



Clean Transportation Incentives

For Low Carbon Transportation Investments and the Air Quality Improvement Program

Public Workshop on the Fiscal Year 2021-22 Funding Plan and Carl Moyer Update
August 4, 2021

Today's Agenda

Start Time	Session
10:00am	Introduction and Overview of Project Category Funding Allocations
10:20 am	Clean Transportation Equity & Light-Duty Investments
12:00pm	Break
12:30pm	Long-Term Heavy-Duty Investment Strategy
1:00pm	Heavy-Duty Vehicle and Off-Road Equipment Investments
2:30pm	Open Discussion and Next Steps

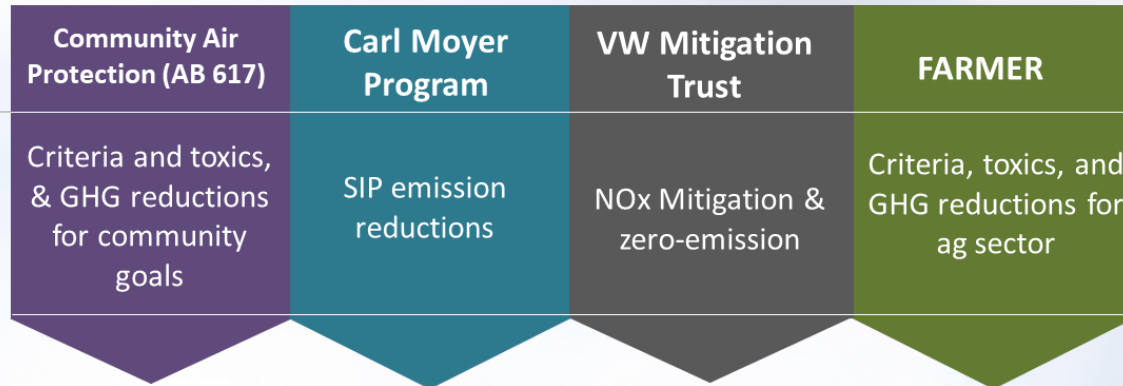
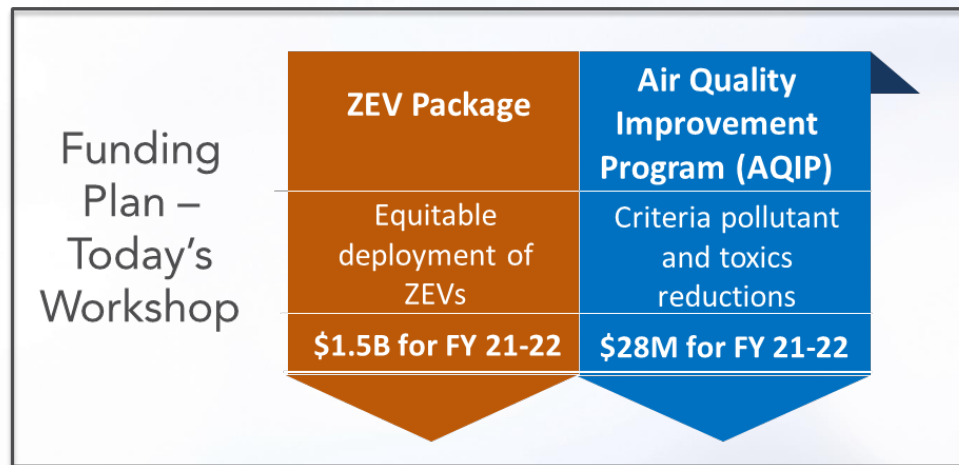
All times are approximate—if a topic concludes early we will proceed with the next item

