

## **Air Quality Improvement Program (AQIP) & Low Carbon Transportation Investments**

**Second Public Workshop on the  
Fiscal Year (FY) 2015-16 Funding Plan**

**Sacramento, California  
January 23, 2015**

California Environmental Protection Agency  
** Air Resources Board**

### **Workshop Overview**

- Background on AQIP and Low Carbon Transportation Investments
- Summary of Governor's Proposed FY 2015-16 Budget for AQIP and Low Carbon Transportation
- Light-duty vehicle projects
- Heavy-duty vehicle and equipment projects
- Next steps

## AQIP Background

- Created by Assembly Bill (AB) 118 (2007); updated and reauthorized by AB 8 (2013)
- Mobile source technology advancement
- Annual funding plan guides investments
- Annual budget ~\$25 million

3

## Auction Proceeds Investments for Low Carbon Transportation

- Budget appropriations from Greenhouse Gas Reduction Fund (GGRF) consistent with Administration's 3-year investment plan
  - Achieve greenhouse gas reductions
  - Disadvantaged communities investment requirements
- FY 2014-15: \$200 million to ARB for Low Carbon Transportation
  - Board approved joint AQIP/Low Carbon Transportation Funding Plan in June 2014

4

## Ongoing AQIP and Low Carbon Transportation Projects

- Light-duty vehicles
  - Clean Vehicle Rebate Project (CVRP) for zero emission vehicle (ZEV) and plug-in hybrid purchases
  - Pilots to benefit disadvantaged communities
- Heavy-duty vehicles and equipment
  - Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)
  - Zero-emission truck and bus pilots
  - Advanced technology freight demonstration projects
  - Truck Loan Program

5

## Complementary California Energy Commission Support

- \$50 million in direct support for CVRP and HVIP
- Electric vehicle charging and hydrogen fueling infrastructure funding key for vehicle deployment
- Natural gas vehicle deployment and infrastructure funding complement ARB electric drive funding
- Advanced technology vehicle demonstration and manufacturing
- Low carbon alternative fuel production
- Workforce training

6

## **Governor's Proposed FY 2015-16 Budget for AQIP and Low Carbon Transportation**

7

## **Governor's FY 2015-16 Low Carbon Transportation Proposal (GGRF Funds)**

- \$200 million to ARB for Low Carbon Transportation to accelerate transition to low carbon freight and passenger transportation
- Continues FY 2014-15 appropriation at same funding level

8

## Governor's FY 2015-16 AQIP Budget Proposal

- \$23 million proposed appropriation to ARB for AQIP projects
- Consistent with recent years' available funding

9

## ARB Staff's Draft Proposed Funding Recommendations

### Low Carbon Transportation

- Maintain same light-duty vehicle/heavy-duty vehicle funding levels Board approved for FY 2014-15
  - At least 50 percent of funds to benefit disadvantaged communities
  - Incorporate Senate Bill (SB) 1275 and SB 1204 requirements

### AQIP

- Continue same baseline CVRP, HVIP, and truck loans funding levels Board approved for FY 2014-15
  - Add new funding for low NOx trucks

10

## ARB Staff’s Draft Proposed Funding Recommendations

Category	AQIP (millions)	LCT* (millions)
<b>Light-Duty Vehicle Projects = \$125M</b>		
• CVRP	\$5	\$111
• Pilot Projects to Benefit Disadvantaged Communities		\$9
<b>Heavy-Duty Vehicle and Equipment Projects = \$98M</b>		
• HVIP	\$5	
• Truck Loan Program	\$10	
• Low NOx Trucks Certified to Optional Standards ( <i>new</i> )	\$2-3	
• California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program Projects to be identified consistent with provisions of SB 1204		\$80
<b>Total</b>	<b>\$23</b>	<b>\$200*</b>

\*At least 50% of Low Carbon Transportation funds will benefit disadvantaged communities.

