# Workshop Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 am – 10:30 am</td>
<td>Introduction and Overview of Project Category Funding Allocations</td>
</tr>
<tr>
<td>10:30 am – Noon</td>
<td>Light-Duty Vehicle and Equity Investments: CVRP &amp; Transportation Equity Projects</td>
</tr>
<tr>
<td>Noon – 1 pm</td>
<td>Lunch Break</td>
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<tr>
<td>1 pm – 2:30 pm</td>
<td>Heavy-Duty Vehicle and Off-Road Equipment Investments</td>
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</tbody>
</table>
Session 1: Introduction and Overview of Funding Allocations

Funding Plan Development Progress

- Kickoff workshop in March
- 7 work group meetings – March - June
- Draft Funding Plan released June 1
- Today’s workshop
  - Additional work group meetings – June - August
  - Release proposed Funding Plan for 30-day public comment period – by September 21
  - Board considers Funding Plan – October 25-26
$437 Million from Two Separate Sources in Funding Plan

- $409 million Low Carbon Transportation Program funded with Cap-and-Trade Auction Proceeds
- $28 million Air Quality Improvement Program (AQIP)

Other New Programs Now Underway

- $250 million Community emission reduction incentive program to support AB 617 – Approved April 2018
- $135 million Agricultural equipment incentive program - FARMER - Approved March 2018
- $423 million Volkswagen NOx Mitigation Trust - Beneficiary Mitigation Plan - Approved May 25

- Not part of today’s workshop
- CARB is coordinating its investment strategy among all its incentive programs
A Closer Look at Each Funding Source Covered in Plan…

Low Carbon Transportation Budget Appropriation

- $175 million for CVRP
  - Continues income limits set by Legislature

- $25 million for increased CVRP rebates for low-income applicants

- $75 million for transportation equity projects
  - For EFMP Plus-up, financing assistance, clean mobility options, school bus replacement, etc.
Low Carbon Transportation Budget Appropriation (cont.)

- $134 million for heavy-duty vehicles and off-road equipment
- Continue funding Clean Truck and Bus Vouchers
- Propose new pilot for heavy-duty ZEV adoption
- Hold $56 million in reserve to allocate where needed

AQIP

- $28.64 million for projects focused on criteria pollutant and toxic emission reductions
  - Staff proposes allocating full amount to projects
- Focus on projects that don’t fit under Low Carbon Transportation
Investment Priorities for 2018-19

- Support strategies in CARB’s climate change and air quality plans to meet long-term goals
  - Transform fleet to zero-emission and low NOx
  - Align with priorities in Cap-and-Trade reauthorization bill and direction in budget bills
- Maximize disadvantaged community benefits and support SB 350 study
- Consistent with long-term plan for light-duty and 3-year strategy for heavy-duty investments
- Coordinate with other funding sources

Recommended Project Allocations:
Light-Duty Vehicles and Transportation Equity

<table>
<thead>
<tr>
<th>Project Category</th>
<th>Allocation (millions)</th>
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<tbody>
<tr>
<td>CVRP (standard rebates)</td>
<td>$175</td>
</tr>
<tr>
<td>CVRP increased rebates for lower income consumers</td>
<td>$25</td>
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<tr>
<td><strong>Transportation Equity Projects</strong></td>
<td></td>
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<tr>
<td>EFMP Plus-up / Clean Cars 4 All</td>
<td>$16</td>
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<tr>
<td>Financing Assistance</td>
<td>$10</td>
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<tr>
<td>Clean Mobility Options</td>
<td>$15</td>
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<td>Agricultural Worker Vanpools</td>
<td>$3</td>
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<tr>
<td>Rural School Bus</td>
<td>$15</td>
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<tr>
<td>Clean Mobility in Schools <em>(new)</em></td>
<td>$10</td>
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<tr>
<td>Funding Reserve</td>
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<td><strong>TOTAL</strong></td>
<td><strong>$275</strong></td>
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Recommended Project Allocations: Heavy-Duty Vehicles and Off-Road Equipment

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<tr>
<td>Funding Reserve for Clean Trucks, Buses, and Freight</td>
<td>$56</td>
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<tr>
<td>Truck Loan Assistance Program (AQIP)</td>
<td>$25.6</td>
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<tr>
<td>Diesel Emission Retrofit Replacement Filters (AQIP)</td>
<td>$3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$162.6</strong></td>
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AB 1550 Disadvantaged Community and Low-Income Investment Targets

