



Clean Transportation Incentives

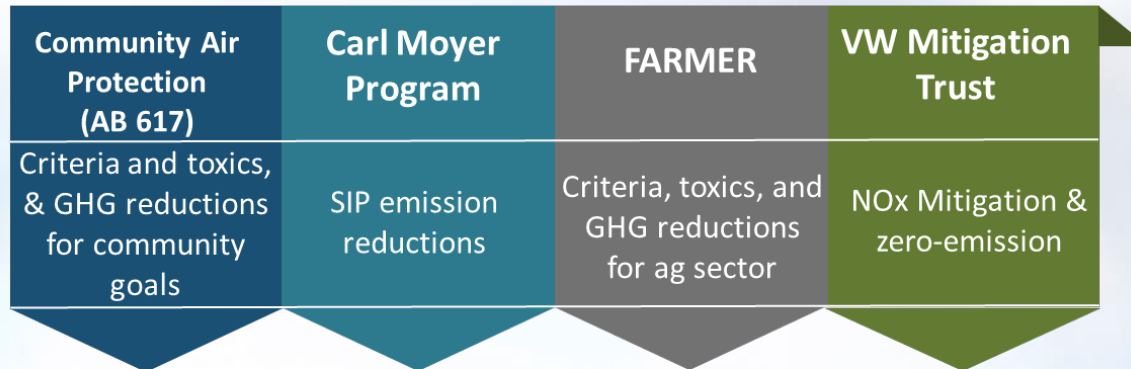
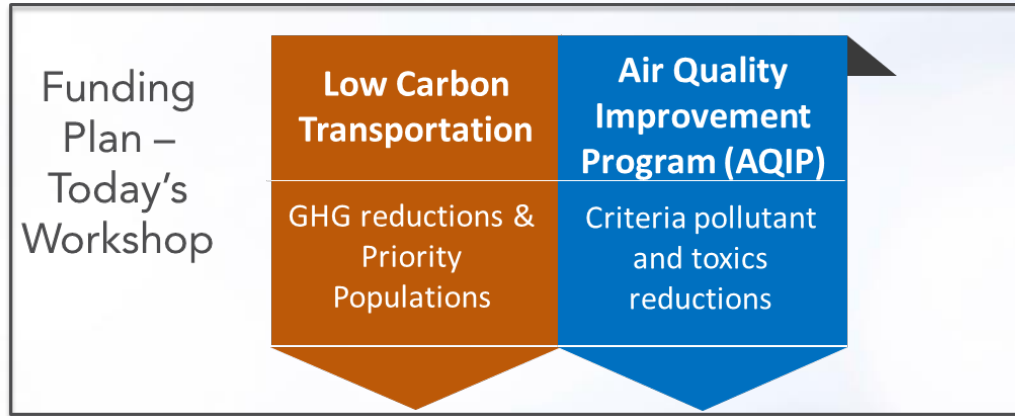
***For Low Carbon Transportation Investments and
the Air Quality Improvement Program***

Public Workshop on the Fiscal Year 2021-22 Funding Plan
March 30, 2021

Today's Agenda

Time	Session
9:00am – 9:30am	Introduction and Overview
9:30am – 10:45am	Light-Duty and Clean Transportation Equity Investments
10:45am – 11:00am	Break
11:00am – 11:30am	Long-Term Heavy-Duty Investment Strategy
11:30am – 12:30pm	Heavy-Duty Vehicle and Off-Road Equipment Investments
12:30pm – 1:00pm	Open Discussion

Part of CARB's Larger Incentive Funding Portfolio



AQIP

- Created by AB 118 (2007); updated and reauthorized by AB 8 (2013)
- Provides the foundation and framework for Low Carbon Transportation Investments
- Annual funding plan guides investments
- Focuses on criteria pollutant and toxics projects
- About \$28 million proposed for FY 2021-22

Auction Proceeds Investments for Low Carbon Transportation

- Annual budget appropriation guided by the priorities in the Cap and Trade Auction Proceeds Investment Plan
 - Facilitate greenhouse gas reductions
 - Benefit priority populations
 - Maximize health, environmental, economic co-benefits
 - Continue investments in existing programs
 - Provide funding certainty over multiple years when possible
 - Support job training and apprenticeship opportunities