11

## Light-Duty Vehicle Projects (SB 1275)

12

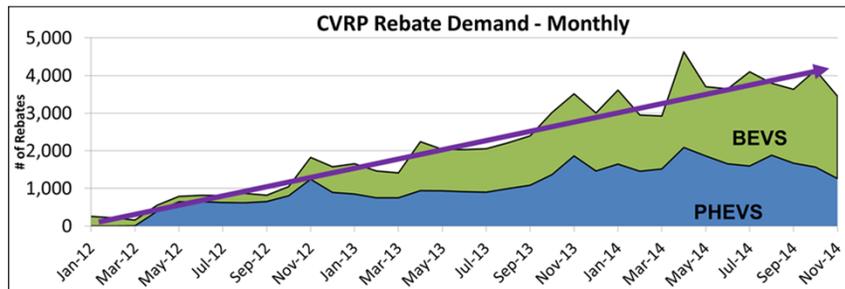
## Light-Duty Vehicle Projects

- CVRP
  - Status update
  - Projections
  - SB 1275 requirements
- Light-Duty Pilot Projects to Benefit Disadvantaged Communities

13

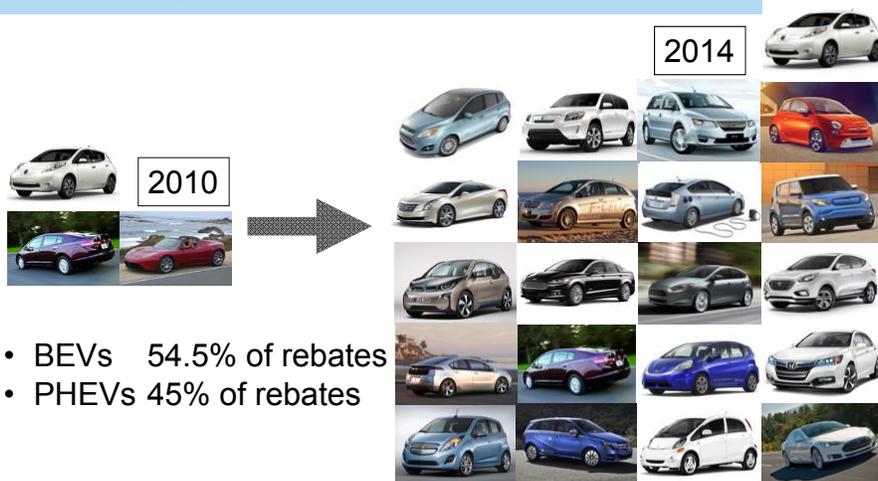
## CVRP Status Update

- Program launched in 2010
  - ~90,000 rebates issued through 2014
  - ~\$190 million invested



14

## Growing Selection of Eligible Vehicles



- BEVs 54.5% of rebates
- PHEVs 45% of rebates

Over 20 Eligible Vehicles 15

## CVRP Projected Demand

- Based on historical data and linear growth trend
  - Excludes external factors that affect demand
- FY 2014-15
  - ~52,000 rebates
  - ~\$115 million
  - Expect to stay within \$120 million budget
- FY 2015-16
  - ~70,000 rebates
  - 35% growth from FY 2014-15
  - Without modifications, \$150-160 million

## **CVRP Challenges for FY 2015-16**

- Bridging expected \$150-160 million in consumer demand with draft budget of \$116 million
- Developing and implementing changes required under SB 1275

17

## **SB 1275: Charge Ahead California Initiative**

- FY 2015-16 CVRP modification requirements
  - Ensure rebate levels can be phased down in increments based on cumulative sales levels
  - Eligibility is limited based on income
  - Consideration of the conversion to prequalification and point-of-sale rebates or other methods to increase participation rates
- Additional requirements need to be addressed in FY 2016-17 Funding Plan

