



## Fiscal Year 2019-20 Funding Plan for Clean Transportation Incentives

Public Workshop  
June 13, 2019



### Today's Agenda

Time	Session
10 am – 10:30 am	Introduction and Overview of Project Category Funding Allocations
10:30 am - Noon	Vehicle Purchasing Incentives and Clean Mobility Investments: CVRP & Clean Transportation Equity Projects
Noon – 1pm	Lunch Break
1 pm – 2:30 pm	Heavy-Duty Vehicle and Off-Road Equipment Investments

Session 1:

## Introduction and Overview of Funding Allocations



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## Funding Plan Development Progress

- ✓ Kickoff workshop in March
- ✓ 12 work group meetings – January - June
- ✓ Discussion Draft Funding Plan released June 7
- Today's workshop
  - Additional work group meetings – June - August
  - Release proposed Funding Plan for 30-day public comment period – by September 18
  - Board considers Funding Plan – October 24-25



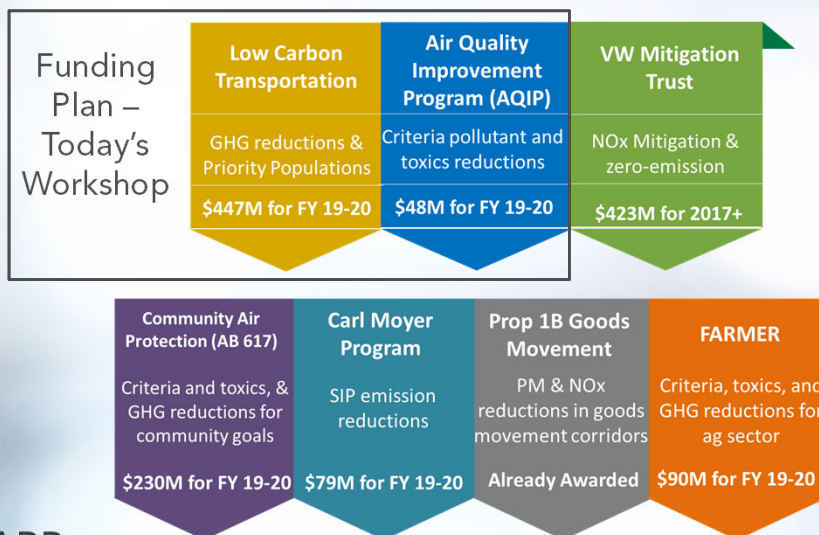
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## \$495 Million from Two Separate Sources in Funding Plan

\$447 million	Low Carbon Transportation Program funded with Cap-and-Trade Auction Proceeds
\$48 million	Air Quality Improvement Program (AQIP)



## Part of CARB's Larger Incentive Funding Portfolio



## A Closer Look at Each Funding Source Covered in the Plan



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## Proposed Low Carbon Transportation Budget



### Vehicle Purchasing Incentives and Clean Mobility Investments

- \$175 million for CVRP
  - Continues income limits set by Legislature
- \$25 million for increased CVRP rebates for low-income applicants
- \$65 million for transportation equity projects
  - For EFMP Plus-up, financing assistance, clean mobility options, school bus replacement, etc.



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## Proposed Low Carbon Transportation Budget



### Heavy-Duty Vehicles and Off-Road Equipment

- \$182 million for heavy-duty vehicles and off-road equipment
- Continue funding Clean Truck and Bus Vouchers
- Consider funding heavy-duty demonstration and pilot projects

## AQIP

- \$48 million for projects focused on criteria pollutant and toxic emission reductions
  - Staff proposes allocating full amount to truck loan assistance program
- Focus on projects that don't fit under Low Carbon Transportation

## Key Priorities for FY 2019-20 Funding Plan

- Support the State's climate change, air quality, ZEV deployment, and petroleum reduction goals
- Accelerate the transition to advanced technology low carbon freight and passenger transportation
- Increase access to and awareness of clean transportation for priority populations
- Coordinating investments with Sustainable Communities Strategies

## AB 1550 Disadvantaged Community and Low-Income Investment Targets

- Staff recommends 50 percent of Low Carbon Transportation funds meet AB 1550 criteria
  - $\geq 30$  percent in disadvantaged communities
  - $\geq 15$  percent in low-income communities or for low-income households
  - $\geq 5$  percent in low-income communities or for low-income households within half a mile of a disadvantaged community
- Staff considers targets as a floor and strives to exceed

