

**PROPOSITION 1B:  
GOODS MOVEMENT EMISSION REDUCTION PROGRAM**

***Proposed Update to  
Guidelines for Implementation***  
**STAFF REPORT**

**Board Consideration: January 25, 2013**

California Environmental Protection Agency

 **Air Resources Board**

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### **DOCUMENT AVAILABILITY**

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If you need this document in an alternative format (i.e., Braille, large print) or another language, please contact Ms. Heather Jackson at (916) 322-8267 or [hbjackso@arb.ca.gov](mailto:hbjackso@arb.ca.gov). TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

### **CONTACTS**

Proposition 1B: Goods Movement Emission Reduction Program  
Stationary Source Division

Air Resources Board  
P.O. Box 2815  
Sacramento, California 95812

Website: <http://www.arb.ca.gov/gmbond>  
Information Line: (916) 44-GOODS (444-6637)  
Email: [gmbond@arb.ca.gov](mailto:gmbond@arb.ca.gov)

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## EXECUTIVE SUMMARY AND RECOMMENDATIONS

The Proposition 1B: Goods Movement Emission Reduction Program (Program) is underway, fulfilling its mandates to reduce diesel emissions and health risk in heavily impacted communities and help attain federal air quality standards. The Program funds are putting about 10,000 cleaner trucks on the road in California by the end of 2012, followed by ships at berth and locomotive projects that will mostly be operational in 2013. These projects will reduce over 4.8 million pounds of fine particulate matter (PM2.5) and 132 million pounds of nitrogen oxides (NOx) over their lifetime.

This Staff Report discusses the proposed update to the Program Guidelines for Implementation (Guidelines). These Guidelines define the procedures for the Air Resources Board (ARB or Board) and local agencies to administer the Program, as well as the specifications for eligible projects.

Since the last update to the Guidelines in 2010, ARB staff has worked extensively with local agencies to identify improvements to the Program to increase its effectiveness. The proposed updates are critical to: maximize benefits; expand the project choices; and streamline paperwork.

One of the core Program requirements is that the funded projects must achieve emission reductions “not otherwise required by law or regulation.” However, the nature of eligible projects is changing. Since many ARB regulatory deadlines are now in effect; fewer projects provide early emission benefits and those projects that do are providing lower benefits than before. The ARB staff proposal continues to fund conventional projects but it also increases the options and funding amounts for hybrid, electric, and zero-emission equipment. These projects provide additional emission benefits by going beyond the current regulatory requirements, help advance needed transformative technology, and provide greenhouse gas reductions.

### Key Changes Proposed

- Expand eligibility to include Class 6 trucks and prioritize zero-emission trucks
- Increase minimum truck mileage
- Modify maximum grant awards
- Increase locomotive funding for Tier 4s
- Provide progress payments for shore power
- Streamline equipment owner and local agency implementation

The largest Program category is heavy duty diesel trucks, accounting for 80 percent of all funding allocated. For this category, the Statewide Truck and Bus Rule will have required most trucks to be upgraded by the time additional Program funds are available. This will exclude most or all of the PM benefits from the Program; NOx benefits are still achievable. The staff proposal includes lowering the funding levels and minimum mileage to ensure the Program continues to obtain reasonable emission benefits for the funding invested. The staff proposal also includes significant streamlining of the truck projects, consistent with the integrity and intent of the Program, to simplify implementation.

ARB staff recommends that the Board adopt the proposed update to the Guidelines to expand the Program to cleaner options, to streamline the requirements for applicants and local agencies, and to ensure State funds are being used for cost-effective projects.

## **I. EXISTING PROGRAM**

### **A. Program Basics**

#### **1. *How do freight operations impact air quality and public health?***

Diesel engines are used in trucks, locomotives, ships, harbor craft, and cargo handling equipment to move goods in California. These sources are major contributors to the State's biggest pollution challenges and account for more than two-thirds of the toxic diesel particulate matter (PM) statewide. They also produce about one-third of the nitrogen oxides (NOx) and sulfur oxides that form regional ozone and PM2.5, especially in the South Coast and San Joaquin Valley Air Basins.

California residents face serious health impacts from freight-related diesel pollution, especially in neighborhoods near seaports, railyards, roads with high truck traffic, and distribution centers. Freight-related emissions are a public health concern at both the community and regional levels because they contribute to serious health effects, such as cardiac and respiratory diseases, increased asthma and bronchitis episodes, increased risk of cancer, and premature death.

The California Air Resources Board (ARB or Board) has implemented a comprehensive program to characterize and reduce the impacts of air pollution from freight operations on nearby communities. Building on health risk assessments for major seaport and railyard facilities, ARB has adopted plans, regulations, incentive programs, and other strategies to cut emissions from freight sources. Major seaports and railyards are implementing additional measures to reduce the localized health risk near their facilities.

#### **2. *What is the Goods Movement Emission Reduction Program?***

Proposition 1B, approved by voters in 2006, authorized \$1 billion in bond funding to ARB to cut freight emissions in four priority trade corridors. These corridors are: the Los Angeles/Inland Empire, the Central Valley, the Bay Area, and the San Diego/Border area. Health and Safety Code section 39625 et seq. (shown as Appendix A) establishes the Proposition 1B: Goods Movement Emission Reduction Program (Program) and directs ARB to maximize the emission reduction benefits while achieving the earliest possible health risk reduction in communities heavily impacted by goods movement. Executive Order S-02-07 provides further direction to ensure accountability and transparency in administering bond-funded programs.

The Program provides financial incentives to owners of equipment used in goods movement to upgrade to cleaner technologies that reduce PM and NOx emissions, as well as greenhouse gases in some cases. The source categories eligible for bond funding include heavy-duty diesel trucks, freight locomotives, cargo ships at berth,



commercial harbor craft, cargo handling equipment, and infrastructure for electrification of truck stops, distribution centers, and other places trucks congregate.

### **3. How does the Program work?**

ARB awards funding to local agencies (like air districts and ports). Those agencies then use a competitive process based on emission reductions and cost-effectiveness to provide incentives to equipment owners to upgrade to cleaner technology.

The Program supplements ARB's diesel regulations by funding early compliance or providing extra emission reductions beyond those required by applicable rules or enforceable agreements. The Proposition 1B ballot initiative specifically directs that ARB use the funds to achieve emission reductions "not otherwise required by law or regulation."

#### **Reductions must be early or extra**

*Key existing ARB rules/requirements*

- Statewide Truck and Bus Rule
- Drayage Truck Rule
- Truck Idling and Refrigeration Unit Rules
- Ship Fuel and At Berth Rules
- Harbor Craft Rule
- Cargo Handling Equipment Rule

### **4. What are the Program Guidelines?**

As required by State law, the Board adopted the initial Program Guidelines in February 2008; and approved an update in March 2010. The Guidelines define the responsibilities of ARB, local agencies, and equipment owners, as well as the technical specifications and funding amounts for eligible projects. Modifications to the Guidelines made via Executive Order after March 2010 are incorporated in this update and are available on the Program website:

<http://www.arb.ca.gov/gmbond>

### **5. How is the Program funded with bond monies?**

The State sells bonds and distributes the proceeds to agencies for specific bond-funded projects. The type of bonds sold affects how the proceeds can be used. For example, only taxable bonds can be used for loan programs, and certain restrictions apply for administrative costs. Once proceeds are transferred into ARB's Program account, the State Treasurer's Office issues a tax compliance certificate for ARB signature and approves the signed certificate. ARB then has the authority to spend those monies.

ARB provides input on the Program's cash needs; however, ARB staff cannot predict the schedule for future bond sales or the availability of upfront proceeds for this purpose. Certainty comes only when staff is notified that ARB will receive a specified dollar amount following a successful bond sale.

Of the total \$1 billion in bond proceeds, \$980 million is to be used for this Program and \$20 million set aside by the control agencies to cover bond issuance and oversight costs. To date, ARB has received almost \$587 million for the Program. This leaves a balance of \$393 million that ARB needs in new bond cash to implement future projects.

**6. What are the match funding requirements?**

Consistent with clear directives in the implementing legislation, the Program uses State bond funding to leverage other monies to achieve the greatest emission reductions per State dollar. By limiting the amount of Program funds available for each project, the number of individuals, businesses, and ports able to access those funds, as well as the resulting air quality benefits, are maximized.

While the Guidelines cap the maximum amount of bond funding for each project type, they do not require a fixed match ratio and they do not specify who must pay the remainder of the project cost. To provide flexibility, projects can be co-funded through a combination of private, federal, other State, and/or local sources.

**B. Program Implementation**

**7. What is the status of projects awarded Year 1 funds**

In February and May 2008, the Board awarded \$247 million in funds to local agencies. All of these projects, except for one locomotive project, are now operational. The local agencies funded almost 5,000 truck replacement and retrofit projects. In addition, 3 ship berths have been upgraded with shore power and 18 locomotives have been repowered. Funds not used due to project fallout were reallocated and awarded to the Districts for their Year 3 grants. ARB staff estimates that truck upgrades, together with locomotive and shore power projects, will reduce over 2.7 million pounds of PM and 54 million pounds of NOx over their lifetime. Appendix B, *December 2012 Status Report to the Department of Finance (DOF)*, provides an update on each grant.

**8. What is the status of projects awarded Year 2 and 3 funds**

In June 2010, the Board awarded \$200 million in funding based on cash received. Additional funds of \$123 million became available along with funds redirected from ARB's administration costs and funds reallocated from Year 1 projects. The local agencies received a significant number of applications for truck projects; funding of these projects began in 2011 and will continue to be implemented through 2014. Most of the 5,700 truck retrofit and replacement projects were operational by the end of 2012, with a portion of the projects in the first quarter of 2013, and small fleet projects completed by the end of 2013. In addition, one harbor craft project and 34 shore power projects are expected to be operational in 2013; in 2014, six locomotive projects are expected to become operational. ARB staff estimates that these upgrades will reduce 2.1 million pounds of PM and 78 million pounds of NOx over their lifetime.

