



# Clean Transportation Incentives

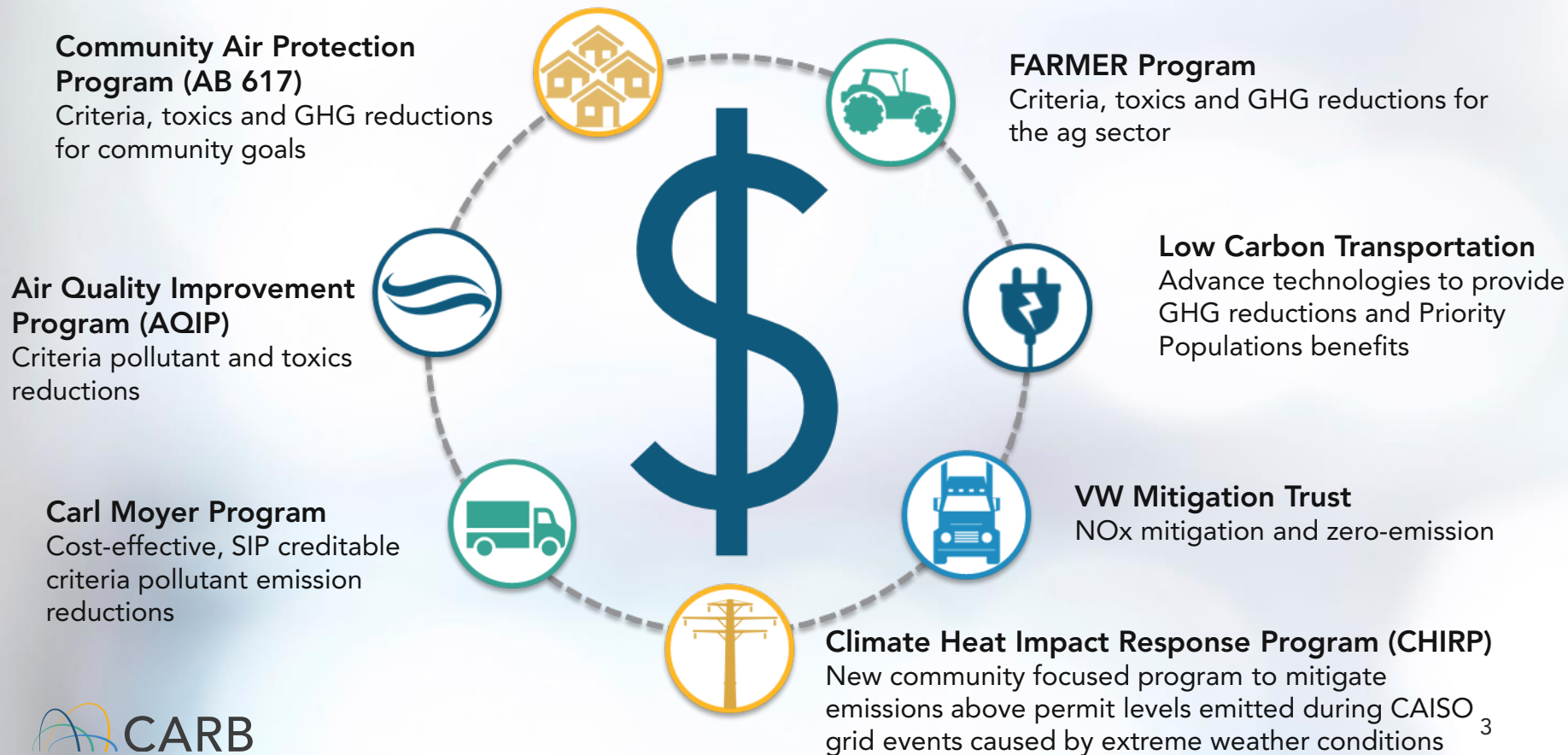
***For Low Carbon Transportation Investments and  
the Air Quality Improvement Program***

Public Workshop on the Fiscal Year 2022-23 Funding Plan  
March 15, 2022

# Today's Agenda

Time	Session
9:00 a.m. – 9:30 a.m.	Introduction and Overview
9:30 a.m. – 10:00 a.m.	Long-Term Plan for Light-Duty Vehicles and Clean Transportation Equity Investments
10:00 a.m. – 10:10 a.m.	Break
10:10 a.m. – 11:45 a.m.	Light-Duty and Clean Transportation Equity Projects
11:45 a.m. – 12:30 p.m.	Break
12:30 p.m. – 1:00 p.m.	Long-Term Heavy-Duty Investment Strategy
1:00 p.m. – 1:50 p.m.	Heavy-Duty Vehicle and Off-Road Equipment Investments
1:50 p.m. – 2:00 p.m.	Next Steps