## Investments Support Multiple Policy Goals

Project Categories	Climate Change Scoping Plan	Short-Lived Climate Pollutants	Ozone & PM SIPs	Sustainable Freight	Air Toxics	Petroleum Reduction	Disadvantaged/Low Income Communities	SB 375 Sustainable Communities
CVRP	✓	✓	✓		✓	✓	✓	
Transportation Equity Projects	✓	✓	✓		✓	✓	✓	✓
HVIP - Clean Truck and Bus Vouchers	✓	✓	✓	✓	✓	✓	✓	✓
Heavy-Duty Demonstration and Pilot Projects	✓	✓	✓	✓	✓	✓	✓	✓
Truck Loan Assistance		✓	✓	✓	✓		✓	



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## Next Steps

- Request comments by July 12
- Additional work group meetings
- Post proposed Funding Plan for 30 day public comment by September 18
- Board considers Funding Plan at public meeting in Sacramento on October 24-25

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Session 2:

## Light-Duty ZEV Market and Clean Transportation Equity Projects



### Goals

- CARB light-duty vehicle investments
  - Vehicle purchasing incentives
  - Clean mobility investments
- Support long term transformation of the State's fleet and accelerate ZEV deployment
- Bring zero-emission options to disadvantaged and lower-income communities and low-income households
- Support complementary efforts (AB 617, SB 375)





## Draft Recommended Project Allocations

Project Category	Allocation (millions)
Vehicle Purchasing Incentives - CVRP	\$200
Clean Vehicle Rebate Project <ul style="list-style-type: none"> <li>• Standard Rebates</li> <li>• Rebates for Lower Income Consumers</li> </ul>	\$175 \$25
Vehicle Purchasing Incentives - Clean Transportation Equity Projects	\$10 of \$65
Clean Mobility Options – Clean Transportation Equity Projects	\$50 of \$65
Outreach, Community Needs Assessments, Technical Assistance, and One-Stop-Shop	\$5 of \$65
<b>Total</b>	<b>\$265</b>

## Program Alignment

- Streamline access to clean transportation and mobility options
  - Incentive amounts
  - Income verification
  - Other program requirements

Summary of Long-Term Plans

## Light-Duty ZEV Market and Clean Transportation Equity Projects



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### Long-Term Plan for ZEV Market

- CVRP demand forecast & ZEV market growth rate
  - Three-year projections
  - 2030 forecasting per budget language
- Market and tech assessment
- Market sustainability
  - Research still indicates 16% new car sales as reasonable sustainability target
- Latest research and data analysis



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## Primary Indicator: Continuous Evaluation of ZEV Market Growth

- California ZEV market share reached **7.8%** in 2018
- 40 PEV models available in California
- All-electric vehicle range increased by 56%
- Continuous reduction in battery pack production cost
- Secondary ZEV market emerging and growth is expected
- General ZEV awareness is increasing
- Global market emergence: 5% global vehicle sales in 2023

## Long-Term Plan for Transportation Equity

- Transition from pilot phase and apply lessons learned
- Identify pathways to sustainability for Clean Mobility Options projects
- Refine metrics for success and coordinate with academic research
- Continued coordination across projects at state and local levels
- Develop three-year projections

## Vehicle Purchasing Incentives

- CVRP
- Clean Cars 4 All
- Financing Assistance



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## CVRP Project Update

- 308,000 rebates issued since 2010
  - 295,000 Standard Rebates
  - 12,000 Increased Rebates for low-income consumers
  - 200 Increased Rebates for Fleets in Disadvantaged Communities
- 2018-19 CVRP budget
  - Standard rebate funds expended; Waitlist in effect
  - \$25 million for low-income rebates; last through Fall 2019
- Monthly application totals have doubled since July 2018
  - Now average 7,000-8,000 rebates issued a month