## II. PROPOSED CHANGES TO THE PROGRAM

### A. Development and Schedule

#### 9. *What outreach has ARB staff done to develop this proposed update?*

The implementation of fiscal year (FY) 2008-09 (year 2), and FY 2011-12 (year 3) funds, which began in 2010, has resulted in close communication between ARB staff and the local agencies. Based on this working experience, information obtained during implementation, and feedback from local agencies and equipment owners, ARB staff released a Draft Concept Paper in October 2012. ARB held three public workshops in Sacramento, the Central Valley, and Southern California in November 2012 to solicit input from local agencies, the trucking industry, railroads, shippers, equipment manufacturers, and environmental representatives. ARB staff has also received written comments from stakeholders. The proposed update to the Guidelines incorporates many of the suggestions received as a result of our outreach efforts.

An ongoing and comprehensive ARB outreach effort has been conducted to inform the public on regulations along with the suite of incentive programs. Incentive information is presented at regulatory training events and is readily available on the ARB website. In addition, compliance checks are required for incentive funding to ensure accordance with ARB regulations.

#### 10. *What is the tentative schedule for the next funding awards?*

To date, the Program has received approximately \$587 million in project and administrative funds. This leaves \$393 million to implement in FY2012-13 (year 4) and beyond. The tentative schedule for ARB and local agency actions to implement the Program for FY2012-13 funds is shown below. At the request of local agencies, solicitations may be held prior to executed grant agreements, as long as ARB has received bond proceeds or monies from other funding mechanisms. This schedule is subject to change and may be accelerated if possible:

February 2013	<u>Notice of Funding Availability.</u> Once the Board acts on the updated Program Guidelines, ARB staff will issue a Notice of Funding Availability and solicit local agency project proposals.
April 2013	<u>Local agency project applications.</u> Local agencies will submit proposals (by funding category) to ARB to implement incentives for eligible projects.
May 2013	<u>Public review and ARB staff evaluation of proposals.</u> ARB will review and post eligible applications on the Program website. ARB staff will evaluate eligible applications based on criteria in the Guidelines, recommend projects for funding, and hold public workshops.

June 2013            Local agency project awards. The Board will hold a public hearing to consider the recommended funding awards for specific primary and backup local agency projects (and any State agency loan or loan guarantee program). Any awards must be consistent with State fiscal policy and contingent on the availability of bond funding.

The following steps will occur following receipt of new bond monies:

June 2013  
and later            Agreements with local and State agencies. As bond funds become available, ARB staff will execute grant agreements with the local agencies (and interagency agreements with State agencies for loan or loan guarantee programs), based on the list of primary and backup projects approved by the Board. The execution of the grant agreements starts the statutory time clocks for local agencies to obligate funds through an executed equipment project contract.

Equipment owner applications and awards. Local agencies will solicit and evaluate applications for equipment projects, work with ARB to develop a competitively ranked list according to the Guidelines, and select eligible projects. Local agencies will then execute contracts with equipment owners to fund projects. Solicitations may be held prior to executed grant agreements if a process is approved by ARB.

Installation of cleaner technology. As project contracts are executed, equipment owners will begin purchasing and installing cleaner equipment.

**11.    *How did the 2012 Drayage Replacement Program affect the trade corridor funding targets?***

In December 2011, the Board directed ARB staff to establish and implement a drayage priority reserve directed to achieve early emission reductions through the replacement of older drayage trucks. In response, ARB staff worked with the Bay Area Air Quality Management District and the South Coast Air Quality Management District to develop the 2012 Drayage Replacement Program. Providing drayage funds to these two local agencies temporarily increased the share for the Los Angeles/Inland Empire and Bay Area corridors above the Board approved funding targets.

Consistent with prior Board direction, ARB staff will recommend funding awards in the next round that restore each corridor to its target levels.

**Table 1 Board Approved Trade Corridor Funding Targets**

Funding* to Date	Percentage	Percentage Target	Trade Corridor
\$308 million	54.6%	55.0%	Los Angeles/Inland Empire
\$139 million	24.6%	25.0%	Central Valley
\$ 88 million	15.7%	14.0%	Bay Area
\$ 29 million	5.1%	6.0%	San Diego/Border

\* Includes local agency administration costs, but does not include ARB administrative costs or truck loan assistance program.

**12. What are the priorities for Year 4 and later funds?**

ARB staff is proposing that the Board adopt the following priorities for Year 4 and later funds:

- Truck upgrade projects to reduce the health risk and also provide reductions to help meet federal air quality standards for regional air pollutants. This is consistent with statutory direction to give priority to projects that achieve the earliest possible reduction of health risk in heavily impacted communities.
- Locomotive projects to cut the elevated, excess cancer risks in neighborhoods near rail yards, as identified in ARB’s health risk assessments. The California State Implementation Plan relies on incentives and other mechanisms to accelerate the introduction of cleaner locomotives and/or engines to attain federal PM2.5 and ozone standards in the South Coast and San Joaquin Valley air basins.
- Enhanced funding for zero-emission equipment to provide an added incentive to applicants and to promote transition to the cleanest zero-emission technology for future projects. A broader deployment of these zero-emission technologies will be needed in the South Coast and San Joaquin Valley air basins to attain health-based air quality standards as well as attain future long-term greenhouse gas reduction goals.

**B. Equipment Project Specifications**

The specifications for eligible equipment projects are an integral part of the Program Guidelines. For each equipment project option, these specifications define the eligibility criteria, technology and emission standards, project funding caps, project life, and operational and reporting requirements. The Board directed ARB staff to evaluate advances in technology, changes in equipment costs, regulatory actions, demand for Program funds in the prior funding cycle, and other new information that influences the design of project specifications after each appropriation of new funds.

The proposed update to the Guidelines will revise existing project options and add new options to take advantage of cleaner technology that is currently available or expected to be available.

Many regulations are now in effect and their compliance deadlines are taken into consideration with each update of the Guidelines. The effect of the regulations on the Program is that the nature of the eligible projects has changed. There are fewer projects that are “early” to the regulations; therefore in this update, the Program is moving towards funding eligible projects with emission reductions that are “extra.” As a result, ARB staff is proposing to provide additional funding for hybrid, electric, and zero-emission technology projects that go beyond existing requirements to provide extra emission reductions and encourage equipment owners to purchase the cleanest available equipment.

Local agencies choose which source and funding categories they wish to administer. Under the staff proposal, these agencies would continue to solicit, evaluate, rank, and fund applications for equipment project options in their chosen categories, with selection of projects determined by the competitive process.

### **13. *What is the basis for the truck project options?***

Trucks are subject to ARB’s Drayage Truck Rule or the Statewide Truck and Bus Rule, which define the schedule to upgrade existing trucks to cleaner models. These rules focus on near-term retrofits of PM filters on existing trucks and longer-term eventual upgrade of those trucks to Model Year (MY) 2007 and MY2010 engines. As the Program continues to move forward, truck projects approach these regulatory compliance deadlines which limit funding opportunities for conventional projects.

ARB previously dedicated over \$135 million of Program funds to retrofit or replace over 3,500 drayage trucks. However, due to the compliance deadlines of the Drayage Truck Rule that are in effect, there are limited opportunities to obtain “extra” emissions reductions through the Program in this source category.

The Statewide Truck and Bus Rule was updated by the Board in December 2010 and is being implemented. To determine which projects will be eligible for Program funds, ARB staff reviewed the compliance deadlines under the Rule to ensure that emission reductions would be “early or extra.” ARB staff identified funding opportunities for both large and small fleets, if the fleets maintain compliance with the Rule requirements. The amount of “early or extra” PM reductions that can be achieved in 2014 (when projects are expected to be operational) is significantly less than for current projects; so future projects will yield primarily NOx reductions. Consequently, the proposed funding levels have been reduced to be in line with the available reductions and still meet the legislative requirement to ensure that the Program continues to obtain significant emission reductions for the state dollars invested. In addition, ARB staff is proposing to remove the PM retrofit project option and also would no longer allow projects with

replacement trucks containing engines less stringent than MY2010 emissions. The Program Guidelines specifically define the allowable “MY2010 emissions” for truck engines, based on the ARB Executive Order certifying the engine.

One area where PM reductions can still be achieved is with the replacement of Class 6 trucks. ARB staff recommends allowing Class 6 trucks that are involved in goods movement to compete for funding because these trucks are not required to install a PM retrofit and have extended compliance dates within the Statewide Truck and Bus Rule.

Additionally, ARB staff recommends the ability to co-fund zero-emission truck projects with the AB 118: Hybrid and Zero-Emission Truck and Bus Voucher Incentive Program (AB 118 or HVIP) to encourage equipment owners to purchase the cleanest equipment.

A local agency evaluates applications from truck owners for all of the project options and scores each application based on the established criteria of emission reductions and cost-effectiveness to determine which trucks receive funding. Each truck competes independently, so there is no advantage or disadvantage based on fleet size.

**Table 2 Proposed Equipment Project Options for Trucks**

Eligible Equipment and Upgrade		Maximum Program Funding	Project Life
A	Replace Class 8 truck with MY1994-2006 engine with a truck meeting MY2010 emissions <sup>1</sup>	MY2013 engine or newer: \$50,000 MY 2010-2012 engine: \$40,000	5 yrs or 500,000 mi  (whichever comes first)
B	Replace Class 7 truck with MY1994-2006 engine with a truck meeting MY2010 emissions <sup>1</sup>	MY2010 engine or newer: \$35,000	
C	Replace Class 6 truck with MY1996-2006 engine with a truck meeting MY2010 emissions <sup>1</sup>	MY2013 engine or newer: \$25,000	
D	Replace Class 6-8 truck with MY1994-2006 engine with zero-emission vehicle	Including AB 118 funds <sup>2</sup> : \$65,000 to \$105,000	
E	Repower truck with MY1994-2006 engine with new engine that meets MY2010 emissions <sup>1</sup>	Class 7 & 8: \$20,000 Class 6: \$10,000	
F	Three-way truck transaction: (1) Replace truck with MY1998-2006 engine with newer truck meeting MY2010 emissions <sup>1</sup> (2) Retrofit MY1998-2006 truck with PM filter (3) Scrap old truck with MY1993 or older engine	Same dollar amount as replacement above  N/A	
G	Electrification infrastructure for a truck stop or distribution center to reduce diesel engine use	Lower of 50% of eligible costs or a funding level that provides a cost-effectiveness of 0.10 lbs/State \$	

<sup>1</sup> MY2010 emissions means an engine certified by ARB Executive Order on the heavy duty test cycle to CERT and FEL emissions of 0.20 grams per brake-horsepower hour (g/bhp-hr) NOx and 0.01 g/bhp-hr PM or less.