Introduction and Overview of Funding Allocations

Key Priorities for FY 2021-22 Funding Plan



Part of CARB's Larger Incentive Funding Portfolio



\$3.9 Billion Investment for ZEV Deployment



- First installment in proposed multi-year ZEV Package
 - Totals \$3.9 billion across three budget years
 - Includes appropriations to CEC , GO-Biz, and CalSTA
- For FY 2021-22 the appropriation to CARB includes:
 - \$565 million for Low Carbon Transportation
 - \$838 million from the General Fund
 - \$86.5 million from the Air Pollution Control Fund
 - \$28.64 million for the Air Quality Improvement Program (AQIP)

\$1.5 Billion for FY 2021-22 Across Light-Duty and Heavy-Duty Sectors

Category	FY 2021-22 Investment (millions)
CVRP	\$525
Clean Transportation Equity Investments	\$150
Clean Trucks, Buses, and Off-Road Equipment	\$843
Total	\$1,518

- To minimize disruptions, staff intend to act early on a portion of the allocations for first-come, first-served projects in line with the contingency provisions from the FY 2020-21 Funding Plan

Enhanced Metrics and Evaluation

- Metrics and data collection plans to measure the socioeconomic benefits achieved in response to audit
- Process to define, collect, and analyze behavioral data in response to audit
 - Survey being developed to understand behavioral changes as a result of the vehicle purchase incentive programs
- Results will be reported in future funding plans and used for funding and program design decisions

Carl Moyer Program

- Statewide emission reduction program eligible for SIP credit, supports multiple categories
- Budget approved \$45 million to replace vehicles to certified 0.02 gram per brake horsepower-hour (g/bhp-hr) NOx standard or lower by end of fiscal year 2022-23, and after to replace to ZEV
 - Base cost-effectiveness (CE) limit: to required certified emission standards where applicable (certified 0.2 g/bhp-hr NOx standard for on-road engines)
 - Optional Advanced Technology CE limit: to the cleanest optional certified emission standard where applicable (certified 0.02 g/bhp-hr NOx standard or cleaner for on-road engines)

Cost-Effectiveness (CE) Limit Types	Current CE Limits (\$/ton)	Inflation Adjustment (\$/ton)	Proposed Adjustment from CE Limit Analysis (\$/ton)
Base Limit	\$30,000	\$33,000	\$33,000
Optional Advanced Technology Limit	\$100,000	\$109,000	\$200,000
School Bus	\$276,230	\$300,000	\$300,000

Next Steps

- Additional work group meetings
- Post proposed Funding Plan for public comment by early October
- Board considers Funding Plan at public meeting on November 18-19

Questions?

SB 1275

Clean Transportation Equity & Light-Duty Investments

Goals

- CARB light-duty vehicle investments
 - Vehicle purchase incentive
 - Clean mobility investments
 - Outreach, Needs Assessment, Technical Assistance & Workforce Development
- Support long-term transformation of the State's fleet and accelerate ZEV deployment
- Bring zero-emission and clean mobility options to lower-income communities and low-income households
- Support complementary community protection efforts (AB 617, SB 375)

Draft Project Allocations

Project Category	Allocation (millions)
Clean Vehicle Rebate Project (CVRP)	\$525
Clean Transportation Equity Investments	\$150
<i>Clean Cars 4 All</i>	<i>\$75</i>
<i>Financing Assistance</i>	<i>\$23.5</i>
<i>Clean Mobility Options</i>	<i>\$10</i>
<i>Clean Mobility in Schools Pilot Project</i>	<i>\$10</i>
<i>Rural School Bus Pilot</i>	<i>\$0*</i>
<i>Sustainable Transportation Equity Project</i>	<i>\$25</i>
<i>Outreach, Community Needs Assessments, Technical Assistance, and Access Clean California</i>	<i>\$5</i>
<i>Workforce Training and Development</i>	<i>\$1.5</i>

* An expanded Rural School Bus program will now be administered through HVIP

Vehicle Purchase Incentives

- CVRP
- Clean Cars 4 All
- Financing Assistance Project

Clean Vehicle Rebate Project (CVRP)