CVRP

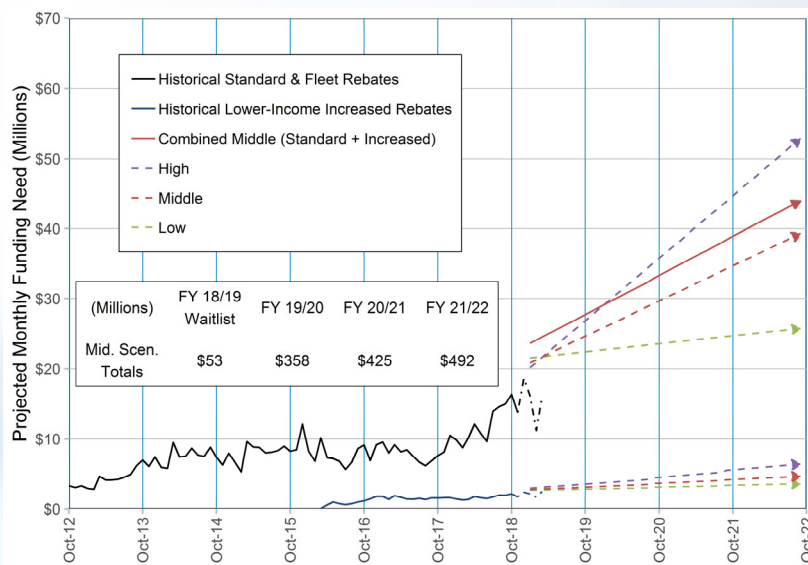
## Draft Funding Allocation

- Governor’s budget \$200 million for CVRP
  - \$175 million for standard CVRP rebates
  - \$25 million for CVRP low-income rebates



CVRP

## Projected Demand FY 2019-20 Need: \$407 Million



## CVRP

## FY 19-20 Program Changes to Consider

- Limited-time offer
- One rebate per person
- Shorter application window
- Lowered income cap
- Introduction of a base MSRP cap
- Increased minimum all-electric range requirement for PHEVs
- Reduced rebate amounts for standard rebates
  - Rebate amounts for increased rebates will not change



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## Clean Cars 4 All Project Update

- \$112 million allocated to-date
  - \$42 million expended
- Over 4,700 vehicles replaced in South Coast and San Joaquin Valley air districts
- Bay Area AQMD recently launched new program
- Sac Metro AQMD expected to launch program by 2020



**CLEAN CARS  
FOR ALL**



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Clean Cars 4 All

## Funding Recommendations

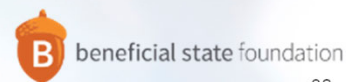
- Staff estimates total funding need of \$25 - \$35 million for FY 2019-20
  - \$70 million still available from previous allocations
  - \$40 million not yet awarded in grants
- Staff proposal for FY 2019-20
  - No need for additional funding, instead reallocate \$40 million to districts based on need
  - No policy changes



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## Financing Assistance Project Update

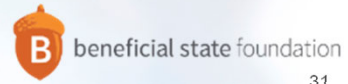
- Local project allocated \$2.9 million
- Launched December 2015 with \$0.9 million, completed December 2018
- 80 advanced technology purchased
  - High interest in PHEVs
- \$2 million in expansion funds awarded



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## Financing Assistance Project Update

- Statewide project allocated \$33 million to-date
- Launched in June 2018 with initial \$5 million award
  - 404 grants and strong interest in PHEVs and BEVs
  - Majority of applicants earn less than 300% of federal poverty level
  - Large volume of applications from outreach efforts
  - Closed in November 2018
- \$28 million additional allocated to cover revamped project



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### Financing Assistance

## Challenges and Lessons Learned

- Demand for statewide program higher than anticipated
- Outreach can cause demand spikes
- Income verification is time-intensive
- Financial and vehicle education and high-touch case management is key
- Word of mouth, social media, and online referrals vital
- Must leverage existing trust networks



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**Financing  
Assistance**

## **Funding Consideration for FY 2019-20**

- Staff estimates funding need of \$10 - 12 million
- Considering Policy Changes
- Long term plan
  - HEV phase-out



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## **Clean Mobility Projects**

- Clean Mobility Options
- Agricultural Worker Vanpools
- Rural School Bus
- Community Solutions for Clean Transportation Equity Pilot
- Clean Mobility in Schools



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## Clean Mobility Options Project Update

