Proposition 1B: Goods Movement Emission Reduction Program

Workshops on Concepts for Updates to Program Guidelines

November 17 – 21, 2008

Air Resources Board
California Environmental Protection Agency
California Air Resources Board

• Meet health-based air quality standards for particles and ozone
• Reduce cancer risk from air toxics like diesel particulate matter (PM)
• Cut greenhouse gas emissions
Goods Movement Pollution Contributed to 3,700 Premature Deaths in CA (2005)

2008 PM and Premature Mortality Update
Prop 1B: Goods Movement Emission Reduction Program

- $1B to achieve emission reductions from freight movement in trade corridors
- Goal: reduce emissions/health risk as quickly as possible in heavily impacted communities
Trade Corridors

Bay Area

Central Valley
SJV Air Basin
+ Sac Region

LA/Inland Empire
South Coast Air Basin
+ Port Hueneme

San Diego/Border
San Diego + Imperial Counties
Funding Flow

- FY2007-08 budget provided first $250M
- FY2008-09 budget provides second $250M
Funding Categories

• Heavy diesel trucks serving ports & intermodal rail yards
• Other heavy diesel trucks, plus electrification of truck stops, distribution centers, etc.
• Freight locomotives
• Shore power for cargo ships, plus cargo handling equipment
• Commercial harbor craft
Awarded FY2007-08 Funds ($246.6M*)

Other trucks: $103.2M
Port/rail yard trucks: $117.3M
Locomotives: $16.5M
Shore power: $5.3M
Harbor craft: $4.3M

*ARB administrative costs of ~$3.4M (1.4%)
Need for Program Updates

• Revisit eligible projects
  – Technology, cost, demand for projects, regulatory requirements

• Evaluate ways to make Program more effective based on Year 1 experience
Concepts for Update to Program Guidelines

• Eligible projects
• New Program components
• Program administration
Truck Eligibility

- Diesel truck used to move goods for sale
- Over 31,000 lbs GVWR, engine $\geq 10$ liters
- 2 years prior CA & 50% corridor operation
- 100% CA operation for new truck
- Port/rail trucks - 150+ visits/yr for 4 yrs
- Prop 1B. retrofitted trucks can compete for replacement funding

Prop. 1B Truck Emission Levels

MY2007-equivalent: CERT & FEL $\leq$NOx 1.20, PM 0.01 g/bhp-hr
MY2010-equivalent: CERT & FEL $\leq$NOx 0.20, PM 0.01 g/bhp-hr
Port and Other Trucks

Retrofit

- $5,000 to retrofit a MY1994-2006 truck with a Level 3 PM filter
- $15,000 to retrofit a MY2004-2006 truck with a combined PM and NOx device achieving MY2007-equivalent emissions

Repower (no change)
Port and Other Trucks

Truck replacement – old truck MY2003 or older

- $50k to replace with MY2010-equivalent diesel or alternative fuel truck
- $45k to replace with MY2007-equivalent new diesel or alternative fuel truck
- $35k to replace with MY2007-equivalent used diesel or alternative fuel truck

3-way truck transaction (no change)

Truck stop electrification (no change)

*Less than 200,000 miles
Locomotive Eligibility

- Freight locomotives using more than 20,000 gal/yr diesel fuel
- 2 years prior CA & 50% corridor operation
  - Method for demonstrating CA operation
  - Mechanism to ensure reductions are not used to comply with MOU for South Coast Air Basin
- 100% CA operation for new equipment
  - Except for periodic out-of-state maintenance
Freight Locomotives

Switcher (1,006 – 2,500 hp)

• Lower of 50% or $750k/unit to replace, repower, or rebuild with new generator-set, hybrid, or equivalent

Medium horsepower (2,300-3,800 hp)

• Lower of 50% or $500k/unit to repower with a new Tier 3 engine or equivalent
Freight Locomotives

Line-haul (3,300 hp or greater)

- Lower of 50% or $1M/unit to replace, repower, or rebuild with new model meeting Tier 2
- Require installation of Tier 2+ retrofit kit (when available)

Hood technology at rail yards

- Funding level achieving at least 0.65 lbs/State $ for articulated hood with PM and NOx control
Shore Power for Cargo Ships

Grid based shore power (no change)

Non-grid based shore power (no change)

Hood technology for ships

- Funding level achieving at least 1.5 lbs/State $ for on-dock hood technology
Concept

Commercial Harbor Craft
New contract length of 8 years

Tugs/tows

• Lower of 50% or $135/hp of old engine to replace or repower with Tier 2 or better
• Lower of 50% or $175/hp of old engine to replace or repower vessel with hybrid achieving emissions 30% below Tier 2 levels

Pilot/work/crew/supply, commercial fishing vessels

• Lower of 80% or $215/hp of old engine to replace or repower with Tier 2 or better
Diesel Cargo Equipment

Rubber-tired gantry crane - energy storage system

- Lower of 50% or $100k/crane to retrofit an existing crane (already equipped with a Tier 4 engine or Level 3 PM filter) with an energy storage system

Rubber-tired gantry crane - electrification

- Lower of 50% or $100k/crane to electrify an existing diesel rubber-tired gantry crane

Note: these projects must compete against shore power projects for funding
New Program Components for FY2008-09

• Grant/loan guarantee option for truck replacements
• Temporary diversion of trucks from scrappage
• Potential co-funding for projects that also reduce greenhouse gases
Grant/Loan Guarantee for Truck Replacements

- Open to small fleets (1-3 trucks)
- ARB sets cap on grant and loan guarantee ($30k grant + guarantee up to $80k)
- Local agencies administer grants and lenders administer loans
- Truck owner chooses grant or grant/loan guarantee on application
- Owner puts at least $5k down
General Program Administration

- Interim changes done via Executive Order
- Reuse of committed but unspent funds on other projects (within statutory timeframe)
- Ability to redirect funds to other sectors
- Outreach on local agency proposals
- Database use requirements
- Contract buy-out provisions
Next Steps (2008-2009)

Dec: Proposed Guidelines/staff report
Jan: Board hearing on updated Guidelines
Feb: Local agency applications to ARB
Mar-May: Public process to award $250M to local agencies
Summer 2009:
  – Local agency solicitations for projects
  – Joint ARB/local agency meetings in each corridor to report on project implementation
Contact Information

• [http://www.arb.ca.gov/gmbond](http://www.arb.ca.gov/gmbond)
  – Sign up for listserv notices
  – Access to documents
• (916) 44-GOODS (444-6637)
• gmbond@arb.ca.gov