

# **GOODS MOVEMENT EMISSION REDUCTION PROGRAM Staff Draft Concepts for Implementation**

Released: September 19, 2007

## ***Kickoff Public Workshops by Trade Corridor***

(see <http://www.arb.ca.gov/gmbond> for details)

### Los Angeles/Inland Empire

Long Beach

October 1

### San Diego/Border

San Diego

October 3

### Bay Area

Oakland

October 4

### Central Valley

Fresno

October 10

Sacramento

October 11

(webcast)

California Environmental Protection Agency



**Air Resources Board**

## **DOCUMENT AVAILABILITY**

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## INTRODUCTION

The Goods Movement Emission Reduction Program (Program), is a partnership between the Air Resources Board (ARB) and local agencies (like air districts, ports, and transportation agencies) to protect public health through the administration of \$1 billion in State incentives for cleaner equipment and technologies associated with freight movement. In the first phase, ARB will allocate \$250 million in bond monies received in the Fiscal Year 2007-08 budget.

This paper describes ARB staff's initial thinking about the Program design. It is intended to initiate the public discussion, and provide transparency to the many details that go into building and running a successful program. The enabling legislation -- Senate Bill 88 (Chapter 181, Statutes of 2007) -- requires expedited action to establish the Program by December 2007. We have scheduled public workshops in early October to discuss these concepts and your ideas. With your input, we will develop proposed Program Guidelines and recommended funding targets for release in early November 2007, followed by additional opportunities for public review and comment. The Air Resources Board is tentatively scheduled to consider approval of the Guidelines at a public hearing on December 6-7, 2007, to meet the statutory deadline. Staff will then solicit applications from local agencies for projects and the Board will select projects for funding in Spring 2008.

Given the short timeframe between release of these concepts and the proposal for Board action, we are including as much detail as possible in this introductory document. These concepts *begin* the public discussion – we encourage your suggestions on how this Program can best meet all of its goals.

Urgent Need to Protect Public Health. The diesel pollution from current goods movement operations greatly impacts the health of community residents near ports, rail yards, distribution centers, and roads with high truck traffic. Diesel emissions are also a major cause of high regional ozone and fine particle levels that harm millions of Californians today. There is a compelling need for action to reduce these health impacts. The primary goal of this Program is to cut air pollution from freight movement as quickly as possible.

*"The travelers on our busy trade corridors and the individuals who reside along their routes are demanding relief now -- not many years from now."*

Governor Arnold Schwarzenegger  
August 24, 2007

Comprehensive Strategy. The Board approved ARB's *2006 Emission Reduction Plan for Ports and Goods Movement in California* (Plan) on April 20, 2006, to reduce pollution from the trucks, locomotives, ships, harbor craft, and cargo-handling equipment that move international and domestic freight throughout the State. This Plan describes the related emissions and health impacts, establishes health-protective goals, identifies a broad array of regulatory and incentive strategies to cut pollution, and quantifies the associated costs and benefits. ARB is actively developing the State regulatory

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strategies, as well as the incentive components through the existing Carl Moyer Program and this new Goods Movement Emission Reduction Program. This Plan is part of the broader State *2007 Goods Movement Action Plan*, which addresses California's goods movement needs in the areas of infrastructure, security, workforce development, finance, community impacts, and environmental mitigation.

Cost of Reducing the Health Impacts from Goods Movement. We estimate the cumulative cost for Plan implementation at \$6-10 billion statewide through 2020. The Plan envisions that regulations will remain the framework for reducing emissions over time, with industries paying the cost of compliance. However, the economic status of some of the sources (like an owner with a single truck or a single commercial fishing vessel) creates a situation where financial assistance may be necessary to support the needed upgrade to cleaner equipment. The Plan recognizes that incentives can accelerate the benefits for both sources without the financial resources to fund cleanup quickly and sources outside California's direct authority. Public incentives can also be leveraged to stimulate private investment.

Bond Funding and Legislation. In November 2006, California voters approved Proposition 1B, the *Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006*, which authorizes the Legislature to appropriate \$1 billion to ARB to fund projects that reduce air pollution emissions and the resulting health risk from freight movement along California's trade corridors.

The State Fiscal Year 2007-08 budget includes the first installment of \$250 million, plus implementing legislation via Senate Bill 88 (Chapter 181, Statutes of 2007) that created the Goods Movement Emission Reduction Program. Assembly Bill 201 (Chapter 187, Statutes of 2007) then introduced a minor modification to the Program.

*"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."*

Senate Bill 88 (2007)

Funding Flow to Clean Air Projects. Bond funds will flow via grants from ARB to local agencies, then to equipment owners via contracts with those local agencies. At both steps in the process, there is competition to ensure that the most beneficial projects are funded. A key element of the competition will be the readiness of the local agencies and the equipment owners to expedite every step of the process to get cleaner equipment operating sooner. The Program will also need to complement ARB regulatory programs by providing incentives to achieve faster or greater progress.

The following section on "Program Themes" describes the various goals that need to be balanced in the development of this Program. The "Questions and Answers" section then provides our initial thoughts on how the statutory requirements can be implemented, including: the basics of the Program, the roles and responsibilities of government agencies and equipment owners, funding priorities, the process for solicitation and award of grants (at both the state and local level), a description of our recommendations for eligible projects, and the relationship to other programs.



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## **PROGRAM THEMES**

### ***Reducing emissions and health risk***

The legislation directs ARB to maximize the emission reduction benefits and achieve the earliest possible health risk reduction in communities heavily impacted by goods movement today, like those near ports, rail yards, and roadways with high truck traffic. The diesel engines used in trucks, locomotives, ships, harbor craft, and cargo-handling equipment can contribute to both high local and regional pollution levels.

A core staff concept in the design of the Program is to identify funding targets for each of these emission sources, as well as for each trade corridor region. The statute contains over 15 criteria that ARB and/or local agencies are to consider in making funding decisions. Some of these factors are most effectively applied by targeting levels of funding to source categories and corridors. Establishing these targets will help ensure that all of the funding criteria and considerations in the statute can be effectively implemented. The targets would also facilitate public discussion and Board consideration of the optimum funding splits to reduce the contribution of goods movement sources to each region's toughest air pollution challenges.

