




November 5, 2007
Port of Oakland

Maritime Air Quality Improvement Plan Task Force

Prop. 1B: Goods Movement Emission Reduction Program



*Excerpts from
Kickoff
Public Workshops*



Air Resources Board
California Environmental Protection Agency

Goods Movement Emission Reduction Program

Goals

- Reduce emissions & existing health impacts
- Fulfill the public mandate
- Provide accountability and transparency



Public Mandate

Program Authority



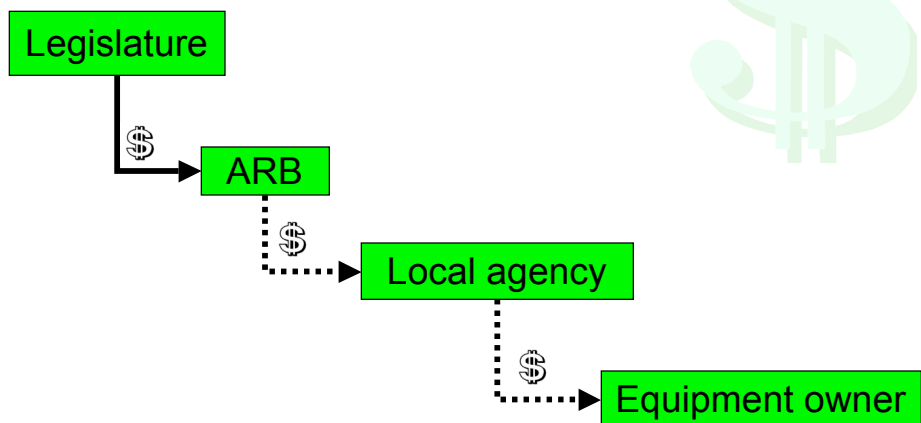
- Voter-approved Proposition 1B
 - \$1 billion for emission reductions (not required by law or regulation) from activities related to the movement of freight along California's four priority trade corridors
- Implementing legislation
 - Senate Bill 88 (Chapter 181, Statutes of 2007)
 - Assembly Bill 201 (Chapter 187, Statutes of 2007)



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Funding

Funding Diagram



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Accountability & Transparency

Public Participation

- Development of initial program guidelines and funding targets
- Annual review of local agency applications and recommendations for ARB funding
- Equipment project information on web
- Regular program status reports
- Periodic updates to guidelines



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Funding

Principles

Simple	- Target specific project types - Set equipment funding cap
Efficient	- Target large-scale programs - Minimize administrative overhead
Cost-Effective	- Maximize reductions/\$ invested
Leverage	- Maximize non-state match
Transparent	- Propose funding targets
Accountable	- Monitor, report and audit

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Source Category Projects

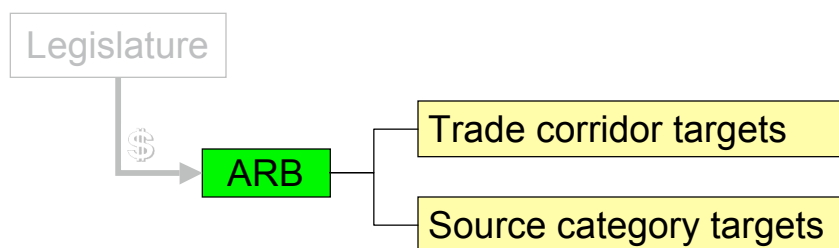
Eligible Project Types

- Retrofit existing heavy diesel truck with soot filter or replace with new(er) truck
- Install shore-side electrical infrastructure for cargo ship berth
- Replace freight locomotive or engine
- Replace commercial harbor craft engine
- Retrofit cargo handling crane with energy storage system

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Funding Targets

Funding Targets



- Staff proposal would:
 - Incorporate legislative criteria
 - Provide transparency & appropriate competition

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Funding Targets

Corridor Funding Targets Based On:

- Air quality
 - Regional air pollution and State Implementation Plan needs (ozone, PM2.5)
 - Health risk near goods movement facilities
- Population
- Goods movement emissions
- Contribution of goods movement to each corridor's pollution challenge

