



Clean Transportation Incentives

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

Public Workshop on the Fiscal Year 2022-23 Funding Plan
July 21, 2022

Today's Agenda

Time*	Session
10:00 a.m. – 10:20 a.m.	Introduction and Overview of Draft Funding Allocations
10:20 a.m. – 11:00 a.m.	Long-Term Plans for Light-Duty Vehicle and Clean Transportation Equity Investments
11:00 a.m. – 12:00 p.m.	Clean Transportation Equity and Light-Duty Projects
12:00 p.m. – 12:45 p.m.	Break
12:45 p.m. – 1:15 p.m.	Long-Term Heavy-Duty Investment Strategy
1:15 p.m. – 2:15 p.m.	On-Road Heavy-Duty Vehicles and Off-Road Equipment Investments
2:15 p.m. – 2:50 p.m.	Open Discussion
2:50 p.m. – 3:00 p.m.	Summary and Next Steps

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

Funding Plan Development Schedule

Milestone	Date
Category specific work group meetings	March – July 2022
Community Engagement	March – October 2022
Final Workshop	July 21, 2022
Release proposed Funding Plan	October 2022
Board Consideration of Proposed Funding Plan	November 2022
Start implementing projects	December 2022

Additional information available at:

- [Low Carbon Transportation Investments and AQIP](#)
- [Low Carbon Transportation Investments and AQIP Meetings and Workshops](#)

Introduction and Overview of Draft Funding Allocations

Key Priorities for Fiscal Year (FY) 2022-23

Funding Plan



CARB's Portfolio of Incentive Programs

Community Air Protection Program (AB 617)

Criteria, toxics and greenhouse gases (GHG) reductions for community goals

Air Quality Improvement Program (AQIP)

Criteria pollutant and toxics reductions

Carl Moyer Program

Cost-effective, SIP creditable criteria pollutant 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



VW Mitigation Trust

NOx mitigation and zero-emission



Budget Update

- Legislature approved majority of the multi-year investment for ZEV Deployment in several budget bills signed by the Governor in June 2022
 - \$10B over the next five years for CARB, California Energy Commission (CEC), and other state agency partners
 - Includes \$1.125B from Proposition (Prop) 98 General Funds for school bus replacement grants to local educational agencies
- Legislature deferred finalizing portion of the light-duty equity and emerging opportunities allocations until later in the session

Budget Update Continued

- Staff will present details included in the May Revise where allocations have been deferred by the Legislature
 - Final appropriations won't likely match the May Revise
 - Additional public meetings may be scheduled as needed
- Today's presentation includes a total of \$3B for Clean Transportation Incentives, from Greenhouse Gas Reduction Fund (GGRF), General Fund (GF) and Air Quality Improvement Fund (AQIF)

Clean Transportation Incentives Proposed Allocations (millions)

Project Category	GGRF	GF	Prop 98 GF	AQIF
Clean Transportation Equity Programs Established Under Senate Bill (SB) 1275				
Vehicle Purchase Incentive Programs	\$76	\$430*		-
Clean Mobility Investments	-	\$419*		-
Heavy-Duty Zero-Emission				
Drayage Trucks, School/Transit Buses	-	\$280	\$1,125	-
Clean Trucks, Buses, and Off-Road	\$600	-		-
Emerging Opportunities	-	\$10*		-
AQIP				\$28.64

TOTAL \$2,968.64

**Appropriations from May Revise that are deferred by Legislature. Final appropriations won't likely match May Revise. Staff will adjust amounts upon final appropriation.*

Community Engagement

- Held individual meetings with community organizations, community leaders, and labor union representatives
- Staff will continue to meet and follow-up with priority populations throughout the development of the Funding Plan
- Final Funding Plan will include updates on how this information is being considered for inclusion

Summary of Feedback

- Prioritize funding in areas that previously have had low/no funding
- Provide distribution of funding by demographic, including race
- Fund priority populations directly
- Utilize a needs-based model
- Expand outreach/education, case management, application, and language support
- Simplify application process, expedite incentive distribution
- Ensure fleets receiving funding are in compliance with applicable labor laws
- Improve consistency for public meetings by providing in advance relevant meeting information/materials

Funding Plan Development

Next Steps

- Additional public meetings as needed
- Continue one-on-one meetings and follow-up with stakeholders
- Release proposed Funding Plan for public comment October 2022
- Board considers Funding Plan at public meeting on November 18-19, 2022

Comments and Questions



Use the raised hand function (#2 if calling in by phone) or submit your question or comment in the Q&A box on Zoom.



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

Long-Term Plans for Light-Duty Vehicle and Clean Transportation Equity Investments

Background

- Second major update as required by SB 1275
 - Major update every three years through January 1, 2023
- Supplemental Report Requirement of the 2018-19 Budget Act
 - Annual updates through January 1, 2030
- In-Depth Update on the Long-Term Plan for Clean Transportation Equity Investments

Light-Duty Vehicle Purchase Incentives

- Covers California's new and used ZEV Market & ZEV Purchase Incentive Programs
 - Clean Vehicle Rebate Project (CVRP)
 - Financing Assistance programs
 - Clean Cars 4 All (CC4A)
 - Access Clean California
- Future plans to include electric bicycles (e-bikes) incentives

Making Purchase Incentives Better

- Three public workshops held that covered the ZEV market, ZEV technology, building an equitable ZEV market, and the long-term vision of vehicle purchase incentives
- Considering changes to improve consumer experience, increase incentive amounts, increase support for used electric vehicles, increase outreach through community-based organizations, and expand support for e-bikes

Clean Mobility Investments

- Covers multiple mobility-centered projects
 - Clean Mobility Options (CMO) Voucher Pilot Program and regional clean mobility projects
 - Clean Mobility in Schools (CMiS)
 - Sustainable Transportation Equity Project (STEP)
 - **New** Planning and Capacity Building Grants
- Held three public work groups to solicit input on long-term plan development February to June 2022
- Considering funding demand and community needs to transition from pilot project phase to community-based programs

Making Clean Mobility Investments Better

- Critical project lessons and assessment of community needs are being incorporated into programs
- Exploring additional policy changes across investments to reach more communities, provide meaningful impacts, and develop our clean mobility future
- Refining methods of increasing access based on feedback and desired outcomes and methods to measure and evaluate successes
- Identifying mechanisms to support Sustainable Communities Strategy implementation

Path Forward for Clean Mobility Investments

- Continuing to refine project evaluation, user experience, and data collection through program applications, surveys, and current evaluation contracts
- Analyzing data as appropriate to better understand who is benefitting from investments and how to streamline community-based programs
- Fostering creative ideas for Planning and Capacity Building funding

Comments and Questions



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Clean Transportation Equity and Light-Duty Projects

Overview

- CARB 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 CMOs to priority populations
 - Support complementary community protection efforts
AB 617 and SB 375

Metrics of Success

Supporting Healthy Communities

\$400+
MILLION

PRIORITY POPULATIONS

Over \$400 million, or over 32 percent, of all vehicle purchase incentive funds have supported clean vehicle purchases benefiting priority populations.