Policy Drivers and Guiding Documents



Low Carbon Transportation Funding



**Proposed Appropriation in Governor's Budget*

\$465M Low Carbon Transportation: Proposed Budget Appropriations

	2020-21 Proposed Appropriation (millions)	2021-22 Proposed Appropriation (millions)
Transportation Equity Projects	\$74	\$76
Clean Trucks, Buses, and Off-Road Freight	\$165	\$150
Total Low Carbon Transportation Funding	\$239	\$226

FY 2020-21 Funding Plan Contingencies

Pending Legislative appropriation, the Board approved early initial allocations for a portion of the FY 2020-21 Low Carbon Transportation funds. Remaining funds will be allocated in the FY 2021-22 Funding Plan

Project	Proposed Early Allocation (Millions)
Clean Transportation Equity	
<i>Clean Cars 4 All</i>	\$24.42
<i>Financing Assistance</i>	\$7.4
Heavy-Duty and Off-Road Equipment	
<i>Clean Truck and Bus Vouchers (HVIP)</i>	\$60
<i>Clean Off-Road Equipment Vouchers (CORE)</i>	\$30
Total Early Allocation	\$121.82
Remaining for FY 2021-22 Funding Plan	\$117.18

AB 1550 Priority Population Investment Requirements

- Established priority population investment requirements
 - Low Carbon Transportation targets exceed minimum
- Projects must provide direct, meaningful, and assured benefits that addresses a community or household need
- 2021-22 Funding Plan will continue to incorporate guiding provisions

New Efforts for 2021-22 Funding Plan

- Develop a process to collect and evaluate data on behavioral changes resulting from incentives
- Develop metrics and data collection plans to measure the socioeconomic benefits achieved
- Collect data and report job creation for projects
- Focus on supporting owner/operators and small fleets

Continued Focus on Equity

- Continue to follow and incorporate equity principles
- Prioritizing community inclusion and engagement across programs
- Increasing emphasis on measuring progress and benefits beyond GHGs (e.g. jobs, socioeconomic)
- Expanding workforce training and career development opportunities to boost the green economy
- Furthering State, local, and community partnerships

Funding Plan Development Schedule

Milestone	Date
Category specific work group meetings	March – June 2021
Final Workshop	June 23, 2021
Release proposed Funding Plan	September 2021
Board Consideration of Proposed Funding Plan	October 2021
Start implementing projects	November 2021

Additional information available at:

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

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

Questions?

Light-Duty and Clean Transportation Equity Projects

Vehicle Purchase Incentives

CVRP

Over \$1B to support rebates for clean vehicles



Financing Assistance

Over \$44M for loans and grants to purchase clean vehicles



Clean Cars 4 All

\$115M for incentives to replace old vehicles with clean vehicles in certain air districts



CVRP



- **Rebates Issued Through September 2020:**

Rebate Type	Rebates Issued	Funding Total
Standard Rebate	383,341	\$834,538,411
Increased Rebate	21,793	\$89,519,312
Rebates for Public Fleets in DACs	654	\$2,759,500
TOTAL	405,788	\$926,817,223

- **Funding Status:**

- FY 19/20 Allocation: \$238M
- Initial \$25M for increased rebates exhausted February 5, 2021
 - Additional \$25M reserved for increased rebates expected to last until Summer 2021
- End of funding estimate for standard rebates: June 2021

Financing Assistance Project

- Background and Status Updates

Incentive Type	Incentive issued
Vehicle Grants	2156
Charging Grants	710
Number of Secured Loans	1,682
TOTAL	\$11,556,173.58

- Funding Status:

- CVA Program reservation list in place as of March 17, 2021

- Policy Considerations

- Graduating both Statewide & Local programs from pilot phase
- Purchase Price Cap, OEM Cap, HEV Graduation, Loan Amount & Term Cap



clean vehicle
assistance program



DRIVING CLEAN
ASSISTANCE PROGRAM

Clean Cars 4 All

- \$115 million allocated to-date
 - \$88 million expended
- Funded more than 10,000 vehicle replacement projects across four participating air districts
- Recent Program Updates
 - Electric bicycles
 - Public charging cards
 - Assembly Bill 841
- Potential Program Expansion to SDAPCD