# CARB's Portfolio of Incentive Programs



# 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
- ~\$29M proposed for FY 2022-23



# 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

# Governor's ZEV Package

- FY 2021-22 ZEV Package
  - Totals \$3.9B across three budget years
  - Includes appropriations to CEC, GO-Biz, and CalSTA
- Proposed FY 2022-23 ZEV Package
  - Totals \$6.1B across four budget years
  - Includes appropriations to CEC, GO-Biz, and CalSTA
- FY 2022-23 Funding Plan covers ~\$1.28B of the ZEV Package

# Policy Drivers and Guiding Documents



# Clean Transportation Incentives Funding (millions)



*\*Proposed appropriation in the Governor's Budget*

# FY 2022-23 Proposed Budget (millions)

Project Category	GGRF	General Fund	AQIF
<b>Clean Transportation Equity Programs Established Under SB 1275</b>			
Purchase Incentive Equity Programs	\$76	\$220	-
Sustainable Transportation and Mobility Equity Projects	-	\$65	-
<b>Heavy-Duty Zero-Emission</b>			
ZE Drayage Trucks, School/Transit Buses	-	\$280	-
Clean Trucks, Buses, and Off-Road Freight	\$600	-	-
Emerging Opportunities	-	\$10	-
<b>Air Quality Improvement Program</b>	-	-	\$28.64
Subtotal	\$676	\$575	\$28.64

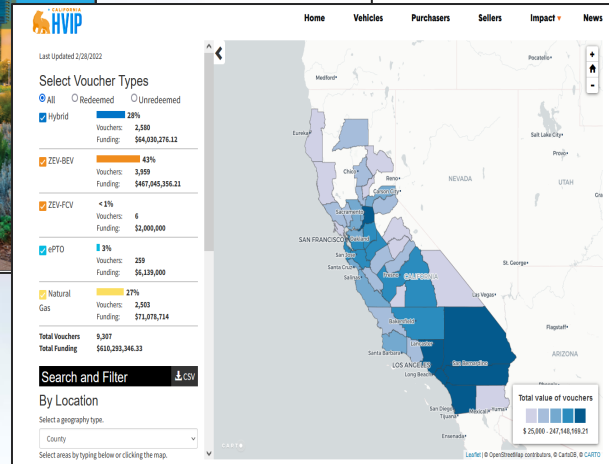
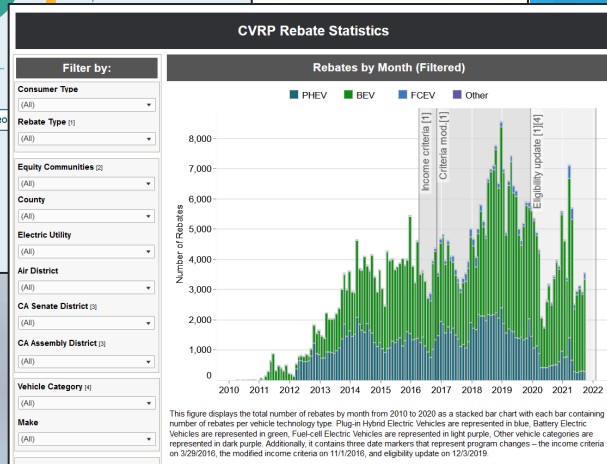
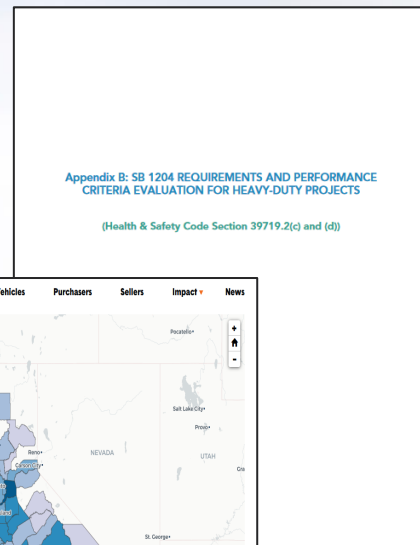
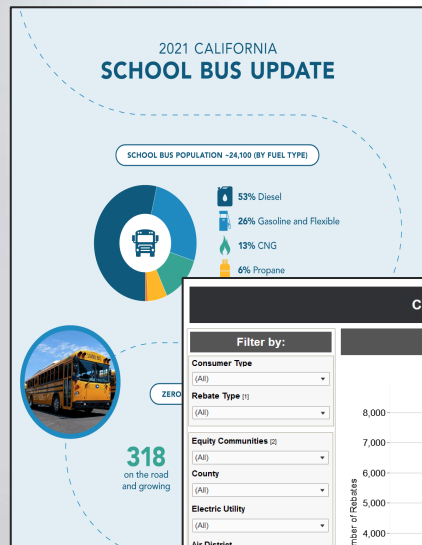
**TOTAL FUNDING**