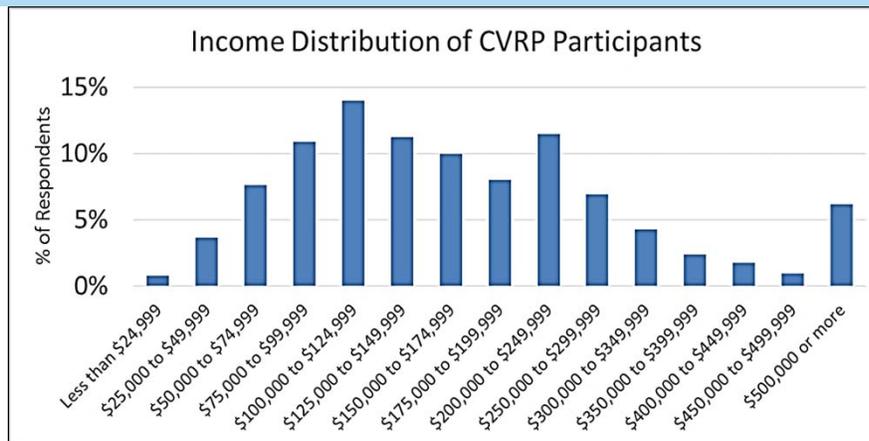
18

## Ensuring Rebates Can Be Phased Down Based on Cumulative Sales

- Technology evaluation milestones identified in FY 2014-15 Funding Plan
- Requesting input on:
  - Phase down of rebates based on technology types or overall cumulative sales?
  - When to initiate lowering of rebate amounts?
  - Should lowering rebate amounts be considered as an approach to address a budget gap?
  - What is the impact of lower rebates on consumer uptake?

19

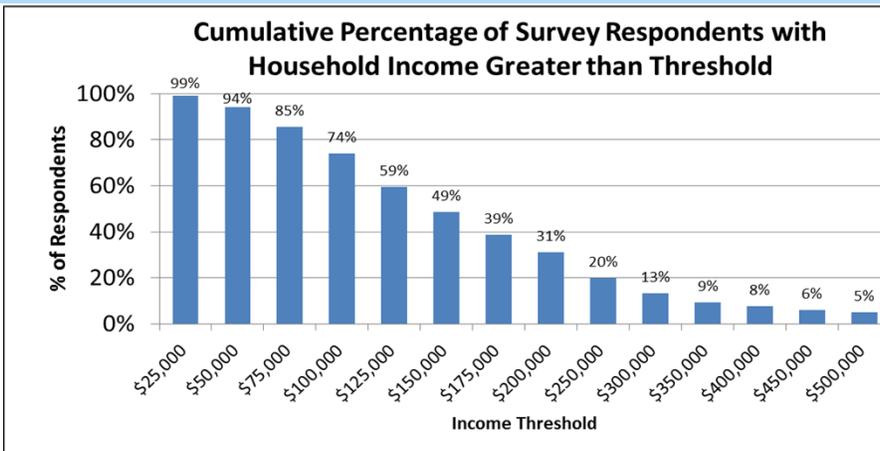
## Limiting Eligibility by Income: Data to Inform CVRP Changes



Based on CVRP participant surveys

20

## Limiting Eligibility by Income: Data to Inform CVRP Changes



Based on CVRP participant surveys

21

## Limiting Eligibility by Income

- Requesting input on:
  - How should CVRP eligibility be limited by income?
  - Household vs individual?
  - Are there other mechanisms?
  - Implementation
    - Required information
    - Auditing and enforcement
  - What is the impact of income limited eligibility on market growth?

22

## Consideration of Prequalification or Point-of-Sale Rebates

- High participation in CVRP
  - 70% of eligible vehicle purchases/leases rebated
  - Increases strain on limited budget
- Staff does not recommend making this change for FY 2015-16 funding cycle
- May be considered in future funding cycles
- Staff requests input on ideas to promote clean vehicles at dealership level

23

## Light-Duty Projects to Benefit Disadvantaged Communities

- Four pilot projects being launched with FY 2014-15 funds
  - Car sharing and enhanced mobility options
  - Vehicle retirement and replacement plus-up
  - Increased incentives for public fleets (through CVRP)
  - Financing assistance
- SB 1275 directs ARB to continue these types of projects

24

## **Draft Recommendations for Disadvantaged Community Projects**

- Maintain \$9 million funding level for FY 2015-16
- Request input to guide investments
  - Should all four FY 2014-15 projects be continued?
  - If so, at what funding levels?
  - Should other projects be considered?