<sup>2</sup> Subject to availability of AB 118 funds and the requirements of the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Program.

**14. How does the implementation of truck projects coincide with the Statewide Truck and Bus Rule and what effect does this have on emission reductions?**

ARB staff expects truck replacement projects to become operational in 2014. This timeframe coincides directly with the compliance deadlines of the Statewide Truck and Bus Rule. The Rule's Engine Model Year Schedule requires all trucks with an engine model year of 1996-2006 to be equipped with a PM filter. The Rule's Phase-In Option requires large fleets to equip 90 percent of their vehicles with a PM filter by 2014, and 100 percent of their vehicles by 2016. These requirements significantly limit the ability to achieve substantial PM benefits for the majority of truck replacement projects.



ARB staff has assessed the dynamics of the Truck and Bus Rule and recommends the following changes to Program eligibility to ensure that the Program continues to obtain significant emission reductions for the State dollars invested.

- Removing retrofit project eligibility. These projects are no longer eligible for funding because the compliance deadlines in the Truck and Bus Rule prevent projects from achieving cost-effective early or extra emission reductions.
- Increasing the minimum mileage required to participate in the Program from 5,000 miles per year to 20,000 miles per year for Class 7 and 8 trucks and establishing a 10,000 mile per year minimum mileage for Class 6 trucks.
- Requiring the purchase of newer trucks to be limited to those with an engine that meets MY2010 emissions which the Program defines as: 0.20 grams per brake horsepower-hour (g/bhp-hr) or less NO<sub>x</sub> (FEL and CERT values) and 0.01 g/bhp-hr or less PM (CERT value). Replacement of old trucks with trucks meeting MY2010 emissions reduces NO<sub>x</sub> emissions by over 80 percent compared to the MY2007 emissions. This would maximize emission reductions and is consistent with the Program's goal to promote the cleanest certified available technology.
- Establishing higher incentives for new (2013 engine model year or newer) Class 8 trucks. These trucks have increased on board diagnostic requirements that will ensure lower emissions throughout the project life.
- Removing 1993 and older trucks from replacement project eligibility. These projects are no longer eligible for funding because the compliance deadlines in the Truck and Bus Rule prevent projects from achieving cost-effective early or extra emission reductions.

**15. *How is the Program adjusting eligibility requirements to provide additional opportunities for incentive funding?***

ARB staff is proposing a number of changes to expand eligibility for truck applicants.

- Allow Class 6 trucks that are involved in goods movement to compete for funding. These trucks have later compliance deadlines in the Truck and Bus Rule which will allow Program funds to be used for projects that still provide substantial PM benefits.
- Expand eligibility requirements for Class 7 and 8 trucks to include 2004-2006 engine model years. These engines did not previously provide cost-effective benefits compared to the replacement of 2003 and older trucks, since the emission reductions were based on a replacement truck with MY2007 emissions. With the requirement to upgrade to a truck with MY2010 emissions, which provides a NO<sub>x</sub> reduction of over 80 percent, these replacement projects now provide significant emission reductions for the State dollars invested.

- Allow co-funding for zero-emission trucks with HVIP which will provide an added incentive to applicants and promote transition to the cleanest technology for future projects. Applications for zero-emission trucks will be prioritized and their funding coordinated with HVIP to provide streamlined funding.

**16. What is the basis for the locomotive project options?**

The proposed changes to the project options include providing a higher amount of Program funding for early introduction of locomotives meeting the U.S. Environmental Protection Agency’s (U.S. EPA) most stringent Tier 4 emission standards that require highly effective PM and NOx control. In addition, updates include modifying eligibility requirements involving operation in California and other mechanisms to improve flexibility.

**Table 3 Proposed Equipment Project Options for Locomotives and Railyards**

	<b>Eligible Equipment<sup>1</sup></b>	<b>Upgrade<sup>1</sup></b>	<b>Maximum Program Funding</b>	<b>Project Life</b>
A	Switcher (1,006 hp-2,300 hp) or medium horsepower line-haul locomotive (2,301 hp-4,000 hp)  Uncontrolled through Tier 1+ diesel freight locomotive	Replace, repower, or rebuild with new engine, or install alternative technology to meet Tier 4 or lower emission standards for both NOx and PM	(a) Lower of 60% of eligible cost or \$1.8M if operational by 12/31/2015  (b) Lower of 50% of eligible costs or \$1.5M if operational after 12/31/2015	15 yrs
B	Line-haul locomotive (4,001 hp or higher).  Uncontrolled through Tier 2 diesel freight locomotive	Replace, repower, or rebuild with a new engine, or install alternative technology to meet Tier 4 or lower emission standards for both NOx and PM	(a) Lower of 70% of eligible cost or \$2.1M if operational by 12/31/2015  (b) Lower of 60% of eligible costs or \$1.8M if operational after 12/31/2015	15 yrs
C	Existing freight railyard	Install infrastructure for a locomotive emissions capture and control system (a.k.a. hood or bonnet) that achieves a capture and control efficiency rate of at least 85% for NOx and 85% for PM	(a) Lower of 50% of eligible cost or a level commensurate with a cost-effectiveness of 0.15 lbs/State \$ or higher	10 yrs

<sup>1</sup>References to engine “Tiers” mean the applicable emission standards established by the U.S. Environmental Protection Agency.

**17. Why is ARB proposing to upgrade to Tier 4 locomotives?**

The Tier 4 emission standards significantly reduce PM and NOx emissions and will apply to new locomotives manufactured beginning in 2015. This coincides with the timeframe when the projects will be operational, as it takes approximately 2 years to manufacture locomotives. By offering to pay a greater share (percentage and dollar amount) of the cost for these engines, ARB staff hopes to create customer demand for the technology and spur manufacturers to make them available sooner.

Additionally, ARB staff acknowledges that the development of these Tier 4 engines is required by federal regulations, but the engines are not yet commercially available. Therefore, in response to local agency concerns regarding the delivery period for Tier 4 locomotives, ARB staff is proposing to ask the Board for the discretion to approve requests for extensions in deadlines (within statutory authority) if it is determined that there are manufacturer delays in the production Tier 4 engines.

Although the Program requires a 15 year contract life for locomotive projects, many new locomotives remain in service for 30 years or longer. ARB staff recognizes that this extended timeframe will provide additional emissions benefits beyond the calculated project life. ARB staff is proposing to support the cleanest engine technology to maximize these benefits.

**18. Are there any updates to either the eligibility or operating requirements of locomotive projects?**

ARB staff is proposing a change to allow applicants upgrading medium horsepower and line-haul locomotives to select a 90 percent California operation option for the new equipment with no reduction to the amount of funding.

ARB staff is also proposing operational flexibility that allows replaced Tier 2 locomotives to stay within the State as long as a dirtier locomotive is scrapped or banned from California.

**19. What is the basis for the ships at berth project options?**

ARB's Ocean-Going Vessels At-Berth Rule (Shore Power Rule) begins to phase in emission control requirements from 2010-2014, depending on the technology chosen to comply. Given the impending deadlines and the substantial lead time needed to design and build/install the technology, ARB staff can no longer expect that Program funds will provide early emission reductions.

Our focus for this source category must now be on achieving "extra" emission reductions, beyond those required under the Shore Power Rule, by providing funding for berths that service ships not covered by the regulation (e.g., vehicle carriers, bulk ships, and tankers). Because all benefits are "extra" for ships not covered by the Shore Power Rule, ARB staff is proposing to reduce the required minimum number of operating hours for non-grid-based shore power projects and the emissions capture and control system.

Additionally, ARB staff is proposing to require a minimum cost-effectiveness equal to or greater than 0.10 pounds of weighted emissions reduced per State dollar invested for grid-based shore power projects.

Although the Program typically requires projects to be completed and post-inspected prior to payment, the long term nature and high cost of ships at berth projects makes this process financially challenging for ports without significant capital. In response to the Governor's direction in his veto message on SB 234 and consistent with the ports' request, ARB staff is proposing progress payments for grid-based shore power projects that are currently under contract with the local agencies. This flexibility would also be extended to future shore power projects.

As proposed, the local agencies would reimburse the equipment owner (seaport or terminal operator) for up to 80 percent of eligible project costs, provided the equipment owner has expended the non-State match funding for each berth, and is in compliance with the equipment project contract. The Governor also directed ARB to provide additional flexibility for small seaports (less than 10 berths) if they experience difficulties meeting these conditions. ARB staff has worked with applicable stakeholders to provide additional flexibility while maintaining our fiduciary responsibility.

**Table 4 Proposed Equipment Project Options for Ships at Berth**

Eligible Equipment		Upgrade	Maximum Program Funding	Project Life	Other Conditions (partial description)
A	Existing cargo ship berth or terminal that does not receive visits by ships subject to the Shore Power Rule	Install grid-based power (landside infrastructure to berth)	Lower of 50% of eligible cost or \$2.5M	10 yrs	Ship visits must result in a cost-effectiveness of 0.10 lbs/State \$ or higher
B	Existing cargo ship berth or terminal that does not receive visits by ships subject to the Shore Power Rule	Install grid-based power (landside infrastructure to berth)	Lower of 60% of eligible cost or \$3.5M	10 yrs	Ship visits must result in a cost-effectiveness of 0.20 lbs/State \$ or higher
C	Existing cargo ship berth or terminal that does not receive visits by ships subject to the Shore Power Rule	Install non-grid-based power (zero-emission system or natural gas engine with selective catalytic reduction)	\$200k/MW	5 yrs	Ports of Los Angeles and Long Beach: 1,500 hrs/yr (2014 onwards) Other seaports: 1,000 hrs/yr (2014 onwards)
D	Existing cargo ship berth or terminal that does not receive visits by ships subject to the Shore Power Rule	Install an emissions capture and control system (a.k.a. hood or bonnet) that achieves a minimum control effectiveness of 85% for NOx and 85% for PM	Lower of 50% of eligible cost or funding level that provides a cost-effectiveness of at least 0.15 lbs/State \$	10 yrs	Ports of Los Angeles and Long Beach: 1,500 hrs/yr (2014 onwards) Other seaports: 1,000 hrs/yr (2014 onwards)

**20. What is the basis for the commercial harbor craft project options?**

ARB’s Commercial Harbor Craft Rule requires specific vessel types to upgrade to cleaner technology over time. ARB staff is proposing to update the existing project options for the repower, replacement, and/or upgrade to hybrid power systems of regulated commercial harbor craft and harbor craft not subject to the Rule.