- Rebates of up to \$4,500 for the purchase or lease of a new, eligible EV
 - Additional rebate of \$2,500 available for lower income applicants
 - Rebates also available for businesses, public fleets, nonprofits, tribal communities, and car share and rental fleets
- Waitlist announced in April 2021
 - FY 2019-20 allocation exhausted May 18, 2021
 - Standard and Increased rebate applications received on or after May 19, 2021 will be on the waitlist

Updated Demand Estimates – FY 2021-22

- Projected Waitlist Demand

Time Period	Standard Rebates	Low-Income Rebates	All Rebates
May 19, 2021- September 30, 2021 (4.5 months)	\$35 million ~16,000 rebates	\$37 million ~8,000 rebates	\$71 million ~25,000 rebates

- Projected Demand for Remainder of FY 2021-22

Time Period	Standard Rebates	Low-Income Rebates	All Rebates
October 1, 2021- June 30, 2022 (9 months)	\$96 million ~46,000 rebates	\$106 million ~24,000 rebates	\$201 million ~70,000 rebates

Draft Recommendation

- FY 2021-22 Allocation: \$515 million for CVRP standard and increased rebates & \$10 million for an e-bike rebate program
- Program Changes Under Consideration
 - Adjust standard rebates
 - Decrease income cap for standard rebates
 - Decrease income threshold for increased rebates to 300% FPL
 - Decrease MSRP cap for smaller PHEV and BEV vehicle classes
 - Implement an annual per OEM cap
 - Increase the PHEV all-electric range requirement
 - Implement standard rebates as a “limited time offer”
 - No new solicitation for a program administrator

Program Background & Status

- \$115 million allocated to-date
- Funded more than 11,000 vehicle replacements
- District Program
 - Sac Metro & San Joaquin: Waitlist
 - South Coast & Bay Area: Temporarily Closed



**CLEAN CARS
FOR ALL**



**CLEAN CARS
4 ALL**

Funding Allocation & Potential Program Changes

- CARB Draft CC4A Funding Allocation:
 - \$75 million for FY 21-22
 - Up to \$25 million of allocation available prior to Board approval of Funding Plan
- Potential Changes
 - Potential program expansion to San Diego

Financing Assistance

- Launched in 2015 with local program (Driving Clean Assistance Program – DCAP)
 - Serves 16 northern California counties
 - Up & running but application processing time has increased due to high demand
- Statewide program launched in 2018 (Clean Vehicle Assistance Program – CVA Program)
 - Program closed shortly due to unexpected high demand
 - Relaunched in Feb 2020 with major changes & additional funds
 - Closed again on April 14, 2021, due to another surge in demand

Draft Recommendation

- Draft allocation: \$23.5 million for FY 2021-22
- Program changes under consideration:
 - Switch from first-come, first-serve model to needs-based model
 - Graduate conventional hybrids
 - Adopt vehicle purchase price cap
 - Reduce income eligibility to 300% FPL
 - Add more partner banks and credit unions
 - Limit financing services to partner banks only
 - Adopt loan amount and cap term

Clean Mobility Investments

- Clean Mobility Options
- Clean Mobility in Schools
- Sustainable Transportation Equity Project

Clean Mobility Options Voucher Program

Community Transportation Needs Assessment Vouchers

\$1.15 Million Total Funding

- Up to \$50,000 per award
- 41 applications received from 19 counties asking for over \$1.9 million
- **24 awarded across 14 counties**
 - 13 Nonprofits
 - 8 Public Agencies
 - 3 Tribes



Clean Mobility Options Voucher Program

Mobility Project Vouchers

\$20 Million Total Funding

- Up to \$1 million per award
- 33 applications received from 14 counties asking for over \$31.8 million
- **21 awarded across 11 counties**
 - 8 Nonprofits
 - 11 Public Agencies
 - 2 Tribes



Draft Recommendation

- Draft Allocation: \$10 million for FY 2021-22
- Total of ~\$20 million funding for the next application window will include:
 - ~\$7M from FYs 2018-19 and 19-20
 - ~\$6M from the California Energy Commission
- No proposed program changes