While the targets would provide the overall vision for the multi-year Program, they would also need to be flexible based on the readiness of local agencies and equipment owners to quickly implement eligible projects. Since no future-year appropriations have been established, these targets would focus on the \$1 billion as a whole without anticipating how much funding might be available in any particular year.

If the Board chooses to identify funding targets, the competitive aspects of the Program would then apply as local agencies compete for these pots of funding from ARB, and equipment owners compete for funding from local agencies. The competitive criteria at each stage would be based on the implementing legislation.

Since the four trade corridors do not share identical air quality challenges, it is important for this Program to offer local agencies the flexibility to pursue the source and pollutant strategies that best address their most pressing air pollution needs. For example, trucks are the most significant goods movement source throughout the Central Valley corridor and NO<sub>x</sub> is the most important pollutant to control to meet air quality standards. NO<sub>x</sub> control cuts the high levels of both ozone and fine particles that can persist in the Valley for days during their respective seasons. We expect Valley agencies will propose eligible truck projects that focus on reducing NO<sub>x</sub> emissions.

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## ***Incorporating simplicity and efficiency***

The successful Carl Moyer Program, run jointly by ARB and the local air districts, provides incentives to upgrade primarily diesel engines. It also serves as a model for several elements of this Goods Movement Program. In its effort to offer funding for a remarkable diversity of projects, the Moyer Program has become necessarily complex for both the implementing air district and the end user. We have taken the best of the Moyer Program, but then incorporated changes that bring simplicity and efficiency for both the agencies and the equipment owners, consistent with the implementing statute.

Striving for simplicity has two key advantages: (1) it makes the Program more accessible for equipment owners, especially small businesses, and (2) it reduces the government overhead to run the Program, leaving more bond funding available for emission-reducing projects. Efficiency can both improve the overall cost-effectiveness of the Program and expedite project completion.

*"I am requesting the State Air Resources Board to develop program administrative guidelines that make sense, reduce bureaucratic red tape, simplify and expedite project application and award procedures, and ensure projects are completed in record time."*

Governor Arnold Schwarzenegger  
August 24, 2007

To greatly simplify the Program, we are recommending a narrow range of options for eligible projects in each source category, with a straightforward dollar cap on the bond funding that is available for each piece of equipment, consistent across the State.

Starting with the emission sources listed in the statute, we sought to define the optimum project(s) to reduce emissions from those sources. We looked for approaches that can be widely and quickly deployed in each source category, and evaluated the cost and the emission reductions achievable. To ensure that bond investments are sustainable, we also considered the potential regulatory requirements for each source category to assess how long the technology was likely to operate.

We expect that local agencies may apply for funding to implement all the project options identified in the Program Guidelines, or just the subset of project options that most effectively addresses the goods movement air pollution problem in that region.

To increase administrative efficiency (and lower overhead costs), we believe it makes sense to seek a minimal number of local agency partners in the trade corridors, each with the resources and experience to quickly and effectively implement a large-scale program. We are also developing recommendations for the Program Guidelines to accelerate the funding deadlines for local agencies to complete projects, where feasible. Using accelerated schedules could deliver cleaner trucks, for example, up to four years earlier than the maximum time allowed in the legislation.

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### ***Ensuring cost-effectiveness and leveraging other funding sources***

To achieve the greatest public health benefit with the bond funds, the legislation directs us to consider cost-effectiveness when selecting projects, and to seek the maximum match funding from federal, local, and private sources. During the development of the Program Guidelines, staff will consider several measures of cost-effectiveness consistent with the legislative direction and ARB practice.

The staff concepts propose that bond funding be available to cover roughly 1/3-1/2 of the equipment cost for eligible projects, but provide a competitive advantage within each source category for projects with the greatest amount of non-state match funding.

### ***Providing transparency and accountability***

Both Governor Schwarzenegger's Executive Order S-02-07 and the implementing legislation emphasize the importance of Program transparency and accountability to the public. The Program Guidelines will include the required accountability plan. Fiscal and program audits done on the Moyer Program are proving to be a valuable resource in designing the accountability component for this next generation incentive program.

The staff concepts highlight public access to information and input on decision-making. They also describe some of the conditions that would be attached to bond-funded projects to ensure those projects deliver the expected results. Such conditions are critical to ensure Californians receive a substantial return (via lower emissions and health risk) on the financial investment.

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## QUESTIONS AND ANSWERS

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### *Program Basics*

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

The Goods Movement Emission Reduction Program (Program) is a \$1 billion bond program created by voter-approved Proposition 1B in 2006, and clarified by Senate Bill 88 (Chapter 181, Statutes of 2007) which was passed as part of the fiscal year 2007-08 State Budget. This is a new incentive program administered by the Air Resources Board (ARB or Board) that seeks to quickly reduce emissions and human health risk from sources associated with the movement of freight along California's trade corridors.

The Program will provide financial incentives to owners of equipment used in freight movement to upgrade to cleaner technologies.

#### **2. What are the health impacts from air pollution due to goods movement?**

Air pollution from goods movement contributes to premature death, cardiac and respiratory diseases, more asthma and bronchitis episodes, and increased risk of cancer. In ARB's 2006 Emission Reduction Plan for Ports and Goods Movement in California (Plan), we attributed over 2,400 premature deaths (plus over 70,000 hospitalizations and asthma/bronchitis cases) statewide in 2005 to goods movement emissions. For the 15-year period between 2005 and 2020, the Plan identifies the value of the aggregate health impact statewide from goods movement air pollution at \$200 billion.