To date, harbor craft owners have shown little interest in using Program incentives. Owners shared concerns about the boundary of operations for vessels and the low level of incentive funding. The staff proposal would extend operations beyond the current limit of 24 nautical miles (nm) to the California Coastal Waters boundaries (consistent

with the Carl Moyer Program), and also increase the funding level for all project options. This proposal provides an opportunity for more projects without a detriment to cost-effective emission reductions.

ARB staff is also recommending limiting replacement and repower to Tier 3 or better diesel engines, expanding repower or replacement with a hybrid power system to all eligible vessels (tug boats, tow boats, crew and supply vessels, work or pilot boats, and commercial fishing vessels), and setting a minimum cost-effectiveness for all projects. In addition, since upgrading auxiliary engines also achieves emission reductions and there are often advantages of upgrading both propulsion and auxiliary engines at the same time, ARB staff is recommending allowing eligibility of auxiliary engines.

Although the Program requires an 8 year contract life for commercial harbor craft projects, many new vessels will remain in service much longer. ARB staff recognizes that this extended timeframe will provide additional emissions benefits beyond the calculated project life. ARB staff is proposing to support the cleanest engine technology to maximize these benefits.

**Table 5 Proposed Equipment Project Options for Commercial Harbor Craft**

Eligible Equipment <sup>2</sup>		Upgrade <sup>2</sup>	Maximum Program Funding	Project Life
A	Regulated in-use: Diesel-powered tugboats, towboats with existing Tier 0 or Tier 1 engine(s)	Repower engine(s) or replace vessel with new Tier 3 or cleaner engine <sup>1</sup>	Lower of 50% of eligible cost or up to \$175/hp of old engine; funding level that provides a cost-effectiveness of 0.10 lbs/State \$ or higher	8 yrs
B	Not regulated in-use: Diesel-powered work or pilot vessels or commercial fishing vessels with existing Tier 0 or Tier 1 engine(s)	Repower engine(s) or replace vessel with new Tier 3 or cleaner engine	Lower of 80% of eligible cost or up to \$280/hp of old engine; funding level that provides a cost-effectiveness of 0.10 lbs/State \$ or higher	8 yrs
C	Diesel-powered tugboats, towboats, pilot or work boats, or commercial fishing vessels with existing Tier 2 or Tier 3 engine(s)	Retrofit hybrid power system on existing vessel, or replace existing vessel with a new vessel powered by a hybrid power system that achieves 30% PM and NOx emission reductions as compared to the original vessel, operating hours and duty cycle <sup>3</sup>	Lower of 80% of eligible cost or up to \$100/hp of old engine; funding level that provides a cost-effectiveness of 0.10 lbs/State \$ or higher	8 yrs

<sup>1</sup> Upgraded vessel must be operational at least 2 years before the applicable compliance date.

<sup>2</sup> References to engine “Tiers” mean the applicable emission standards for marine engines established by the U.S. Environmental Protection Agency (U.S. EPA) incorporated in ARB’s Commercial Harbor Craft Regulation.

<sup>3</sup> An equipment owner may receive a grant to repower/replace a vessel (under option A or B) and add a hybrid power system in the same upgraded vessel. If combining option C with option A or B the maximum funding available for the project (combined options) is the lower of the total cost or up to \$380/hp of the old engine.

**21. What is the basis for the cargo handling equipment project options?**

Since the Board adopted the Cargo Handling Equipment Rule in December 2005, many of the compliance deadlines have passed. Therefore, the upgraded equipment must move towards zero-emission technology to provide “extra” emission reductions. ARB staff is proposing to increase the funding amount for rubber-tired gantry cranes and expand existing engine model year eligibility to 2006 for both project options.

ARB staff has determined that it is not viable to require the destruction of the existing diesel engine for rubber-tired gantry cranes because these engines are needed to move cranes from line to line, or in emergency situations where electrical power is not available. In this case, to ensure emission reductions are achieved, ARB staff is proposing to limit the usage of the older diesel engine to a maximum of 30 hours annually.

**Table 6 Proposed Equipment Project Options for Cargo Handling Equipment**

Eligible Equipment		Upgrade	Maximum Program Funding	Project Life
A	Existing rubber-tired gantry crane (with 2006 or older MY engine) <sup>1</sup>	Repower or replace with a zero-emission power system.	Lower of 50% of eligible cost or \$500k	15 yrs
B	Existing diesel-powered yard truck (with 2006 or older MY engine) <sup>2</sup>	Repower or replace with a new zero-emission yard truck	Lower of 50% of eligible cost or \$50k	5 yrs

<sup>1</sup> Program funded equipment cannot be used to comply with the regulatory requirement for replacing non-compliant equipment with electric or hybrid power systems associated with obtaining third and/or fourth years of “No VDECS Available” compliance extension.

<sup>2</sup> Program funded equipment is not eligible to be counted towards Rule compliance for a 2-year period.

**22. How does the Program encourage reductions in greenhouse gas emissions?**

With the proposed changes, the Program would encourage greenhouse gas reductions in the following ways:

- The proposed updates would encourage greater State funding for projects with significant greenhouse gas reductions. Project criteria are enhanced for hybrid and/or electric equipment in the truck, ships at berth, harbor craft, and cargo handling equipment categories.
- The majority of the projects eligible for funding involve replacing old diesel engines with more fuel efficient models or alternative power systems that typically cut emissions of all pollutants. An equipment owner can currently apply for and receive Program funds for cleaner diesel, natural gas, electric, hybrid, or other technology that meets PM and NOx performance standards.
- ARB has supported the ability of local agencies to supplement the Program funds with federal and local monies to make alternative fuel choices that may have lower greenhouse gas emissions more attractive.

**C. Program Administration**

**23. How would the proposal improve local agency administration of the Program?**

Based upon experience with previous grants, ARB staff worked with local agencies to develop improvements to the administrative requirements to reduce the workload and maximize the efficiency of the Program. These improvements were developed based on feedback received and will simplify the application process for the equipment owner and reduce local agency workload, while maintaining an appropriate balance with the fiduciary obligations of the Program. The proposed changes will lead to less paperwork and shorter local agency review times, benefitting applicants as well as local agencies.



***Streamline registration documentation requirements.*** For truck projects, the proposed update would utilize information provided by the Department of Motor Vehicles to verify California registration minimizing the amount of paperwork needed.

***Streamline prior California operation documentation requirements.*** For truck projects, the proposed update would allow for simplified documentation (e.g., repair logs) to verify prior California operation.

***Streamline equipment owner annual reports.*** The proposed updates would reduce the frequency for local agencies to submit equipment owner data to ARB. Instead of submitting equipment owner data on a biannual basis, local agencies would submit these reports annually.

***Streamline general administrative requirements.*** The proposed updates would reduce general administrative requirements to run a more efficient Program, based on recommendations provided by local agencies.

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**APPENDIX A  
IMPLEMENTING STATUTE**

**California Health and Safety Code Sections 39625-39627.5**

39625. The Legislature finds and declares as follows:

(a) In November 2006, the voters approved the Highway Safety, Traffic Reduction, Air Quality and Port Security Bond Act of 2006, also known as Proposition 1B, that, among other things, provided one billion dollars (\$1,000,000,000) to reduce emissions associated with the movement of freight along California's trade corridors.

(b) Proposition 1B requires these funds to be made available, upon appropriation by the Legislature and subject to the conditions and criteria provided by the Legislature, to the State Air Resources Board in order to reduce the emissions associated with goods movement.

(c) Proposition 1B further required these funds to be made available for emission reductions not otherwise required by law or regulation. These funds are intended to supplement existing funds used to finance strategies that reduce emissions and public health risk associated with the movement of freight commencing at the state's seaports and land ports of entry and transported through California's trade corridors.

(d) Tremendous growth in goods movement activity has created a public health crisis in communities located adjacent to ports and along trade corridors. It is the intent of the Legislature that these funds be expended in a manner that reduces the health risk associated with the movement of freight along California's trade corridors.

(e) It is the intent of the Legislature that the state board maximize the emission reduction benefits, achieve the earliest possible health risk reduction in heavily impacted communities, and provide incentives for the control of emission sources that contribute to increased health risk in the future.

(f) It is the intent of the Legislature that the state board develop partnerships between federal, state, and private entities involved in goods movement to reduce emissions.

(g) The purpose of this chapter is to establish standards and procedures for the expenditure of these funds.

39625.01. This chapter shall be known, and may be cited, as the Goods Movement Emission Reduction Program.

39625.02. (a) As used in this chapter and in Chapter 12.49 (commencing with Section 8879.20) of Division 1 of Title 2 of the Government Code, the following terms have the following meanings:

(1) "Administrative agency" means the state agency responsible for programming bond funds made available by Chapter 12.49 (commencing with Section 8879.20) of Division 1 of Title 2 of the Government Code, as specified in subdivision (c).

(2) Unless otherwise specified in this chapter, "project" includes equipment purchase, right-of-way acquisition, and project delivery costs.

(3) "Recipient agency" means the recipient of bond funds made available by Chapter 12.49 (commencing with Section 8879.20) of Division 1 of Title 2 of the Government Code that is responsible for implementation of an approved project.

(4) "Fund" shall have the meaning as defined in subdivision (c) of Section 8879.22 of the Government Code.

(b) Administrative costs, including audit and program oversight costs for the agency administering the program funded pursuant to this chapter, recoverable by bond funds shall not exceed 5 percent of the program's costs.

(c) The State Air Resources Board is the administrative agency for the goods movement emission reduction program pursuant to paragraph (2) of subdivision (c) of Section 8879.23 of the Government Code.

(d) The administrative agency shall not approve project fund allocations for a project until the recipient agency provides a project funding plan that demonstrates that the funds are expected to be reasonably available and sufficient to complete the project. The administrative agency may approve funding for usable project segments only if the benefits associated with each individual segment are sufficient to meet the objectives of the program from which the individual segment is funded.