\$2.9+
MILLION

PUBLIC FLEET SUPPORT

Over \$2.9 million in CVRP funds have supported over 700 light-duty electric vehicles for public fleets operating in Disadvantaged Communities, as identified in CalEnviroScreen 3.0.



Supporting Clean Air Goals

9.6+
MILLION

GHG REDUCTIONS

CARB's light-duty vehicle purchase incentive programs have resulted in a reduction of over 9.6 million metric tons of carbon dioxide equivalent.



48+
MILLION

FUEL USE AVOIDED

An estimated 48+ million gallons of fuel use avoided as a result of the clean vehicles funded through CARB's vehicle purchase incentive programs.



Growing the Green Economy

\$1.2+
BILLION

VEHICLE PURCHASE

CVRP, Clean Cars 4 All, and Financing Assistance programs have funded \$1.2 billion toward the purchase of over 475,000 clean vehicles since 2010.



1.1+
MILLION

ELECTRIC VEHICLE SALES

There have been over 1.1 million light-duty electric vehicles sold in California with 42 percent of these purchases supported by CARB's vehicle purchase incentive programs.



Draft Project Allocations (millions)

Project Category	GGRF	GF	Total
Vehicle Purchase Incentives	\$76	\$430*	\$506
CC4A – Statewide Expansion	\$0	\$250	\$250
CC4A – Air District Programs	\$60	\$50	\$110
Financing Assistance	\$0	\$110	\$110
Electric Bicycle Incentives Project	\$0	\$15	\$15
Access Clean California	\$5	\$0	\$5
California Integrated Travel Project (Cal-ITP)	\$0	\$5	\$5
Reserve	\$11	\$0	\$11

**Appropriations from May Revise that are deferred by Legislature. Final appropriations won't likely match May Revise. Staff will adjust amounts upon final appropriation.*

Draft Project Allocations (millions)

Project Category	GF
Clean Mobility Investments	\$419*
CMOs (incl. Regional Clean Mobility Pilots)	\$126
Clean Mobility in Schools	\$125
Sustainable Transportation Equity Project	\$125
Planning and Capacity Building	\$43

**Appropriations from May Revise that are deferred by Legislature. Final appropriations won't likely match May Revise. Staff will adjust amounts upon final appropriation.*

Vehicle Purchase Incentives To Date

Access Clean California

\$14M to streamline access to the State's clean transportation and clean energy consumer-based equity projects

CC4A

Over \$190M for incentives to replace old vehicles with clean vehicles in certain air districts



Financing Assistance

Over \$67M for loans and grants to purchase clean vehicles

CVRP

Over \$1.6B to support rebates for clean vehicles



Electric Bicycle Incentive Project

\$10M to support incentives for electric bicycles

CVRP



- **Rebates Issued Through December 2021:**

Rebate Type	Rebates Issued	Funding Total
Standard Rebate	430,492	\$928,096,922
Increased Rebate	33,268	\$140,391,530
Rebates for Public Fleets in Disadvantaged Communities (DAC)	705	\$2,981,000
TOTAL	464,465	\$1,071,369,452

- **Project Status:**

- FY 21/22 Multi-Year Allocation: \$525M
 - \$515M for CVRP and \$10M for e-bikes
 - \$352M in CVRP funding remaining as of July 7, 2022

Project Updates

- Plan for phased-in changes in 2022 and 2023
 - First set of changes effective February 24, 2022
 - Decreased income cap and decreased Manufacturer's Suggested Retail Price cap for smaller vehicle classes
- As of March 16, 2022, Tesla vehicles no longer eligible for CVRP
- Updated Funding Need Projections through FY 2023-24
 - Initial updated projections presented at a public work group held on May 11, 2022
 - Anticipated demand from March 2022 – June 2024
 - Standard & DAC-Fleet Increased: \$14M - \$93M
 - Lower-Income Increased Rebates: \$21M - \$78M
 - Partial Estimated Need: \$36M - \$171M

Draft Recommendation

- Due to a projected surplus based on updated projections, staff is considering the following changes:
 - Defer implementing second phase of changes planned for 2023
 - Increasing lower-income rebate amounts
 - Expanding pre-qualification statewide
 - Including a charge card with every rebate issued
- **Draft allocation: \$0M**
 - CVRP received a substantial upfront allocation through the Budget Act of 2021 and is intended to fund CVRP through FY 2023-24

Financing Assistance

- **Incentives Issued Through June 2022:**

Incentive Type	Incentive issued
Vehicle Grants	4,900
Charging Grants	2,900
Number of Secured Loans	1,500
Total Fund Spent	\$34,000,000

- **Program Status:**

- Clean Vehicle Assistance Program reservation list in place as of March 17, 2021, closed to new applications
- Driving Clean Assistance Program remains open
- Additional funds allocated for the reservation list and applicants are being served
- Adoption of need-based model
- Joint solicitation with Statewide CC4A for the FY 2022-23



Program Updates

- Implementation of needs-based model underway
- Need-based criteria includes:
 - Income level, DAC residency, need for financial counselling or planning, and categorical eligibility
- Prioritizing and reserving funds for applications that meet any of these criteria
- Processing priority applications and providing additional support if needed
- **Draft allocation: \$110M**

Clean Cars 4 All

- **Vehicle Replacements to Date:**
 - Funded more than 12,000 vehicle replacement projects for lower-income consumers in and near disadvantaged communities
- **Program Status:**
 - \$190M allocated to-date including \$75M in FY 2021-22
 - San Joaquin, Sacramento, South Coast and Bay Area programs are open; San Diego is coming soon



Program Updates

- AB 630 Report - Goals and Program Evaluation
 - Set program vision with community and stakeholder input
 - Develop guiding principles for funding allocations
 - Update participant surveys and data collection methodology
- **Draft allocation: \$110M for District programs***
- **Draft allocation: \$250M for Statewide program***
 - Joint solicitation with Financing Assistance
 - Expanded access with a needs-based approach

*Appropriations from May Revise that are deferred by Legislature. Final appropriations won't likely match May Revise. Staff will adjust amounts upon final appropriation.