**CLEAN CARS
FOR ALL**



**CLEAN CARS
4 ALL**

Clean Mobility Projects

Rural School Bus Pilot
Over \$60M for clean school buses



Clean Mobility Options
\$55M for clean mobility pilots and newly launched Clean Mobility Options Voucher Pilot



Sustainable Transportation Equity Project
Awarding \$19.5M for eleven Planning and Implementation Grants



Clean Mobility in Schools
Awarded \$25M to three school districts across the State

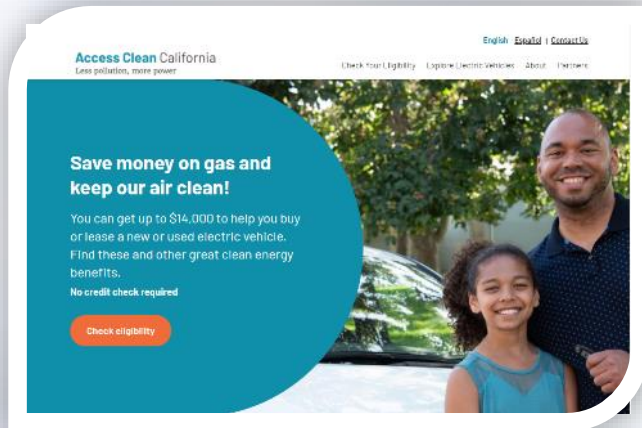


Agricultural Worker Vanpools
\$6M for clean transportation vanpools for agricultural workers

Dollar amounts represent cumulative funding over the life of each project

Outreach, Technical Assistance & Capacity-Building

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



Progress in Implementing Equity Principles

- Funding community transportation needs assessments
- Partnering with CEC for CMO and to expand workforce training and development projects in priority communities
- Identifying tools for measuring equity outcomes and further research needs
- Supporting Advanced Clean Cars II to closely tie regulatory development and incentive implementation

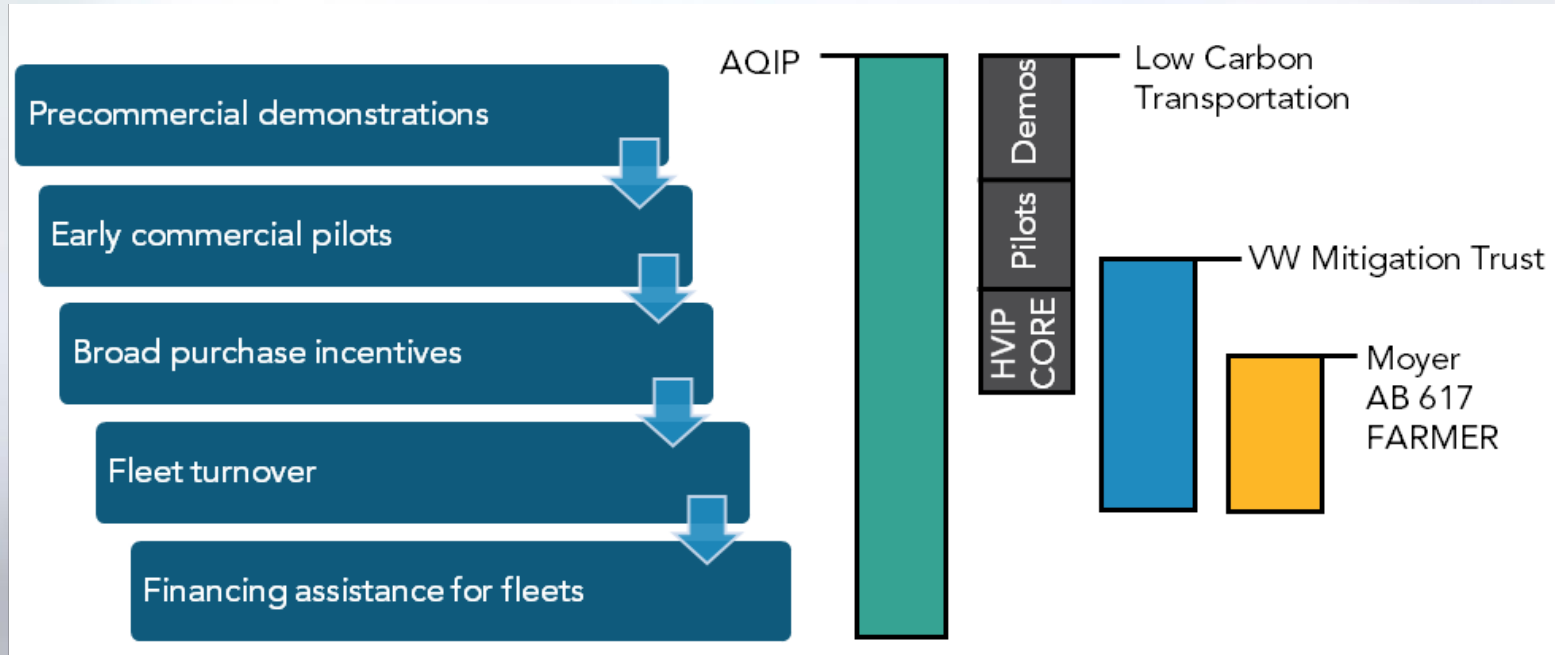
Questions?