(e) Guidelines adopted by the administrative agency pursuant to this chapter and Chapter 12.49 (commencing with Section 8879.20) of Division 1 of Title 2 of the Government Code are intended to provide internal guidance for the agency and shall be exempt from the Administrative Procedure Act (Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code), and shall do all of the following:

(1) Provide for audit of project expenditures and outcomes.

(2) Require that the useful life of the project be identified as part of the project nomination process.

(3) Require that project nominations have project delivery milestones, including, but not limited to, start and completion dates for environmental clearance, land acquisition, design, construction bid award, construction completion, and project closeout, as applicable.

(f) (1) As a condition for allocation of funds to a specific project under Chapter 12.49 (commencing with Section 8879.20) of Division 1 of Title 2 of the Government Code, the administrative agency shall require the recipient agency to report, on a semiannual basis, on the activities and progress made toward implementation of the project. The administrative agency shall forward the report to the Department of Finance by means approved by the Department of Finance. The purpose of the report is to ensure that the project is being executed in a timely fashion, and is within the scope and budget identified when the decision was made to fund the project. If it is anticipated that project costs will exceed the approved project budget, the recipient agency shall provide a plan to the administrative agency for achieving the benefits of the project by either downscoping the project to remain within budget or by identifying an alternative funding source to meet the cost increase. The administrative agency may either approve the corrective plan or direct the recipient agency to modify its plan.

(2) Within six months of the project becoming operable, the recipient agency shall provide a report to the administrative agency on the final costs of the project as compared to the approved project budget, the project duration as compared to the original project schedule as of the date of allocation, and performance outcomes derived from the project compared to those described in the original application for

funding. The administrative agency shall forward the report to the Department of Finance by means approved by the Department of Finance.

39625.1. As used in this chapter, the following terms have the following meanings:

(a) "Applicant" means any local public entity involved in the movement of freight through trade corridors of the state or involved in air quality improvements associated with goods movement. For the purposes of administering a loan or loan guarantee program only, an applicant may include any state agency.

(b) "Emission" or "emissions" means emissions including, but not limited to, diesel particulate matter, oxides of nitrogen, oxides of sulfur, and reactive organic gases.

(c) "Emission sources" means one of the following categories of sources of air pollution associated with the movement of freight through California's trade corridors: heavy-duty trucks, locomotives, commercial harbor craft, ocean-going vessels related to freight, and cargo-handling equipment.

(d) "Goods movement facility" means airports, seaports, land ports of entry, freight distribution warehouses and logistic centers, freight rail systems, and highways that have a high volume of truck traffic related to the movement of goods, as determined by the state board.

(e) "Trade corridors" means any of the following areas: the Los Angeles/Inland Empire region, the Central Valley region, the Bay Area region, and the San Diego/border region.

39625.3. Funding pursuant to this chapter may include grants, loans, and loan guarantees.

39625.5. (a) (1) Upon appropriation by the Legislature from the funds made available by paragraph (2) of subdivision (c) of Section 8879.23 of the Government Code, the state board shall allocate funds on a competitive basis for projects that are shown to achieve the greatest emission reductions from each emission source identified in subdivision (c) of Section 39625.1, not otherwise required by law or regulation, from activities related to the movement of freight along California's trade corridors, commencing at the state's airports, seaports, and land ports of entry.

(2) Projects eligible for funding pursuant to paragraph (1) shall include, but are not limited to, the following:

(A) The replacement, repower, or retrofit of heavy-duty diesel trucks.

(B) The replacement, repower, or retrofit of diesel locomotive engines, with priority given to switching locomotive engines, provided that before any project is authorized for a locomotive engine operated and controlled by a railroad company that has entered into a memorandum of understanding or any other agreement with a state or federal agency, a local air quality management district, or a local air pollution control district, including, but not limited to, the ARB/Railroad Statewide Agreement Particulate Emissions Reductions Program at California Rail Yards, dated June 2005, the state board shall determine that the emission reductions that would be achieved by the locomotive engine are not necessary to satisfy any mandated emission reduction requirement under any such agreement.

(C) The replacement, repower, or retrofit of harbor craft that operates at the state's seaports.

(D) The provision of on-shore electrical power for ocean freight carriers calling at the state's seaports to reduce the use of auxiliary and main engine ship power.

(E) Mobile or portable shoreside distributed power generation projects that eliminate the need to use the electricity grid.

(F) The replacement, repower, or retrofit of cargo handling equipment that operates at the state's seaports and rail yards.

(G) Electrification infrastructure to reduce engine idling and use of internal combustion auxiliary power systems at truck stops, intermodal facilities, distribution centers, and other places where trucks congregate.

(b) (1) The state board shall allocate funds in a manner that gives priority to emission reduction projects that achieve the earliest possible reduction of health risk in communities with the highest health risks from goods movement facilities.

(2) In evaluating which projects to fund, the state board shall at a minimum consider all of the following criteria:

(A) The magnitude of the emission reduction.

(B) The public health benefits of the emission reduction.

(C) The cost-effectiveness and sustainability of the emissions reductions.

(D) The severity and magnitude of the emission source's contributions to emissions.

(E) Regulatory and State Implementation Plan requirements, and the degree of surplus emissions to be reduced.

(F) The reduction in greenhouse gases, consistent with and supportive of emission reduction goals, consistent with existing law.

(G) The extent to which advanced emission reduction technologies are to be used.

(H) The degree to which funds are leveraged from other sources.

(I) The degree to which the project reduces air pollutants or air contaminants in furtherance of achieving state and federal ambient air quality standards and reducing toxic air contaminants.

(J) The total emission reductions a project would achieve over its lifetime per state dollar invested.

(K) Whether an emissions reduction is likely to occur in a location where emissions sources in the area expose individuals and population groups to elevated emissions that result in adverse health effects and contribute to cumulative human exposures to pollution.

(c) The state board shall ensure that state bond funds are supplemented and matched with funds from federal, local, and private sources to the maximum extent feasible.

39626. (a) (1) The state board shall develop guidelines by December 31, 2007, consistent with the requirements of this chapter, to implement Section 39625.5, in consultation with stakeholders, including, but not limited to, local air quality management and air pollution control districts, metropolitan planning organizations, port authorities, shipping lines, railroad companies, trucking companies, harbor craft owners, freight distributors, terminal operators, local port community advisory groups, community interest groups, and airports. The guidelines shall, at a minimum, include all of the following:

(A) An application process for the funds, and any limits on administrative costs for the recipient agency, including an administrative cost limit of up to 5 percent.

(B) A requirement for a contribution of a specified percentage of funds leveraged from other sources or in-kind contributions toward the project.

(C) Project selection criteria.

(D) The method by which the state board will consider the air basin's status in maintaining and achieving state and federal ambient air quality standards and the public health risk associated with goods movement-related emissions and toxic air contaminants.

(E) Accountability and auditing requirements to ensure that expenditure of bond proceeds, less administrative costs, meets quantifiable emission reduction objectives in a timely manner, and to ensure that the emission reductions will continue in California for the project lifetime.

(F) Requirements for agreements between applicants and recipients of funds executed by the state board related to the identification of project implementation milestones and project completion that ensure that if a recipient fails to accomplish project milestones within a specified time period, the state board may modify or terminate the agreement and seek other remedies as it deems necessary.

(2) Prior to the adoption of the guidelines, the state board shall hold no less than one public workshop in northern California, one public workshop in the Central Valley, and one public workshop in southern California.

(b) For each fiscal year in which funds are appropriated for the purposes of this chapter, the state board shall issue a notice of funding availability no later than November 30. For the 2007-08 fiscal year, if funds are appropriated for the purposes of this chapter, the state board shall issue a notice of funding upon adoption of the guidelines described in subdivision (a).

(c) (1) After applications have been submitted and reviewed for consistency with the requirements of this chapter and the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, the state board shall compile and release to the public a preliminary list of all projects that the state board is considering for funding and provide adequate opportunity for public input and comment.

(2) The state board shall hold no less than one public workshop in northern California, one public workshop in the Central Valley, and one public workshop in southern California to discuss the preliminary list. This requirement shall not apply to the funds appropriated in the 2007-08 fiscal year.

(3) After the requirements of paragraphs (1) and (2) are met, the state board shall adopt a final list of projects that will receive funding at a regularly scheduled public hearing.

(d) Nothing in this chapter authorizes the state board to program funds not appropriated by the Legislature.

39626.5. (a) A project shall not be funded pursuant to this chapter unless both of the following requirements are met:

(1) The project is sponsored by an applicant.

(2) The project is consistent with any comprehensive local or regional plans or strategies to reduce emissions from goods movement activities in its jurisdiction.

(b) Notwithstanding Section 16304.1 of the Government Code, an applicant receiving funds pursuant to this chapter shall have up to two years from the date that the funds

are allocated to the applicant pursuant to a grant agreement to award the contract for implementation of a project, or the funds shall revert to the California Ports Infrastructure, Security, and Air Quality Improvement Account for allocation as provided in paragraph (2) of subdivision (c) of Section 8879.23 of the Government Code upon appropriation by the Legislature. Funds not liquidated within four years of the date of the award of the contract between the applicant and the contractor shall revert to the California Ports Infrastructure, Security, and Air Quality Improvement Account for allocation as provided in paragraph (2) of subdivision (c) of Section 8879.23 of the Government Code upon appropriation by the Legislature. Returned funds or unspent funds from obligated contracts received by the applicant prior to the end of the four-year liquidation period may be awarded by the applicant to fund other equipment projects included on the same competitively ranked list approved by the state board pursuant to the grant agreement, or, if there are no other eligible projects included on that list, shall be returned to the state board for reallocation to an applicant by the state board pursuant to guidelines developed and adopted by the state board through a public process. These guidelines shall give first priority to projects that are both in the same emission source category and in the same trade corridor as the original project, and second priority to projects that are only in the same trade corridor as the original project. All funds awarded by the applicant shall be liquidated within four years of the date of the award of the original contract or shall revert to the California Ports Infrastructure, Security, and Air Quality Improvement Account for allocation provided in paragraph (2) of subdivision (c) of Section 8879.23 of the Government Code upon appropriation by the Legislature.