Electric Bicycle Incentives Project

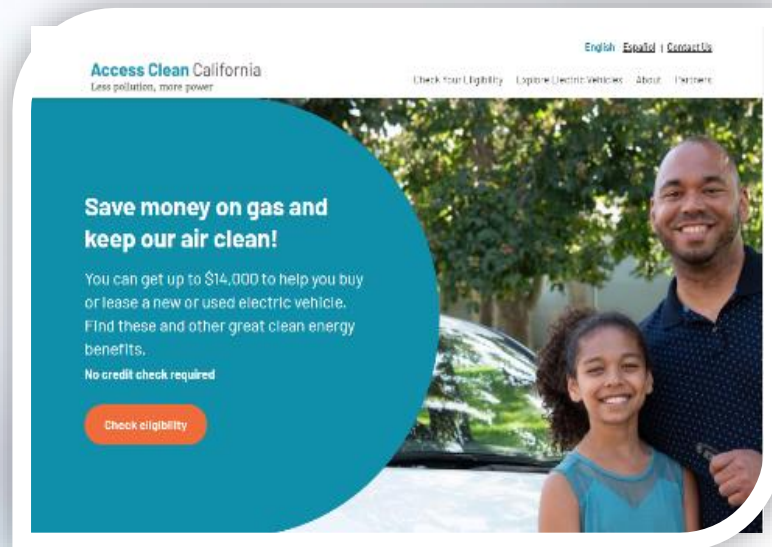
- **Project status:**
 - Established as part of the FY 2021-22 Funding Plan
 - \$10M allocated to date to get program started
 - The solicitation for a program administrator closed on May 11, 2022
 - Expected project launch is late 2022 or early 2023

Draft Recommendation

- Initial policy recommendations:
 - Limit the price of eligible e-bikes
 - Limit the type of eligible e-bikes
 - Two incentive levels: one for lower income and one for moderate income
- **Draft allocation: \$15M**

Access Clean California

- **Program Status:**
 - \$14M allocated to date
 - Streamlined application platform
 - Outreach partnership network and resource hub
 - Implementation is ongoing and lessons being evaluated for future investment



Program Updates

- Continue implementation and focus on:
 - Increasing participation from priority populations
 - Expanding outreach partner network to fill gaps
 - Developing 'public option' for Benefits Finder to complement facilitated-use model
- Funding to be awarded via competitive solicitation
- **Draft allocation: \$5M**

Cal-ITP Payment Issuance Strategy and Demonstrations

- **Overview:**

- Effort by California State Transportation Agency, Caltrans, and other partners
- Strives to make travel simpler and cost-effective for everyone by providing easy and accessible travel planning and payments across California

- **Program Status:**

- Payment issuance strategies and associated demonstrations are underway



Draft Recommendation

- Support and expand upon work in progress:
 - Expand demonstration projects to include electric vehicle charging and other mobility options (carshare, bike and scooter share, etc.)
 - Research, data, and lessons learned to improve travel experience and implement scalable solutions
 - Move project from theoretical to a reality to assess costs and benefits
- **Draft allocation: \$5M**

Comments and Questions

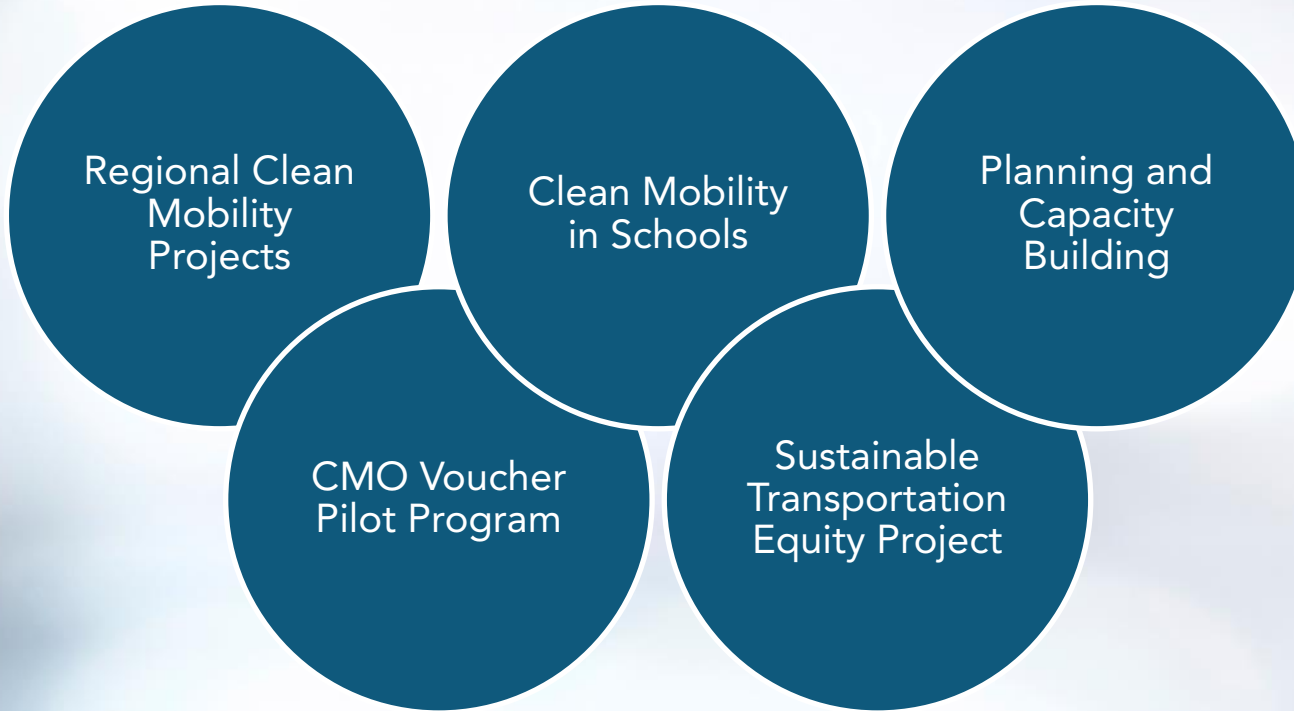


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Clean Mobility Investments



Clean Mobility Investment Objectives



Increase
access to key
destinations



Reduce GHG
emissions and
vehicle miles
travelled
(VMT)



Identify and
address
communities'
transportation
needs



Incorporate
community-
driven
decision
making



Make projects
financially
sustainable



Prioritize
workforce
development



Evaluate
projects and
report metrics

Clean Mobility Investment Objectives Continued



Streamline
application
process and
simplify
requirements



Document and
share lessons
learned



Assess
outcomes and
adjust policies
to maximize
benefits



Direct
engagement
and outreach in
communities



Prioritize
investment in
priority
populations



Balance
investments
geographically



Make
opportunities
for new
communities to
access funding

Metrics for Success

Supporting Healthy Communities and Clean Air Goals

2.7+
MILLION

Net Fossil Fuels Use Reductions (GGE)

Clean Mobility Investments have resulted in a net fossil fuel use reduction of over 2.7 million gasoline gallon equivalents (GGE).