- Staff recommends 40 percent of Low Carbon Transportation funds meet AB 1550 criteria
  - ≥30 percent in disadvantaged communities
  - ≥10 percent in low-income communities or for low-income households
- Staff considers targets to be a floor and strives to exceed them
- Our broader portfolio of incentive funding also provides benefits to AB1550 populations
## Investments Support Multiple Policy Goals

<table>
<thead>
<tr>
<th>Project Categories</th>
<th>Climate Change Scoping Plan</th>
<th>Short-Lived Climate Pollutants</th>
<th>Ozone &amp; PM SIPs</th>
<th>Sustainable Freight</th>
<th>Air Toxics</th>
<th>Petroleum Reduction</th>
<th>Disadvantaged/low Income Communities</th>
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<tr>
<td>CVRP</td>
<td>✓</td>
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<td>✓</td>
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<td>✓</td>
<td>✓</td>
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<tr>
<td>Transportation Equity Projects</td>
<td>✓</td>
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<tr>
<td>HVIP - Clean Truck and Bus Vouchers</td>
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<tr>
<td>Innovative Pilot for ZEV Adoption</td>
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<tr>
<td>Truck Loan Assistance</td>
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<td>✓</td>
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## Next Steps

- Request comments by August 31
- Post proposed Funding Plan for 30 day public comment by September 21
- Board considers Funding Plan at public meeting in Sacramento on October 25-26

Webcast email address: coastalrm@calepa.ca.gov
Session 2:
Light-Duty Vehicle and Transportation Equity Investments

Clean Vehicle Rebate Project
Project Status

• Rebate demand and market continues to grow
• Prioritizing rebates for low-income consumers
• Rebate Now launched January 30, 2018
• Outreach and education expanded
• AB 544: Choose Your Incentive
  – Applies only to FCEV rebates for consumers with incomes greater than CVRP thresholds
• Public Fleet Incentives

CVRP and Fair Treatment of Workers

• 2017 Budget directs CARB and Labor and Workforce Development Agency to develop procedures to:
  – Certify that manufacturers of CVRP-eligible vehicles treat workers fairly
• Development status
  – Joint work group in April to receive input
  – Concept paper released for public comment in May
  – Evaluating public comments
• Expect additional direction from Legislature
Sustainable ZEV Market & Long-Term Plan

- Continuous evaluation of ZEV market growth
  - California ZEV market share reached 4.8% in 2017
  - 40 PEV models available in California
  - All-electric vehicle range increased by 56%
  - Continuous decline in battery pack production cost
  - Global market emergence: 5% global vehicle sales in 2023
  - Secondary ZEV market still emerging
  - General ZEV awareness to be increased

Draft Funding Allocation

- Proposing $200 million for CVRP
  - $175 million for standard CVRP rebates
  - $25 million for CVRP low-income rebates
Projected Demand
FY 2018-19 Need: $200 Million

CVRP Modifications Considered But No Changes Recommended

- Reducing rebates for FCEV and bringing FCEVs under income cap
- Limiting consumers to one rebate per person
- Increasing minimum all-electric range requirements for PHEVs
- Bundling funding for home charging infrastructure with low-income rebates
- Federal Tax Credit phase-out
Solicitation Process

• Grantee selected to administer FY 2016-17 CVRP and Public Fleet Pilot Project
  – Three-year solicitation with an option to enter into a new grant
  – Staff will evaluate the need for a new grant for FY 2018-19

Transportation Equity Investments Overview

• Pilot projects increase access to clean transportation and mobility options for lower-income residents and low-income and disadvantaged communities
Transportation Equity Projects
Priorities for FY 2017-18

• Continue increasing access to clean transportation and mobility options
• Continue to meet AB 1550 disadvantaged community and low-income/household investment requirements
• Increase investments in existing projects that show success
• Flexibility to reallocate based on demand

EFMP Plus-up / Clean Cars 4 All
Current Status

• Incentives for lower-income consumers living in or near disadvantaged communities to scrap old vehicles and buy advanced technology vehicles

• $96 million allocated
  – $72 million awarded to San Joaquin Valley and South Coast
  – $10 million awarded to Bay Area and Sacramento
  – $14 million in reserve

• Implementation status
  – $15 million spent through March 2018 for 2,770 vehicles retired and replaced
**EFMP Plus-up Recommendations for FY 2018-19**

- $16 million recommended allocation
- Additional $4 million from FY 2017-18 reserve brings total to $20 million in new funding
- Allocate to air districts based on demand

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**Financing Assistance Current Status**