#### **3. What emission sources and pollutants are targeted in the Program?**

The targeted emission sources include the trucks, locomotives, ships, harbor craft and cargo-handling equipment that transport goods, which are typically powered by long-lived diesel engines. The Program will fund eligible projects for these emission sources that quickly and effectively reduce the following pollutants:

- Diesel particulate matter (diesel PM) which ARB identified as a toxic air contaminant.
- Nitrogen oxides (NOx) and sulfur oxides (SOx) that contribute to fine particles (PM2.5) formed in the atmosphere.
- NOx and reactive organic gases (ROG) that form ozone in the atmosphere.

Greenhouse gases are considered in setting the source category funding targets and would be a factor in selecting between projects with equivalent reduction in other pollutants. Projects that result in lower greenhouse gases will help California meet its emission reduction targets established in Assembly Bill 32 (Nunez, 2004) and reduce the State's contribution to global climate change.

**4. Who is responsible for implementing the Program?**

ARB and local agencies that are responsible for freight movement or reducing the air quality impacts of freight operations. ARB is required to grant funds on a competitive basis to local agencies that will in turn, implement competitive incentive programs to distribute funding to end recipients (e.g. equipment owners). Both ARB and the local agencies are responsible for ensuring compliance with the funding and accountability provisions of the Program Guidelines.

**5. Where are California’s trade corridors?**

Senate Bill 88 (Chapter 181, Statutes of 2007) identifies four priority trade corridors, consistent with the State’s *2007 Goods Movement Action Plan*. To implement this air quality program, we identified air quality-related boundaries for each corridor. The trucks and locomotives funded under the Program may operate in multiple corridors and occasionally beyond these boundaries within California.

**Table 1: Trade Corridor Descriptions**

<b>Trade Corridor</b>	<b>Boundary</b>	<b>County or Counties</b>
Los Angeles/ Inland Empire	South Coast Air Basin	Western Los Angeles, Orange, Western Riverside, and Western San Bernardino Counties
	Port Hueneme	Located in Southwestern Ventura County
Central Valley	San Joaquin Valley Air Basin	Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare Counties
	Sacramento Federal Ozone Nonattainment Area	Sacramento, Yolo, Eastern Solano, Western Placer, Western El Dorado, Southern Sutter Counties
Bay Area	San Francisco Bay Area Air Basin	Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Western Solano, and Southern Sonoma Counties
San Diego/border	San Diego Air District	San Diego County
	Imperial Air District	Imperial County

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## 6. What is ARB's schedule to implement the Program?

The first step was passage of the Fiscal Year (FY) 2007-08 budget, including implementing legislation and appropriation of \$250 million to ARB for this Program. The tentative schedule for ARB and local agency actions to develop and implement the Program is provided below.

- Early Oct 2007**      Public meetings to discuss staff draft concepts. We will hold public meetings to discuss program development concepts with affected agencies, industries, communities, and others.
- Early Nov 2007**      Release of proposed Program Guidelines and public meetings. The Guidelines will identify the criteria and procedures for the overall Program, and clearly define the specific requirements that local agencies and equipment owners must follow in order to apply for, and receive, bond funding. We will hold public meetings to discuss the proposed Guidelines prior to Board consideration.
- Dec 6-7, 2007**      ARB consideration of the Program Guidelines. The Board will hold a public hearing and consider adoption of the Program Guidelines, based on staff recommendations and public input. Once the Guidelines are adopted, staff will issue a Notice of Funding Availability and solicit local agency project applications.
- Jan – Jun 2008**      Local agency project applications and awards. Local agency applications will include proposals to implement incentive programs for eligible projects within the trade corridors.
- Following the close of the application period, ARB will review and post eligible applications on its website. Staff will rank eligible applications based on criteria in the Guidelines and propose the most competitive projects for funding. The Board will hold a public hearing to consider approval of specific local agency project applications, based on staff recommendations and public input. Once the Board has acted, staff will execute grant agreements with the selected local agencies.
- 3<sup>rd</sup> Quarter 2008+**      Equipment owner applications and awards. Local agencies will solicit applications for equipment projects, rank and select eligible projects based on criteria in the Guidelines, and execute contracts with equipment owners to fund projects.
- 3<sup>rd</sup> Quarter 2008+**      Installation of cleaner technology. Equipment owners will begin purchasing and installing replacement equipment, retrofit pollution control devices, or electric infrastructure.

## 7. How can the public influence the Program?

We are seeking public involvement in the development and implementation of the Program. As described above, we will hold workshops and a Board hearing to seek public comment on the Program Guidelines. Then, we will post eligible local agency project proposals on the website and hold a Board hearing to seek public input on which proposals should be approved. We will provide public access to the projects funded and to reports on Program implementation via the website.

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There are multiple ways to communicate with us and participate in the Program:

- You can log onto our website <http://www.arb.ca.gov/gmbond> to access materials and meeting notices.
- You can sign up for the Program listserve [gmbond] through the website to receive electronic notification of meetings and document availability.
- You can call us on the Goods Movement hotline (916) 44-GOODS (444-6637).
- You can participate in public workshops and meetings around the State.
- You can write to us via email ([gmbond@arb.ca.gov](mailto:gmbond@arb.ca.gov)) or U.S. mail (Goods Movement Emission Reduction Program, Planning and Technical Support Division, Air Resources Board, P.O. Box 2815, Sacramento CA 95812) to share your comments and suggestions.

We encourage you to be an active participant, and help make this program a success!

## **8. What benefits may be achieved under the Program?**

The Program, as described by staff in this document and consistent with the implementing statute, is likely capable of reducing combined emissions of NO<sub>x</sub> and diesel PM by over 250,000 tons (or over 500,000 weighted<sup>1</sup> tons) during the life of the bond-funded equipment. Anticipating funding for widespread application of diesel particulate filters on trucks, the greatest reduction in health risk will be achieved in the first five years of the program to immediately reduce the existing health impacts. We will develop more refined estimates of the potential benefits for the Program over the next month and include those estimates as part of the staff report on the Program Guidelines.