25

## **Heavy-Duty Vehicle and Off-Road Equipment Projects (SB 1204)**

26

## **SB 1204: California Clean Truck, Bus, & Off-Road Vehicle & Equipment Technology Program**

- Reduce greenhouse gas emissions
- Provide benefits to disadvantaged communities
- Development, demonstration, and deployment of zero- and near zero-emission technologies
  - OEM and remanufactured/retrofitted vehicles
- Until 2018, 20% of truck funding must support early commercial deployment of existing technologies
- Directs ARB to:
  - Develop guidance through the AQIP Funding Plan process
  - Create an annual framework and plan in consultation with the Energy Commission

27

## **Ongoing Heavy-Duty Projects FY 2014-15**

- Hybrid and Zero-Emission Truck & Bus Voucher Incentive Project (HVIP) (\$10M)
- Truck Loan Assistance (\$10M)
- Zero-Emission Drayage Truck Demonstration (\$25M)
- Multi-Source Facility Demonstration (\$25M)
- Zero-Emission Truck and Bus Pilot (\$25M)

28

## Update on HVIP

- Since 2010 HVIP launch:
  - Almost 2,000 vouchers issued for hybrid and zero-emission trucks and buses
  - Over \$60 million invested
- \$10 million demand expected in FY 2015-16
- Requesting input on:
  - Full vehicle certification requirement
  - Adding conversions as an eligible vehicle type
  - Options to help overcome barriers to fleet adoption

29

## Update on Truck Loan Assistance

- Since 2009:
  - Over 5,600 loans supported
  - About \$49 million contributed to support over \$370 million in loans to small business truckers
- \$10 million demand expected in FY 2015-16

30

## Update on Freight Demonstration Projects

- Solicitations under development for:
  - Large-scale demonstration of zero-emission technologies for trucks used in port and intermodal rail yard drayage
  - Large-scale demonstration of multiple types of equipment using zero- and near zero-emission technologies in a single facility
- Solicitation period to begin February 2015

31

## Update on Zero-Emission Truck & Bus Pilot

- Pilot deployment of advanced technology transit buses, school buses, and freight/delivery trucks
  - Focus on available battery electric and fuel-cell electric technologies
  - Multiple vehicle types
- Public work group meetings in February/March 2015
- Solicitation period to begin late spring 2015

32

## Heavy-Duty Project Concepts for FY 2015-16

- On-road and off-road advanced technology vehicle and equipment demonstrations
  - Trucks: advanced engines and powertrains
  - Intelligent truck systems and connected vehicles
  - Locomotives: battery tenders
  - Off-road freight equipment
- On-road advanced technology pilots
  - Certified low-NOx engines in freight vehicles
  - New first come-first served model for bus deployments
- Continued funding for HVIP and Truck Loans
- Dedicated funding for data collection and analysis

33

## Next Steps

34

## Funding Plan Development Schedule

Milestone	Date
Category specific work group meetings	Feb – March 2015
3 <sup>rd</sup> Workshop <ul style="list-style-type: none"> <li>Discussion document with draft project allocations, project details, and draft SB 1275 and SB 1204 guidance/criteria</li> </ul>	March/April 2015
Release proposed Funding Plan	May 22, 2015
Board consideration of proposed Funding Plan	June 25-26, 2015
Start implementing FY 2015-16 projects	July 2015

35

## Work Group Meetings

Project Category	Initial Workgroup Meeting Date
CVRP and SB 1275 requirements	Feb 5, 2015
Light-duty pilot projects to benefit disadvantaged communities	Feb 12, 2015
Heavy-duty program design and SB 1204 requirements	Feb 17, 2015
HVIP	Feb 24, 2015
Advanced technology freight demonstration projects	to be scheduled

Work group meeting information will be available at:  
<http://www.arb.ca.gov/msprog/aqip/meetings/meetings.htm>  
<http://www.arb.ca.gov/msprog/aqip/aqip.htm>

36

## **Comments and Discussion**

**Webcast email address:  
coastalm@calepa.ca.gov**