**\$1,279.64**

# AB 1550 Priority Population Investment Minimums

- AB 1550 established new investment minimums for California Climate Investments
- Projects must provide direct, meaningful, and assured benefits that addresses an important community need
- Low Carbon Transportation targets greatly exceed investment minimum
- 2022-23 Funding Plan will continue to incorporate guiding provisions

# Reporting Progress



# Expanded Efforts for 2022-23

## Funding Plan

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



# Expanded Focus on Equity

- Follow and incorporate equity principles
- Continue to measure progress and benefits beyond GHGs (e.g. jobs, socioeconomic)
- Expand workforce training and career development opportunities to boost the green economy
- Strengthen State, local, and community partnerships

# Expanded Community Engagement

- Prioritize community inclusion and engagement across programs and funding plan development
- Individual meetings with communities and organizations
  - Obtain input on policy, process, and programs
  - Provide space for and listen to communities
- Address real-world barriers in program development and implementation

# Funding Plan Development Schedule

Milestone	Date
Category specific work group meetings	March – April 2022
Community and Stakeholder 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:

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

<https://ww2.arb.ca.gov/our-work/programs/low-carbon-transportation-investments-and-air-quality-improvement-program/low-0>

# Comments and Questions



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# **Long-Term Plan for Light-Duty Vehicle & 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
  - Clean Cars 4 All (air district and statewide programs)
  - Financing Assistance programs
  - Access Clean California
- Future plans to include E-Bike incentives

# Making Purchase Incentives Better

- ZEV Market and Technology Assessment Update Workshop held February 10, 2022
- Sustainable and equitable ZEV market workshop planned for March 30, 2022
- Workshop on long term vision, including how to make incentives easier to access in late-May 2022
- Program-Specific work groups to be held primarily through April 2022



# Governor's Proposed Budget for Purchase Incentive Equity Programs

Fiscal Year (FY)	Funding Total (millions)
FY 2022-23	\$296*
FY 2023-24	\$175*
FY 2024-25	\$35
FY 2025-26	-
<b>MULTI-YEAR TOTAL</b>	<b>\$506</b>

\*Includes \$125M carried over from last year's ZEV package.

# Clean Mobility Equity Investments

- Covers clean mobility equity projects, outreach, capacity building, needs assessments, and workforce activities
  - Clean Mobility Options Pilots
  - Sustainable Transportation Equity Project
  - Clean Mobility in Schools
- Held kick-off work group discussion February 17, 2022
- Hold public work group meetings in April and May 2022
  - Move from small pilots to larger, community-centric programs
  - Create mobility strategy to ensure community needs are met

# Path Forward for Clean Mobility Equity Investments

- Based on project lessons, assessment of community needs, and feedback to date:
  - Explore what investments could and should look like to develop our clean mobility future
  - Refine objectives based on feedback and desired outcomes
  - Coordinate across investments
  - Determine methods to measure and evaluate successes and community investment impacts

# Long-Term Plan Considerations

- Project evaluation, user experience, and usage data collection are critical for clean mobility investments
- Emphasis is on lessons that help:
  - Understand, measure, and maximize socioeconomic benefits and demographic impacts
  - Support an evolution from smaller scale pilot projects to more comprehensive and streamlined community-based programs

# Governor's Proposed Budget for Clean Mobility Equity Investments

Fiscal Year (FY)	Funding Total (millions)
FY 2022-23	\$65
FY 2023-24	\$130
FY 2024-25	\$134
FY 2025-26	\$90
<b>MULTI-YEAR TOTAL</b>	<b>\$419</b>

# Comments and Questions



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**Return at 10:10 a.m.**

# Light-Duty and Clean Transportation Equity Projects



# Vehicle Purchase Incentives

## **Clean Cars 4 All**

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**

\$10 million to support incentives for electric bicycles



# CVRP



## Rebates Issued Through September 2021:

Rebate Type	Rebates Issued	Funding Total
Standard Rebate	420,461	\$907,709,671
Increased Rebate	30,593	\$128,073,030
Rebates for Public Fleets in DACs	695	\$2,936,000
TOTAL	451,749	\$1,038,718,701

- **Funding Status:**
  - FY 21/22 Multi-Year Allocation: \$525M - \$515M for CVRP, \$10M for E-bikes
  - Plan for phased-in changes in 2022 and 2023
    - Phase 1 changes effective February 24, 2022
      - Decreased income cap and decreased MSRP cap for smaller vehicle classes

# Financing Assistance Project

## Background and Status Updates:

Incentive Type	Incentive issued
Vehicle Grants	4,600
Charging Grants	1,700
Number of Secured Loans	1,500
Total Fund Spent	\$43,000,000

- **Funding Status:**
  - CVA Program reservation list in place as of March 17, 2021
  - Additional funds to pay for the reservation list and relaunch of the program
- **Project Changes**
  - Adoption of need-based model
  - Implementing purchase price cap, loan term and amount cap, HEV graduation

# Clean Cars 4 All

- **Program status:**

- \$190M allocated to-date including \$75M in FY 21-22
- Funded more than 12,000 vehicle replacement projects
- South Coast, San Joaquin, and Bay Area programs are open
- Sacramento's program is temporarily closed.
- San Diego's program is coming soon.