Heavy-Duty Investment Strategy

Heavy-Duty Investment Strategy for Vehicles and Off-Road Equipment

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

Heavy-Duty Technology Progression Through CARB Incentive Programs



Metrics of Success

Creating Healthy Communities



188 million

cleaner-than-diesel miles traveled in California by HVIP-funded vehicles, 2010 to 2020.



57% of vouchers

in HVIP have funded vehicles deployed in Disadvantaged Communities, as identified in CalEnviroScreen 3.0

Supporting Technology Evolution



Growing the Green Economy



\$2.2 billion

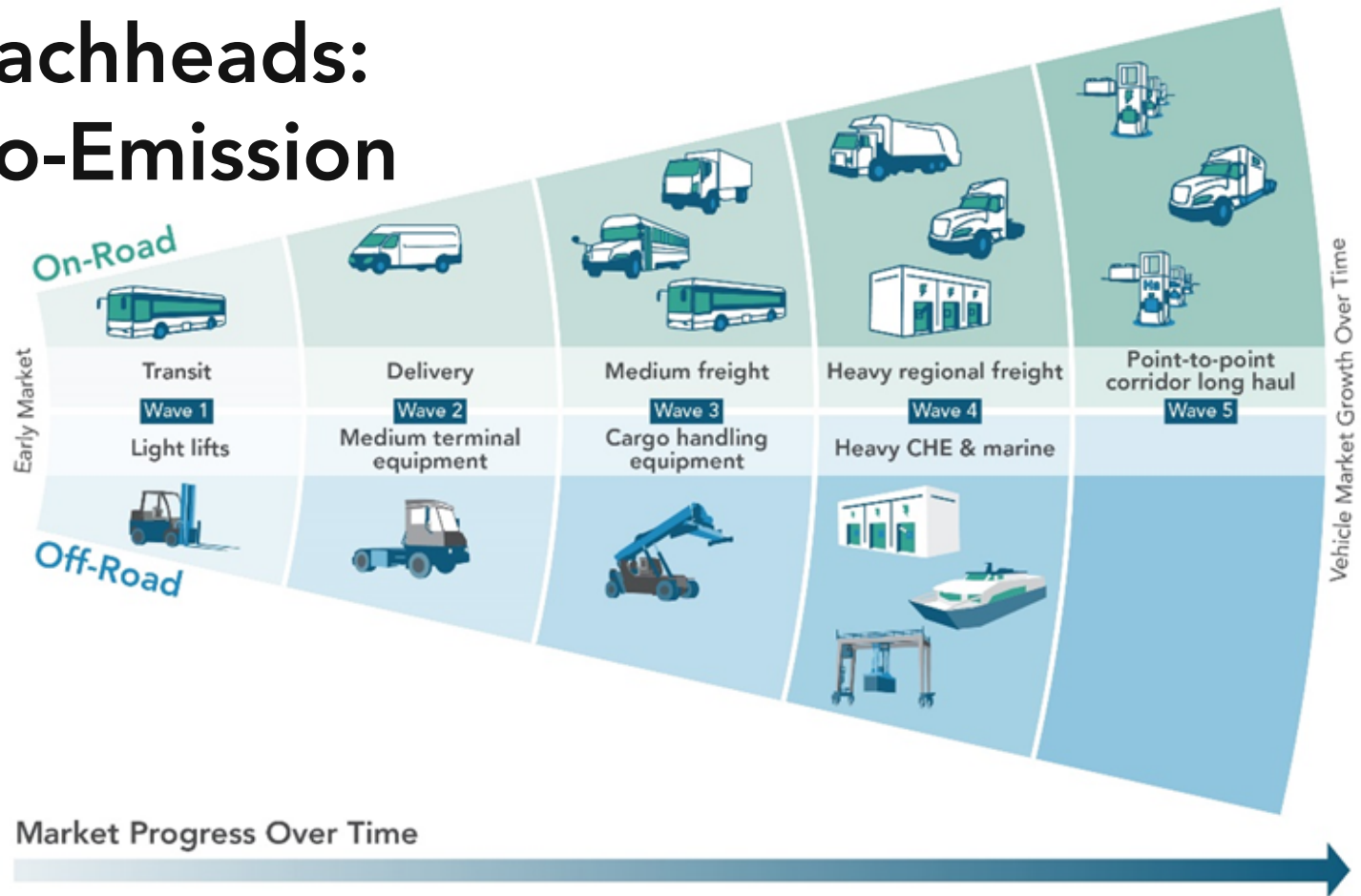
additional dollars of other public and private spending toward these purchases — over \$4 for every \$1 of HVIP investment. Leveraged private spending represents purchases redirected from traditional technologies to clean technologies.