- Provide lower-income consumers low-cost loans and grants to purchase or lease advanced technology vehicles
- $25.9 million allocated
  - $900,000 awarded and $2 million expansion in development for California Housing Development Corporation Bay Area project – 50 loans to date
  - $5 million awarded to Beneficial State Foundation for Statewide project – project launched in May
  - $18 million solicitation late 2018
Financing Assistance Recommendation for FY 2018-19

• $10 million recommended allocation for:
  – Statewide project via new competitive solicitation including FY 2017-18 funds and an annual option to renew over a 3-year term, or
  – Expansion of the existing statewide and/or local projects

Clean Mobility Options for Disadvantaged Communities Current Status

• Clean mobility options, car share, vanpools, shuttles, bike share, and first mile / last mile solutions
• $31.6 million allocated
  – $14.6 million awarded for projects in Los Angeles, Sacramento, Bay Area, and San Joaquin Valley, and Watsonville
  – $17 million available for a Statewide administrator
Clean Mobility Options for Disadvantaged Communities
Recommendations for FY 2018-19

- $15 million recommended allocation
- Available for a new competitive solicitation or the expansion of the existing projects, including adding on to the Statewide administrator
- Allow flexibility of expansion for residents outside of DACs

Agricultural Worker Vanpools
Current Status and Recommendations for Fiscal Year 2018-19

- Expands access to clean transportation vanpools for agricultural workers
- $6 million allocated and awarded to date
  - CalVans grant will provide vanpools in disadvantaged communities
- $3 million recommended for FY 2018-19
  - Expand the existing pilot project, or
  - Include as an option in the Clean Mobility Options Pilot
  - If DAC demand is met, allow funds in low-income communities
Rural School Bus Pilot Project
Current Status

- Incentives for lower-carbon school bus choices
- $40 million, currently administered by North Coast Unified Air Quality Management District
  - Solicitation funding requests totaled $127 million to date
  - 43 buses have been selected to receive funding
  - Remaining funding will add at least 60 more cleaner school buses
  - New solicitation opening next week

Rural School Bus Pilot Project
Recommendation for Fiscal Year 2018-19

- $15 million recommended allocation
  - Based on strong demand from 2017 solicitation
- No changes to project design
Clean Mobility in Schools Project (new)
Recommendation for Fiscal Year 2018-19

- New pilot to fund zero-emission vehicles, chargers, and other clean mobility options in K-12 public school districts in disadvantaged communities
- Strong stakeholder support for this proposal
- $10 million recommended FY 2018-19
- Public process to further develop concept to continue in 2018
- Solicitation expected late 2018 or early 2019

Session 3:
Heavy-Duty Vehicle and Off-Road Equipment Investments
Investment Priorities for 2018-19
Heavy-Duty and Off-Road Projects

- Support strategies in CARB’s climate change and air quality plans to meet long-term goals
  - Transform fleet to zero-emission and low NOx
  - Align with priorities in Cap-and-Trade reauthorization bill and direction in budget bills
- Maximize disadvantaged community benefits and support SB 350 study
- Consistent with 3-year strategy for heavy-duty investments
- Coordinate with other funding sources

SB 1204: Clean Truck, Bus, and Off-Road Vehicle Technology Program

- Guide Low Carbon Transportation Investments
- Zero- and near zero-emission vehicle and equipment projects
- Priority for projects in disadvantaged communities
- Support evolution of technology advancement
- Requires 20% of truck funding for early commercial deployment
3 Year Investment Strategy

- Staff developed strategy in 2017-18 to provide recommendations for prioritizing Low Carbon Transportation and AQIP funds for heavy-duty vehicle and off-road equipment incentives
- Strategy includes:
  - Strong investment in beachheads for three key technology areas: zero-emission, low NOx, and efficiencies
  - Continued investment across the commercialization arc

Demonstration Projects Updates

<table>
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<tr>
<th>Agency</th>
<th>Amount</th>
<th>Type</th>
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<tbody>
<tr>
<td>SCAQMD</td>
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<td>SBCTA</td>
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<td>SJ VAPCD</td>
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<td>GTI</td>
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<td>Port of LA</td>
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<td>Port of LA</td>
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<td>Port of Long Beach</td>
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<td>Port of LA</td>
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<tr>
<td>Non-Freight</td>
<td>$4.5M</td>
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</table>

Note: Funding amount rounded to the millions
Pilot Project Updates

- SJVAPCD with local transits $13M
- CTE with ACTransit and OCTA $22M
- Sunline Transit Agency $13M
- City of Porterville $10M
- SMAQMD with local school districts $8M
- SJVAPCD with USPS $5M
- SJVAPCD with Ameripride $7M
- BAAQMD with GoodWill $3M

Funding includes vehicles and supporting infrastructure

Note: Funding amount rounded to the millions.

