

AB 118: AIR QUALITY IMPROVEMENT PROGRAM (AQIP)

Public Workshop
Sacramento, CA
January 28, 2014

California Environmental Protection Agency
Air Resources Board

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PRESENTATION OUTLINE

- Overview of AQIP
- Update on AB 118 implementation
- FY 2014-15 AQIP Funding Plan development
 - Address Board and Legislative direction
 - Develop new long-term vision
 - Updated project screening criteria
 - Metrics for measuring program and project success
- Bottom line: Develop long-term sustainable and effective program
- General Information
 - Timeline
 - Contacts
 - Comments and discussion

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OVERVIEW OF AQIP

The foundation to build upon

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AQIP BACKGROUND

- Created by Assembly Bill 118 (2007)
- Assembly Bill 8 (2013) extends programs through 2023
- Funds mobile source technology advancement
- Complements other ARB incentive programs focused on near-term reductions
 - Carl Moyer Program
 - Goods Movement
 - Lower Emission School Bus

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AB 118 PROGRAMS

ARB Air Quality Improvement Program (AQIP) \$35 million Criteria pollutants, toxics, and GHGs	CEC Alternative and Renewable Fuel and Vehicle Technology Program \$100 million GHGs	BAR Enhanced Fleet Modernization Program \$30 million Criteria pollutants, toxics, and GHGs
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CEC'S AB 118 PROGRAM

- Complements ARB AQIP projects
- Related projects- charging infrastructure, regional readiness planning grants, electric drivetrain, battery and vehicle manufacturing, ZEV truck technology development and demonstration, hydrogen station development
- More than \$420M invested in over 250 projects for multiple alternative fuel and vehicle technology areas
- Ongoing solicitations to award remaining funds
- Draft 2014-15 Investment Plan available for public review
- Strong partnership between agencies

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ENHANCED FLEET MODERNIZATION PROGRAM

- Voluntary retirement and replacement of passenger vehicles
- Complements Clean Vehicle Rebate Project
- Annual funding ~\$30 Million
- Two elements: retirement-only and retirement plus replacement voucher
- Board Hearing scheduled June 2014 (SB 459)
 - Increase benefits for low-income California residents
 - Promote cleaner replacement vehicles
 - Enhance emission reductions
 - Increase outreach to community-based organizations

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AQIP ELIGIBLE PROJECT TYPES

- On- and off-road equipment
- Off-road gasoline emission mitigation
- Research air quality impacts of alternative fuels
- University of California biofuels/biomass research
- Lawn and garden equipment replacement
- Medium- and heavy-duty vehicle/equipment
- Workforce training related to advanced technology
- Light-duty vehicle emission reductions

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AQIP ANNUAL FUNDING PLAN

- Staff develops proposed plan reflecting:
 - Public input
 - Guiding principles
 - Current ARB priorities
 - Coordination with CEC's AB 118 Program
 - Plan establishes project categories, funding targets, contingency provisions
- Board approves Funding Plan

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GUIDING PRINCIPLES

- Focus on longer-term, post-2020 SIP goals
- Prioritize underfunded project types
- Investments in two project types:
 - Vehicle/equipment deployment
 - Demonstration of technologies near commercialization
- Re-evaluate Guiding Principles by setting long-term goals and establishing metrics of success for measuring progress, per Board direction & Assembly Bill 8
- Increase investments in disadvantaged communities

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IMPLEMENTATION UPDATE

A look at our core projects through 2013

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FUNDING ALLOCATIONS FOR FY'S 2009-2014

Projects	FYs 2009-14
Clean Vehicle Rebates	\$123M
Hybrid and Zero Emission Truck & Bus Vouchers	\$69 M
Advanced Demonstrations and Hybrid Truck Testing	\$7M
Truck Loan Assistance	\$24M
Other Past Projects	\$5M
Funding Total	~\$228M

Notes:

- These figures include augmentations in funding from CEC and the Legislature for zero-emission trucks and clean vehicles.
- The Truck Loan Assistance program was established in FY 2008-09 with a separate allocation that is not included above. Program totals are on slide 16.

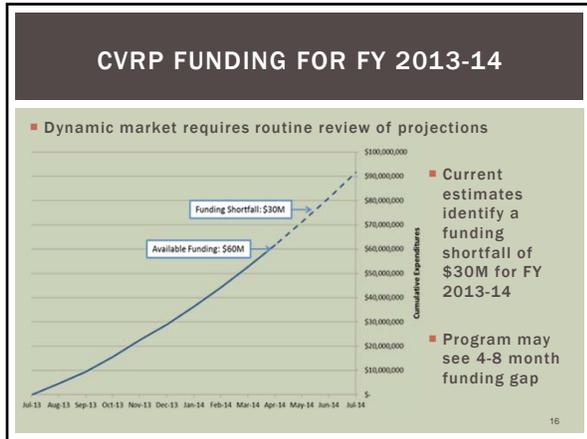
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CURRENT YEAR ALLOCATIONS			
<i>FY 2013-14</i>	Clean Vehicle Rebates	Hybrid and Zero Emission Truck & Bus Vouchers	Truck Loan Assistance
AQIP	\$10 M	\$5M	\$10M
CEC	\$5M	-	-
AB 101	\$24.55M	-	-
SB 359	\$20M	\$10M	\$10M
Funding Total	\$59.55M	\$15M	\$20M

