when outsourcing
- Allows government agencies and major businesses to support ZEV transition and emission goals even if no trucks owned
  - Grocery stores, manufacturers, retailers, banks, hotels, others
- Certified ZEV fleets listed on CARB website
Optional ZEV Fleet Certification

- Recognizes early actors and compliant high priority ZEV fleets
- Fleet eligible if meeting all of the following:
  - Has at least one ZEV, and
  - ZEVs are more than 5% of total fleet; and
  - Meets or exceeds ZEV Milestone Phase-In Schedule
- List certified ZEV fleets online starting 2023
Encourage ZEV Fleet Hiring

- Guidelines to identify your entity as a ZEV Partner
- Hire certified ZEV fleets based on the follow schedule
  - Last mile delivery and private shuttle services starting 2025
  - Waste hauling and regional delivery starting 2027
  - All other delivery and passenger services starting 2030
- Creates demand side driver for all zero-emission fleets
- Does it facilitate including transportation in sustainability goals?
Example of Voluntary ZEV Fleet Hiring

Voluntary ZEV Partner
(Grocery, tech, manufacturer, etc.)

Check database for fleets to hire

CARB Certified ZEV Fleet Database

ZEV Partner hires CARB Certified ZEV Fleets

Report ZEV % to CARB

CARB Certified ZEV Fleets
Alternatives and Next Steps
Environmental Analysis

- Draft Environmental Analysis (Draft EA) being prepared analyzing potentially significant adverse impacts caused by reasonably foreseeable actions that may occur in response to the proposed regulation
- Meets requirements of CARB’s certified regulatory program authorized under the California Environmental Quality Act (CEQA)
- The CEQA Environmental Checklist (CEQA Guidelines Appendix G) is used to identify and evaluate potential indirect impacts
- The Draft EA will be an appendix to the Staff Report (ISOR)
The Draft EA will include, at a minimum:
• Description of proposed project, which is the proposed amendment to the regulation, and objectives of the proposed project
• Description of reasonably foreseeable actions taken in response to proposed amendments to the regulation.
• Programmatic level analysis of potential adverse impacts caused by reasonably foreseeable actions
• Beneficial impacts
• Feasible mitigation measures to reduce/avoid significant adverse impacts
• Alternatives analysis

Input invited at this early stage on appropriate scope and content of the Draft EA

Draft EA will be released for 45-day public comment period
Soliciting Alternatives

- CARB is soliciting alternatives that will meet the goals outlined for the Advanced Clean Fleet regulation.
- Please submit alternative proposals to ZEV Fleet Email (zevfleet@arb.ca.gov) by March 31.
Next Steps

- Continue individual meetings with fleets and stakeholders
- Continue workshops/workgroups throughout this year
  - Infrastructure workgroup – April
  - Cost workgroup – April/May
- Receive fleet reported data April 2021
- Rule recommendation to Board in December 2021