- **Program Updates:**

- Statewide expansion
- Enhanced flexibilities
  - Technology types, lowering income cap, and incentive amounts
- Changes may be implemented after program guideline update
- AB 630 Report - Goals and Program Evaluation

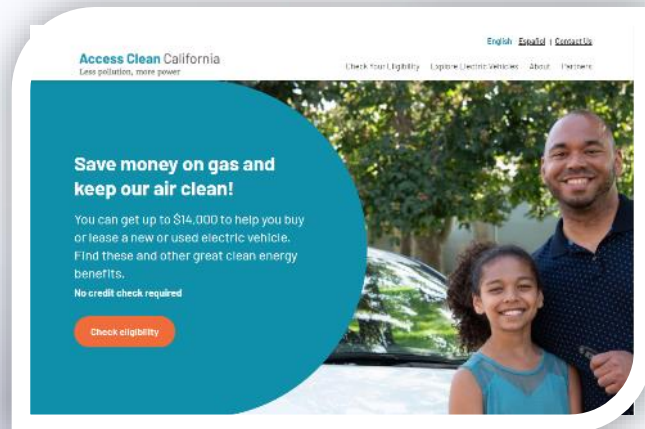


# Electric Bicycle Incentives Project

- **Program status:**
  - Established by the Board as part of the FY 2021-22 Funding Plan
  - Aim to launch the solicitation in Spring 2022
  - Expected project launch is late 2022
- **Policy considerations:**
  - Open to individuals 14 years and older in a qualifying low-income household
  - Limit the price of eligible e-bikes
  - Two incentive levels: one for lower income and one for moderate income

# Access Clean California

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



# Comments and Questions



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# Clean Mobility Projects





# Clean Mobility Pilot Projects Highlights



**Our Community  
CarShare**



**Car Sharing and  
Mobility Hubs**



**Ecosystem of  
Shared Mobility**



**Lift Line  
Paratransit**



**BlueLA Car Share**

# Regional Clean Mobility Options Projects

## Funding and Status

Project Name	Fiscal Year	Total Awarded (Approx.)	Status
BlueLA Car Share	2014-15	\$4.6M	Active
Our Community CarShare	2014-15	\$5.8M	Active
Lift Line Paratransit	2016-17	\$516,000	Active
Car Sharing and Mobility Hubs	2016-17	\$3M	Active
Valley Air ZEV Mobility	2016-17	\$749,000	Inactive
Ecosystem of Shared Mobility	2016-17	\$3M	Active
Agricultural Worker Vanpools	2016-17	\$6M	Inactive

**Total Funds Across Projects: ~\$24M**

# Clean Mobility Options Voucher Pilot Program (CMO)

- \$55M allocated to date
  - 20 mobility projects
  - 24 transportation needs assessments
  - Technical assistance
- Implementation and program refinements are ongoing
- Application window #2 anticipated mid-2022
- FY 2022-23 funding goals:
  - At least \$15M for mobility projects and \$1M for needs assessments
  - Consider analysis from window #1 to maximize benefits



# Clean Mobility in Schools

- \$35M allocated to date
  - 3 grants from Fall 2019 solicitation: El Monte, Stockton, and San Diego
  - 1 new project with Twin Rivers School District in Sacramento
- Implementation is ongoing and lessons are being incorporated
- Seeing investments and adoption of zero-emission options beyond CARB's grant funding



# Sustainable Transportation Equity Project (STEP)

- \$44.5M allocated to date
  - 8 Planning and Capacity Building Grants
  - 5 Implementation Grants
  - Technical assistance
- Implementation is ongoing
- For more information, visit: [Sustainable Transportation Equity Project \(STEP\) | California Air Resources Board](#)