## **9. How will this Program contribute to meeting California's State Implementation Plan targets to attain federal standards for ozone and PM<sub>2.5</sub>?**

The State Implementation Plan (SIP) is California's comprehensive strategy to show how regions that violate federal air quality standards will attain those standards by the applicable deadline. The Board will be considering adoption of a proposed new Statewide Strategy for PM<sub>2.5</sub> and 8-hour ozone, as well as the local SIP elements for the South Coast, on September 27-28, 2007. The proposed SIP revisions rely heavily on reducing emissions from existing vehicles and equipment already in use in the State.

Goods movement projects funded under this Program will support attainment of the SIP's emission reduction targets for the South Coast (and the downwind Antelope/Mojave region), the San Joaquin Valley, and the Sacramento Region. We expect that bond funds, in concert with pending regulations, will dramatically accelerate the replacement of diesel trucks, locomotives, and commercial harbor craft, as well as the installation of shore-based power for ships at dock.

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<sup>1</sup> Using the Carl Moyer Program formula, diesel PM reductions are weighted by a factor of 20

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**10. How will this Program contribute to meeting California’s greenhouse gas emission reduction targets?**

Assembly Bill 32, the California Global Warming Solutions Act of 2006, establishes the first-in-the-world comprehensive program of regulatory and market mechanisms to achieve real, quantifiable, and cost-effective reductions of greenhouse gases. This Goods Movement Program will help accelerate the introduction of more efficient technology that cuts greenhouse gas emissions. For example, when ships at dock transition from running their on-board engines to use of shore-based electrical power, the ship’s electrical demands can be met with much lower greenhouse gas emissions. Bond-funded introduction of new advanced diesel trucks and locomotives, which operate with more efficient engines and drive-train systems, will increase fuel economy and lower greenhouse gas emissions.

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***Program Structure and Key Concepts***

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**11. What is the basic structure of the Program?**

The framework for the overall Program is provided by the Legislature in Senate Bill 88 (Chapter 181, Statutes of 2007). The Goods Movement Emission Reduction Program is structured to accomplish a statewide voter-approved mandate utilizing “local public entity” or local agency expertise to the maximum extent possible in implementing source category incentive programs in each trade corridor.

Senate Bill 88 (Chapter 181, Statutes of 2007) directs ARB to first develop and approve the Program Guidelines. The Guidelines provide the competitive criteria and procedures of the overall Program, and the safeguards necessary to maximize the emission reduction benefits and achieve the earliest possible health risk reduction in heavily impacted communities.

ARB will use the Guidelines to award grants for “local agency projects” through a competitive process. Successful local agencies are then responsible for implementing the incentive programs for eligible source categories operating in California’s trade corridors. Local agencies also have the option for hiring sub-contractors to administer their grant awards.

The final recipients of bond funds are the equipment owners who are purchasing cleaner equipment. Local agencies (or their sub-contractors) will use the criteria established in the Guidelines to competitively select “equipment projects” for funding. Local agency expertise in reaching out to equipment owners to participate in the bond program is crucial to the success of the overall Program.

Once bond funding is expended and the new equipment is installed and operational, the projects will be monitored by the local agencies and ARB to ensure that the equipment continues to comply with the requirements of the Program.



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## **12. What is a “local public entity?”**

For the purposes of this program, a “local public entity” is the local agency that applies for bond funding from ARB. The statute restricts eligibility to local entities involved in the movement of freight through the trade corridors of the State or involved in air quality improvements associated with goods movement. Examples of these include, but are not limited to: air districts, seaports, and regional transportation planning agencies.

## **13. What is a “local agency project?”**

A “local agency project” is the source category-specific incentive program that the local agency proposes to implement within one or more trade corridors. For example, ARB may award a grant to a local agency for a “local agency project” that targets 5,000 truck replacements in the Central Valley. Local agencies may propose multiple projects (i.e. propose incentive programs for more than one source category), however, ARB anticipates considering each local agency project separately to ensure the competitive process is consistent among the source categories.

## **14. What is an “equipment project?”**

An “equipment project” includes the specific piece(s) of equipment associated with a single equipment upgrade. Equipment owners that have fleets of vehicles may apply for multiple equipment projects under the bond program. We use the term equipment owner to refer to the person who can make legally binding certifications and commitments regarding past and future equipment operation.

## **15. How will the State ensure accountability for results and sound fiscal practices?**

In January 2007, Governor Schwarzenegger issued Executive Order S-02-07 highlighting the importance of transparency and accountability in administering the over \$40 billion in bond funding approved by voters in 2006. The Executive Order directs all state government entities responsible for expending bond proceeds to establish and document a three part accountability structure that includes:

- Front-end accountability, which defines the criteria for expending bond funds as well as the outcomes that the funds are intended to achieve.
- In-progress accountability, which documents actions to ensure projects are staying within scope and cost, and requires semi-annual reports to Department of Finance.
- Follow-up accountability, which requires audits to ensure expenditures achieved the intended outcomes and were consistent with legal requirements.

The Program Guidelines being developed by ARB will include an accountability plan element that describes and addresses all three parts as they apply to the Program.

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The Executive Order also requires public website access to information on how bond funds are being utilized for each program to increase transparency for community residents, governments, industries, and other interested parties. ARB will maintain a website at: <http://www.arb.ca.gov/gmbond> to make information readily available to the public. ARB anticipates the public information will include at minimum: draft documents and notices of meetings, the Program Guidelines and accountability plan, annual Notices of Funding Availability, lists of the local agency projects being considered for funding, the local agency projects awarded bond funds, the local agency project status, and the results of the local agency project once completed. The next component to come on line will be information on the equipment projects funded by local agencies. In addition, we expect project and fiscal audits of ARB, the local agencies, and the equipment owners.

Incorporated into the oversight required by Executive Order S-02-07, Senate Bill 88 (Chapter 181, Statutes of 2007) includes program-specific requirements such as ensuring emission reductions achieved by the Program will continue in California for the project lifetime. ARB will include project-level tracking and monitoring provisions for each source category in the Program Guidelines.