Clean Mobility in Schools Pilot Project

- Help schools in disadvantaged communities transition to cleaner transportation options
- \$24.6 million awarded to 3 school districts launched in May 2020



Draft Recommendation

Staff recommends \$10M for CMIS from FY 2021-22

- To augment the third top-ranked proposal with their full requested amount
- To fully fund the next highest-ranked proposal received in October 2019 with the remainder

Sustainable Transportation Equity Project (STEP)

- Conducted the first STEP solicitation in FY 19-20

Total Proposals	Implementation Grants	Planning and Capacity Building Grants
34 proposals received	3 grants awarded	8 grants awarded
~\$109M requested	\$17.8M awarded	\$1.7M awarded
--	Clean transportation and supporting projects based on community-identified needs	Community engagement and community transportation needs assessments

Draft Recommendation

- Staff recommends \$25M for STEP from FY 2021-22
 - To fully fund the 2 ½ Implementation Grant proposals that were extremely competitive, but were not funded in the FY 2019-20 solicitation
 - Funding will go toward clean transportation and supporting projects in disadvantaged communities
 - Ex: zero-emission shuttle services, bike lanes, urban forestry, transit subsidies, and community outreach and engagement

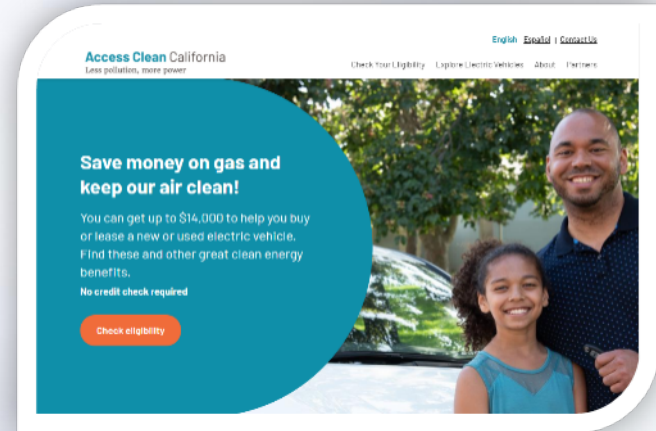
Outreach, Technical Assistance, Community Transportation Needs Assessments, and Workforce Development

Outreach Goals

- Increase awareness and streamline access to funding opportunities
- Partner with local community-based organizations and trusted community leaders
- Most directly address community-identified needs
- Build local community capacity
- Support implementation of SB 350 equity recommendations

Outreach, Technical Assistance & Capacity-Building

- Access Clean California
 - Streamlined application platform
 - Partnership network & resource hub
 - Outreach Roadmap implementation
- Transportation needs assessments
 - STEP & CMO
- Technical assistance and capacity-building
 - Application and project development (STEP/CMO)
 - Capacity-building pilot with CBOs



Draft Recommendation

- \$5 million draft allocation
- \$3-5 million to expand implementation of Access Clean California
 - Continue collaboration with state partners to include additional programs
 - Expand outreach partner network and community engagement
- Up to \$2 million to support capacity-building, technical assistance and/or transportation needs assessments

Workforce Training & Development Investment Goals

- Expand access and investment in priority populations
- Promote quality zero-emission and clean mobility jobs and career pathways
- Build on existing curriculum and training programs
- Explore new community-identified opportunities
- Continue and expand partnerships

Draft Recommendation

- \$1.5 million allocation
- Build upon existing Low Carbon Transportation and AQIP workforce training and development efforts
- Expand zero-emission vehicle and clean mobility education
- Support implementation of AB 841 and the State's Market Development Strategy
- Build capacity and expand skills in the clean transportation sector
- Increase access and support connections to good quality jobs
- Complement multi-sector equity efforts (e.g. AB 617, SB 375)

Questions?

