



Clean Transportation Incentives

*For Low Carbon Transportation Investments and
the Air Quality Improvement Program*

Public Workshop on the Fiscal Year 2023-24 Funding Plan
August 31, 2023

Today's Agenda

Time*	Session
10:00 a.m. – 10:30 a.m.	Introduction and Overview of Draft Funding Allocations
10:30 a.m. – 12:30 p.m.	Clean Transportation Equity and Light-Duty Projects
12:30 p.m. – 1:30 p.m.	Lunch Break
1:30 p.m. – 2:00 p.m.	Long-Term Heavy-Duty Investment Strategy
2:00 p.m. – 2:50 p.m.	Heavy-Duty Vehicle and Off-Road Equipment Investments
2:50 p.m. – 3:00 p.m.	Next Steps

**All times are approximate - if a topic concludes early we will proceed with the next item.*

Funding Plan Development Schedule

Milestone	Date
Daytime Themed Work Group Meetings	July - Oct 2023
Evening Community Meetings	June - Oct 2023
Release Draft Funding Plan	August 21, 2023
Final Workshop	August 31, 2023
Release Proposed Funding Plan	October 6, 2023
Board Consideration of Proposed Funding Plan	November 2023
Start implementing projects	December 2023

Introduction and Overview of Draft Funding Allocations

Key Priorities for Fiscal Year 2023-24

Funding Plan



CARB Incentive Programs

Community Air Protection Program (AB 617)

Criteria, toxics and GHG reductions for community goals

Air Quality Improvement Program (AQIP)

Criteria pollutant and toxics reductions

Carl Moyer Program

Cost-effective, State Implementation Plan creditable criteria pollutant emission reductions

Volkswagen Mitigation Trust

Oxides of Nitrogen (NOx) mitigation and ZE

Funding Agricultural Replacement Measures for Emission Reductions (FARMER) Program

Criteria, toxics and GHG reductions for the ag sector

Low Carbon Transportation

Advance technologies to provide GHG reductions and Priority Populations benefits

Woodsmoke Reduction Program

Reduces particulate reductions from home heating devices

Fluorinated Gases (F-Gas) Reduction Incentive Program

Reduces high global warming potential F-Gas emissions



Budget Update

- The 2023 state budget builds upon the past two budgets, for a proposed total investment of approximately \$10.1B through fiscal year (FY) 2026-27
- CARB's portion of the state's multi-year investment, includes:
 - \$140M appropriated for CARB's clean transportation equity programs established under Senate Bill (SB) 1275
 - \$483.6M appropriated for heavy-duty ZE trucks, public school buses, fleets, and off-road equipment.
- Funding sources include the Greenhouse Gas Reduction Fund (GGRF), the State's General Fund, and the Air Quality Improvement Fund (AQIF)

Clean Transportation Incentives Proposed Allocations (millions)

Project Category	GGRF	General Fund	AQIF
Clean Transportation Equity Programs Established under SB 1275	-	-	-
• Vehicle Purchase Incentive Equity Programs	\$30	\$50	-
• Sustainable Transportation and Mobility Equity Programs	\$60	-	-
Heavy-Duty ZE	-	-	-
• Drayage Trucks	\$80	-	-
• Public School Buses	-	\$375	-
Air Quality Improvement Program	-	-	\$28.64
Funding Plan Total	\$170	\$425	\$28.64
-	-	Total Budget	\$623.64

Funding Plan Development

Next Steps

- Consider feedback from today's workshop
- Continue one-on-one meetings and follow-up with stakeholders
- Release proposed Funding Plan for public comment October 6, 2023
- Board considers Funding Plan at public meeting on November 16-17, 2023

Comments and Questions



Use the raised hand function (#2 if calling in by phone)



Please state your name and affiliation before asking a question or making a comment.