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### ***Program Funding Targets and Priorities***

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#### **16. Why is staff developing funding targets for corridors and source categories?**

We are developing recommendations to the Board for overall Program funding targets – by source category and by trade corridor. We believe that Board consideration of these targets is necessary to create an overall vision for the multi-year Program. Such targets cannot commit the Board to specific actions in future years, but they can guide development of project proposals. Any targets established by the Board would also need to be flexible based on the readiness of local agencies/equipment owners to quickly implement eligible projects.

The statute contains over 15 criteria that ARB and/or local agencies are to consider in making funding decisions. Some of these factors are most effectively applied by targeting levels of funding to source categories and corridors, while others lend themselves to selecting among competing local agency projects or equipment projects. Establishing these targets will help ensure that all of the funding criteria and considerations in the statute can be effectively implemented.

The statute recognizes the need for projects to compete against others in the same source category, not against projects in other categories. To implement this approach, some portion of the funding needs to be targeted to each source category. Source category funding targets will support the reduction in local and regional health risk from goods movement as a primary consideration. For example, if truck and locomotive projects competed head-to-head for funding with total emission reductions or cost-effectiveness as the basis for selecting projects, trucks would receive very little funding.

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Yet trucks are the dominant source of health risk from goods movement in most impacted communities.

The statute does not explicitly require an allocation by corridor, but it does direct ARB to identify a means to consider an air basin's attainment status for State and federal air quality standards and its health risk from goods movement. We believe this is most effectively done by targeting funding to each corridor based on these air quality criteria and other related factors. These targets would also ensure that California residents in each defined trade corridor see benefits from the State's investments.

### **17. What funding targets is staff considering for each source category?**

Looking at the entire Program, our initial source category targets are:

- \$400 million: Heavy diesel drayage trucks serving seaports and intermodal rail yards
- \$340 million: Other heavy diesel trucks that haul commercial cargo, plus any truck stop or distribution center electrification projects
- \$100 million: Diesel freight locomotives
- \$100 million: Shore power for cargo ships at berth, plus any cargo handling equipment projects
- \$ 60 million: Commercial harbor craft

We considered several factors identified in the statute to develop the draft funding targets by source category.

First, we evaluated the contribution of each source category to total statewide goods movement emissions (diesel PM, NOx, and greenhouse gases) in 2010, with existing regulations in place. The heaviest trucks used to haul cargo account for around 60 percent of the total goods movement emissions statewide, followed by locomotives at just over ten percent, ships (out to 24 nautical miles) at about 20 percent, harbor craft at less than ten percent and cargo handling equipment at approximately one percent.

Second, we looked more qualitatively at the health risk associated with each source category, which also considers the location of emissions in proximity to people. Trucks are the common factor at goods movement facilities -- whether seaports, airports, rail yards, high-traffic roads, or distribution centers. This factor indicates that the percentage of funding to trucks should increase, relative to other categories. ARB's health risk assessments show that drayage trucks serving seaports and intermodal rail yards contribute to high risks in heavily-impacted nearby communities. As a result, we believe it is important to earmark a substantial portion of the funding for trucks dedicated to this vocation.

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**18. What criteria is staff considering to recommend funding targets for each corridor?**

We believe that air quality, population, and goods movement emissions should be the starting point for developing corridor funding targets. The air quality indicators we are considering include: annual fine particle (PM2.5) levels and daily ozone levels, above the most health-protective State standard; the number of days over the State 8-hour ozone standard, and the estimated exposure to diesel PM.

In addition to the relative emissions from goods movement in each corridor, we are also looking at the contribution of goods movement sources to the nature of each corridor's air pollution challenges. For example, the Los Angeles/Inland Empire region has the largest concentration of goods movement facilities (like ports and rail yards), with high near source risks and high levels of regional ozone and PM2.5 pollution. In the Central Valley, the facilities are less concentrated, but there is relatively more through truck and rail traffic that contribute to the region's harmful ozone and PM2.5 levels. In the Bay Area, regional ozone and PM2.5 levels are much lower, but port, truck, and rail yard activity adjacent to neighborhoods contributes to high localized risks. In the San Diego/border region, trucks running at or near the border crossings and operations at the port contribute to regional ozone and PM2.5 pollution above the State standards. The cross-border truck traffic in San Diego and Imperial Counties poses a special challenge for this Program due to the need to keep bond funded projects operating within the State, not other states or other countries.

**19. What are staff's priorities for the Fiscal Year (FY) 2007-08 funding?**

We believe there are two top priorities for funding in the first year of the Program.

- Eligible projects that can quickly begin implementation and deliver air quality results. This is consistent with statutory direction to give priority to projects that achieve the earliest possible reduction of health risk in heavily impacted communities. These could be communities with high risks due to nearby goods movement facilities or communities impacted by high regional pollution levels from goods movement emissions.
- Truck retrofit projects to add diesel particulate filters for immediate, broad scale, cost-effective risk reduction in many communities. Based on the implementation schedules in related truck regulatory proposals, we expect that these projects would only be eligible for FY2007-08 funding.

**20. How will ARB implement the option to directly grant up to \$25 million for projects to achieve the earliest possible health risk reduction?**

The Legislature included provisions in the statute to allow ARB to directly grant up to \$25 million in FY2007-08 funds to ports, railroads, and air districts to accelerate the health risk reduction with projects ready for expedited implementation. These "early

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grants” must be consistent with the Program Guidelines and ARB must provide sufficient opportunity for public review and comment.

We envision that this component would move forward ahead of the annual solicitation and competitive ranking process for local agency projects. The focus would be eligible projects (as defined in the Program Guidelines) that can be initiated prior to June 30, 2008. We are seeking one multi-million dollar project per corridor and beginning discussions with air quality agencies in each region to identify potential candidates.

We anticipate that our recommendations for Board action on the Program Guidelines will also include the candidate “early grant” projects. These candidate projects (and our rationale for recommending them) will be released for public review and comment about a month prior to the Board hearing, tentatively scheduled for December 6-7, 2007. The Board could then consider approval of any “early grants” at that hearing, based on staff’s recommendations and public comment.