Seeking input on appropriate Corridor targets

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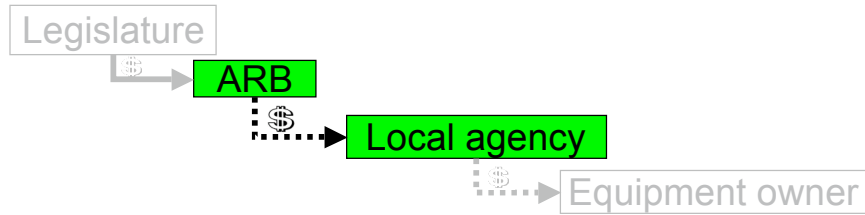
Funding Targets

Source Category Funding Targets

\$400 million	Heavy duty diesel trucks serving seaports and intermodal rail yards
\$340 million	Other heavy duty diesel trucks, plus any truck stop electrification
\$100 million	Shore power for cargo ships at berth, plus cargo handling equipment
\$100 million	Diesel freight locomotives
\$ 60 million	Commercial harbor craft

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Local Agency Project

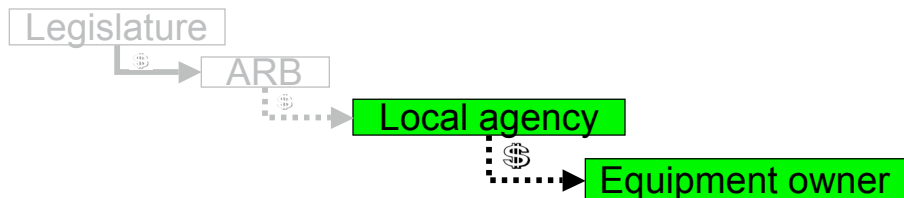


Local Agency Projects Compete Based On:

- Total emission reductions in all corridors
- Reductions per *State* dollar invested
- Time needed to complete project and have cleaner equipment operating

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Equipment Project



Equipment Projects Compete Based On:

- Emission reductions per piece of equipment
- Reductions per *State* dollar invested
- Time needed to complete project and have cleaner equipment operating
- Project location relative to communities with high emissions and exposure

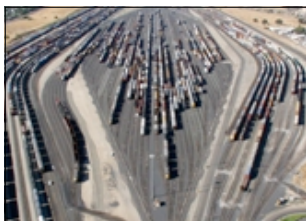
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Staff Priorities for Year 1

- Eligible projects ready for quick implementation
- Truck retrofit projects to add diesel particulate filters



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Contact Information



- <http://arb.ca.gov/gmbond>
 - Sign up for listserve notices
 - Access to documents
- (916) 44-GOODS (444-6637)
- gmbond@arb.ca.gov
- Douglas Ito
Manager, Goods Movement Strategies Section

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Supplemental Slides

Source Category Projects

Heavy Duty Trucks

- Option 1: Truck retrofit
 - \$5,000/truck for a verified Level 3 soot filter to retrofit pre-model year 2007 diesel trucks
- Option 2: Truck replacement
 - \$20-50K/truck to replace 2003 and older diesel trucks with diesel or alternative fuel trucks meeting MY2007 emission levels or better



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Source Category Projects

Freight Locomotives

- Engine or locomotive replacement
- Options 1&2: Switcher/helper
 - \$0.5-1.0M/unit to replace old switcher/helper locomotive with new generator set plus soot filter (or equiv.)
- Option 3: Line-haul
 - \$0.5-1.25M/unit to replace old in-state line haul with a new model meeting latest emission standards plus soot filter (or equiv.)



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Source Category Projects

Shore Power for Cargo Ships

- Install shore-side electrical infrastructure
- Option 1: Grid-based power
 - \$2.5M/berth for shore-side capital costs
- Option 2: Distributed generation power
 - \$1.5-2.0M/unit for capital costs of power systems equivalent to grid power



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Source Category Projects

Commercial Harbor Craft

- Option 1: Engine Replacement
 - \$135-270/horsepower to replace old diesel propulsion engine with new model meeting latest emission standards
 - Tugs, tows, pilot or work boats, plus high use commercial fishing vessels



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Source Category Projects

Cargo Handling Equipment

- Option 1: Energy storage systems
 - \$80-160K/crane to fund energy storage systems
 - Rubber tired gantry cranes with Tier 4 engines or current engines with the highest level verified diesel emission control



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