Clean Transportation Equity and Light-Duty Vehicle Investments

Overview

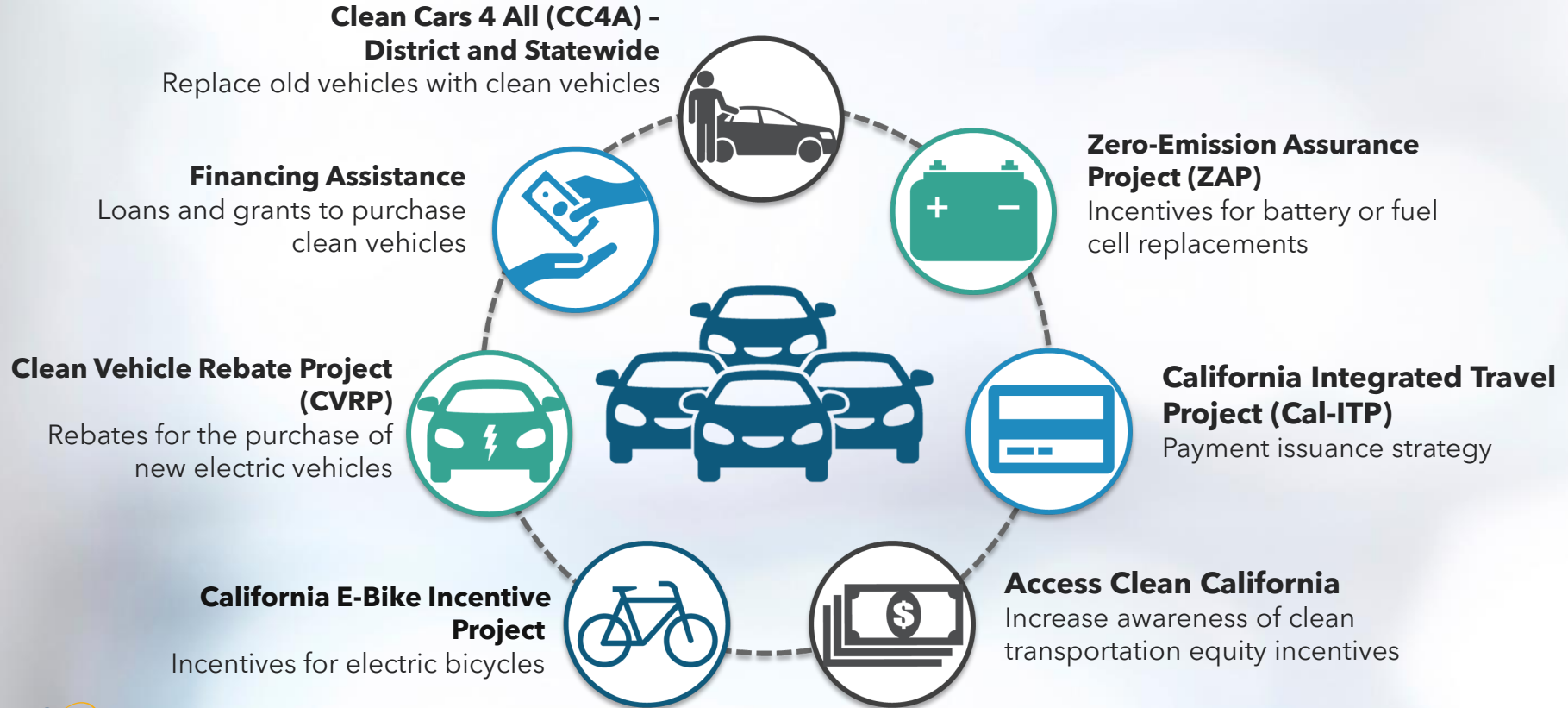
Light-Duty Vehicle Investments

- Vehicle purchase incentives
- Clean mobility investments

Goals

- Achieve GHG reductions and improve air quality
- Support long-term transformation of the State's fleet and accelerate ZEV deployment
- Bring ZEVs and Clean Mobility Options to priority populations
- Support complementary community protection efforts such as AB 617 and SB 375