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### ***Local Agency Information***

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#### **21. Which local agencies will be eligible to apply for bond funding?**

The eligibility of a local agency to apply for funding will be based on its demonstrated ability to implement an incentive program that complies with statute and the Program Guidelines. Eligible local agencies must be able to provide, at minimum, the following:

- An incentive program description that clearly identifies the proposed corridor and source categories being proposed.
- A funding plan detailing that financial resources are available and sufficient to implement and monitor the full scope of the proposed incentive program.
- Evidence that the agency has the staff resources and experience to successfully administer incentives for equipment projects in each proposed source category, and the ability to meet accountability requirements.
- An implementation plan that details the procedures and process the agency will follow.
- A commitment to a schedule that includes, at minimum, clear milestones for marketing, project solicitation, application review and ranking, equipment inspections, funding awards, expenditure of bond funds by equipment owners, overall program reporting to ARB, and individual equipment monitoring.

We are also considering establishing a minimum amount for each grant award by source category to ensure that the total number of grants administered by ARB maximizes the efficiency of the overall program.

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## **22. When can local agencies apply for funding?**

Local agencies may begin submitting proposals for grant funding after ARB approves the Program Guidelines and issues the Notice of Funding Availability. We expect to release this Notice shortly after Board action in December 2007.

Note, however, that given the legislative intent and the Governor's push for immediate emission reductions, the application period will be kept at a minimum. Interested local agencies should remain in close coordination with ARB staff and be actively involved in the development of the Program Guidelines. Local agency proposals should be prepared in anticipation of Board action on the Guidelines by the end of this year.

## **23. What criteria is staff developing to guide selection of competing local agency projects?**

Senate Bill 88 (Chapter 181, Statutes of 2007) requires that ARB prioritize projects for funding considering more than 15 factors, including competitive criteria on emission reductions. Assuming that the Board elects to identify Program funding targets for each source category and corridor that encompass a number of these criteria, we are considering the following approach to rank and select among competing local agency proposals. Within each source category and corridor, we believe that three primary criteria should be used to prioritize eligible projects at this step in the process:

- The total pollutant-weighted emission reductions in the trade corridors to be achieved by the local agency project over the average allowable life of the equipment. The greater the emission reductions, the higher the project would rank. This factor would also recognize the efficiency of large-scale proposals.
- The aggregate pollutant-weighted emission reductions in the trade corridors to be achieved by the local agency project over the average allowable life of the equipment, per dollar of State funding invested. The greater the benefits per State dollar, the higher the project would rank. This factor would advantage projects with higher non-State match funding.
- The projected time needed to complete the project and have the cleaner equipment in operation. The sooner the local agency would sign contracts with equipment owners and have upgraded equipment operating, the higher the project would rank. This factor would advantage project proponents who are ready to move quickly.

The Program Guidelines will include specific criteria and procedures to use in prioritizing and selecting local agency projects within each source category, including the protocol for weighting reductions of each pollutant. The Carl Moyer Program weights reductions of combustion PM emissions by a factor of 20 relative to other pollutants to account for the greater health impacts of PM per ton of emissions. One of the statutory criteria for funding decisions in this Program is the reduction of pollutants that contribute to air quality standard violations in the corridor. In addition to the Moyer approach, we are considering whether the pollutant weighting protocol should vary by region to reflect the relative importance of reducing different pollutants to meet ozone and PM2.5 standards.

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**24. Can local agencies apply for funds to help cover their program administration costs?**

Senate Bill 88 (Chapter 181, Statutes of 2007) allows local agencies to apply for up to 5 percent of the grant award for administrative costs. The legislation also authorizes ARB to use up to 5 percent of the funds for administration and audits. In addition, all state bond programs have to cover state bond issuance costs of roughly two to three percent off the top. As a result, over ten percent of the \$1 billion could be used for bond and program administration costs, reducing the funds available for cleaner equipment.

Recognizing this, we are developing recommendations for the Program Guidelines to limit the administrative costs of the Program to allow more funding to go to clean air projects. In addition to reducing ARB's administrative costs to below the allowed five percent, the Program Guidelines will recommend lower caps on local agency compensation for the source categories that will require fewer resources to administer. For example, we expect the cost to local agencies to fund a limited number of locomotive replacement or shore power electrification projects will be much lower than the cost to administer the truck incentive program with hundreds or thousands of equipment owners. Another consideration is the ability of ports and some other local agencies to generate new funding to cover administrative expenses by imposing fees on goods movement sources, rather than relying on State bond funds.

**25. How long will local agencies and equipment owners have to spend the funds on equipment projects?**

Senate Bill 88 (Chapter 181, Statutes of 2007) allows a local agency up to two years to award contracts to owners for equipment projects from the date that ARB obligates funds to the local agency via a grant agreement, and up to four years for the owner of the equipment project to fully spend the funds. Combined, this provides a maximum of six years from ARB's initial grant award before a project is fully implemented and operational. This time period is much longer than needed for most of the source categories in this Program, particularly given the urgency to reduce emissions and health risk.

We are developing recommendations for the Program Guidelines to shorten these milestone deadlines as appropriate for each source category in order to expedite completed projects. We are considering the following recommendations and seeking local agency input.

From signature of a grant agreement with ARB:

- 1 year for local agencies to sign equipment project contracts (all source categories).
- 1 year to verify project completion/close out payment for truck projects.
- 2 years to verify project completion/close out payment for locomotive projects.
- 3-4 years to verify project completion/close out payment for harbor craft projects.
- 4 years to verify project completion/close out payment for shore power projects.