*Courtesy of CicLAvia and Brian Feinzimer*



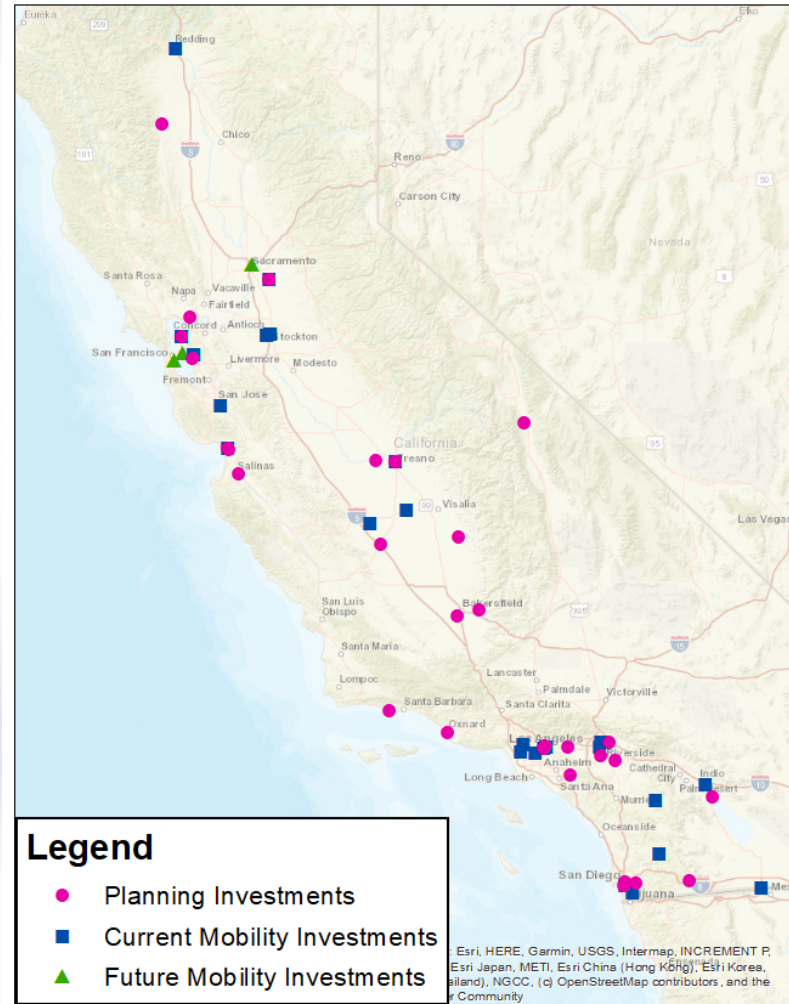
## CARB Clean Mobility Project Locations

### CARB Planning Investments include:

- Clean Mobility Options Voucher Pilot Program - Community Transportation Needs Assessment Vouchers
- STEP - Planning and Capacity Building Grants

### CARB Mobility Investments include:

- Regional Clean Mobility Options Projects
- Clean Mobility Options Voucher Pilot Program - Mobility Project Vouchers
- Clean Mobility in Schools grants
- STEP - Implementation Grants



# Workforce Training and Development

- \$3.78M allocated to date
  - \$1M contributed to CEC for IDEAL ZEV Workforce Pilot Project
  - \$1.5M for partnering with adult and vocational schools
  - \$1.28M for a new pre-apprenticeship program with CEC
- Address SB 350 Barriers Report community needs
- Expand workforce training and development investments and opportunities
- Support the transition to a zero-emission transportation workforce
- Advance workforce equity

# Community Transportation Needs Assessments

- \$3.9M invested to date through CMO and STEP
  - \$1.15M for CMO
  - \$1M for future CMO vouchers
  - \$1.75M for STEP Planning and Capacity Building Grants
- Contract with UC Berkeley Othering & Belonging Institute
  - Conduct a community-based evaluation of assessments and CARB's funding approach
  - Develop recommendations to improve assessment processes and outcomes
- Discussions ongoing on how to structure these investments to meet broader clean mobility goals



# Community Technical Assistance and Capacity Building

- Application and project development support is crucial
- Consider lessons from ongoing efforts:
  - STEP planning and capacity building grants and technical assistance contracts
  - CMO technical assistance and network
    - Statewide administrator (CALSTART, SUMC, and LGC)
    - Clean Mobility Equity Alliance
  - Access Clean California and Partner Network
    - Project to build community-based organization capacity for outreach (\$1M invested to-date)

# Progress in Evaluating Clean Mobility Projects and Addressing Equity Principles

- Evaluation of project benefits and outcomes is an essential process for equity projects
- CARB is collecting project data and lessons learned to share publicly and inform future investments
- Examples include:
  - Clean mobility project modifications based on public feedback
  - Third-party evaluation research contracts (UC Berkeley)
  - STEP Technical Assistance Interim Report
  - Access Clean California and Partner Network
  - Greenlining Institute Clean Mobility Equity Report