Lunch Break
Return at 12:30



SB 1204, SB 1403 & AB 2285

Heavy-Duty Vehicle and Off-Road Investments

SB 1204, SB 1403 & AB 2285

Long-Term Heavy-Duty Investment Strategy

Long-Term Heavy-Duty Investment Strategy

- Annual three-year strategy for Low Carbon Transportation and AQIP funds
- Provides an assessment of heavy-duty needs
- Describes CARB's portfolio of investments and role of incentives in demonstration and deployment of heavy-duty technologies
- Includes annual report on State school bus fleet

Key Elements of Long-Term Heavy-Duty Investment Strategy

- Updated beachheads
- Updated technology status snapshots
- Metrics of success
- New industry examples / case studies
- State school bus incentives report

LONG-TERM HEAVY-DUTY INVESTMENT STRATEGY UPDATE*

	FY 2022-23	FY 2023-24	FY 2024-25
Demos	\$50-\$90 Million Focus: ZE Longer Range HD Goods Movement, ZE Ag-Construction Equipment, ZE Heavier Cargo Handling Equipment, ZE Rail, ZE/Hybrid Marine	\$50-\$90 Million Focus: ZE Construction Equipment, ZE Heavier Cargo Handling Equipment, ZE Regional Rail, ZE Marine	\$50-\$90 Million Focus: ZE Construction Equipment, ZE Heavier Cargo Handling Equipment, ZE Regional Rail, ZE Marine
Pilots	\$200-\$325 Million Focus: ZE Longer Range HD Goods Movement, Strategic Range Extenders, ZE Ag-Construction-Heavier Cargo Handling Equipment, ZE/Hybrid Marine, ZE Facilities/Communities/Corridors	\$200-\$325 Million Focus: ZE Longer Range Goods Movement, Strategic Range Extenders, ZE Ag-Construction-Heavier Cargo Handling Equipment, ZE Switcher Rail, ZE/Hybrid Marine, ZE Facilities/Communities/Corridors	\$200-\$325 Million Focus: ZE Longer Range Goods Movement, Strategic Range Extenders, ZE Ag-Construction-Heavier Cargo Handling Equipment, ZE Switcher Rail, ZE/Hybrid Marine, ZE Facilities/Communities/Corridors
Commercial	\$490-\$680 Million Focus: ZE Drayage and Regional Heavy-Duty Delivery, ZE Delivery, ZE Transit, ZE Heavier Cargo Handling Equipment, ZE/Hybrid Marine, ePTOs, ZE Small Fleets, ZE School Bus	\$605-\$995 Million Focus: ZE Drayage, ZE Long Haul Trucks, ZE Transit, ZE Heavier Cargo Handling Equipment, ZE/Hybrid Marine, ePTOs	\$915-\$1,385 Million Focus: ZE Drayage, ZE Long Haul Trucks, ZE Transit, ZE Heavier Cargo Handling Equipment, ZE/Hybrid Marine, ePTOs
Total Funding	\$740-\$1095 Million*	\$855-\$1410 Million*	\$1,165-\$1,800 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.*

Questions?

Heavy-Duty Vehicle and Off-Road Equipment Investments

- Demonstration and Pilot Projects
- HVIP
- CORE
- Truck Loan Assistance Project

Investment Priorities for 2021-22

Heavy-Duty and Off-Road Projects

- Support CARB's air quality, climate change, and ZEV deployment goals
- Maximize benefits to communities facing disproportionate impacts of pollution
- Focus on lowering barriers to zero-emission for most challenged fleets
- Align with long-term heavy-duty investment strategy
- Coordinate with funding partners

Draft Project Allocations

Project Category	Allocation (millions)
Demonstration and Pilot Projects	\$40
Drayage and Infrastructure Pilot	\$40
HVIP– Standard	\$269.5
HVIP– Drayage	\$75
HVIP– Transit Buses	\$70
HVIP– School Buses	\$130
HVIP– Innovative Small e-Fleets	\$25
CORE	\$164.95
Truck Loan Assistance	\$28.64
Total	\$843