Increasing Affordability of Transportation

\$37+
Million

Travel Cost Savings

Clean Mobility Investment dollars spent have resulted in a total cost savings of over \$37 million dollars.



Growing the Green Economy

~600

Directly Supported Jobs

Clean Mobility Investments have resulted in approximately 600 directly supported jobs.



200+

Indirectly Supported Jobs

Clean Mobility Investments have resulted in over 200 indirectly supported jobs.



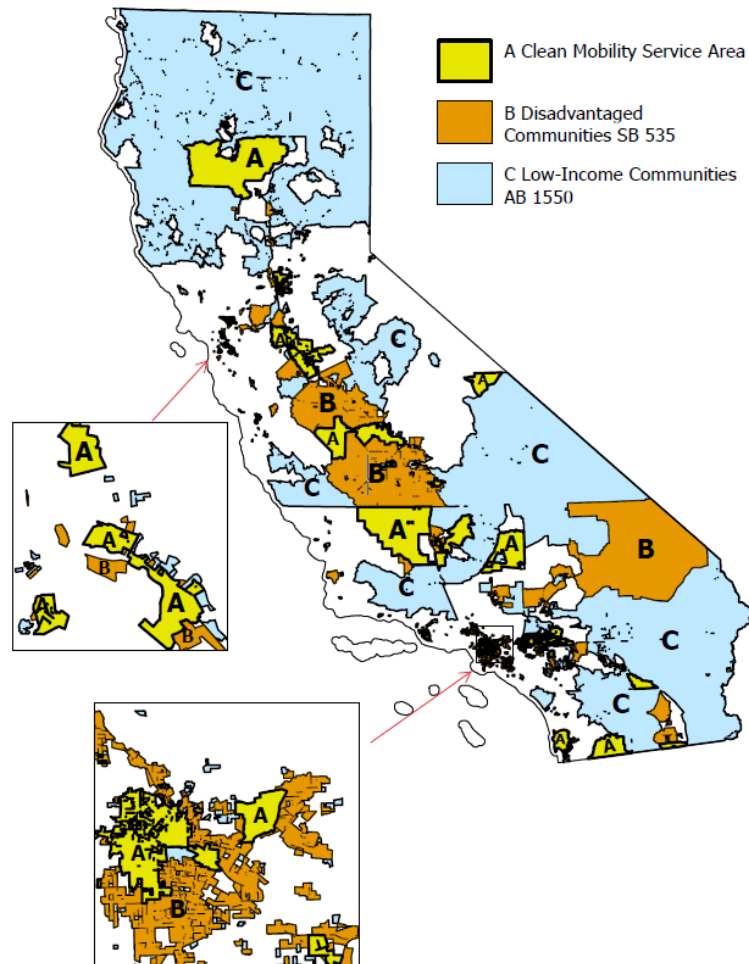
350+

Induced Jobs

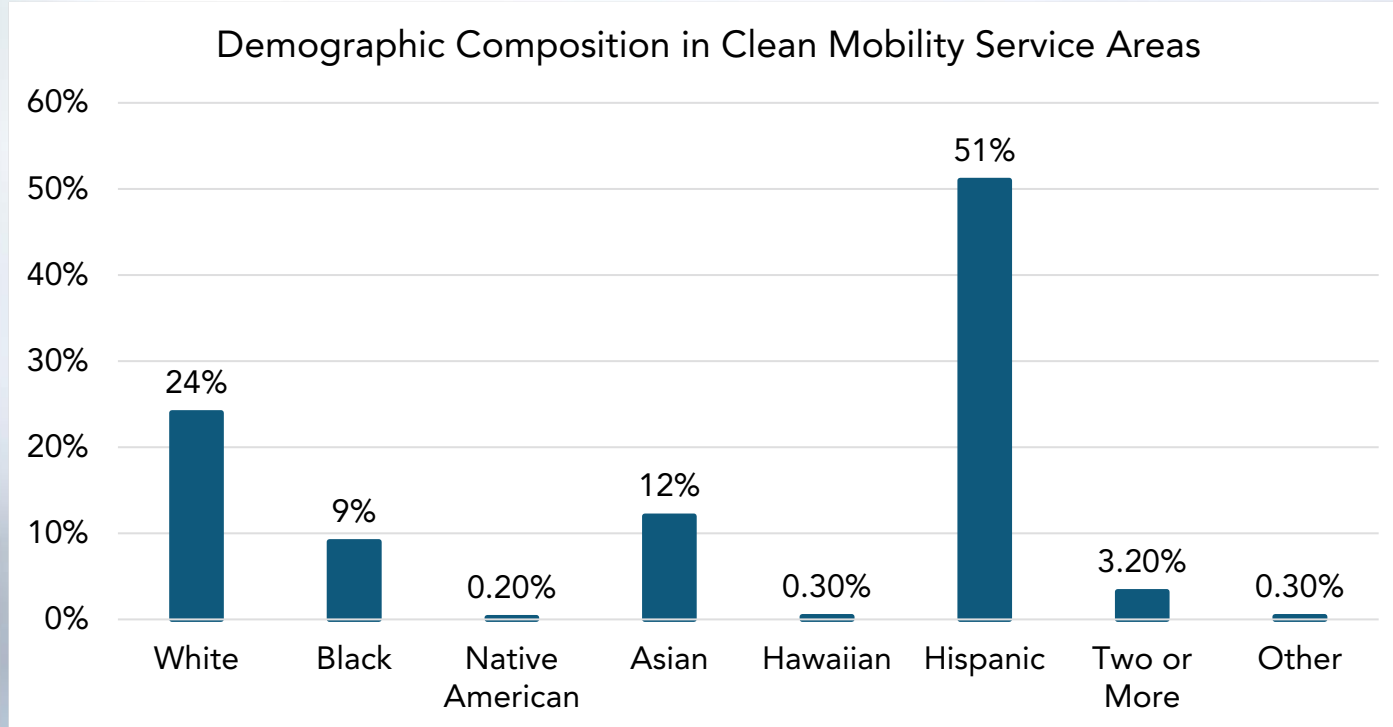
Clean Mobility Investments have resulted in over 350 induced jobs.