HVIP Update

- $309 million invested since 2010
- Continue to help meet SB 1204 early commercial truck deployment requirement
- Help meet AB 1550 disadvantaged community investment goals
  - 51% of HVIP funding has been in DACs
- Interactive data tool available at: https://www.californiahvip.org/
Truck Loan Assistance Program

• About $95 million State contribution to date
  – Leveraged to provide about $1.1 billion in financing
  – 18,500 trucks, exhaust retrofits and trailers

Other Projects Underway

• Zero- and Near-Zero Emission Freight Facilities Pilot
  – Solicitation open; closes July 19th
  – Anticipate grants executed by the end of 2018

• Off-Road Zero-Emission Commercial Freight Voucher Project
  – Solicitation to be released late summer 2018
  – Anticipate vouchers to be available early 2019
### Recommended Project Allocations: Heavy-Duty Vehicles and Off-Road Equipment

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<td>Truck Filter Replacements (AQIP)</td>
<td>$3</td>
</tr>
<tr>
<td><strong>Total ($134M Low Carbon Transportation/$28.6M AQIP)</strong></td>
<td><strong>$162.6</strong></td>
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$26M of $160M Low Carbon Transportation appropriation allocated to Carl Moyer to offset tire fee
Background

- HVIP Incentives encourage and accelerate the deployment of cleaner advanced technology
- Vouchers for California fleets on a first-come, first-served basis to lower the cost of clean trucks and buses
- Funding amounts intended to offset some or all of incremental costs
- No scrap required

HVIP Incentives Funding Recommendation

$68 million from Low Carbon Transportation
- Carry over about $80 million from FY 2017-18
- Total of about $148 million will fully fund market growth for all eligible technologies
- Access to the reserve if needed
HVIP Incentives Funding Recommendation (Continued)

Low NOx Engine Incentives
- Carry over remaining Low NOx set aside ($13m)
- After Low NOx set aside is expended, Low NOx Engine Incentives will draw from combined allocation
- Continue to implement on a first-come, first-served, statewide basis

Changes to HVIP Project Criteria

- Funding for ePTOs based on performance
- Transition funding support for terminal, yard, and other off-road use trucks to the Zero-Emission Off-Road Freight Voucher Incentive Project
- Final year of infrastructure enhancements
- Expand eligibility for smaller fuel cell trucks and buses
Changes to HVIP Project Criteria Continued

- Strategically stack and combine other funds with HVIP
- Remove “first three” voucher enhancements
- New hybrid and hybrid conversion vehicle eligibility criteria
- Revise warranty requirement and extended warranty enhancements
- Restructure vouchers for the 8.9L and 11.9L low NOx engines
- Targeted outreach
Purpose and Desired Outcomes

• Numerous barriers to HD ZEV adoption
• Reduce real and perceived risk
• Projects to encourage ZEV adoption
  – Decreasing costs
  – Instilling confidence
  – Targeting small fleets in sectors not ideally served by existing projects
• Additional public process in 2018 to develop concept

Truck Loan Assistance Program
Background

• Provides financing assistance to truckers subject to the In-Use Truck and Bus Regulation for purchasing newer trucks or exhaust retrofits
• Helps small fleets (10 or fewer trucks)
• Incremental recapture of funds in place

Truck Loan Assistance Program

Funding Recommendation

$25.6 million from AQIP
• Funds from FY 2017-18 will ensure continuous funding until FY 2018-19 funds are available

Strategies
• Consider alignment of contribution rates
• Evaluate options to meet additional demand expected by SB1 requirements
Truck Filter Replacements

- $3.0 million from AQIP
- Supports substrate replacements or new diesel particulate filters for vehicles operating with a Cleaire Muffler Module (CMM) empty “can” muffler
Funding Reserve for Clean Trucks, Buses, and Freight

- Provides flexibility for unpredictable demand
- Prioritizes continuity of critical first-come, first-served projects
- Directs funds to HVIP, the Freight Voucher Incentive project, and/or the Freight Facility project
- Funding demand assessment with public process March 2019
Update to the Three-Year Investment Strategy for Heavy-Duty Vehicles and Off-road Equipment

Updates to the Three-Year Investment Strategy

- Will be included in heavy duty section of the funding plan
- Will cover:
  - Major technology advances
  - Progress made on beachheads
  - Forecasting need for 2021-22
- Work group meeting July 19
Next Steps

• Request comments by August 31
• Post proposed Funding Plan for 30 day public comment on September 21
• Board considers Funding Plan at public meeting in Sacramento on October 25-26