- Clean mobility options: car share, vanpools, shuttles, ebike share, and first mile / last mile solutions
- Over \$46 million allocated to date
- \$14.6 million to 6 regional projects
  - Over \$35 million in match funds
- \$32 million for statewide administrator

### Clean Mobility Options for DACs

## Project Highlights

- Almost 500 ZEVs have been put into service
- More than 600 ebikes/scooters will be available
- Launching in over 40 communities



## Clean Mobility Options for DACs

## Project Highlights, cont.

- Our Community Carshare and BlueLA
  - >230,000 zero-emission miles driven
  - >1,800 participants
  - >17,000 trips
- Making positive impacts on residents
- Increasing access to clean mobility options



## Clean Mobility Options for DACs

## Funding Consideration

- \$10 - 20 million
- Proposed policy changes:
  - Fund transportation needs assessments
  - Prioritize funding for existing projects
  - Allow funds specifically for mobility enhancements
  - Open grant eligibility to Low-Income Communities and Tribes

## Clean Mobility in Schools Project Update

- Help schools in disadvantaged communities deploy clean transportation and mobility options
  - Introduce students, teachers, and staff to advanced clean transportation
- \$10 million allocated in FY 18-19, will be available to 1-2 grantees
- Solicitation planned to be released later in 2019

### Clean Mobility in Schools

## Funding Consideration

- \$5 - \$10 million for FY 19-20
- No policy changes

## Agricultural Worker Vanpools Project Update

- Expands access to clean transportation vanpools for agricultural workers
- Serves workers in disadvantaged and low-income communities statewide
- \$6 million spent to-date
- 154 hybrid conversion vans in service
- Additional \$4.7 million recently awarded to expand

### Agricultural Worker Vanpools

## Funding Consideration

- Staff proposes \$5 - \$6 million for FY 19-20
  - Competitive solicitation with option for additional two years
- No policy changes proposed



## Rural School Bus Pilot Project Update

- \$55 million allocated in past three funding years to North Coast Unified AQMD
  - All Year 1 (FY 16-17) projects under contract
  - Year 2 (FY 17-18) projects undergoing document review and contracting
  - Year 3 (FY 19-20) project review and contracting later in 2019
- High applicant demand
  - Last solicitation received applications for \$185 million
  - Over 43 clean buses delivered and in service

### Rural School Bus Pilot Project

## Funding Consideration

- \$5 - \$30 million for FY 19-20
- Staff considering two policy changes
  - Require old school bus scrap for all replacements
  - Prioritize compliant buses in ranking or award amount

## Community Solutions for Clean **NEW** Transportation Equity Pilot (CSCTEP)

- New proposed clean mobility pilot project
- Planning grants to improve understanding of communities' transportation needs
- Implementation block grants to help increase access to community mobility systems
- Eligible applicants: cities, counties, or community-based organizations as lead applicants, representing a broader coalition of partners

## CSCTEP Planning Grants

*\$2 - 2.5 million*

- Measures of Success
  - Increased understanding of residents' transportation needs and prioritization of projects accordingly
  - High level of engagement with community residents

## CSCTEP Implementation Block Grants

*\$18 - 22.5 million*

- Measures of Success
  - Reduction in Vehicle Miles Traveled and greenhouse gas emissions
  - Increase integration of transportation options
  - Increase in clean transportation choices
  - Increase accessibility to destinations
  - Mode shift from owning vehicles
  - Improve public health

## Senate Bill 350 and Outreach

- \$5 - 10 million to support implementation of SB 350 Guidance Document Recommendation
- Expand community transportation needs assessments
- Develop an outreach plan/roadmap
- Provide technical assistance
- Continue to develop One-Stop-Shop Pilot



## One-Stop-Shop Pilot Project Update

- Allocated \$5 million in FY 2017-18
- Coordinate community-based outreach and education
- Develop single application for CARB's Clean Transportation Equity Projects
- Limited launch anticipated July 2019
- Statewide launch anticipated late 2019

## Challenges and Lessons Learned

- Technological barriers to program integration
- Additional resources needed for equity project administrators
- Building partnerships and trust is critical for success
- Highlight: tribal government outreach pilot project