Advanced Technology Demonstration and Pilot Projects

- Support technologies that are on the cusp of commercialization
- Demonstration and Pilot Projects representing ~\$390 million in funding since 2014
- Projects types include: zero-emission trucks, off-road equipment, locomotives, marine vessels

Proposed Allocations and Concepts

- General Fund Allocation: \$40 Million
 - Fund remainder of eligible Zero-Emission Drayage Truck and Infrastructure Pilot projects
- Draft Low Carbon Transportation Allocation: \$40 Million
 - Potential third-party administrator
 - Focus on off-road technologies

HVIP

- HVIP Incentives encourage and accelerate the deployment of the cleanest advanced technologies
- Drive volume in beachhead applications, fortify nascent markets, build fleet acceptance
- Vouchers for California fleets on a first-come, first-served basis to lower the cost of clean trucks and buses
- No scrap required



Updates

- HVIP was closed for 18 months and reopened June 2021
 - ~1,000 vouchers reserved in first wave of 2021 funding
 - \$84+ million reserved in less than four hours
 - Second wave of funding will be made available August 2021.
- Program remains popular and is driving industry transformation
- Continuing to support Project 800

Draft Recommendation

- Potential Policy Changes
 - Introduce fleet size limits
 - Require ZEP Cert for vehicle eligibility
 - Revise disadvantaged community voucher enhancement
- Introduce Set-Asides
 - Support deployment of 1,000 drayage trucks, 1,000 transit buses, and 1,000 school buses
 - Innovative Small e-Fleets set-aside to support small fleets

Draft Allocation: \$569 million

HVIP Voucher Category	Amount (millions)
Standard	\$269.5
Public Transit Buses	\$70
School Buses	\$130
Drayage Trucks	\$75
Innovative Small e-Fleets	\$25
Total	\$569.5

Clean Off-Road Equipment Voucher Incentive Project (CORE)

- Accelerate market penetration of cleaner off-road equipment in early stages of commercial deployment.
- Vouchers for California fleets on a first-come, first-served basis.
- Program launch February 2020
 - Total voucher funding allocation (~\$41M) reserved by early August 2020.
 - Currently, ~\$42M on waitlist
- Eligible Equipment (to date)
 - 57 different freight equipment models
 - 13 manufacturers



Draft Recommendation

- Draft allocation: \$164.95 million for FY 2021-22
- Up to \$30 million to cover current waitlist
- Potential changes include, but are not limited to:
 - Mechanisms to encourage/facilitate small business participation
 - An expansion of CORE to include off-road equipment used in industries other than freight (e.g., construction, agriculture, and landscaping)
 - Elements to boost socioeconomic benefit (e.g., workforce training/job pathways)
- Potential changes to be discussed during public process for the development of an updated CORE Implementation Manual

Truck Loan Assistance Program

- Over \$164 million in State Contributions to date
 - Leveraged to provide about \$2.2 billion in financing
 - 34,800 trucks, exhaust retrofits and trailers

Draft Recommendation

- Draft AQIP Allocation \$28.64 million
- Staff working with CPCFA and lenders to increase support for Heavy-Duty Zero-Emission vehicle loans.

Questions?

Summary and Next Steps

\$1.5B Clean Transportation Incentives: Proposed Project Category Allocations

	FY 2021-22 Appropriation (millions)
CVRP	\$525
Clean Transportation Equity Projects	\$150
Clean Trucks, Buses, and Off-Road Freight	\$843.09
Total Clean Transportation Incentives Funding	\$1,518.09

Funding Plan Development Schedule

Milestone	Date
Category specific work group meetings	March – August 2021
Final Workshop	August 4, 2021
Release proposed Funding Plan	October 2021
Board Consideration of Proposed Funding Plan	November 2021

Additional information available at:

<http://www.arb.ca.gov/aqip/>

<http://www.arb.ca.gov/msprog/aqip/meetings/meetings.htm>

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