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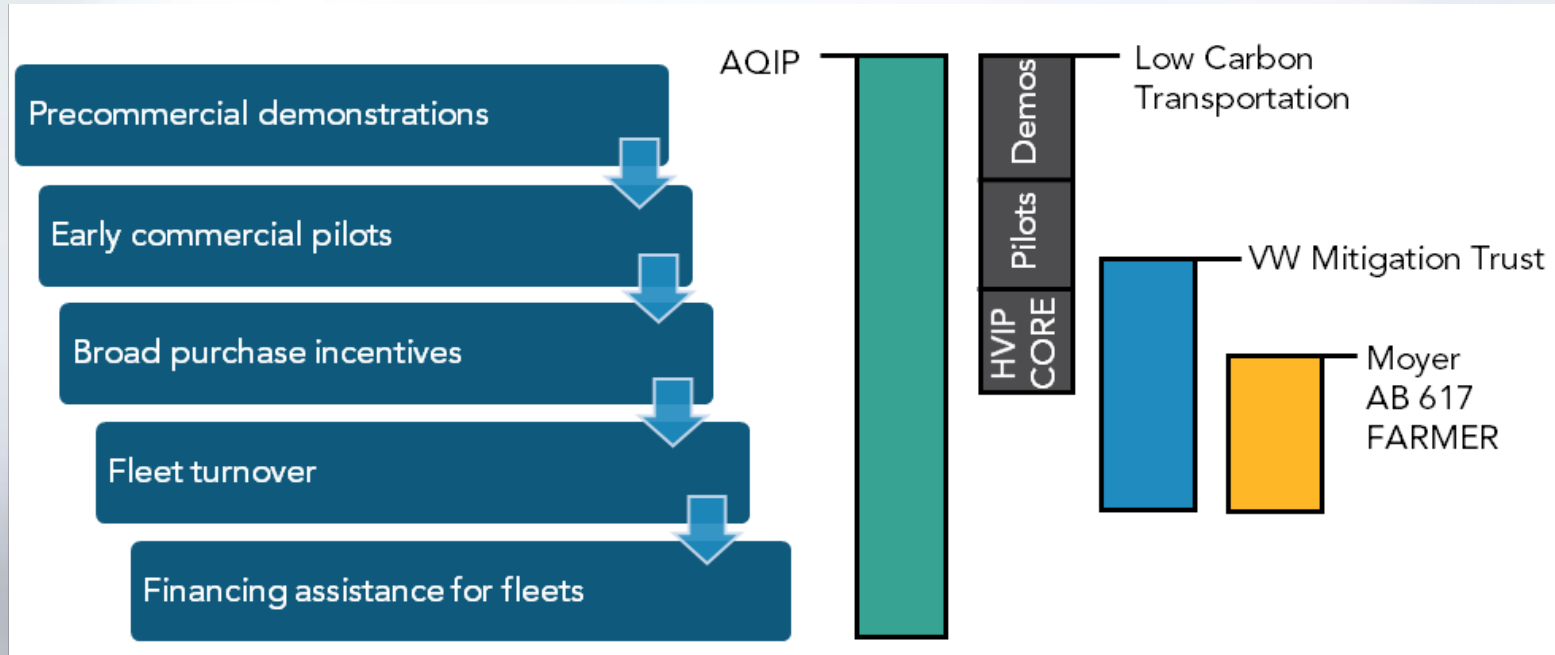
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# Long-Term Heavy-Duty Investment Strategy

# 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

# Heavy-Duty Technology Progression Through CARB Incentive Programs



# Metrics of Success

## Creating 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.



## 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.



## Growing the Green Economy

197  
VEHICLES

### MANUFACTURERS

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



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).