### Session 3:

# Heavy-Duty Vehicles and Off-Road Freight Equipment

## Investment Priorities for 2019-20 Heavy-Duty and Off-Road Projects

- Support strategies in CARB's climate change and air quality plans to meet long-term goals
- Support California Sustainable Freight Action Plan
- Support Sustainable Communities Strategies
- Maximize disadvantaged community benefits and support SB 350 study
- Consistent with 3-year strategy for heavy-duty and off-road 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



## Update to the Three-Year Investment Strategy for Heavy-Duty Vehicles and Off-road Equipment



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

- Roadmap based on beachhead concept
- Annual updates
  - Technology status
  - Three-year funding priorities
- Major updates and new additions
  - Metrics of Success
  - Off-Road Integration
  - Infrastructure



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## Key Outcomes

- Off-road integration into existing beachheads
- New additions to metrics of success
- Technology statuses updated
- Infrastructure: early assessment
- Draft for comment

### THREE-YEAR HEAVY-DUTY STRATEGY INVESTMENT PLAN UPDATE

	FY 2020-21	FY 2021-22	FY 2022-23
<b>Demos</b>	<p><i>\$60-\$85 Million*</i></p> <p>Focus: ZE/PHEV HD Regional Delivery, ZE/Hybrid Ag-Construction Equipment, ZE/Hybrid Heavier Cargo Handling Equipment, ZE/Hybrid Marine</p>	<p><i>\$50-\$90 Million*</i></p> <p>Focus: ZE/PHEV Longer Range HD Goods Movement, ZE/PHEV Ag-Construction Equipment, ZE/Hybrid Heavier Cargo Handling Equipment, ZE/Hybrid Marine</p>	<p><i>\$50-\$90 Million*</i></p> <p>Focus: ZE Longer Range HD Goods Movement, ZE Construction Equipment, ZE Heavier Cargo Handling Equipment, ZE Rail, ZE/Hybrid Marine</p>

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THREE-YEAR HEAVY-DUTY STRATEGY INVESTMENT PLAN UPDATE			
	FY 2020-21	FY 2021-22	FY 2022-23
<b>Pilots</b>	<p><i>\$185-\$310 Million*</i></p> <p>Focus: ZE/PHEV Drayage and Regional Delivery, Advanced Powertrains, ZE/Hybrid Heavier Cargo Handling Equipment, ZE Facilities</p>	<p><i>\$200-\$325 Million*</i></p> <p>Focus: ZE/PHEV Drayage and Regional Delivery, Advanced Powertrains, ZE/Hybrid Ag-Construction- Heavier Cargo Handling Equipment, ZE/Hybrid Marine, ZE Facilities</p>	<p><i>\$200-\$325 Million*</i></p> <p>Focus: ZE Longer Range Goods Movement, Advanced Powertrains, ZE Ag-Construction-Heavier Cargo Handling Equipment, ZE/Hybrid Marine, ZE Facilities</p>
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THREE-YEAR HEAVY-DUTY STRATEGY INVESTMENT PLAN UPDATE			
	FY 2020-21	FY 2021-22	FY 2022-23
<b>Commercial</b>	<p><i>\$365-\$545 Million*</i></p> <p>Focus: ZE Delivery, ZE Transit, Low NOx Linehaul Trucks, Ground Support Equipment, ZE/Hybrid Heavier Cargo Handling Equipment</p>	<p><i>\$420-\$580 Million*</i></p> <p>Focus: ZE/PHEV Drayage and Regional Delivery, ZE Delivery, ZE Transit, Low NOx Linehaul Trucks, ZE/Hybrid Heavier Cargo Handling Equipment</p>	<p><i>\$425-\$582 Million*</i></p> <p>Focus: ZE/PHEV Drayage and Regional HD Delivery, ZE Delivery, ZE Transit, Low NOx Linehaul Trucks, ZE/Hybrid Heavier Cargo Handling Equipment, ZE/Hybrid Marine</p>
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<b>Total Funding</b>	<b>\$610-\$940 Million*</b>	<b>\$670-\$995 Million*</b>	<b>\$675-\$997 Million*</b>