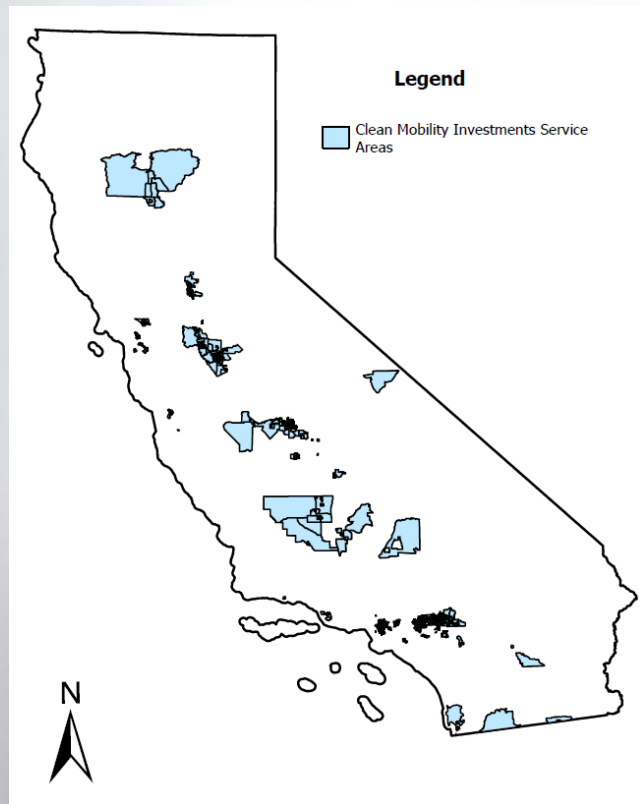
Investment Gaps Based on Census Tracts and Community Designations



Refining Methodology to Identify Demographics Mobility Investments are Serving

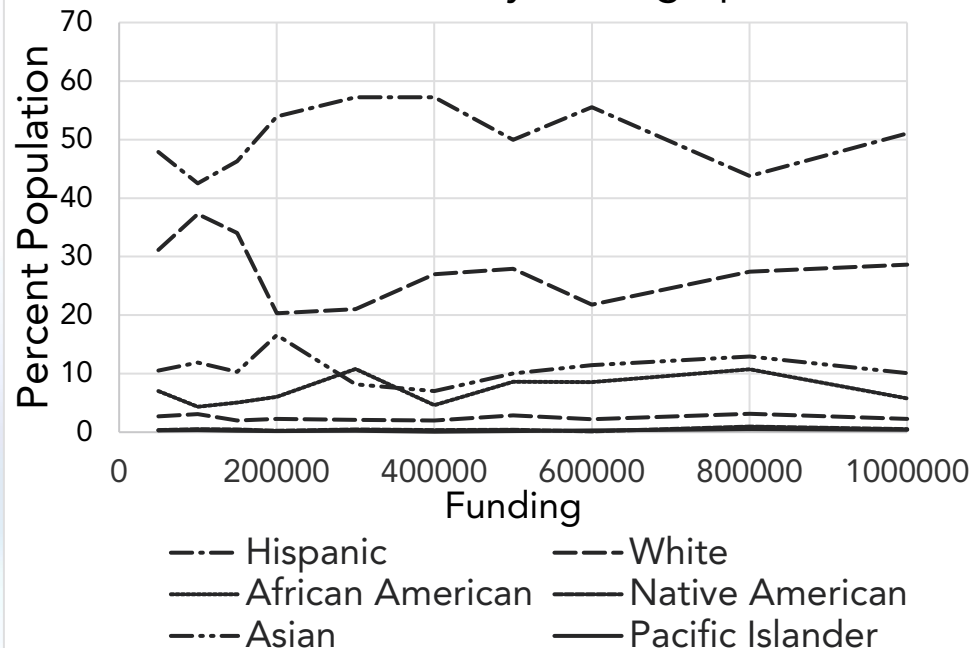


Clean Mobility Investments



9% 19% 18% 22% 32%

Clean Mobility Demographics



Staff's Proposed Funding Splits (millions)

Project Type	\$419M in Total Funding*
CMOs	\$126
Clean Mobility in Schools	\$125
Sustainable Transportation Equity Project	\$125
Planning and Capacity Building Grants	\$43

**Appropriations deferred by Legislature and therefore represents what is included in the May Revise to the 2022 State Budget. Final appropriations may not reflect appropriations included in the May Revise.*

Regional Clean Mobility Pilot Projects Overview



**Our Community
CarShare**



**Car Sharing and
Mobility Hubs in
Affordable**



**Agricultural Worker
Vanpools**



**Valley Air ZEV
Mobility Pilot**



BlueLA Car Share



**Ecosystem of Shared
Mobility**



**Lift Line Paratransit
Dial-a-Ride Electric
Vehicle Transition
Program**

Regional Clean Mobility Projects

- \$23.9M allocated to date for six projects
- \$6M allocated to date for Agricultural Worker Vanpools
- Efforts are underway to maximize community benefits
- Many projects require additional funding and support to become sustainable
- Final reporting is in progress for some projects which will provide critical lessons for future investments

CMO Voucher Pilot Program

- \$55.2M in CARB and CEC funds allocated to date
 - 20 mobility projects
 - 24 community transportation needs assessments
 - Technical assistance
- At least \$21M available for mobility projects

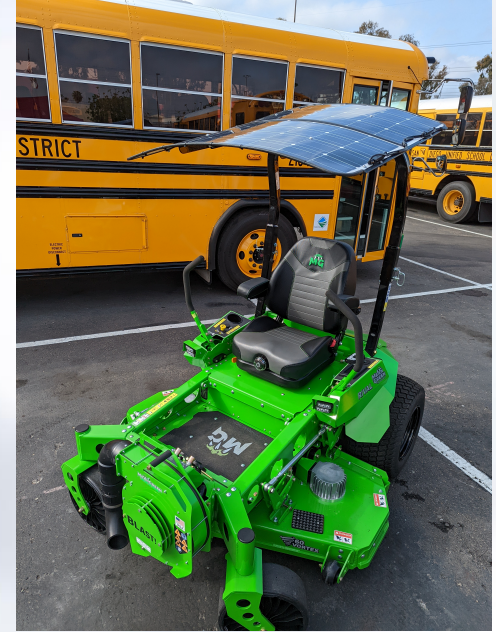


Draft Recommendation

- Fund approximately 40 mobility projects
- Expand scope from smaller projects to larger projects at higher funding amounts
- Explore options to improve the application process potentially modifying first-come, first-serve component
- **Draft allocation: \$126M**
 - **\$10M set-side for Regional Clean Mobility Projects**

Clean Mobility in Schools

- \$34.6M allocated to date
 - Increasing knowledge and adoption of zero-emission options within school communities
 - 3 grants from Fall 2019 solicitation: El Monte, Stockton, and San Diego
 - 1 new project with Twin Rivers School District in Sacramento
- Seeing investments and adoption of zero-emission options beyond CARB's grant funding