(c) Of the amount appropriated in Item 3900-001-6054 of the Budget Act of 2007, not more than twenty-five million dollars (\$25,000,000) shall be available to the state board for the purpose of executing grant agreements directly with ports, railroads, or local air districts for eligible projects to achieve the earliest possible health risk reduction from the emission sources identified in subdivision (c) of Section 39625.1. It is the intent of the Legislature that funds allocated pursuant to this subdivision be distributed pursuant to the guidelines adopted by the state board under Section 39626, and that the state board provide sufficient opportunity for the public to review and comment on any projects proposed to be funded pursuant to this subdivision.

39627. The state board may seek reimbursement for program administration costs annually through an appropriation in the Budget Act from funds available pursuant to paragraph (2) of subdivision (c) of Section 8879.23 of the Government Code.

39627.5. The state board shall submit an annual report to the Legislature summarizing its activities related to the administration of this chapter with the Governor's proposed budget, on January 10, for the ensuing fiscal year. The summary shall, at a minimum, include a description of projects funded pursuant to this chapter, the amount of funds allocated for each project, the location of each project, the status of each project, and a quantitative description of the emissions reductions achieved through the project or program. The state board shall include in this report a description of any changes to the scope of grant agreements entered into to allocate funds to an applicant or changes to the award amounts described in a grant agreement.



**APPENDIX B**  
**DECEMBER 2012 STATUS REPORT**

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Proposition 1B: Goods Movement Emission Reduction Program  
DECEMBER 2012 SEMI-ANNUAL STATUS REPORT

This status report provides an update on implementation of the \$1 billion Proposition 1B: Goods Movement Emission Reduction Program (Program) to reduce emissions and health risk from freight operations in California's priority trade corridors through incentives. Consistent with State law, the Program's guidelines for implementation (Guidelines) and related documents detail the grant requirements for the Air Resources Board (ARB or Board), participating local agencies, and equipment owners (see Program website at <http://www.arb.ca.gov/gmbond>).

ARB adopts the Guidelines, and then solicits, awards, funds, and oversees grants to local agencies like air districts and seaports. The local agencies offer grants in a competitive process to diesel equipment owners to co-fund the upgrade of diesel equipment to cleaner technologies, ahead of or beyond any regulatory requirements to do so. To ensure accountability and effective use of these public funds, the local agencies: solicit for eligible projects, review applications, inspect the old equipment, provide data to competitively rank each piece of equipment based on emission reductions and cost-effectiveness, sign contracts with equipment owners, inspect the upgraded equipment, make payment for the cleaner technology, and track/report on funded projects.

The information in this report is based on the local agencies' semi-annual reports as of September 30, 2012 except where noted. The tables following the narrative in this report describe the progress on each grant using funds received from appropriations for Fiscal Years (FY) 2011-12, 2008-09 and 2007-08 including the grant award, the number of trucks or other equipment being upgraded, and estimated emission reductions.

### **Update to Program Guidelines**

ARB staff is proposing updates to the Guidelines, which is part of a periodic process to revisit the Program requirements. ARB will hold a public hearing to consider testimony and adoption of the proposed update to the Guidelines on January 25, 2013.

The proposed update to the Program Guidelines was developed in conjunction with the local agencies and other stakeholders. ARB staff released a Draft Concept Paper in October 2012 and held three public workshops statewide (Sacramento, the Central Valley, and Southern California), in November 2012 to solicit input from local agencies, the trucking industry, railroads, shippers, equipment manufacturers, and environmental representatives. The proposed update to the Guidelines incorporates many of the suggestions received as a result of outreach and implementation.

The proposed updates include administrative changes to streamline the process and improve effectiveness, and modifications to project specifications. Changes to the latter are based on advances in technology, changes in equipment costs, regulatory actions, and other new information. This proposed update acknowledges that the nature of eligible projects has changed, due to the effect of the regulations on the Program. There are fewer projects that are "early" to the regulation; therefore in this proposed

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update, the Program is moving towards funding eligible projects with emission reductions that are “extra.”

The proposed changes also reflect a provision for shore power projects to receive progress payments based on the Governor’s veto message of Senate Bill 234. The message directed ARB to allow for quarterly reimbursement for up to 80 percent of eligible project costs, provided the equipment owner has expended the non-State match funding for each berth and is in compliance with the equipment project contract. Additional flexibility is provided to small ports with less than 10 berths.

**Available Funding**

Each budget appropriation authorizes ARB to use a specific amount of bond funding for this Program, within statutory timeframes. But the appropriation does not provide any cash for this purpose. Therefore, we depend on the receipt of proceeds from State bond sales for new projects.

The entire \$1 billion has been appropriated in State budgets, with \$980 million to ARB for this Program and \$20 million set aside by the control agencies to cover bond issuance and oversight costs. To date, ARB has received almost \$587 million in cash from multiple bond sales and commercial paper; the Board has allocated all of these funds under its FY2007-08 through FY2011-12 appropriation authority for local agency projects and ARB’s administration costs over multiple years. This leaves a balance of roughly \$393 million that ARB needs new bond cash to implement new projects.

**Implementation of FY2008-09 and FY2011-12 Funds**

In June 2010, the Board awarded \$200 million in available cash primarily for truck projects and ships at berth/cargo handling equipment projects, and with smaller grants for locomotive and harbor craft projects.

In December 2011, the Board awarded \$100.8 million from the Fall 2011 bond sale and also allocated potential proceeds from a Spring 2012 bonds sale; all of these funds were used for truck projects. Funds from the Fall bond sale include \$30.3 million for drayage truck projects and \$5 million for loan guarantees, plus \$65.5 million for other truck projects covered under grant agreements. ARB received approximately \$18 million to complete the truck projects and for ARB’s administration costs from the Spring bond sale. The funds have been allocated to local agencies for truck projects in accordance with the December 2011 Board approval.

***Trucks.*** ARB signed grant agreements with six local agencies in the four trade corridors for the Phase 1 truck projects in February 2011. The local agencies held coordinated statewide solicitations in early 2011, which included extensive outreach, which resulted in a significant demand for Program funds. The local agencies have signed contracts with the majority of the equipment owners and are in the process of signing contracts with the remaining equipment owners. ARB received additional funds

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in late 2011 which were used to provide funds to the local agencies for Phase 2 truck projects which were awarded in December 2011.

Also in December 2011, ARB set aside \$66.6 million for 2,100 potentially eligible drayage truck projects. These funds are being used to replace drayage trucks that are in compliance with the first phase of the Drayage Truck Regulation but must upgrade to comply with the second phase by January 1, 2014. Based on the initial response to the request for applications and the number of projects that were contracted, there is a demand for Program funds of \$24.7 million. The remaining funds were made available for other (non-drayage) truck projects which had a significant demand in excess of available funds.

***Ships at Berth, Locomotives, and Commercial Harbor Craft.*** Local agencies have signed contracts with equipment owners, based on ARB-approved ranked lists and all projects are in process.

### **Implementation of FY2007-08 Funds**

The first year (FY2007-08) funds were used for projects to upgrade trucks, locomotives, and ships at berth. All of these projects (\$232 million) were suspended for 6 to 14 months due to the December 2008 “stop work” order on bond funded programs, which resulted in an extended delay from time of application to contract. This led to some funds being unused by the local agencies. ARB and the local agencies amended grant agreements from undersubscribed grants to oversubscribed grants. The truck, ships at berth, and the majority of the locomotive projects have all been completed; the remaining locomotive project is expected to be completed in 2014.

### **ARB Expenditures**

ARB has paid out approximately \$510 million to local agencies and for ARB’s administration costs through December 2012. Approximately \$70 million will be paid to the local agencies in the first half of 2013 primarily for ships at berth projects and will be used to pay for ARB’s administration costs for FY2012-13. The remaining \$7 million will be paid out in 2014 to close-out the ships at berth and locomotive projects.

### **Project Results**

The Program bond monies are leveraging substantial match funding from private, local, and federal sources – more than one match dollar for every Program dollar invested.

***Trucks.*** The local agencies completed the truck projects from the FY2007-08 funds by the end of 2011 with more than 5,000 cleaner trucks operating in the four trade corridors. The local agencies have signed contracts with the majority of equipment owners to upgrade about 5,700 trucks covered by the FY2008-09 and FY2011-12 grants. A significant number of these trucks must be operational by December 31, 2012

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to comply with the Program's requirement that upgrades be early or extra to the Statewide Truck and Bus Regulation.

***Ships at Berth, Locomotives, and Commercial Harbor Craft.*** The Bay Area District's early grant project to install grid-based electrical power for three ship berths at the Port of Oakland has been completed and the installation of power at nine additional berths is in the beginning stages. The South Coast District is implementing projects to install shore-side power for 25 berths at the Ports of Long Beach, Los Angeles, and Hueneme. All of the new ships at berth projects are scheduled to be operational in 2013.

The Sacramento and South Coast Districts have completed the upgrade of 18 locomotives operating in the Central Valley and the Los Angeles/Inland Empire trade corridors. An additional seven locomotives operating in the Los Angeles/Inland Empire trade corridor will be operational in early to late 2014. The San Diego District signed a contract for a commercial harbor craft project which is expected to be operational in early 2013.

### **Project Benefits**

When implemented, we expect projects included in this report will reduce at least 4.8 million pounds or 2,400 tons of particulate matter (PM), plus 132 million pounds or 66,000 tons of nitrogen oxides (NOx), over the life of their grant term (e.g., 2 to 5 years for trucks and 10 years for ships at berth).

### **Project Status by Grant Agreement**

The tables on the following pages present the status of each grant based on information from the September 30, 2012 local agency semi-annual reports. Subsequent to the submission of the semi-annual reports, ARB executed grant amendments with some of the local agencies to transfer additional unused port truck funds and add the funds allocated from the Spring 2012 bond sale. This information will be updated in subsequent semi-annual reports.

This report shows the information by trade corridor and within each trade corridor by applicable appropriation year. Additionally, we have combined the information for the FY2008-09 and FY2011-12 grants for other truck projects because these grants cover projects from the same statewide solicitation and the same ranked lists, although the funds are from different fiscal year appropriations. Projects are selected for funding on the basis of their competitive ranking, which reflects cost-effectiveness and emission reduction benefits. Since each ranked list may be updated to reflect project fallout or revised information, we preserve the overall ranking hierarchy by maintaining a single project list rather than separating it by fiscal year grant.

