



Proposition 1B: Goods Movement Emission Reduction Program

Workshops on Concepts for Updates to Program Guidelines

November 17 – 21, 2008



Air Resources Board

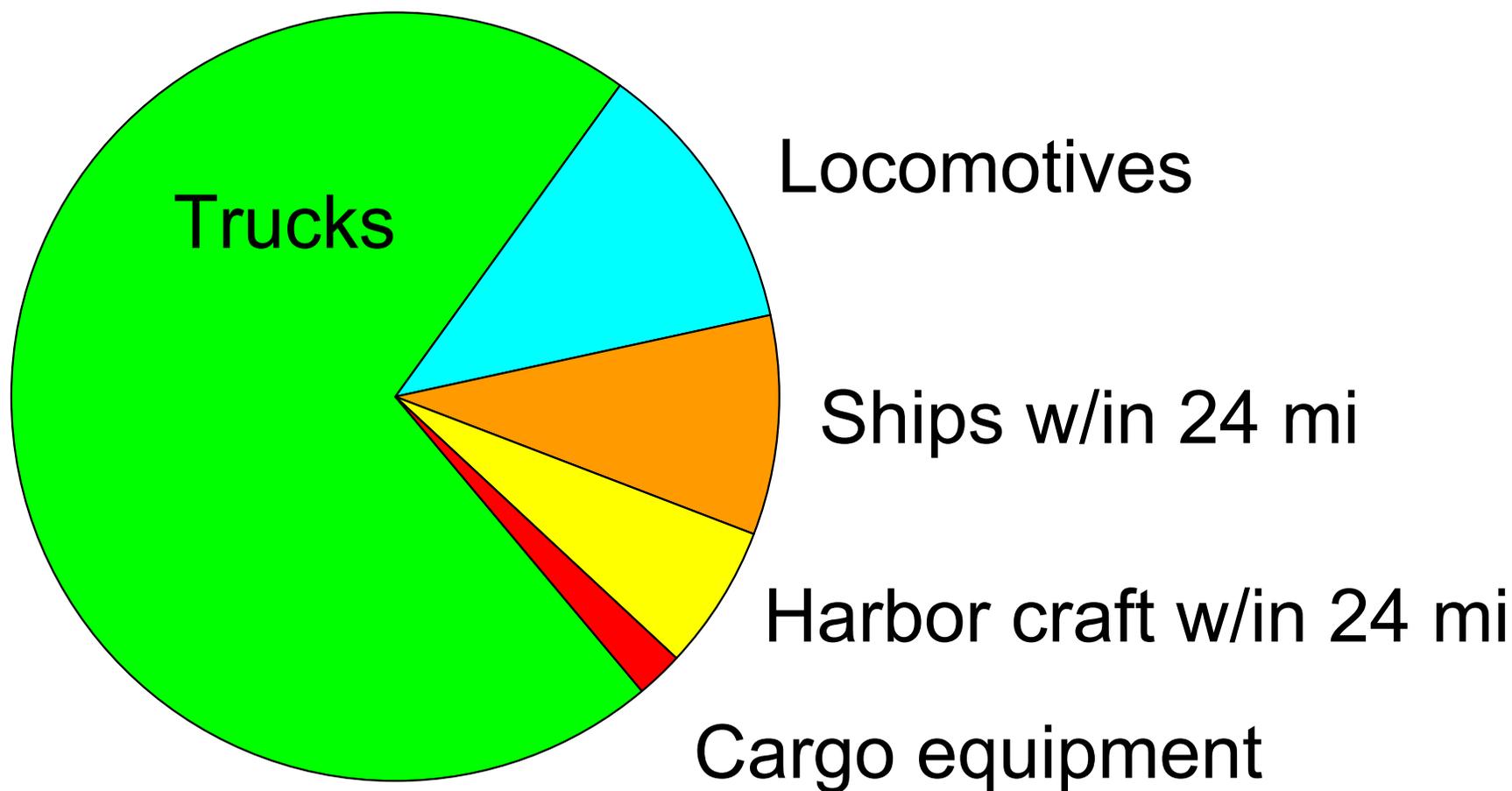
California Environmental Protection Agency