CLEAN VEHICLE REBATE PROJECT (CVRP)
<ul style="list-style-type: none"> ■ Rebates for California consumers <ul style="list-style-type: none"> ■ \$2500 for ZEVs ■ \$1500 for PHEVs ■ Accelerates market growth of the cleanest vehicles available ■ Demand for funding continues to grow ■ Program updates for 2014: <ul style="list-style-type: none"> ■ Public work group meeting February 2014 ■ Maximize effectiveness with limited resources ■ Administered by the California Center for Sustainable Energy

CVRP REBATES ISSUED TO DATE (AS OF DECEMBER 30, 2013)		
<i>Vehicle Type</i>	<i># Vehicles</i>	<i>Funds Spent</i>
Zero Emission Vehicles (ZEVs)	23,507	\$62,644,985
Plug-in Hybrid Electric Vehicles (PHEVs)	20,918	\$31,386,618
Zero Emission Motorcycles (ZEMs)	194	\$201,925
Neighborhood Electric Vehicles (NEVs)	137	\$142,150
Commercial ZEVs*	49	\$980,000
Total	44,805	\$95,355,678M

*Part of HVIP as of FY 10-11



HYBRID AND ZERO EMISSION TRUCK & BUS VOUCHER INCENTIVE PROJECT (HVIP)

- Consumer vouchers for about ½ incremental cost
- Voucher amount discounted from purchase price
 - Range of voucher amounts
- FY 2013-14 funding launch in March
- Program updates for 2014:
 - Public Work Group meeting February 2014
 - Additional funding for fast-charge compatible vehicles and extended warranty
 - Voucher amount not-to-exceed actual incremental cost
- Administered by CALSTART

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HVIP VOUCHERS ISSUED (THROUGH DECEMBER 31, 2013)

Vehicle Vocation	# Vehicles	Funds Spent
Parcel Delivery	567	\$17,451,000
Beverage Delivery	422	\$14,471,000
Other Truck	218	\$7,260,000
Food Distribution	162	\$4,487,000
Uniform & Linen Delivery	117	\$3,000,000
Liquid Propane Pick-up & Delivery	46	\$922,000
School, Shuttle or Urban Bus	33	\$951,776
Tow Truck	25	\$745,000
Refuse Hauler	14	\$537,000
TOTAL	1,604	\$49,824,776

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**TRUCK LOAN ASSISTANCE PROGRAM
(THROUGH DECEMBER 31, 2013)**

- \$54M allocated to truck loan assistance
 - \$37M invested, ~\$7M available, and \$10M forthcoming from SB 359
- About 3,696 loans issued; 4,200 clean trucks
- About \$245M in financing provided
- Targets small fleets and minority populations

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ADVANCED TECHNOLOGY DEMONSTRATIONS

- 13 projects funded; 6 complete
 - 4 locomotive projects (2 complete)
 - 3 marine vessels (1 complete)
 - 3 commercial lawn and garden equipment (3 complete)
 - 2 zero-emission school bus demonstrations
 - 1 off-road equipment
- Hybrid truck testing

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**FY 2014-15 FUNDING
PLAN**

A New
Beginning

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KEY CONCEPTS

- Identify long-term AQIP goals and metrics for measuring success toward meeting goals
- Estimate available funding
 - Continued ~\$25M from AQIP revenue
 - Additional \$200M in proposed budget for low carbon transportation
- Identify projects to fund using updated guiding principles and statutory criteria, including benefit-cost scores (per AB 8)
 - Identify individual project goals and metrics for success
 - If necessary, consider modifications to selected existing projects, and/or develop new projects
- Establish funding targets
- Increase benefits in disadvantaged communities

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LONG TERM AQIP PLANNING

- Crossroads: Need to align program demand with available funding and State goals
- Critical questions to address
 - How long are incentives needed?
 - What policies need support?
 - What incentives are most effective?
- Define long-term AQIP goals
 - Goals for 2023; grouped by "sectors"
 - How much funding is needed to support goals
 - How to better benefit disadvantaged communities
- Identify metrics of success
 - Review and adjust progress toward goals through 2023

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EXPECTED FUNDING FOR FY 2014-15

- AQIP Funding
 - ~\$25M in revenue for projects *guaranteed*
- Cap-and-Trade Auction Proceeds
 - \$200M *proposed* in Governor's Budget for Low Carbon Transportation
 - Light-duty incentives, such as CVRP
 - Heavy-duty incentives, such as HVIP
 - Pre-commercial demonstration of advanced freight technology
 - GHG reductions – AB 1532 (Statutes of 2012)
 - Benefit disadvantaged communities - SB 535 (Statutes of 2012)