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**LOS ANGELES/INLAND EMPIRE TRADE CORRIDOR – South Coast AQMD**

Fiscal Year/ Category	Project Description	Grant Amount	Emission Reductions (pounds)		Current Project Status
			PM	NOx	
<b>FY2011-12</b>					
Priority Drayage Reserve <sup>1</sup>	Replace old dirty trucks with newer clean models serving ports and railyards. (G11GMLP1)	\$4,499,250	2,000	1,319,000	District has signed contracts with owners to scrap/replace 143 trucks. 58 upgraded trucks are operational and the remaining 85 trucks must be operational by the end of 2012. Grant amount reflects a reduction in funds of \$572,250 that were transferred to the District's Grant G11GMLT1.
<b>FY2011-12 &amp; FY2008-09</b>					
Other Trucks <sup>1</sup>	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models.  (G11GMLT1) (G08GMLT1)	\$104,222,983  including: \$64,334,412 \$39,888,571	691,000	17,852,000	District has signed contracts with owners to retrofit 531 trucks, scrap/replace 1,470 trucks, and is in the process of signing contracts for about 350 trucks and one truck stop electrification project. 264 upgraded trucks are operational. District expects the remaining projects to be operational by the end of 2012 for most large fleets and by the end of 2013 for small fleets. Grant amount reflects an increase in funds of \$572,250 transferred from the District's Grant G11GMLP1 and \$10,240,400 from additional funds received from the Spring 2012 bond sale
<b>FY2008-09</b>					
Ships at Berth	Eliminate or reduce emissions from ships at berth. (G08GMLS1)	\$59,973,125	373,000	21,841,000	District has signed contracts to install shorepower equipment for a total of 25 berths (12 for Port of Long Beach, 10 for Port of Los Angeles, three for Port of Hueneme). Construction started in Fall 2012 and projects are expected to be operational by December 2013.
Locomotives	Replace old dirty locomotives with newer clean models. (G08GMML1)	\$4,635,000	29,000	315,000	District has signed a contract to upgrade six locomotives and expects the projects to be operational by December 2014.

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**LOS ANGELES/INLAND EMPIRE TRADE CORRIDOR – South Coast AQMD (continued)**

Fiscal Year/ Category	Project Description	Grant Amount	Emission Reductions (pounds)		Current Project Status
			PM	NOx	
<b><i>FY2007-08</i></b>					
Drayage Trucks	Replace old dirty trucks serving the Ports of Los Angeles and Long Beach with newer clean models. (G07GMLP1)	\$6,930,000	72,000	1,104,000	District has completed the grant to scrap 132 old trucks and replace them with new natural gas trucks meeting the cleanest 2010 emission standards. All 132 trucks are operational.
	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models serving the railyards. (G07GMLP2)	\$2,625,000	34,000	577,000	District has completed the grant to retrofit 2 trucks with soot filters and to scrap 50 old trucks and replace them with much cleaner trucks. All 52 upgraded trucks are operational.
	Replace old dirty trucks serving the Ports of Los Angeles and Long Beach with newer clean models. (G07GMLP3-03)	\$68,539,800	557,000	10,194,000	District has completed this project to scrap 1,312 old trucks and replace them with much cleaner trucks. All 1,312 trucks are operational.
Other Trucks	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models. (G07GMLT1)	\$6,877,500	104,000	1,638,000	District has completed the grant to scrap 131 old trucks and replace them with much cleaner trucks. All 131 trucks are operational.
	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models. (G07GMLT2)	\$43,018,900	481,000	13,294,000	District has completed the grant to retrofit 33 trucks with soot filters and to scrap 822 old trucks and replace them with much cleaner trucks. All 855 trucks are operational. The truck stop electrification project has been cancelled as it did not meet the operational deadline.
Locomotives	Replace old dirty locomotives at railyards with newer clean models. (G07GMLL1)	\$3,090,000	37,000	1,007,000	Three locomotives have been upgraded with much cleaner engines and one locomotive is expected to be operational in 2014.



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**LOS ANGELES/INLAND EMPIRE TRADE CORRIDOR – Port of Long Beach**

Fiscal Year/ Category	Project Description	Grant Amount	Emission Reductions (pounds)		Current Project Status
			PM	NOx	
<b><i>FY2007-08</i></b>					
Drayage Trucks	Replace old dirty trucks serving the Ports of Los Angeles and Long Beach with newer clean models. (G07GMLP3)	\$3,550,000	62,000	609,000	Port has completed the grant to scrap 67 old trucks and replace them with much cleaner trucks. All 67 trucks are operational.
FY2011-12 Corridor Subtotal <sup>1</sup>		\$4,499,250	2,000	1,319,000	
FY2011-12 & 2008-09 Corridor Subtotal <sup>1</sup>		\$104,222,983	691,000	17,852,000	
FY2008-09 Corridor Subtotal		\$64,608,125	402,000	22,156,000	
FY2007-08 Corridor Subtotal		\$134,631,200	1,347,000	28,423,000	
Corridor Total <sup>1</sup>		\$307,961,558	2,442,000	69,750,000	

<sup>1</sup>Totals reflect the grant amounts and emission reductions based on the grand agreement amendments executed after the submission of the 9/30/12 local agency semi-annual reports.

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**CENTRAL VALLEY TRADE CORRIDOR – San Joaquin Valley APCD**

Fiscal Year/ Category	Project Description	Grant Amount	Emission Reductions (pounds)		Current Project Status
			PM	NOx	
<b><i>FY2011-12 &amp; FY2008-09</i></b>					
Other Trucks <sup>1</sup>	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models.  (G11GMCT1) (G08GMCT1)	\$67,403,515  including: \$22,676,212 \$44,727,303	584,000	15,311,000	District has signed contracts with owners to retrofit 88 trucks and scrap/replace 948 trucks, and is in the process of signing contracts for about 300 trucks and one truck stop electrification project. 145 upgraded trucks are operational. District expects the remaining projects to be operational by the end of 2012 for most large fleets and by the end of 2013 for small fleets. Grant amount reflects an increase in funds of \$5,509,600 in additional funds received from the Spring 2012 bond sale.
<b><i>FY2007-08</i></b>					
Other Trucks	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models. (G07GMCT1)	\$4,882,500	113,000	1,364,000	District has completed the grant to retrofit 10 trucks with soot filters and to scrap 93 old trucks and replace them with much cleaner trucks. All 103 trucks are operational.
	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models. (G07GMCT3)	\$40,824,420	609,000	14,319,000	District has completed the grant to retrofit 12 trucks with soot filters and to scrap 789 old trucks and replace them with much cleaner trucks. All 801 trucks are operational.

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**CENTRAL VALLEY TRADE CORRIDOR – Sacramento Metropolitan AQMD**

Fiscal Year/ Category	Project Description	Grant Amount	Emission Reductions (pounds)		Current Project Status
			PM	NOx	
<b>FY2011-12 &amp; FY2008-09</b>					
Other Trucks	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models.  (G11GMCT2) (G08GMCT2)	\$10,558,879  including: \$752,053 \$9,806,826	57,000	1,691,000	District has signed contracts with owners to retrofit 22 trucks and scrap/replace 209 trucks. 126 upgraded trucks are operational. District expects the remaining projects to be operational by the end of 2012 for most large fleets and by the end of 2013 for small fleets.
<b>FY2007-08</b>					
Other Trucks	Replace old dirty trucks with newer clean models. (G07GMCT2)	\$102,847	1,000	27,000	District has completed the grant to scrap two old trucks and replace them with much cleaner trucks. Both trucks are operational.
	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models. (G07GMCT4)	\$4,640,774	43,000	1,016,000	District has completed the grant to scrap 96 old trucks and replace them with much cleaner trucks. All 96 trucks are operational.
Locomotives	Replace old dirty long-haul locomotives with new clean models. (G07GMCL1)	\$10,300,000	295,000	2,844,000	District has completed the grant to repower 15 line haul locomotives with much cleaner engines. All 15 locomotives are operational and are expected to routinely travel between the Central Valley and the Los Angeles/Inland Empire.
FY2011-12 & 2008-09 Corridor Subtotal <sup>1</sup>		\$77,962,394	641,000	17,002,000	
FY2007-08 Corridor Subtotal		\$60,750,541	1,061,000	19,570,000	
Corridor Total <sup>1</sup>		\$138,712,935	1,702,000	36,572,000	

<sup>1</sup>Totals reflect the grant amounts and emission reductions based on the grand agreement amendments executed after the submission of the 9/30/12 local agency semi-annual reports.

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**BAY AREA CORRIDOR – Bay Area AQMD**

Fiscal Year/ Category	Project Description	Grant Amount	Emission Reductions (pounds)		Current Project Status
			PM	NOx	
<b><i>FY2011-12</i></b>					
Priority Drayage Reserve <sup>1</sup>	Replace old dirty trucks with newer clean models serving ports and railyards. (G11GMBP1)	\$20,191,500	3,000	6,474,000	District has signed contracts with owners to scrap/replace 708 trucks. Four upgraded trucks are operational and the remaining trucks must be operational by December 2012. Grant amount reflects a reduction in funds of \$5,076,750 that were transferred to the District's truck grant G11GMBT1.
<b><i>FY2011-12 &amp; FY2008-09</i></b>					
Other Trucks <sup>1</sup>	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models.  (G11GMBT1) (G08GMBT1)	\$20,819,963  including: \$13,225,760 \$7,594,203	118,000	3,097,000	District has signed contracts with owners to retrofit 7 trucks, scrap/replace 271 trucks, one truck stop electrification project, and is in the process of signing contracts for about 120 trucks. District expects the remaining projects to be operational by the end of 2012 for most large fleets and by the end of 2013 for small fleets. Grant amount reflects an increase in funds of \$5,076,750 that were transferred from the District's truck grant G11GMBP1.
<b><i>FY2008-09</i></b>					
Ships at Berth	Eliminate or reduce emissions from ships at berth and/or cargo equipment at ports and intermodal railyards. (G08GMBS1)	\$20,000,000	107,000	6,278,000	District has signed contracts to install shorepower equipment for a total of nine berths (eight for Port of Oakland, one for Ports America Outer Harbor Terminal). Construction has begun and projects are expected to be operational by December 2013.