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## ***Equipment Project Information***

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### **26. What are the basic requirements for equipment projects?**

At minimum, all eligible equipment projects must:

- Reduce emissions from emissions sources associated with the movement of freight in one or more of California's four major trade corridors.
- Reduce emissions not otherwise required by law or regulation.
- Meet non-state match requirements set in the Program Guidelines.
- Be sponsored by a local agency and consistent with local goods movement and air quality plans.
- Meet quantifiable emission reduction objectives in a timely manner.
- Replace, retrofit, or repower (as applicable) equipment that is currently registered (if applicable) in California and operating at a certain activity level in one or more of California's trade corridors.
- Be monitored to ensure benefits continue in California for the project lifetime.

### **27. What types of equipment projects are allowed under the statute?**

Senate Bill 88 (Chapter 181, Statutes of 2007) lists the following types of equipment projects as candidates for funding:

- The replacement, repower, or retrofit of heavy-duty diesel trucks.
- The replacement, repower, or retrofit of diesel locomotive engines, with priority given to switching locomotives.
- The replacement, repower, or retrofit of harbor craft that operates at seaports.
- The provision of on-shore electrical power for ocean freight carriers.
- Mobile or portable shoreside distributed power generation projects.
- The replacement, repower, or retrofit of cargo handling equipment that operates at seaports and rail yards.
- Electrification infrastructure to reduce engine idling and use of internal combustion auxiliary power systems at truck stops, intermodal facilities, distribution centers, etc.

We evaluated this list to determine the most effective types of projects in each source category based on the cost and the emission reductions achievable with readily deployed technology. The most important element of simplifying the Program is to establish a very limited number of project types that are eligible for funding. The next segment summarizes our assessment of the optimum projects that meet statutory requirements and could be widely and quickly deployed in each source category. The Program Guidelines will detail the eligible projects for each source category. Local agencies could propose projects that would offer all of the options presented to equipment owners, or a subset of those options, to best address the air pollution problem in that area.



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## 28. What project options is staff considering for heavy-duty trucks?

Heavy-duty diesel trucks (Class 8 trucks weighing over 33,000 lbs) represent the largest population of equipment specifically targeted by Senate Bill 88 (Chapter 181, Statutes of 2007). Existing ARB regulations and incentive programs are reducing truck emissions over time as the fleet turns over to cleaner models, but the sheer number of these trucks and the long life of diesel engines mean California must find ways to accelerate the cleanup to meet its public health goals.

**Table 2: Increasing Stringency of Truck Emission Standards Over Time**

Model Year of Engine	Percent Emission Control When Engine Is New	
	NOx	PM
1986 and older	0%	0%
1987 – 1990	44%	0%
1991 – 1993	53%	58%
1994 – 1997	53%	83%
1998 – 2003 <sup>2</sup>	63%	83%
2004 – 2006	81%	83%
2007 – 2009	90%	98%
2010 and later	98%	98%

Upcoming ARB regulations for private truck fleets and drayage trucks that serve ports and rail yards will provide additional reductions in diesel PM and NOx from the fleet. In coordination with these regulatory efforts, we identified opportunities through this Program to achieve a combination of immediate reductions in diesel PM (by adding diesel particulate filters to existing trucks) and lasting reductions of NOx and diesel PM that go beyond anticipated regulatory requirements (by replacing older existing trucks with ones meeting 2007 standards or better).

In the San Joaquin Valley, NOx reductions are the highest priority to reduce the atmospheric formation of both ozone and PM2.5 pollution to meet air quality standards. Local agencies in this area could choose to focus truck funding exclusively on achieving NOx reductions to address this significant regional pollution problem. Local agencies in other regions could similarly choose to propose the eligible project option that best fits their air quality needs.

To maximize the benefits of the State’s investment in the emission reduction technologies, we recommend a State share of no more than half the total cost of the equipment, with the specific maximum dollars per truck to be identified in the Program Guidelines. Table 3 shows our initial thinking for project options, based on current information.

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<sup>2</sup>Some MY2003 trucks meet 2004 engine standards due to “pull-ahead” agreements with truck engine manufacturers.

**Table 3: Heavy-Duty (Non-Intermodal Drayage) Truck Projects**

Eligibility	<p>Owners of Class 8 (&gt;33,000 lbs) diesel trucks registered in California for the prior two years that haul commercial cargo</p> <p>(Trucks subject to ARB's public/utility fleets rule or solid waste collection vehicle rule are not eligible.)</p>
Equipment Projects	<p>Option (1) Partial funding (up to 50%, approximately \$5,000/truck, to be determined) to retrofit pre-model year (MY)2007 diesel trucks with a diesel particulate filter (Level 3 verified by ARB)</p> <p>or</p> <p>Option (2) Partial funding (up to \$20,000-\$50,000/truck, to be determined) to replace pre-MY2003 diesel trucks with a truck meeting MY2007 emission levels or better (including trucks running on alternative fuels)</p>
Requirements	<p>Option (1)</p> <ul style="list-style-type: none"> <li>• Commit to California-only operation and registration until truck is scrapped or model year truck is required to upgrade emissions performance</li> <li>• Accept on-board monitoring device</li> </ul>
Assumptions	<ul style="list-style-type: none"> <li>• Total cost of a diesel particulate filter is ~\$10,000</li> <li>• Bond funded diesel particulate filter is installed and operational at least 1 year prior to a regulatory compliance date</li> </ul>
Requirements	<p>Option (2)</p> <ul style="list-style-type: none"> <li>• Scrap old truck</li> <li>• Commit to California-only operation and registration until truck is scrapped, model year is banned or 2020</li> <li>• Accept on-board monitoring device</li> </ul>
Assumptions	<ul style="list-style-type: none"> <li>• Total cost of a new MY2007 truck is ~\$110,000 (diesel) to ~\$180,000 (natural gas)</li> <li>• Bond funded MY2007 truck is purchased and in operation no less than 3 years prior to a regulatory compliance date</li> </ul>

**29. What project options is staff considering for intermodal drayage trucks serving seaports or intermodal rail yards?**

Heavy-duty trucks serving seaports and intermodal rail yards are typically among the oldest, dirtiest trucks on the road. These trucks operate in and near densely populated neighborhoods, leading to significant health and safety impacts for the communities. As a result, bond funding is critical to help modernize the intermodal drayage trucks, reduce emissions, and cut the resulting health risk as quickly as possible.

