



**Implementing  
SB 513**

**Carl Moyer 2017  
Guidelines**

**Workshops**  
California Air Resources Board  
March 2016

## Presentation Overview

- Purpose and Background
- Senate Bill 513
- Program Development
- Source Categories
- Next Steps

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## Overview of the Carl Moyer Program

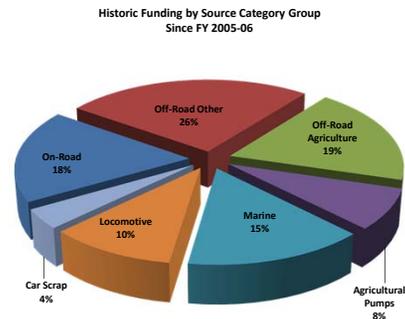
Program began in 1998

- About \$1 billion allocated to date
- Currently authorized at \$69 million per year (plus \$8 million match)

Early or extra NO<sub>x</sub>, PM, ROG reductions

ARB provides guidance and oversight

Districts administer funds, select projects



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## Senate Bill 513

- Updates the Carl Moyer Program so that it continues to contribute to air quality improvement going forward
  - Incorporate infrastructure category to support the deployment of cleaner technology
  - Adjust cost-effectiveness limits based on costs of technology and regulations
  - Allow leveraging of funds from multiple sources without cost-effectiveness penalty
  - Streamline program administration to make it easier to understand and implement
- Requires adoption of new guidelines by July 1, 2017

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## Implementation of SB 513

Invite stakeholder input and participation throughout the process

Our goals for Carl Moyer 2017 Guidelines

- Simplify and streamline Guideline text -- and program implementation
- Maintain public accountability and SIP creditability
- Develop guidelines that work for small and large districts
- Align with the mission of ARB and air districts
  - Enhance regulation support
  - Interface effectively with other incentive programs

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## Program Development

Infrastructure  
Cost-Effectiveness  
Leveraging  
Program Administration

## Infrastructure in SB 513 (Health and Safety Code sections)

44281(c)

- Allow funding toward the installation of fueling or energy infrastructure

44283(a)(1)

- Exempt infrastructure projects from cost-effectiveness criteria

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## Infrastructure: Current Ideas

- Charging stations (light-duty vehicles, medium and heavy duty trucks)
- Alternative fueling infrastructure (hydrogen, CNG, LNG, LPG)
- Grid power (marine, transport refrigeration units (TRUs))
- Cryogenic Refueling Infrastructure (TRUs)
- Truck Stop / distribution center electrification
- Solar power (stationary agricultural pumps, TRUs, light-duty vehicles)
- Wind Power

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## Infrastructure Criteria to Consider

- Project types
- Eligible applicants
- Project cap and/or percentage caps
- Accountability

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## Cost Effectiveness SB 513 (Health and Safety Code sections)

44283(a)(1),  
44283(a)(1)(A)(i)

- Cost-effectiveness criteria apply to all projects (except infrastructure)
- Grants shall not exceed cost-effectiveness values

44283(a)(1)(A)(ii)

- ARB in collaboration with air districts will establish cost-effectiveness values based on:
  - The cost of emission control technologies
  - The cost of rules adopted by the state or districts

44283(a)(1)(A)(iii)

- Grants for school bus projects shall not exceed cost caps in the Lower-Emission School Bus Program (LESBP)
- New C/E values for Moyer school bus projects

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## Cost Effectiveness: A New Context

### Cost-effectiveness previously only updated for inflation

- Current \$18,260 per ton does not reflect cost of advanced technologies, or Moyer's role in supporting other programs
- Must offer enough to trigger cleaner choices

### Advanced technologies play a key role in long-term emission reduction strategies

- Cost-effectiveness must consider incremental cost of zero and near-zero technologies
- Moyer Program must contribute to State Implementation Plan strategies
- Current limits are not sufficient to trigger choice of advanced technologies over conventional technologies

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## Cost-Effectiveness: Concepts and Initial Questions

### New cost-effectiveness limits

- Sufficient incentive for cleaner choices with long-term benefits
- Examine applying in-use emission rates (deterioration) in C/E calculations

### School bus projects

- Guidelines have already been updated to address consistency with Lower Emission School Bus Program and establish Moyer C/E limit
- Consider revisions to new Moyer school bus C/E limit if needed

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## Leveraging SB 513 (Health and Safety Code sections)

44283(d),(g)