Vehicle Purchase Incentives



Statewide Vehicle Purchase Incentives Draft Project Allocations (millions)

Project	GGRF	GF	Total
CC4A	\$15	\$13	\$28
Financing Assistance	\$15	\$13	\$28
California E-Bike Incentive Project	-	\$18	\$18
Access Clean California	-	\$5	\$5
Cal-ITP	-	\$1	\$1
Total	\$30	\$50	\$80

Draft Recommendation

- Draft Allocation: \$28M for CC4A per the Budget Act of 2023

Project	To Date	Remaining	Total
District Programs	\$311	\$132	\$325
Statewide Program	\$125	\$125	\$139
Total	\$436	\$257	\$464



CLEAN CARS
FOR ALL



CLEAN CARS
4 ALL



Draft Recommendation

- Proposed Changes to Program Criteria:
 - Providing funding for adaptive equipment to reduce barriers for drivers with disabilities as required by the Budget Act of 2022
 - Considering eligibility for Zero-Emission Motorcycles (ZEM) as CVRP phases out
 - Staff is currently seeking feedback on appropriate funding amounts
- Launching the new joint program with Financing Assistance by the end of 2023



Draft Recommendation

- Draft Allocation: \$28M
- Proposed Changes to Program Criteria:
 - Providing funding for adaptive equipment to reduce barriers for drivers with disabilities as required by the Budget Act of 2022
 - Considering eligibility for ZEMs as CVRP phases out
 - Staff is currently seeking feedback on appropriate funding amounts
- Launching the new joint program with statewide CC4A by the end of 2023

Draft Recommendation

- Draft Allocation: \$18M
- No changes to program criteria
- Statewide launch in Fall 2023
- Launch will include:
 - Incorporating lessons learned from the soft launch
 - E-bike retailer outreach and on-boarding
 - Expanding applicant outreach with the assistance of community-based organizations

Draft Recommendation

- Draft Allocation: \$5M
- No changes to program criteria
- Continue implementing and improving:
 - Expand outreach partner network
 - Complement Statewide Financing Assistance and CC4A
 - Streamline access to incentives
- Release solicitation by January 2024

Draft Recommendation

- Draft Allocation: \$1M
- No changes to program criteria
- Continued investment into work being done under the contract with FY 2022-23 funds
- Exploring areas such as:
 - Universal payment for transportation, including electric vehicle charging
 - Streamlined income verification for incentive programs
 - Alternative distribution methods for incentives (e.g., Providing rewards for using clean transportation or mobility options)

Comments and Questions



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5-minute Break

Sustainable Community-Based Transportation Equity Projects

Clean Mobility Options Voucher Pilot Program (CMO)

Small-scale, shared-mobility projects and community transportation needs assessments



Sustainable Transportation Equity Project (STEP)

Multifaceted clean transportation and supporting projects to address community transportation needs and reduce VMT



Regional Clean Mobility Options Projects

Early pilots to provide shared mobility services across the state



Planning and Capacity-Building (Planning)

Community-led planning and capacity building projects and dedicated, localized technical assistance and outreach



Clean Mobility in Schools (CMIS)

Supports clean transportation needs of K-12 public school districts



Draft Recommendation

- Streamline access to funds
 - Continue two-phased application approach
 - Combine application, timeline, and grant process for all four project categories (CMO, CMIS, STEP, and Planning)
 - Maintain project category goals/priorities
 - CARB will oversee application and selection process
- Streamline administration of project funding
 - Planning Administrator (selecting using FY 2022-23 funds)
 - Mobility Administrator (new solicitation for FY 2023-24)

Sustainable Community-Based Transportation Equity Draft Project Allocations (millions)

Project	GGRF
Sustainable Community-Based Transportation Equity Mobility Projects <ul style="list-style-type: none">• Split evenly between CMO, CMIS, and STEP• Mobility Administrator funding TBD	\$50
Sustainable Community-Based Transportation Equity Planning and Capacity Building <ul style="list-style-type: none">• Planning projects, \$7.5M• Planning Administrator, \$2.5M	\$10
Total \$60	

Comments and Questions



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Lunch Break
Return at 1:30 p.m.