\$530 million

funded by HVIP toward the purchase of nearly 9,000 clean vehicles since 2010.

Beachheads: Zero-Emission



Market Progress Over Time

Similar drivetrain and component sizing can scale to early near applications

Expanded supply chain capabilities and price reductions enable additional applications

Steadily increasing volumes and infrastructure strengthen business case and performance confidence

Heavy-Duty Investment Strategy for Vehicles and Off-Road Equipment

The Strategy includes:

- Technology status updates
- Beachhead strategy discussion
- State school bus incentives update
- Metrics of success
- Market readiness indicators
- Industry examples

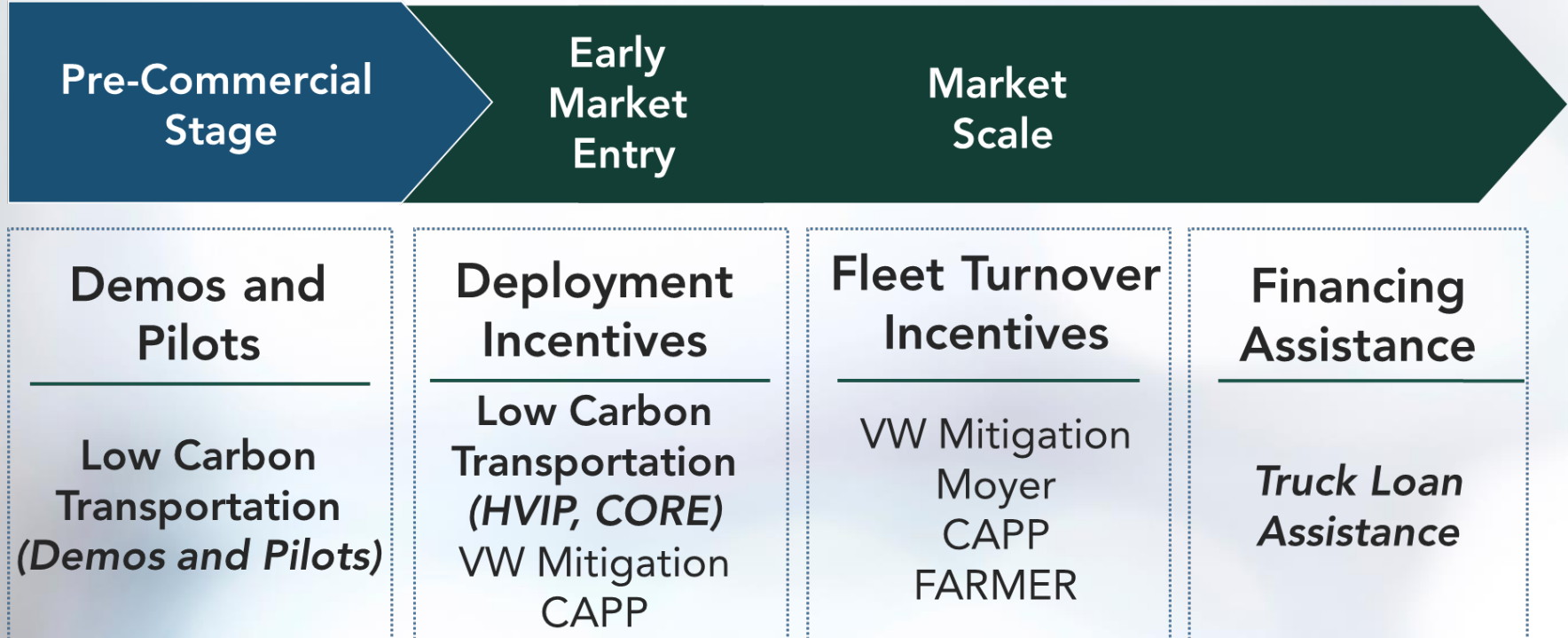
Heavy-Duty Investment Priorities for FY 2021-22