222  
MILLION

### MILES TRAVELED

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



\$500+  
MILLION

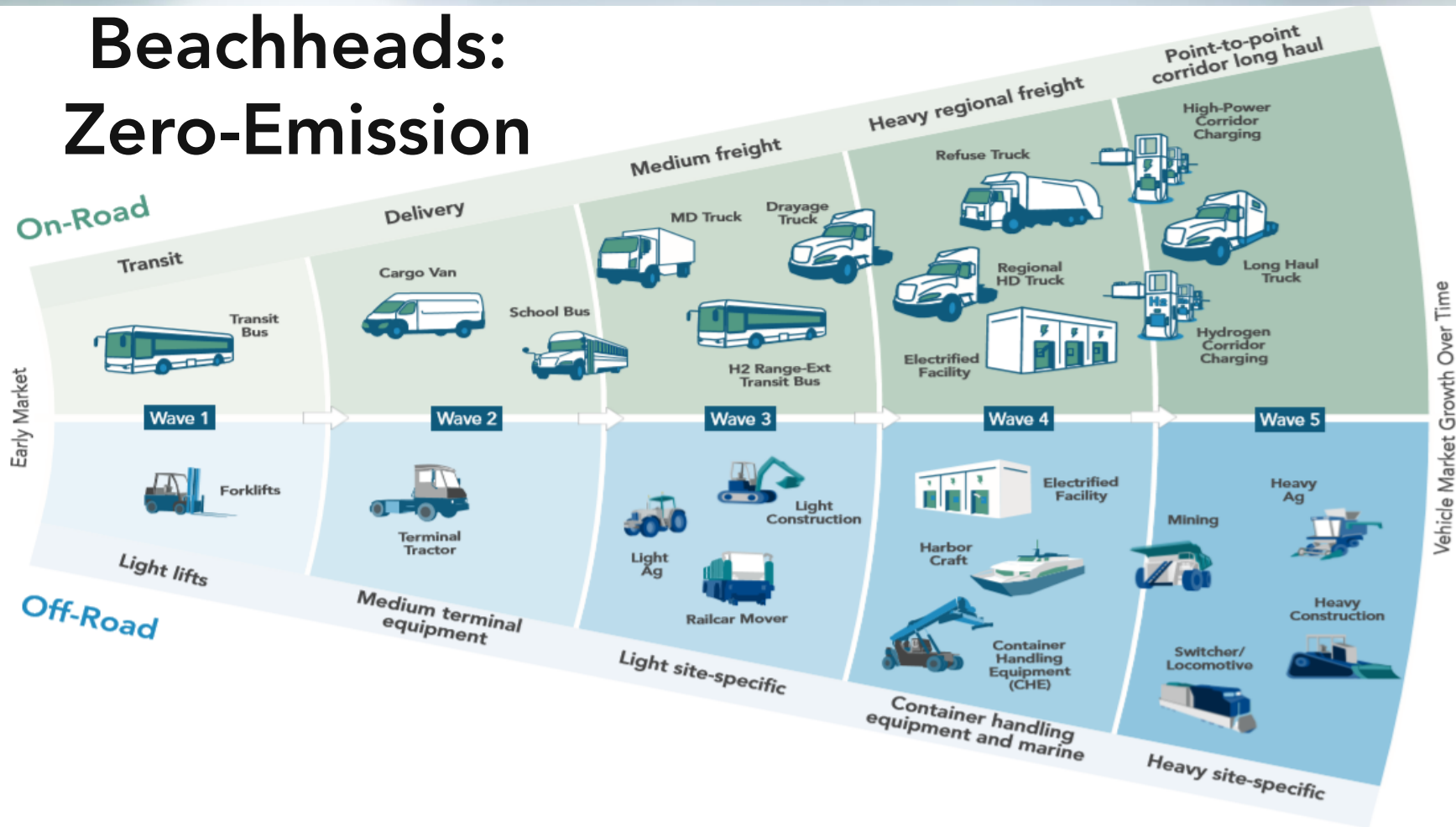
### VEHICLE PURCHASE

HVIP and CORE have funded \$575+ million toward the purchase of nearly 9,000 clean vehicles since 2010.





# Beachheads: Zero-Emission



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

The Strategy includes:

- Beachhead strategy discussion
- Technology status updates
- Market readiness indicators
- Metrics of success
- Industry examples
- 3-year recommendations for investments

# Governor's Proposed Budget for Heavy-Duty and Off-Road Investments for FY 2022-23

Program	Proposed Appropriation (millions)
ZE Drayage Trucks	\$75
ZE Transit Buses	\$70
ZE School Buses	\$135
Clean Trucks, Buses & Off-Road Equipment	\$600
Emerging Opportunities	\$10
AQIP	\$28.64
Total	\$918.64

# Heavy-Duty Investment Priorities for FY 2022-23

- 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 CPCFA to implement SB 372
- Identify emerging or next generation technologies
- Continue to develop metrics of success that track progress towards program goals
- Expand focus on equity goals