Long-Term Heavy-Duty Investment Strategy

Long-Term Heavy-Duty Investment Strategy

Annual three-year investment strategy for Clean Transportation Incentives

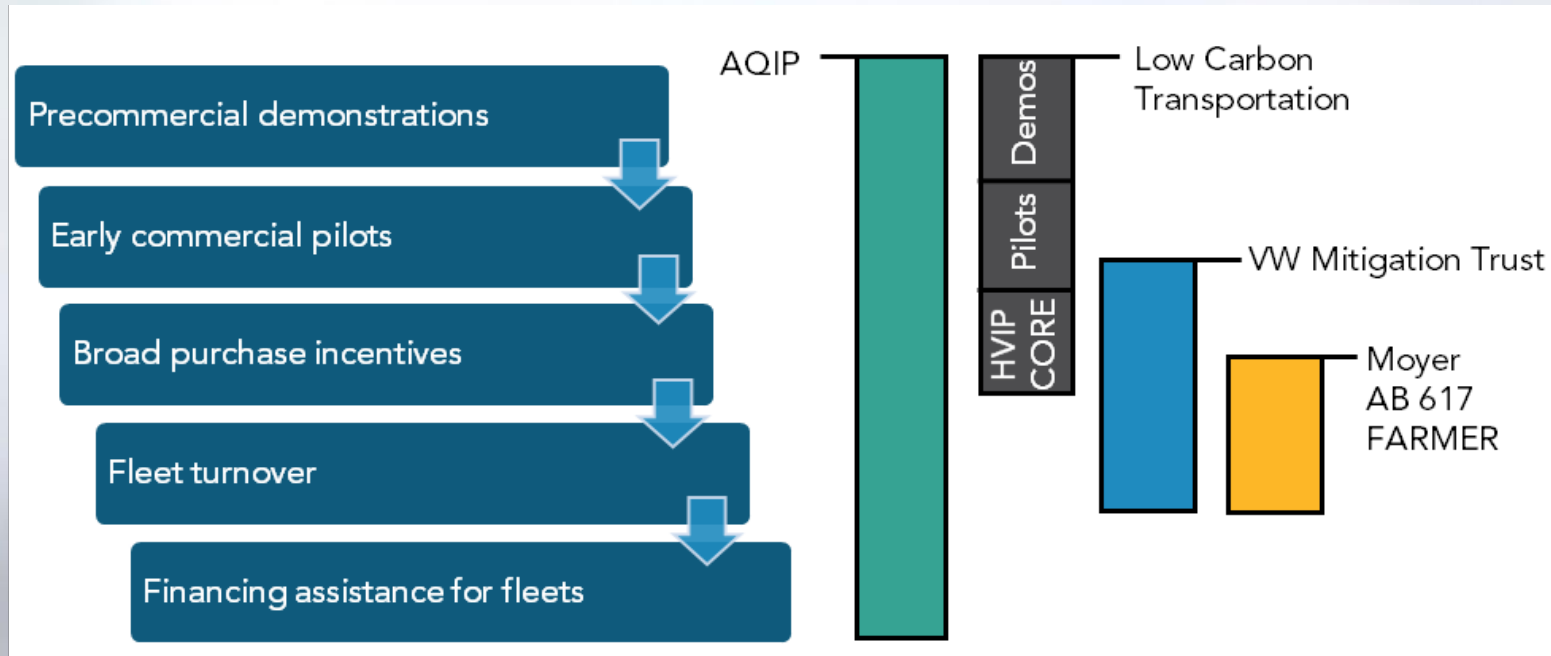
Roadmap for transforming the heavy-duty transportation sector