- Support SB 350, SB 375 and AB 617 goals
- Support progress towards meeting federal air quality targets and state climate targets
- Accelerate deployment of zero-emission technologies as described in Executive Order N-79-20
- Continue to update projects and build on momentum
- Continue to develop metrics of success that track progress towards program goals

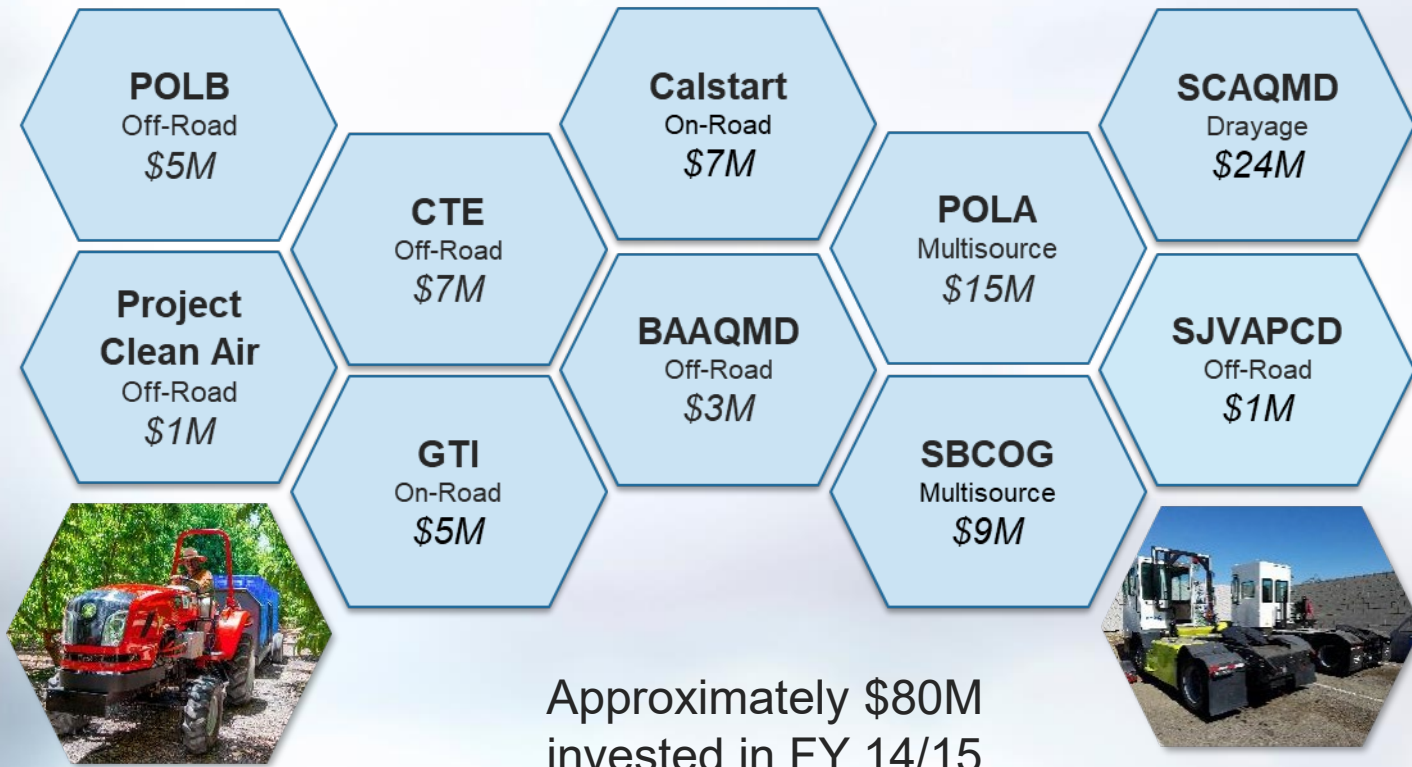
Questions?