- Cost-effectiveness calculation includes only Moyer funds
- Allow grantees to use other public funds
- Removed requirement that other financial assistance (grants, tax credits/deductions) be subtracted from Moyer grant award

44287.2 (a),(b),(d)

- Revise grant criteria, guidelines to extend co-funding
- Sum of total grants shall not exceed project cost
- Emission reductions to be claimed by Moyer Program
- Local district (AB 923) funds treated like Moyer funds

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## Leveraging Allowed To Date

Guideline	2011	Modified 2016
Funding Types	<ul style="list-style-type: none"> <li>• Federal funds to reduce greenhouse gases</li> <li>• Alternative Renewable Fuel and Vehicle Technology Program (CEC)</li> </ul>	<ul style="list-style-type: none"> <li>• ARB Low Carbon Transportation funds</li> <li>• Air Quality Improvement Program funds</li> <li>• Local air district penalty funds</li> <li>• Public agency applicant funds</li> <li>• Tax credits and deductions</li> <li>• Public rebates and loans</li> </ul>

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## Leveraging Considerations

- Combine funding to allow projects to achieve multiple program goals
- Safeguards needed to ensure program accountability
  - No double counting of emission reductions
  - No overpayment
- Consider restrictions associated with other funding sources
- Consider project type limitations such as cost effectiveness limit, funding caps and cost percentage limiters
- Approaches to encouraging project cost sharing

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## Program Administration Objectives

- Simplify administration process
- Maintain program accountability
- Remove obsolete and unnecessary content
- Clarify and streamline language describing requirements
- Recognize implementation challenges in rural districts

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## Environmental Justice (Health and Safety Code sections)

43023.5(a)

- Districts with population of 1 million or greater
- 50 percent of funds to directly reduce air pollution
- Minority and low-income communities

- Encourage environmental justice and disadvantaged community participation

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## Source Categories

On-Road  
Off-Road  
Locomotives  
Marine  
Light Duty Vehicles  
Stationary and Portable Engines



## On-Road Heavy Duty Vehicles

Increase funding amounts to reflect higher costs of near-zero and zero technologies

Streamline the Guidelines while expanding funding opportunities

- Merge chapters and replacement programs
- Tailor sections to vocations
- Re-evaluating less active project types
- Consolidate emission factor tables



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## Off-Road Equipment

- Combine successful aspects of Off-Road VIP and Equipment Replacement Program into one program
- Eligibility restrictions for non-Tier 4 engines/equipment
- Encourage zero emission equipment
- Provide opportunity for trade-up replacement projects
- Consider modifying funding limitations dependent on fleet size
- Simplify repower requirements



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## Locomotives



- Fund Tier 4 or cleaner locomotives/engines
- Consider flexibility to retain chassis and only scrap engine
- Consider allowing project work to begin prior to U.S. EPA and ARB verification
- Consider revising maximum funding amounts and implement caps
- Eligibility of idle limiting devices, retrofits, head end power units
- Consider other technologies such as hood units

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## Marine Projects



- Possible ways to expand funding eligibility
  - Large Spark Ignited engines
  - Zero and near-zero emission technologies
  - Increase funding for vessels subject to Harbor Craft Rule to encourage Tier 4 or better
- Support other programs to achieve additional emission reductions
  - Sustainable Freight Strategy
  - Mobile Source Strategy

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## Light Duty Vehicles



- Continue voluntary accelerated vehicle retirement
- Add a vehicle replacement component
- Support EFMP Plus-Up Program expansion to other districts by supporting the base EFMP program
- Promote adoption of advanced technologies
  - Hybrid and zero emission vehicles
  - Tiered incentives to replace vehicle technology types

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## Portable and Stationary Agricultural Sources



- Clarify engine eligibility for repowers and retrofits
- Update implementation charts
- Incentivize zero emission projects
  - Emphasize electrification
  - De-emphasize retrofits

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## Next Steps

- Comments welcome on any aspect of Guidelines
- Meetings with stakeholder groups welcome

### Tentative Schedule

- Summer 2016 - second workshop to get feedback on concepts informed by public input
- Fall 2016/Winter 2017 – Publish proposed Guidelines for public comment
- Spring 2017- Present Guidelines to the Board for consideration

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## Contacts

Workshop materials are posted at:

<http://www.arb.ca.gov/msprog/moyer/2017guideline.htm>

Additional information on the Carl Moyer Program is available at:

<http://www.arb.ca.gov/msprog/moyer/moyer.htm>

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Comments and  
Questions

SB 513 and the Carl  
Moyer 2017  
Guidelines