Outlines priorities for investment

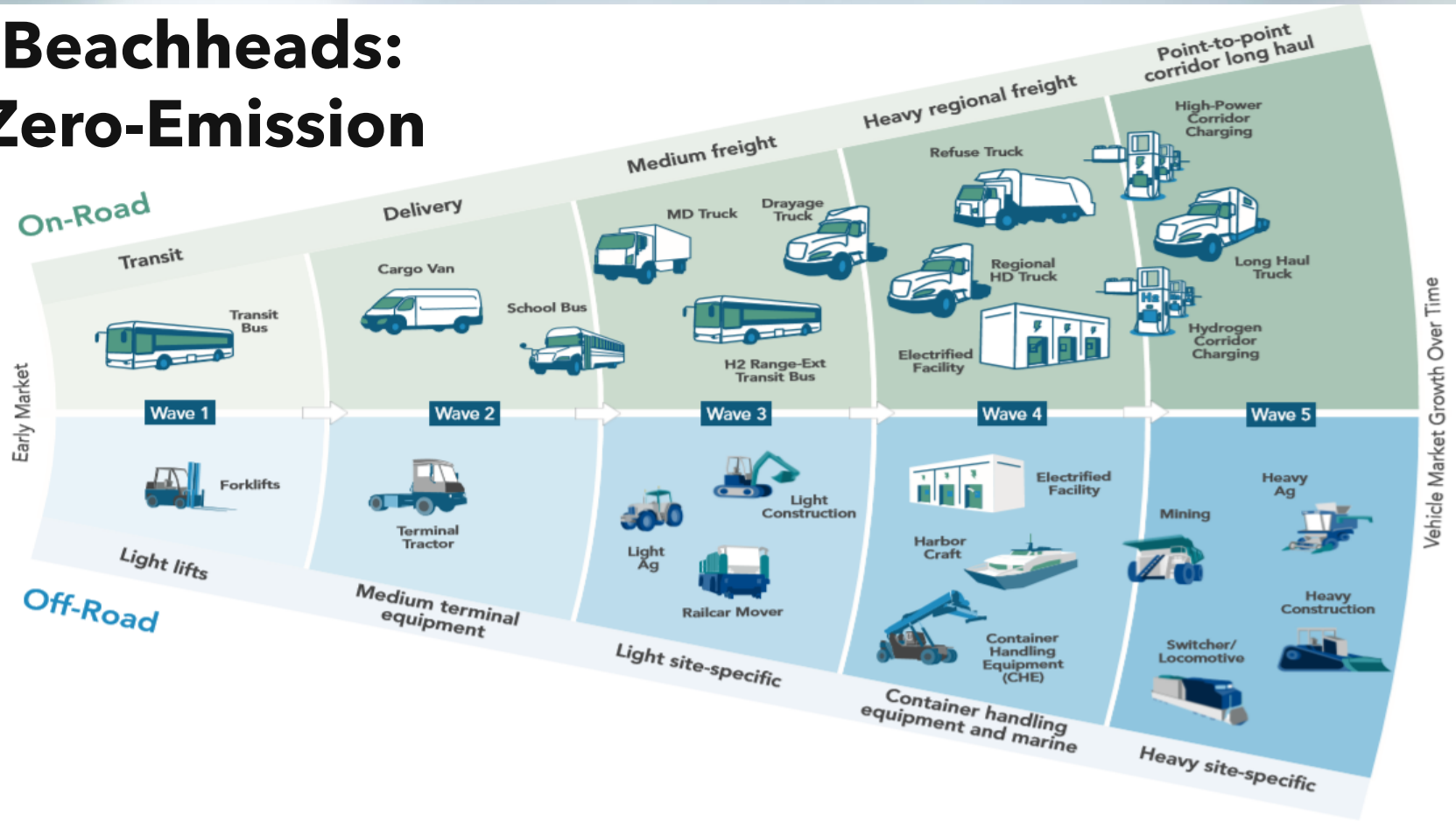
Focus on equity and small businesses

Includes annual report on the State's school bus fleet

Heavy-Duty Technology Progression Through CARB Incentive Programs



Beachheads: Zero-Emission



Metrics of Success

Supporting Healthy Communities

58

PERCENT

DAC VOUCHERS

Fifty-eight percent of vouchers (HVIP and CORE combined) have funded vehicles and equipment deployed in DACs, as identified in CalEnviroScreen.