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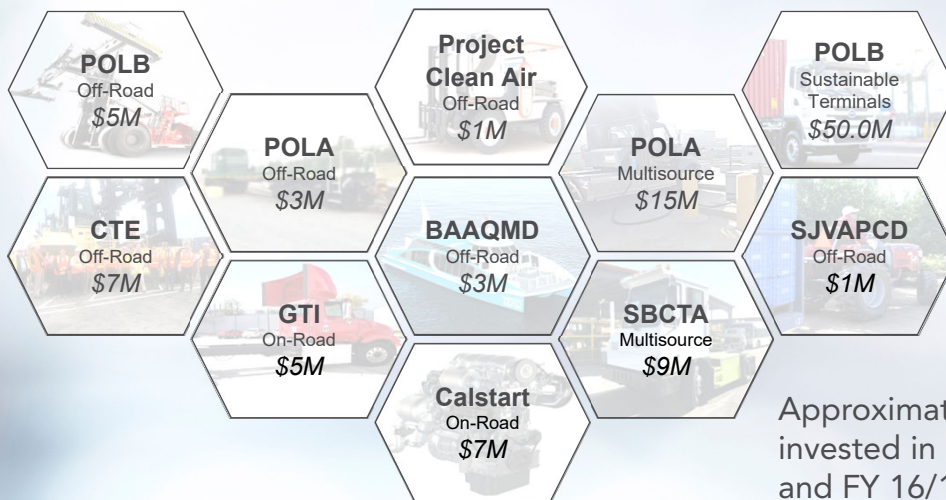
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# Heavy-Duty Demonstration and Pilot Projects

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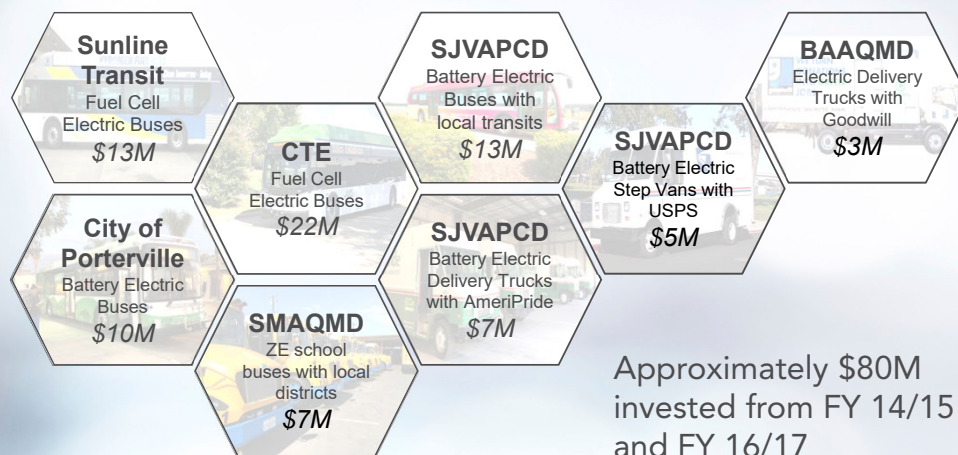
## Heavy-Duty Demonstration Project Updates