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EVALUATION OF PROJECTS FOR INVESTMENT - AB 8

- Projects must "maximize the purposes and goals of AQIP"
- Preference for higher benefit-cost scores
- May consider other criteria:
 - Emission reductions
 - Promote use of clean alternative fuels
 - Support market transformation
 - Leverage private capital
 - Helps meet SIP "black box" commitments
 - No other funding sources
- Long-term planning workgroup will also evaluate scoring criteria

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EXISTING AQIP PROJECTS

Project	Evaluation
CVRP	Link to long-term vision, establish short-term goals, and identify funding needs
HVIP	Link to long-term vision, establish short-term goals, and identify funding needs
Loan Assistance Program	Additional funding needed to carry support through FY 2014
Advanced Demonstrations	Develop long-term vision and identify funding needs

- Other project categories?

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CVRP DEMAND PROJECTION (CURRENT PROGRAM, NO CHANGE)

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POLICY GOALS FOR CVRP

- Ensure continued acceleration of ZEV purchases
 - Prioritize the most advanced technologies
 - Support 1.5 million ZEVs by 2025
- Increase benefits to disadvantaged communities
- Drive consumer purchasing decisions
- Leverage funding in related programs (EFMP, local sources)
- Maximize co-benefits to other vehicle and equipment sectors
 - Promote technology transfer to trucks and off-road equipment
 - Accelerate production economies of scale
 - Encourage co-investment in infrastructure, workforce training, etc...
- Remain easy for participants to understand and implement

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CVRP OPTIONS

- Reduced rebate amounts
- MSRP cap on eligible vehicles
- Consumer income cap
- Limit number of rebates per vehicle manufacturer
- End rebates for plug-in hybrids, NEVs
- Tier rebates on technologies
- Choose your incentive: CVRP rebate or HOV lane sticker
- Lower rebate amount for leases
- Combination of options
- Other ideas?

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ADVANCING DEPLOYMENT IN DISADVANTAGED COMMUNITIES

- Support hybrid or ZEV purchase as part of EFMP (under evaluation)
 - Participants could receive additional funds to purchase hybrid or advanced technologies when scrapping a car
- Other possible concepts:
 - Pilot project to target deployment at multi-unit dwellings
 - Support lower-income consumer financing for PHEV or ZEV lease
 - Car share targeting specific communities, facilities, or educational institutions
 - Ease CVRP resale restrictions to expand used car market

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HYBRID AND ZERO EMISSION TRUCK & BUS VOUCHER INCENTIVE PROJECT - PRIORITIES

- Increase near-term demand needed to accelerate commercialization of:
 - ARB-certified hybrids
 - Hybrids with automatic start-stop
 - Plug-in hybrids with zero-emission miles
 - Zero-emission vehicles with enhanced operation (range, power, etc...)
- Expand beyond local delivery
 - Freight and line haul
- Opportunities for disadvantaged community deployments
- HVIP Work Group meeting(s) in February

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TRUCK LOAN ASSISTANCE PROGRAM

- SB 359 (Chapter 415; Statutes of 2013) provides \$10M to continue program in 2014
- Recent program modifications:
 - Reduce fleet size cap from 40 to 10 HDVs (supports legislative intent)
 - Reinstate higher loan loss reserve contribution for lenders until \$5M in loans issued
 - Introduce interest rate cap for participating lenders
- Evaluate funding needs and program status moving forward
- Evaluate potential for loan assistance model in other applications

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ADVANCED TECHNOLOGY DEMONSTRATIONS

- Support technologies that support long-term GHG benefits
- Provide benefits to disadvantaged communities
- Technology assessments to identify funding priorities
- Update ongoing demonstration projects
- Hold public workgroup meetings in February
 - Category specific workgroups to assess state of technology for:
 - Trucking, Locomotives, Marine, Off-Road, Other On-Road
 - Help prioritize projects for funding

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GENERAL INFORMATION What's next?

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AQIP FUNDING PLAN DEVELOPMENT SCHEDULE

Milestone	Date
Category-specific workgroup meetings	February - March 2014
2 nd public workshop	Mid-March 2014
Release proposed FY 2014-15 AQIP Funding Plan	May 2014
Board hearing	June 2014
FY 2014-15 project solicitations	Begin Summer 2014

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INFORMATION SOURCES

- AQIP website
www.arb.ca.gov/msprog/aqip/aqip.htm
- CEC AB 118 website
www.energy.ca.gov/altfuels/index.html
- Auction Proceeds Investment Plan
www.arb.ca.gov/cc/capandtrade/auctionproceeds/auctionproceeds.htm

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AQIP CONTACTS

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- Truck Loan Assistance Program - Krista Fregoso
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Comments and Discussion

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