Supporting Technology Evolution

399
MILLION

MILES TRAVELED

There were 399,110,203 cleaner-than-diesel miles traveled in California by HVIP-funded vehicles between 2010 and 2023.



Growing the Green Economy

509
MODELS

MANUFACTURERS

There are 88 HVIP- and/or CORE-eligible manufacturers offering 509 vehicle or equipment models.



198
MILLION

DAC MILES TRAVELED

HVIP-funded vehicles have traveled approximately 198 million miles in DACs, as identified in CalEnviroScreen.



895+
THOUSAND

EQUIPMENT RUNTIME

CORE-funded zero-emission off-road equipment has been used for 895,954 hours in California between 2020 and 2023.



\$3.4
BILLION

TOTAL INVESTMENT

Additional public and private spending toward these purchases totaled \$3.4 billion--over \$3 for every \$1 of voucher investment. Leveraged private spending represents purchases redirected from traditional technologies to clean technologies.



Heavy-Duty Investment Priorities

	FY 2024-25	FY 2025-26	FY 2026-27
Demos	<p>\$55-\$95 Million</p> <p>Focus: ZE Construction and Mining Equipment, ZE Heavier Cargo Handling Equipment, ZE Line-Haul Rail, ZE Marine, ZE Aviation</p>	<p>\$65-\$100 Million</p> <p>Focus: ZE Construction and Mining Equipment, ZE Heavier Cargo Handling Equipment, ZE Line-Haul Rail, Emergency and Heavy Specialty Equipment, ZE Aviation</p>	<p>TBD</p> <p>Focus: ZE Line-Haul Rail, Emergency and Heavy Specialty Equipment, ZE Heavy Aviation</p>
Pilots	<p>\$200-\$325 Million</p> <p>Focus: ZE Ag-Construction-Heavier Cargo Handling Equipment, ZE/Hybrid Marine, Strategic Range Extenders, ZE Facilities/ Communities/Corridors</p>	<p>\$225-\$350 Million</p> <p>Focus: ZE Longer Range Trucking, ZE Ag-Construction-Mining-Heavier Cargo Handling Equipment, ZE/Hybrid Marine, Strategic Range Extenders, ZE Facilities/ Communities/Corridors</p>	<p>TBD</p> <p>Focus: ZE Longer Range Trucking, ZE Ag-Construction-Heavier Cargo Handling Equipment, ZE/Hybrid Marine, ZE Facilities/Communities/Corridors, ZE Light Aviation</p>
Commercial	<p>1,210-\$1,815 Million</p> <p>Focus: ZE Drayage, ZE Long Haul Trucks, ZE School/Transit, ZE Heavier Cargo Handling Equipment, ZE Switcher Rail, ZE/Hybrid Marine, Financing & Insurance Assistance, ePTOs</p>	<p>\$1,460-\$2,170 Million</p> <p>Focus: ZE Drayage, ZE Long Haul Trucks, ZE School/Transit, ZE Heavier Cargo Handling Equipment, ZE Switcher Rail, ZE/Hybrid Marine, Financing & Insurance Assistance, Heavy/Specialty ePTOs</p>	<p>TBD</p> <p>Focus: ZE Drayage, ZE Long Haul Trucks, ZE School/Transit, ZE Construction and Mining Equipment, ZE Switcher Rail, ZE/Hybrid Marine, Financing & Insurance Assistance, Heavy/Specialty ePTOs</p>
Total Funding	\$1,465-\$2,235 Million*	\$1,750-\$2,620 Million*	TBD

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On-Road Heavy-Duty Vehicle and Off-Road Equipment Investments

Draft Heavy-Duty and Off-Road Equipment Allocations (millions)