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**BAY AREA CORRIDOR – Bay Area AQMD (continued)**

Fiscal Year/ Category	Project Description	Grant Amount	Emission Reductions (pounds)		Current Project Status
			PM	NOx	
<b>FY2007-08</b>					
Drayage Trucks	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models. (G07GMBP1)	\$14,526,891	190,000	1,897,000	District has completed the grant to retrofit 889 trucks with soot filters and to scrap 203 old trucks and replace them with much cleaner trucks. All 1,092 trucks are operational.
Other Trucks <sup>2</sup>	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models. (G07GMBT1)	\$10,462,200	87,000	1,970,000	District has completed the grant to retrofit 13 trucks with soot filters and to scrap 198 old trucks and replace them with much cleaner trucks. All 211 trucks are operational.
Ships at Berth	Install grid-based shoreside electrical power at 3 berths at the Port of Oakland so ships can plug in and turn off their engines while docked. (G07GMBS1)	\$2,422,290	20,000	1,164,000	District has completed the grant to provide shore power at three berths with the first ship plugging into the grid in May 2011.
Locomotives	Replace old dirty locomotives at railyards with newer clean models. (G07GMBL1)	\$0	0	0	Grant terminated and funds transferred to the existing port truck grant G07GMBP1, at the District's request.
FY2011-12 Corridor Subtotal <sup>1</sup>		\$20,191,500	3,000	6,474,000	
FY2011-12 & 2008-09 Corridor Subtotal <sup>1</sup>		\$20,819,963	118,000	3,097,000	
FY2008-09 Corridor Subtotal		\$20,000,000	107,000	6,278,000	
FY2007-08 Corridor Subtotal <sup>2</sup>		\$27,411,381	297,000	5,031,000	
Corridor Total <sup>1,2</sup>		\$88,422,844	525,000	20,880,000	

<sup>1</sup>District reflect the grant amounts and emission reductions based on the grand agreement amendments executed after the submission of the 9/30/12 local agency semi-annual reports

<sup>2</sup>Includes the \$0.4 million from FY2008-09 funds used to supplement the Bay Area District's grant G07GMBP1 for port trucks in 2010.

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**SAN DIEGO/BORDER TRADE CORRIDOR – San Diego APCD**

Fiscal Year/ Category	Project Description	Grant Amount	Emission Reductions (pounds)		Current Project Status
			PM	NOx	
<b><i>FY2011-12 &amp; FY2008-09</i></b>					
Other Trucks	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models.  (G11GMST1) (G08GMST2)	\$11,376,764  including: \$4,799,464 \$6,577,300	79,000	1,898,000	District has signed contracts with owners to retrofit 85 trucks and scrap/replace 231 trucks. 101 upgraded trucks are operational. District expects the remaining projects to be operational by the end of 2012 for most large fleets and by the end of 2013 for small fleets.
<b><i>FY2008-09</i></b>					
Commercial Harbor Craft	Replace old dirty engines in harbor craft with newer clean engines. (G08GMSH1)	\$115,286	600	11,000	District has signed a contract to upgrade one harbor craft vessel and the project will be operational in early 2013.
<b><i>FY2007-08</i></b>					
Drayage Trucks	Retrofit or replace trucks serving the Port of San Diego. (G07GMSP1)	\$0	0	0	Grant terminated and funds transferred to the existing port truck grant G07GMSP2, at the District's request.
	Replace old dirty trucks serving the Port of San Diego with newer clean models. (G07GMSP2)	\$5,143,950	31,000	680,000	District has completed the grant to scrap 98 trucks and replace them with much cleaner trucks. All 98 trucks are operational.
Other Trucks	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models. (G07GMST2)	\$1,680,000	13,000	332,000	District has completed the grant to scrap 32 trucks and replace them with much cleaner trucks. All 32 trucks are operational.

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**SAN DIEGO/BORDER TRADE CORRIDOR – Imperial County APCD**

Fiscal Year/ Category	Project Description	Grant Amount	Emission Reductions (pounds)		Current Project Status
			PM	NOx	
<b><i>FY2011-12 &amp; FY2008-09</i></b>					
Other Trucks	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models.  (G11GMST2) (G08GMST1)	\$8,174,701  including: \$5,174,701 \$3,000,000	67,000	1,638,000	District has signed contracts with owners to scrap/replace 10 trucks, and is in the process of signing contracts for 170 trucks and one truck stop electrification project. Nine upgraded trucks are operational. District expects the remaining projects to be operational by the end of 2012 for most large fleets and by the end of 2013 for small fleets.
<b><i>FY2007-08</i></b>					
Other Trucks	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models. (G07GMST3)	\$2,573,799	23,000	433,000	District has completed the grant to scrap 51 trucks and replace them with much cleaner trucks. All 51 trucks are operational.

**SAN DIEGO/BORDER TRADE CORRIDOR – Port of San Diego**

Fiscal Year/ Category	Project Description	Grant Amount	Emission Reductions (pounds)		Current Project Status
			PM	NOx	
<b><i>FY2007-08</i></b>					
Ships at Berth	Install grid-based shore power at the Port of San Diego. (G07GMSS1)	\$0	0	0	Grant terminated at the Port's request, and funds transferred to the San Diego District's existing port truck grant G07GMSP2.
FY2011-12 & 2008-09 Corridor Subtotal		\$19,551,465	146,000	3,536,000	
FY2008-09 Corridor Subtotal		\$115,286	600	11,000	
FY2007-08 Corridor Subtotal		\$9,397,749	67,000	1,445,000	
Corridor Total		\$29,064,500	213,600	4,992,000	

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**STATE AGENCY – LOAN ASSISTANCE – Priority Drayage Reserve only**

State Agency	Project Description	Grant Amount	Emission Reductions (pounds)		Current Project Status
			PM	NOx	
<b>FY2011-12</b>					
ARB	Loan assistance to replace old dirty trucks with newer clean models serving ports and railyards.	\$5,000,000	TBD	TBD	Loan assistance to help replace drayage trucks funded under the priority drayage reserve through the South Coast and Bay Area Districts. Loan assistance is improved access to financing through the California Capital Access Program with funds used for a loan loss reserve account if a truck owner defaults on their loan. ARB will refine estimates for emission reductions after the projects become operational. Any unused funds will be used to fund local agencies' other truck projects. 7 truck projects have utilized the loan assistance as of September 31, 2012.



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**TOTALS – ALL PROJECTS FROM ALL FISCAL YEAR APPROPRIATIONS**

<b>Fiscal Year Appropriation</b>	<b>Description</b>	<b>Grant Amount</b>	<b>PM (lbs)</b>	<b>NOx (lbs)</b>
FY2011-12	Priority Drayage Reserve Projects	\$24,690,750	5,000	7,793,000
	ARB Loan Assistance Program	\$5,000,000	TBD	TBD
FY2011-12 & FY2008-09	Other Truck Projects <sup>1</sup>	\$222,545,805	1,596,000	41,487,000
FY2008-09	Non-Truck Projects	\$84,723,411	509,600	28,445,000
FY2007-08	All Projects <sup>2</sup>	\$232,190,871	2,772,000	54,469,000
<b>ALL FISCAL YEARS</b>				
	<b>TOTAL Project Funds</b>	<b>\$569.2 million</b>	<b>4,882,600 lbs or 2,441 tons</b>	<b>132,194,000 lbs or 66,097 tons</b>
Funding Subtotals by Fiscal Year Appropriation:				
FY2011-12 Only	Grants to Local Agencies <sup>3</sup>	\$135,653,352		
	ARB Loan Assistance Program	\$5,000,000		
	ARB Administration <i>(may also be used in future fiscal years)</i>	\$4,700,000		
FY2010-11 Only	ARB Administration	\$3,250,000		
FY2009-10 Only	ARB Administration	\$3,250,000		
FY2008-09 Only	Grants to Local Agencies <sup>4</sup>	\$196,317,614		
	ARB Administration	\$2,960,000		
FY2007-08 Only	Grants to Local Agencies <sup>5</sup>	\$232,190,871		
	ARB Administration	\$3,240,000		
<b>ALL FISCAL YEARS</b>				
	<b>Project &amp; ARB Administration Funds</b>	<b>\$586.6 million</b>		

<sup>1</sup>Emission reduction totals shown above for "Other Truck" projects include projects funded by FY2008-09 and FY2011-12, because these projects are being funded from the same ranked lists.

<sup>2</sup>FY2007-08 emission reductions are based on the actual amount of FY2007-08 funds that were used, excluding unused funds that were re-directed to FY2011-12 local agency truck grants.

<sup>3</sup>Total FY2011-12 Grants to Local Agencies include:

- \$6.0 million from Spring 2010 bonds sales previously reserved for ARB administration funds that were re-directed to FY2011-12 local agency truck grants;
- \$14.8 million in unused funds from FY2007-08 grants that were re-directed to FY2011-12 local agency truck grants; and
- \$3.3 million in unused funds from FY2008-09 grants that were re-directed to FY2011-12 local agency truck grants.

<sup>4</sup>Total FY2008-09 Grants to Local Agencies exclude:

- \$0.4 million in FY2008-09 funds used to supplement the Bay Area District's grant G07GMBP1 for port trucks in 2010; and
- \$3.3 million in unused funds from FY2008-09 grants that were re-directed to FY2011-12 local agency truck grants.

<sup>5</sup>Total FY2007-08 Grants to Local Agencies:

- Include the \$0.4 million from FY2008-09 funds used to supplement the Bay Area District's grant G07GMBP1 for port trucks in 2010; and
- Exclude the \$14.8 in unused funds from FY2007-08 grants that were re-directed to FY2011-12 local agency truck grants.

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**TOTALS – ALL PROJECTS BY TRADE CORRIDOR<sup>1</sup>**

<b>Trade Corridor</b>	<b>Amount (\$ millions)</b>	<b>PM (lbs)</b>	<b>NOx (lbs)</b>
Los Angeles/Inland Empire	\$307,961,558	2,442,000	69,737,000
Central Valley	\$138,712,935	1,702,000	36,572,000
Bay Area	\$88,422,844	525,000	20,880,000
San Diego/Border	\$29,064,500	213,600	4,992,000
ARB Loan Assistance	\$5,000,000		
ARB Administration	\$17,400,000		
<b>TOTAL</b>	<b>\$586.6 million</b>	<b>4,882,600 lbs or 2,441 tons</b>	<b>132,194,000 lbs or 66,097 tons</b>

<sup>1</sup>The total dollar amounts and emission reductions are based on the grant agreements and any amendments as of December 2012.