San Diego Unified School District,
April 2022

Draft Recommendation

- Expand project eligibility to encompass more project types, such as active transportation infrastructure
- Fund approximately 12 to 15 public school grants
- Support a new solicitation
- Align requirements with STEP
 - Terminology and definitions in the solicitations, requirements of applicants and grantees, timelines, and processes
- **Draft allocation: \$125M**

Sustainable Transportation Equity Project

- \$44.5M allocated to date
 - Addressing community transportation needs and increasing access to key destinations while reducing VMT and GHGs
 - 8 Planning and Capacity Building Grants
 - 5 Implementation Grants
 - Technical assistance provided
- Seeing investments across a large suite of clean transportation, land use, and supporting projects



Courtesy of CicLAvia and Brian Feinzimer

Draft Recommendation

- Fund approximately 12 to 15, place-based implementation grants
- Support a new solicitation for implementation grants
 - Expand implementation grant funding eligibility to low-income communities
 - Expand lead applicant eligibility to all Tribal Governments
- Align requirements with CMiS
- **Draft allocation: \$125M**

Planning and Capacity Building Grants

- New funding category adapted from previous outreach, technical assistance, and capacity building
- Develop community-driven projects and provide technical assistance
- Address a broad range of community-identified priorities
 - Needs and equity assessments
 - Transportation-focused project planning
 - Job assistance and workforce development

Draft Recommendation

- Fund approximately 75 to 180 small- and large-scale, community-led planning and capacity building projects
- Support a new solicitation or expand existing programs
- Improve understanding of localized transportation needs and prepare communities to implement clean transportation and land use projects
- **Draft allocation: \$43M**

Workforce Training and Development

- \$4.78M allocated to date
- Implementing SB 350 recommendations to maximize economic opportunities in priority communities
- Focusing on partnerships and policies that increase training and connections to good quality clean transportation jobs
- Exploring opportunities to bridge critical gaps in program access for at-risk youth and adults
- Maximizing investments that address community-identified needs and support economic recovery

Program Updates

- Leverage existing investments to support zero-emission technology access, education, and awareness
- Consider where CARB-incentivized ZEV deployment is occurring and where more needs to be done to support broader clean transportation investments
- Strengthen workforce development guidance and requirements across clean transportation projects based on program outcomes and community needs
- **Draft allocation: \$0M**
 - Projects are ongoing and future funding is anticipated through Clean Mobility Investments

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Break
Return at 12:45 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
- Includes annual report on the State's school bus fleet

Key Elements of Long-Term Heavy-Duty Investment Strategy

- Beachhead strategy discussion
- Technology status snapshots
- Market readiness indicators
- Metrics of success
- Industry examples / case studies
- Three-year recommendations for investments

Market Readiness Indicators



Production Capacity – Is this technology in commercial production, or is it limited to prototypes, retrofits, and upfits? Is commercial production significant?



Cost Parity – Is the total cost of ownership (TCO) of this technology comparable to internal combustion alternatives (without incentives)?



Cost Parity with Incentives – When factoring in available incentive programs (e.g., HVIP, CORE), is the TCO of this technology comparable to internal combustion alternatives?



Duty Cycle Applicability – Can this technology sufficiently meet the range, payload capacity, and power requirements of common duty cycles within this application?



Infrastructure – Is appropriate charging/refueling infrastructure commercially available? Does it face challenges such as cost, permitting, utility connection/coordination, and/or electricity/fuel prices?



Workforce/Service Network – Are professional technicians capable of repairing and/or maintaining ZEVs readily available?

Metrics of Success

Supporting Healthy Communities

58
PERCENT

DAC VOUCHERS

Fifty-eight percent of vouchers in HVIP have funded vehicles deployed in Disadvantaged Communities, as identified in CalEnviroScreen 3.0.



63
PERCENT

FLEET SUPPORT

Sixty-three percent of vouchers were given to small or public fleets (public entities with <\$15 million annual revenue or fewer than 50 people).



Supporting Technology Evolution

12
THOUSAND

JOBS CREATED

The incentive dollars spent through HVIP have created nearly 3,000 jobs from HVIP funding and spurred close to 9,000 jobs from private investment, totaling almost 12,000 jobs.



222
MILLION

MILES TRAVELED

There were 222,066,801 cleaner-than-diesel miles traveled in California by HVIP-funded vehicles between 2010 and 2021.



Growing the Green Economy

197
VEHICLES

MANUFACTURERS

There are 43 HVIP and CORE-eligible manufacturers offering 197 vehicles.



NEARLY
\$900
MILLION

VEHICLE PURCHASE

HVIP and CORE have funded \$896+ million toward the purchase of over 11,300 vehicles and pieces of equipment since 2010.



LONG-TERM HEAVY-DUTY INVESTMENT STRATEGY UPDATE*

	FY 2023-24	FY 2024-25	FY 2025-26
Demos	\$XX-\$XX Million Focus: ZE Construction Equipment, ZE Heavier Cargo Handling Equipment, ZE Line-Haul and Switcher Rail, ZE Marine, ZE Aviation	\$XX-\$XX Million Focus: ZE Construction and Mining Equipment, ZE Heavier Cargo Handling Equipment, ZE Line-Haul Rail, ZE Marine, ZE Aviation	\$XX-\$XX Million Focus: ZE Construction and Mining Equipment, ZE Heavier Cargo Handling Equipment, ZE Line-Haul Rail
Pilots	\$XXX-\$XXX Million Focus: ZE Ag-Construction-Heavier Cargo Handling Equipment, ZE/Hybrid Marine, Strategic Range Extenders, ZE Facilities/Communities/Corridors	\$XXX-\$XXX Million Focus: ZE Ag-Construction-Heavier Cargo Handling Equipment, ZE Switcher Rail, ZE/Hybrid Marine, Strategic Range Extenders, ZE Facilities/Communities/Corridors	\$XXX-\$XXX Million Focus: ZE Longer Range Trucking, ZE Ag-Construction-Heavier Cargo Handling Equipment, ZE/Hybrid Marine, Strategic Range Extenders, ZE Facilities/Communities/Corridors, ZE Aviation
Commercial	\$XXX-\$XXX Million Focus: ZE Drayage, ZE Long-Haul Trucks, ZE Transit, ZE Heavier Cargo Handling Equipment, ZE/Hybrid Marine, ePTOs, ZE Small Fleets	\$XXX-\$X,XXX Million Focus: ZE Drayage, ZE Long Haul Trucks, ZE Transit, ZE Heavier Cargo Handling Equipment, ZE/Hybrid Marine, ePTOs	\$XXX-\$X,XXX Million Focus: ZE Drayage, ZE Long Haul Trucks, ZE Transit, ZE Heavier Cargo Handling Equipment, ZE Switcher Rail, ZE/Hybrid Marine, ePTOs
Total Funding	\$XXX-\$X,XXX Million*	\$X,XXX-\$X,XXX Million*	\$X,XXX-\$X,XXX Million*