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

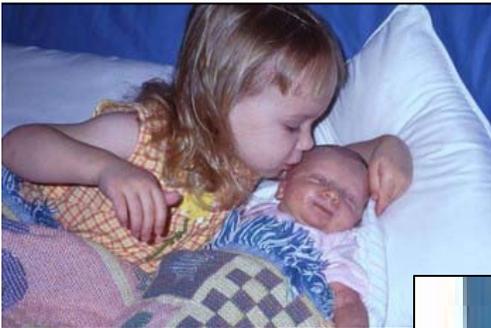


Goods Movement Pollution Contributed to 3,700 Premature Deaths in CA (2005)



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

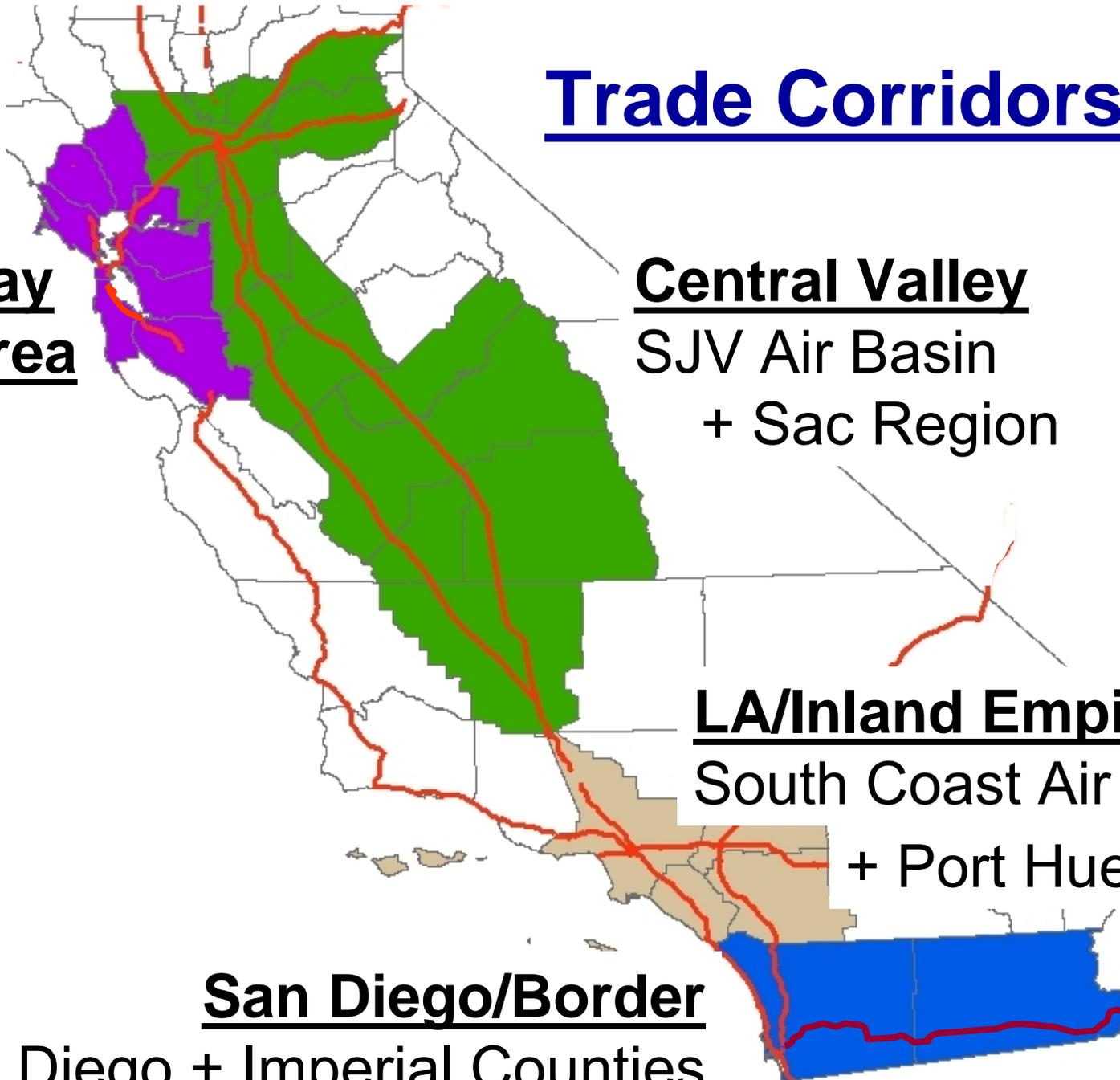
SJV Air Basin
+ Sac Region

LA/Inland Empire

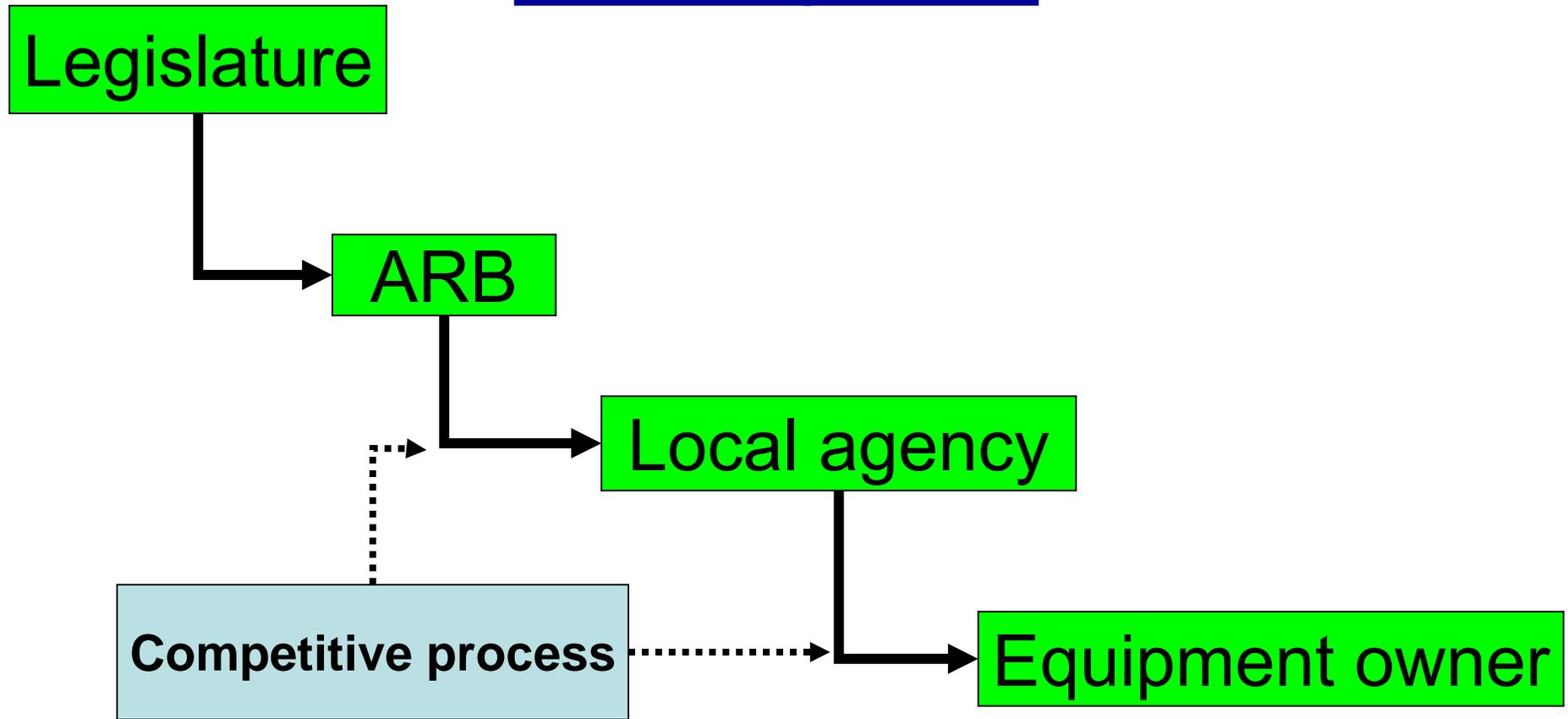
South Coast Air Basin
+ Port Hueneme

San Diego/Border

San Diego + Imperial Counties



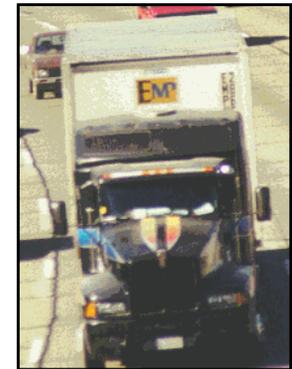