Approximately \$106M invested in FY 14/15 and FY 16/17



## Truck and Bus Pilot Commercial Deployment Project Updates

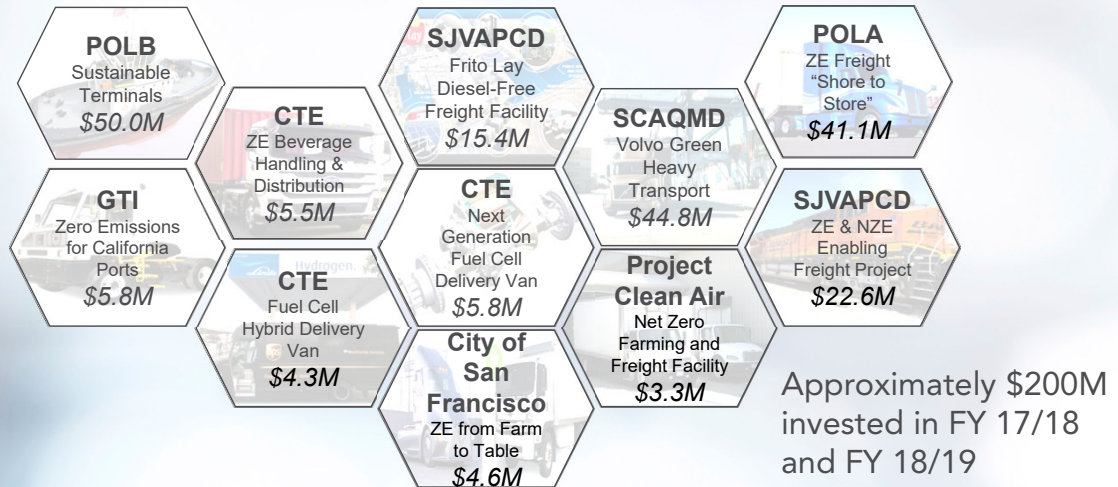


Approximately \$80M invested from FY 14/15 and FY 16/17





## ZANZEFF Projects Update



## HVIP Update 1 of 2

- \$446 million invested since 2010
- Continue to help meet SB 1204 early commercial truck deployment requirement
- Help meet AB 1550 disadvantaged community investment goals
  - 52% of HVIP funding has been in DACs
- Interactive data tool available at: <https://www.californiahvip.org/>

## HVIP Update 2 of 2

### Total- 7,194 vouchers

- Hybrid- 2,626 vouchers
- ZEV- 2,500 vouchers
- Low-NOx Engine- 1,873 vouchers
- ePTO- 195 vouchers
- EVSE- \$12 million



## Truck Loan Assistance Program

- About \$107 million State contribution to date
  - Leveraged to provide about \$1.4 billion in financing
  - 23,200 trucks, exhaust retrofits and trailers
  - Additional demand generated by SB1 requirements may eventually surpass available funding

## Other Heavy-Duty Projects Underway

- Clean Off-Road Equipment Voucher Incentive Project (CORE)
  - Grantee selected; expect to commence fall of 2019
- Diesel Filter Replacement Project
  - Grant executed; work group and program start summer 2019

## Draft Project Allocations: Heavy-Duty Vehicles and Off-Road Equipment

Project Category	Allocation (millions)
Clean Truck and Bus Vouchers (HVIP including Low NOx Engines)	\$182
Heavy-Duty Demonstration and Pilot Projects	
Clean Off-Road Equipment (CORE)	
Truck Loan Assistance Program (AQIP)	\$48
<b>Total (\$182M Low Carbon Transportation/\$48M AQIP)</b>	<b>\$230</b>



## Clean Truck and Bus Vouchers: HVIP and Low NOx Engine Incentives

### 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 Consideration

- Projected demand for FY 2019-20 is \$185 - 280 million
- Will not meet demand even with full \$182 million allocation
- Incorporating significant changes to HVIP could reduce demand to between \$133-228 million
- Options to be discussed at July work group meeting

## Potential Changes to HVIP Project Criteria 1 of 2

- Transition out school buses and shuttle buses using the 8.9-liter low NOx engine
- Disallow stacking with other State incentive funding
- Reinstate fleet limits
- Incorporation of zero-emission powertrain certification

## Potential Changes to HVIP Project Criteria 2 of 2

- Eliminate some plus-ups
- Eliminate some vehicle/technology categories
- Eliminate the infrastructure enhancement
- Others?

## Heavy-Duty Demonstration and Pilot Projects

## Background

- Demonstration Projects
  - Accelerate the introduction of advanced technologies
  - Feed the innovation pipeline
  - Help cover the costs of technology development
- Pilot Projects
  - Support larger-scale deployments
  - Seed promising next markets
  - Focus on manufacturing design, user acceptance, and support

## Draft Funding Recommendation

### Heavy-Duty Demonstration and Pilot Projects

- \$30 – 50 million
- Work group meeting in July to discuss this

## Truck Loan Assistance Program



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## Truck Loan Assistance Program Background

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



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## Truck Loan Assistance Program Draft Funding Allocation

\$48 million from AQIP

- Funds from previous fiscal years will ensure continuous funding until FY 2019-20 funds are available

Strategies to ensure sustainability of program

- Analyze data to more accurately determine future demand expected by truck turnover requirements
- Search for funding to meet anticipated demand

## Next Steps

- Request comments by July 12
- Post proposed Funding Plan for 30 day public comment on September 18
- Board considers Funding Plan at public meeting in Sacramento on October 24-25

## Contact Us

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