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

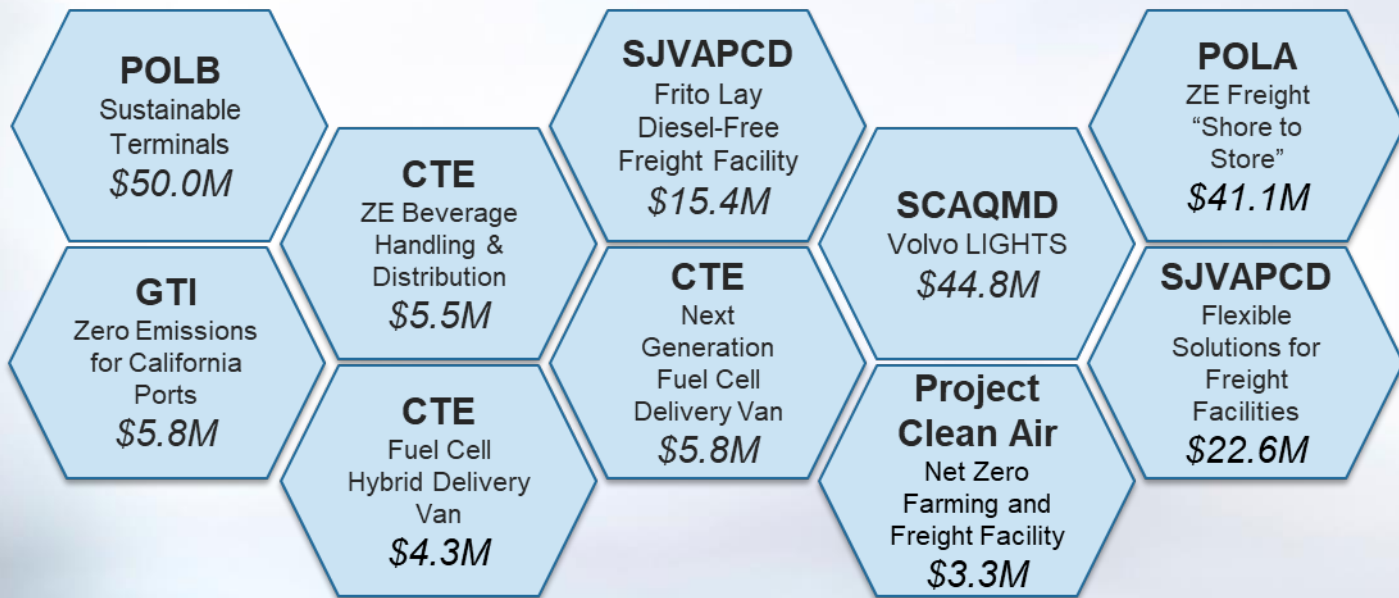
Heavy-Duty Trucks, Buses, and Off-Road Freight Equipment