**The vehicle and equipment types listed in the table above are a prioritized selection of the project types that CARB would invest in, given sufficient available funds. These focus areas are identified following the strategy laid out in this document and take into consideration a wide number of factors. This is not an exhaustive list of technologies or applications that Low Carbon Transportation would fund and indeed funding numbers are inclusive of a much broader set of vehicle and equipment investments CARB hopes to make.*

Heavy-Duty Investment Priorities for FY 2022-23

- Expand focus on equity goals
- Support progress towards meeting state climate and federal air quality targets
- Accelerate deployment of zero-emission technologies as described in Executive Order N-79-20
- Coordinate with California Pollution Control Financing Authority (CPCFA) to implement SB 372
- Identify emerging or next generation technologies
- Continue to develop metrics of success

Comments and Questions



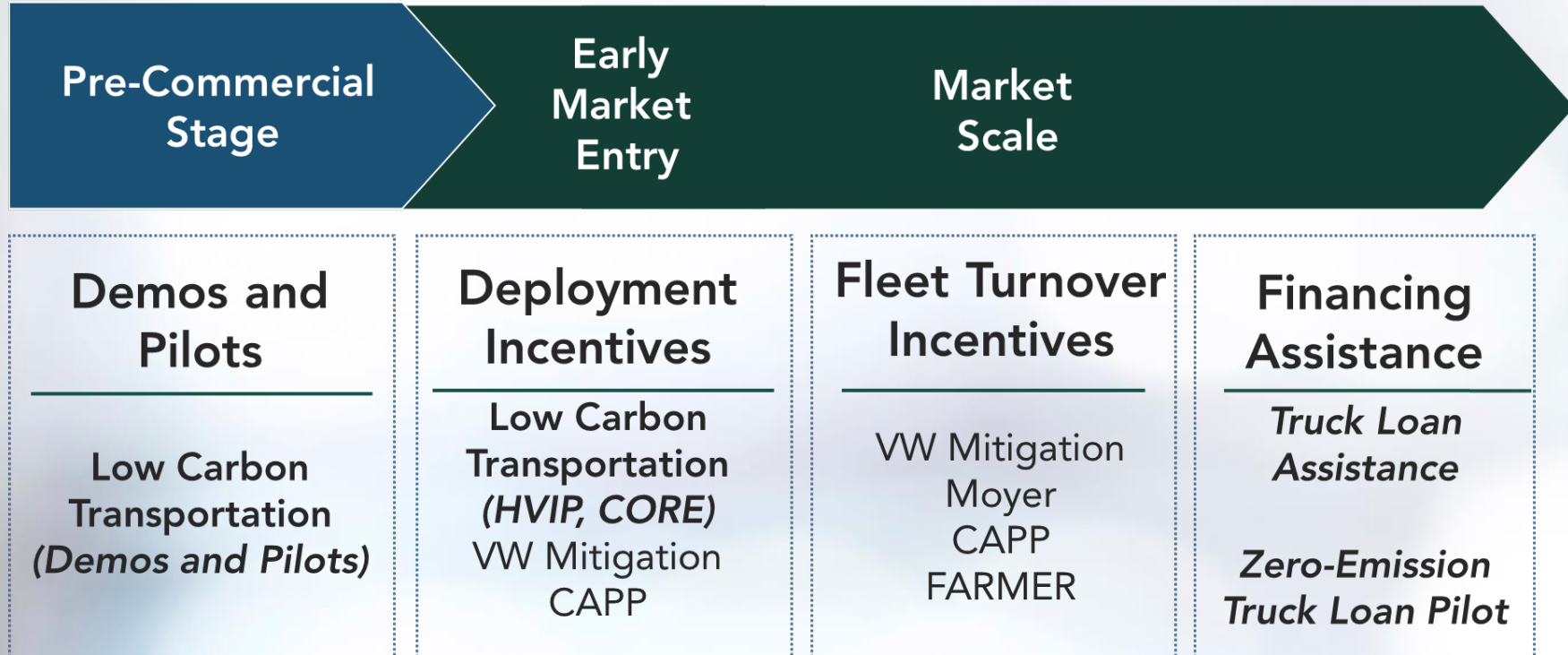
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On-Road Heavy-Duty Vehicle and Off-Road Equipment Investments

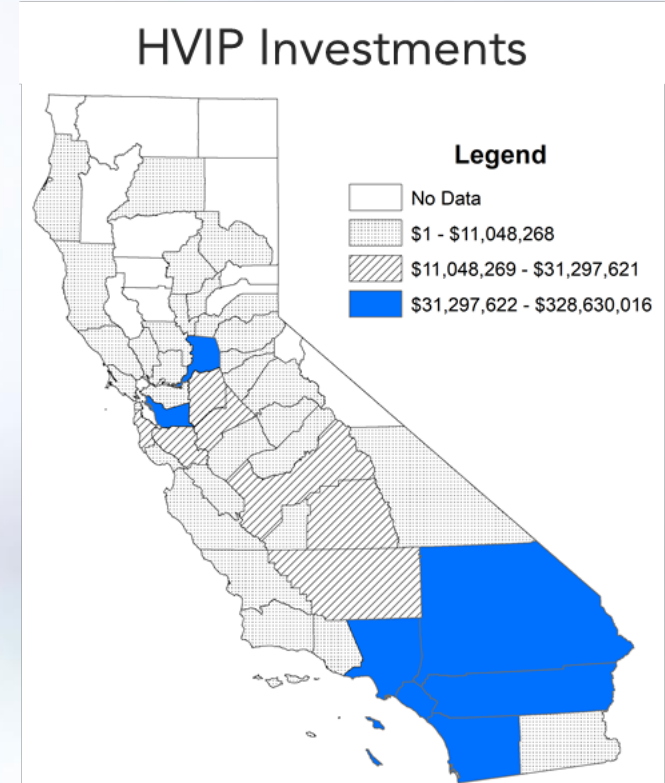
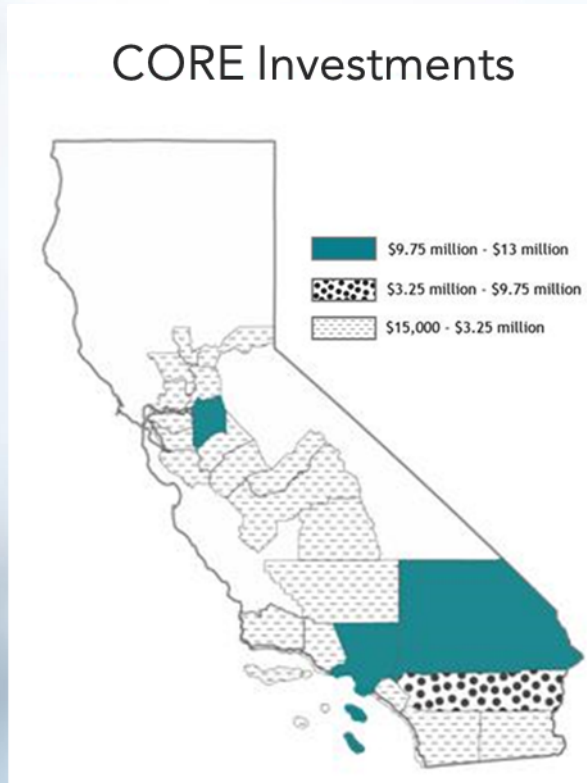
Heavy-Duty Trucks, Buses, and Off-Road Freight Equipment