Project Category	Allocation
Drayage Trucks – Clean Truck and Bus Vouchers (HVIP)	\$80
Public School Bus – HVIP	\$375
Innovative Small E-Fleets Pilot	\$14.3
Clean Off-Road Equipment Voucher Incentive Project (CORE)	\$14.3
Total	\$483.6

FY 2023-24 Goals for Heavy-Duty On-Road and Off-Road Investments

- CARB continues to build on efforts to ensure investments are equitably distributed.
- Strategically focus funds on priority communities.
- Focus on reducing barriers for small fleets.
- Collaboration with other State agencies and community partners

Clean Truck and Bus Voucher Incentive Project (HVIP)



Draft Recommendations

- Draft allocation: \$80M for zero-emission drayage
- Potential delay of fleet size limitations
- Small fleet support
- Potential voucher amount modifications
- Manufacturer performance review

Potential Delay of Fleet Size Limits

- Approved by Board in [FY 2022-23 Funding Plan](#) to promote more equitable investments
 - Only fleets with 50 or fewer trucks or buses will be eligible for HVIP
- Propose extending to January 1, 2025
 - Maintain exemptions for public agencies, California Native American Tribal Governments, non-profits.
 - Maintain other mechanisms to ensure fund availability for small fleets

Small Fleet Support

- FY 2022/2023: Move \$50 million from HVIP Standard to Innovative Small E-Fleets (ISEF)
- FY 2023/24:
 - Align HVIP small-fleet definition and incentives with ISEF
 - ≤ 20 vehicles and $< \$15$ million annual revenue
 - Applies elsewhere in HVIP (e.g., stacking, disadvantaged communities voucher enhancement)
 - +100% base voucher modifier
 - Move all standard purchases from ISEF to HVIP Standard

Potential Voucher Amount Modifications

- Preliminarily considering the following adjustments to voucher amounts:
 - Extending 25% early adopter bonus for ZE Class 8 Drayage Trucks through 2024
 - Extending 25% early adopter bonus for ZE refuse trucks through 2024

Manufacturer Performance Review

- Remove manufacturer rolling soft cap
- Institute ad hoc review to implement controls
 - Reduces administrative burden, increases selectiveness
- Potential metrics to begin specific review:
 - Share of vouchers by model with extension requests
 - Average redemption time
- Potential consequences:
 - Conference with manufacturer
 - Hold new requests for affected model
 - Case-by-case for hold-till date or limited resumption

Other HVIP Policy Changes Under Consideration

- Supplement other clean mobility projects
 - Use HVIP to cover eligible vehicle costs in those projects to stretch resources
- Increase annual voucher request limit for public transits and refuse fleets
- Focus first year of Local Educational Agency School Bus Replacement Grants on ZE buses only
- Explore mechanisms for additional small fleet assistance
 - Borrowing costs, residual value, insurance

Innovative Small e-Fleet

HVIP set aside established to inform policies and provide increased funding for small fleets (≤ 20 vehicles) to access ZE technologies.

Encourages fleets to explore all-inclusive leases, rentals, peer-to-peer truck sharing, truck-as-a-service, straight purchases and other mechanisms

FY 2022-23 funding opened for new voucher requests on August 30, 2023

Draft Recommendations

- Draft allocation: \$14.32M
- Focus solely on exploration of innovative solutions for small fleets
- Expand eligible vehicles to include buses, such as those used at daycares, retirements homes, etc.

Clean Off-Road Equipment Vouchers



CORE Overview



First come - First served



Offset higher ZE cost



CARB determines funding amounts



Stacking allowed and no scrappage required



Enhancements for infrastructure, small business, and DAC

Draft Recommendations

- Draft allocation: \$14.3M
- Small businesses only
- Update voucher pricing
- Overhaul equipment eligibility
- Review 3-year warranty and telematics requirements

Ongoing Projects

- The Following Projects are Ongoing but not Receiving Funding this Year
 - Advanced Technology Demonstration and Pilot Projects
 - Zero-Emission Truck Loan Pilot Project

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Summary and Next Steps

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