# Comments and Questions



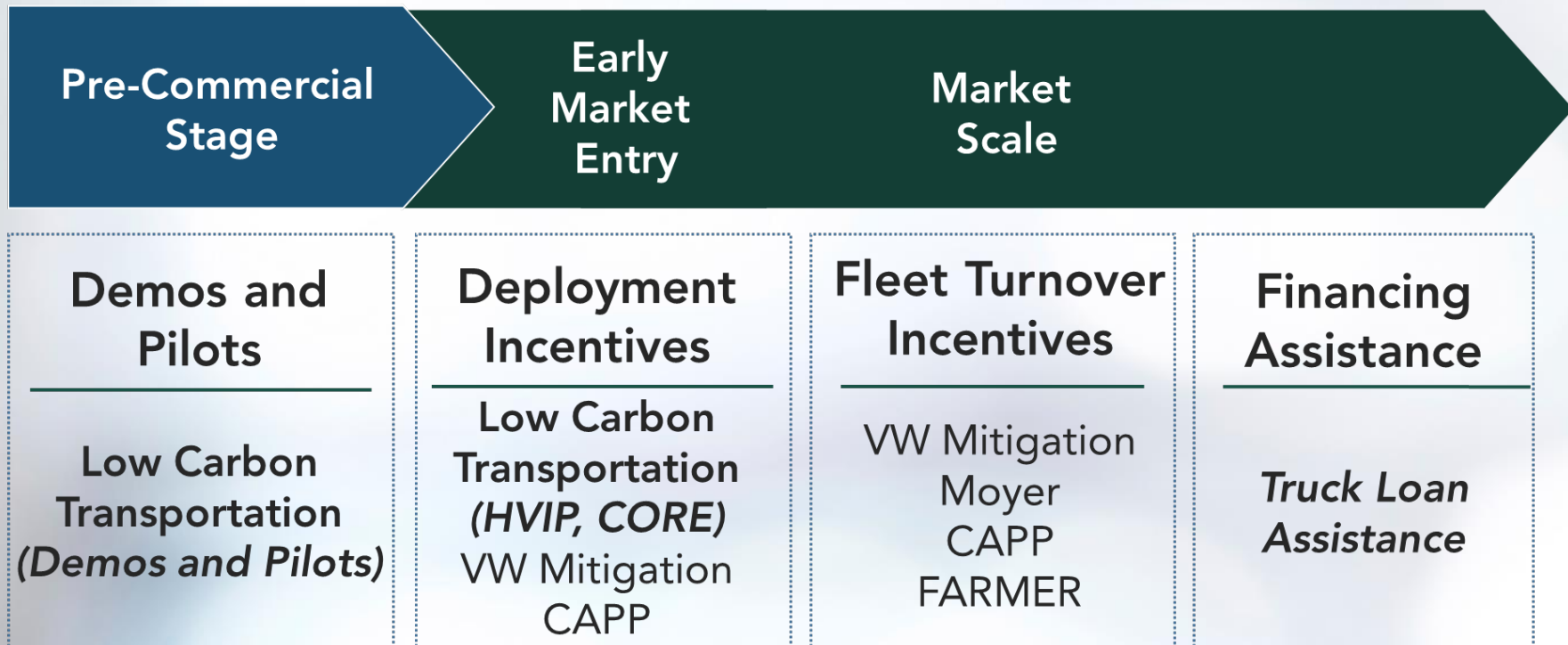
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# Heavy-Duty Vehicle and Off-Road Equipment Investments

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



# Advanced Technology Demonstration and Pilots: Overview

- Demonstration projects
- Pilot projects
- Wide array of demonstration and pilot projects have been funded
- Heavy focus on zero-emission and freight





# Advanced Technology Demonstration and Pilots: Current Status

- \$400M in State investment supports over 30 Projects
  - 20 Underway
  - 11 Completed
  - 3 Pending grant agreements
- Over 99% of funds benefitting Disadvantaged Communities
- Currently developing solicitation for third-party administrator and project categories for mid-spring release

# Advanced Technology Demonstration and Pilots: FY 2021-22 Funding Opportunities

- \$40M in available funding
- Five project categories
- Third-Party administrator
- Work group meeting process is underway

# Advanced Technology Demonstration and Pilots: FY 2022-23 Outlook

- \$10M proposed for emerging opportunities
- Demonstration and pilot project focuses
  - On and off-road zero-emission
  - Continue heavy disadvantaged community commitment
- Workgroup meeting Tuesday, March 22nd

# Clean Truck and Bus Vouchers (HVIP)

- Provides first-come, first-served vouchers for zero-emission heavy-duty vehicle purchases
- ~9,200 vouchers issued since inception, totaling \$604M
- Quickly became oversubscribed in 2021
- Reopening March 30, 2022
  - Program reopening with \$430M from FY 2021-22
  - 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 \$25M set aside to support small fleets will open in early summer

# HVIP Continued



- Over 60% of GGRF-funded deployments benefiting priority populations
  - Enhance participation from small fleets and owner-operators
- Continued support for zero-emission drayage trucks, school buses, and transit buses
- Staff will monitor market demand and consider policy recommendations based on data

# Clean Off-Road Equipment Vouchers

- Provides vouchers for commercial ready zero-emission off-road equipment
- Currently 49 eligible models from 13 different manufacturers
- ~500 vouchers issued since inception, totaling ~\$71M
- 75% of CORE vouchers have been deployed to priority communities
- Program expanding into other heavy-duty off-road vehicles, equipment, vessels, and commercial landscaping equipment for small-business or sole proprietors
- Program re-launch: Summer 2022 with \$165M

# Truck Loan Assistance Program Updates

- Continued Program Demand
  - Over 4,000 loans enrolled per year since 2018
- \$194M in contributions has leveraged over \$2.4B in financing for approximately 35,700 loans
- SB 372 Directs CARB and CPCFA to Assist Fleets in Financing Heavy-Duty Zero-Emission Vehicles
  - Additional funding needed to support zero-emission vehicles

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

- Continue support for existing incentive projects
- Focus on small fleets and disadvantaged communities
- Support regulatory efforts



# Comments and Questions



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# Summary and Next Steps

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# Contact Us

Graciela Garcia – Lead Staff  
[graciela.garcia@arb.ca.gov](mailto:graciela.garcia@arb.ca.gov)

Lisa Macumber – Manager  
[lisa.macumber@arb.ca.gov](mailto:lisa.macumber@arb.ca.gov)

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