Investment Priorities for Heavy-Duty On-Road and Off-Road

- Continue support for existing incentive projects
- Expand support for financial assistance and non-financial incentives for ZEVs
- Focus on small fleets and underrepresented communities
- Support regulatory efforts

Nearly \$900M Invested to Date



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

Project Category	Allocation
Advanced Technology Demonstration and Pilots	\$75*
Clean Truck and Bus Vouchers (HVIP)	\$1,705
Clean Off-Road Equipment Voucher Incentive Project (CORE)	\$230
Truck Loan Assistance	\$28.64
Zero-Emission Truck Loan Pilot	\$5
Total	\$2,043.64

** Includes \$10M for Emerging Opportunities as described in the May Revise, which has not yet been approved by the Legislature. If this funding is not included in the final State budget, staff will adjust the allocations accordingly.*

Advanced Technology Demonstration and Pilots

- Projects accelerate the introduction of advanced technologies
- Wide array of on and off-road projects have been funded
- Over 30 heavy-duty and demonstration and pilot projects funded
- Heavy focus on emerging zero-emission operations in all sectors



Draft Recommendations

- Draft project categories:
 - Green zones
 - Zero-emission rail
 - Zero-emission capable commercial harbor craft
 - Port vehicles and equipment
 - Zero-emission aviation with ground support equipment
 - Off-road construction and agricultural equipment
- **Draft allocation: \$75M**



Clean Truck and Bus Vouchers (HVIP)

- Provides first-come, first-served vouchers for zero-emission heavy-duty vehicles
 - ~11,400 vouchers issued since inception, totaling \$845M
- Reopened March 30, 2022
 - \$272M requested within 24 hours
 - 70% of voucher requests have been in disadvantaged communities
 - 63% of the fleets that requested vouchers run 100 vehicles or fewer
 - Includes set-asides to support the deployment of zero-emission drayage trucks, zero-emission transit buses, and zero-emission school buses
 - Innovative Small e-Fleets set aside to support small fleets will open this summer

Draft Recommendations

- Retain fleet size limits with minor modifications
- Require vehicle to grid functionality for school buses
- Adjust eligibility criteria for the public-school bus set-aside
- Modify voucher amounts

Refuse is Ready for Zero-Emission

- Sector is well suited for electrification
- 12 zero-emission refuse truck models from 7 manufacturers currently HVIP eligible
- Direct benefits to communities
- Voucher enhancement for early adopters



Draft Recommendations Continued

Draft Funding Set-Asides (millions)

HVIP Voucher Category	Amount
Standard	\$265
Public Transit Buses	\$70
Public School Buses	\$135
Local Educational Agency School Bus Replacement Grants	\$1,125
Drayage Trucks	\$75
Innovative Small e-Fleets	\$35
Total	\$1,705

Clean Off-Road Equipment Vouchers

- Provides vouchers for commercial ready zero-emission off-road equipment
- Includes a wide-range of zero-emission off-road models from numerous manufacturers
- ~500 vouchers issued since inception, totaling ~\$71M
- 75% of CORE vouchers have been deployed to priority populations
- Program expanding into other heavy-duty off-road vehicles, equipment, vessels, and commercial landscaping equipment for small business or sole proprietors
- Program relaunch: Summer 2022

Draft Recommendations

- Small business and DAC prioritization
- Adjust voucher amounts to maximize impact
- Review current and other zero-emission equipment
 - Offers owners a variety of products
 - Support new technologies
- Zero-emission refueling support
- **Draft allocation: \$230M**

Truck Loan Assistance Program

- Helps small-fleet owners affected by regulations secure financing for newer trucks
- \$214M in contributions has been leveraged into over \$2.6B in financing for approximately 37,600 loans
- Additional funding needed to support demand throughout calendar year 2023
- **Draft allocation: \$28.64M**

Zero-Emission Truck Loan Pilot

- New project that combines financing for heavy-duty ZEVs and charging infrastructure
- CARB and CPCFA to partner with CEC in supporting Medium- and Heavy-Duty fleets transitioning to ZE
 - Infrastructure support from the CEC
- Better understand needs of small fleets transitioning to zero-emission
- **Draft allocation: \$5M**

Comments and Questions



Use the raised hand function (#2 if calling in by phone) or submit your question or comment in the Q&A box on Zoom.



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

Open Discussion

Comments and Questions



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

Summary and Next Steps

Clean Transportation Incentives Proposed Allocations (millions)

Project Category	GGRF	GF	Prop 98 GF	AQIF
Clean Transportation Equity Programs Established Under SB 1275				
Vehicle Purchase Incentive Programs	\$76	\$430*		-
Clean Mobility Investments	-	\$419*		-
Heavy-Duty Zero-Emission				
Drayage Trucks, School/Transit Buses	-	\$280	\$1,125	-
Clean Trucks, Buses, and Off-Road	\$600	-		-
Emerging Opportunities	-	\$10*		-
AQIP				\$28.64

TOTAL \$2,968.64 *Appropriations from May Revise that are deferred by Legislature. Final appropriations won't likely match May Revise. Staff will adjust amounts upon final appropriation.

Funding Plan Development Schedule

Milestone	Date
Category specific work group meetings	March – July 2022
Community Engagement	March – October 2022
Final Workshop	July 21, 2022
Release proposed Funding Plan	October 2022
Board Consideration of Proposed Funding Plan	November 2022
Start implementing projects	December 2022

Additional Information

- Clean Transportation Equity and Light-Duty Projects
- On-Road Heavy-Duty Vehicle and Off-Road Equipment Investments
- Funding Plan Development
 - Low Carbon Transportation Investments and AQIP
 - Low Carbon Transportation Investments and AQIP Meetings and Workshops

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