Ongoing and Completed Heavy-Duty Demonstration Projects



Ongoing Zero- and Near Zero-Emission Freight Facilities Projects



Approximately \$200M
invested in FY 17/18
and FY 18/19

Completed School Bus and Delivery Truck Pilot Projects

USPS – ZE Delivery Truck Pilot
\$5M for 15 Class 6 electric delivery trucks in Fresno and Stockton



Sacramento School Bus Pilot
\$7.5 M for 28 Battery Electric School Buses at 3 Sacramento school districts



Goodwill Industries Electric Delivery Project
\$3M for 10 Class 1 and one Class 8 electric trucks in San Francisco



Green On-Road Linen Delivery
\$7M for 20 electric linen delivery trucks in Stockton, Merced, Fresno and Bakersfield



Completed and Ongoing Transit Bus Pilot Projects

SunLine Transit

\$12.5M for 5 fuel cell buses and on-site hydrogen generation in Coachella Valley



San Joaquin Valley Transit Electrification
\$12M for 15 battery electric transit buses plus depot and fast chargers in Visalia, Fresno, San Joaquin RTD, Modesto Transit

City of Porterville Transit Electrification

\$9.5M for 10 battery electric transit buses plus depot and opportunity charging in Porterville



Fuel Cell Bus Commercialization Consortium Pilot

\$22M for 20 fuel cell buses, new hydrogen station at OCTA, and station upgrade AC Transit. 10 buses each in Alameda and Orange Counties

Recent Solicitations

Capture & Control Tankers at Berth

- \$10 Million was available
- Project selection is complete, grant agreement will be executed soon
- Hydrogen fuel cell based system to supply power for control system

Zero-Emission Drayage Truck and Infrastructure Pilot

- Funding: \$24 million from CARB and \$20.1 million from CEC
- Goal: Deploy large numbers of Class 8 drayage on-road ZEVs at freight facilities
- Applications under review
- Anticipated Notice of Proposed Awards (NOPA) posting and Preliminary Award Letters soon

Clean Truck and Bus Vouchers (HVIP)

- Provides first-come, first-served vouchers for zero-emission heavy-duty vehicle purchases
- ~7,300 vouchers issued since inception, totaling \$388 million
- Program reopening in April 2021
 - Program reopening with \$25 million from FY 2020-21
 - Implementation measures approved last year will
 - Encourage faster vehicle deliveries
 - Drive purchase decisions



HVIP Continued



- Staff anticipates demand to remain strong
 - New models on HVIP eligible vehicle list
 - 6 HVIP-eligible Class 8 zero-emission truck models to support Project 800
 - Demand for transit buses remains strong
- Guiding Principles established in the FY 2020-21 Funding Plan
 - Staff proposal for FY 2021-22 will be developed to support guiding principles
- Over 50% of GGRF-funded deployments serving priority populations
 - Enhance participation from small fleets and owner-operators

Clean Off-Road Equipment Vouchers

- Provides first-come, first-served vouchers for zero-emission off-road freight equipment
- 49 eligible models from 13 different manufacturers
- 307 vouchers issued since inception, totaling ~\$41M
- 75% of CORE vouchers to be deployed in Disadvantaged and Low Income Communities (\$32.2M)
- Program launch: February 2020; Closed: August 2020
- Currently over 100% oversubscribed (~\$44M)



Truck Loan Assistance Program Updates

- Increased Consumption of CARB Funding
 - Program demand remains steady
 - CARB increased contributions rates in March 2020
- \$152M in contributions has leveraged over \$2B in financing for approximately 30,800 loans

Investment Priorities for Heavy-Duty and Off-Road

- FY2020-21 Low Carbon Transportation Investments
 - Executive Officer granted authority to allocate portion to CORE & HVIP
 - Remaining allocated in FY2021-22 Funding Plan
- FY2021-2022
 - Possibility to include funding for advanced technology demonstration and pilot projects

Questions?

Summary and Next Steps

\$494M Clean Transportation Incentives: Proposed Appropriations

	2020-21 Proposed Appropriation (millions)	2021-22 Proposed Appropriation (millions)
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Clean Trucks, Buses, and Off-Road Freight	\$165	\$150
AQIP		\$28.64
Total Clean Transportation Incentives Funding	\$239	\$254.64

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