Funding Flow



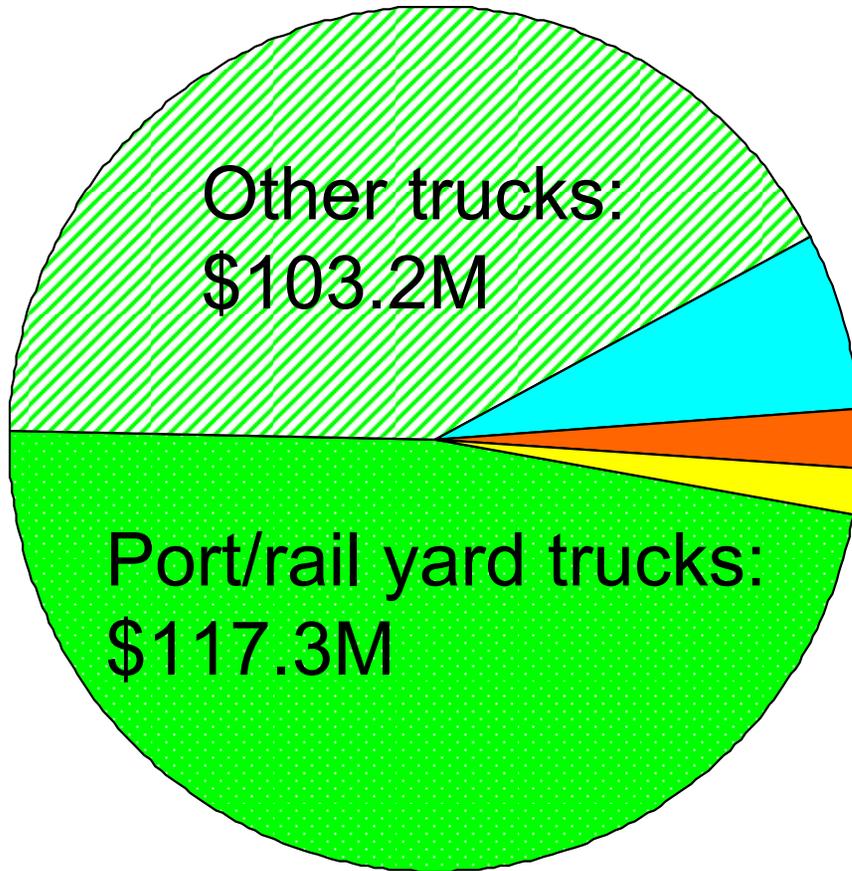
- FY2007-08 budget provided first \$250M
- FY2008-09 budget provides second \$250M

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*)



Locomotives: \$16.5M

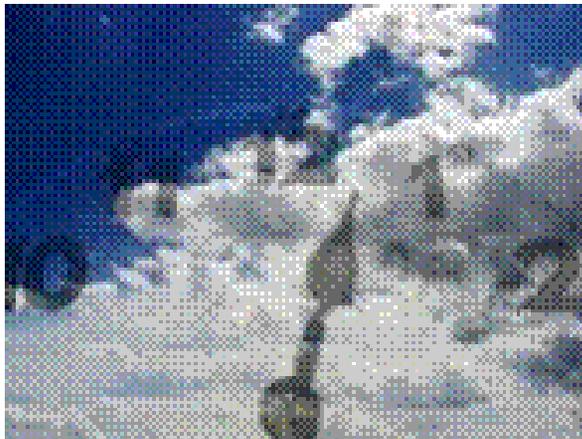
Shore power: \$5.3M

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 NO_x 1.20, PM 0.01 g/bhp-hr

MY2010-equivalent: CERT & FEL \leq NO_x 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)



Concept

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

Concept

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

Concept

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

Concept

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

Concept

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

Concept

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

Concept

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



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