We are considering a separate category for intermodal drayage trucks in this Program, consistent with ARB's efforts to clean up this truck fleet on an accelerated schedule relative to the remaining heavy-duty trucks in California. The projects described below would achieve a combination of immediate reductions in diesel PM and lasting reductions of NOx and diesel PM that go beyond anticipated regulatory requirements through earlier introduction of new technology.

To maximize the benefits of the State’s investment in the emission reduction technologies, we recommend a State share of no more than half the total cost of the equipment, with the specific maximum dollars per truck to be identified in the Program Guidelines. Table 4 shows our initial thinking for project options, based on current information.

**Table 4: Projects for Drayage Trucks Serving Seaports and Intermodal Rail Yards**

Eligibility	<p>Owners of Class 8 (&gt;33,000 lbs) diesel trucks registered in California for the prior 2 years that haul commercial cargo</p> <p>(Trucks subject to ARB’s public/utility fleets rule or solid waste collection vehicle rule are not eligible.)</p>
Equipment Project	<p>Option (1) Partial funding (up to 50%, approximately \$5,000/truck, to be determined) to retrofit pre-MY2007 diesel trucks with a diesel particulate filter (Level 3 verified by ARB) or</p> <p>Option (2) Partial funding (up to \$20,000-\$50,000/truck, to be determined) to replace pre-MY2003 diesel trucks with a truck meeting MY2007 emission levels or better (alternative fuel replacement trucks included)</p>
Requirements	<p>Option (1)</p> <ul style="list-style-type: none"> <li>• Commit to California-only operation and registration until truck is scrapped or model year truck is required to upgrade emissions performance</li> <li>• Commit to frequent port or intermodal rail yard service for 5 years (150+ visits/year) or until that model year truck is prohibited</li> <li>• Accept on-board monitoring device</li> </ul>
Assumptions	<ul style="list-style-type: none"> <li>• Total cost of a diesel particulate filter is ~\$10,000</li> <li>• Bond funded diesel particulate filter is installed and operational at least 6 months prior to a regulatory compliance date</li> </ul>
Requirements	<p>Option (2)</p> <ul style="list-style-type: none"> <li>• Scrap old truck</li> <li>• Commit to California-only operation and registration until truck is scrapped, model year is banned or 2020</li> <li>• Commit to frequent port or intermodal rail yard service for 5 years (150+ visits/year) or until that MY truck is prohibited</li> <li>• Accept on-board monitoring device</li> </ul>
Assumptions	<ul style="list-style-type: none"> <li>• Total cost of a new MY2007 truck is ~\$110,000 (diesel) to ~\$180,000 (natural gas)</li> <li>• Bond funded MY2007 truck is purchased and in operation no less than 3 years prior to a regulatory compliance date</li> </ul>

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### **30. What project options is staff considering for locomotives?**

The captive (in-state) diesel locomotives that operate at rail yards to help move trains around (switchers) and provide additional towing power for steep grades (helpers) have historically been some of the oldest, dirtiest models in rail operation. More powerful line-haul locomotives are the workhorses that pull trains long distances. ARB's recent health risk assessments at rail yards across the State demonstrate the need to clean up diesel PM from locomotive operations and NOx reductions are essential to aid attainment of air quality standards.

Eligibility for locomotive bond funding under Assembly Bill 201 (Chapter 187, Statutes of 2007) requires ARB to determine that the emission reductions are not necessary to satisfy any mandated emission reduction requirement under any agreements with federal, state, or local agencies. ARB's first agreement with the large, Class I railroads - Union Pacific (UP) and Burlington Northern Santa Fe (BNSF) to reduce emissions was signed in 1998 and requires their locomotive fleets operating in the South Coast to reduce NOx emissions over 65 percent by 2010. Cleaner locomotives counted by the railroads toward these fleet averages are required and not eligible for bond funding.

The second agreement in 2005 focused on reducing the health risk from diesel PM due to rail yard operations by 20 percent over a three-year period. Among its provisions, this 2005 agreement requires installation of devices to reduce idling; these devices are required and not eligible for bond funding. The 2005 agreement also calls more broadly for the railroads and ARB to work with communities to further reduce emissions and health risk through other actions. The agreement specifically anticipates the use of public incentives to help co-fund these actions. Staff believes that the provisions in the 2005 agreement for further actions do not constitute a specific requirement that would prohibit locomotives operated by the Class I railroads from eligibility for bond funding.

We are considering locomotive equipment projects that target replacement of all types of freight locomotives (or their engines) dedicated to service in California. These projects can significantly reduce NOx and diesel PM. The greater efficiency of the new engines also reduces greenhouse gas emissions. To maximize the benefits of the State's investment in the emission reduction technologies, we recommend a State share of half or less of the total cost of the equipment, with the specific maximum dollars per locomotive to be identified in the Program Guidelines. Table 5 shows our initial thinking for project options, based on current information.

**Table 5: Locomotive Projects**

Eligibility	<p>Owners of diesel-powered freight locomotives in California service with no/minimal emissions controls (Tier 0 or 1)</p> <p>(Locomotives used by UP and BNSF Railroads to meet the fleet average NOx emission standards under the 1998 agreement for the South Coast are not eligible for funding)</p>
Equipment Project	<p>Option (1) Partial funding (up to \$0.5-\$0.75 million/locomotive, to be determined) to replace a Tier 0 or 1 switcher locomotive using &gt;50,000 gal fuel/yr with a new generator-set plus a diesel particulate filter, or equivalent</p> <p>or</p> <p>Option (2) Partial funding (up to \$0.5-\$1.0 million/locomotive, to be determined) to replace a Tier 0 helper locomotive using &gt; 50,000 gal fuel/yr with a new generator-set plus a diesel particulate filter, or equivalent</p> <p>or</p> <p>Option (3) Partial funding (up to \$0.5-\$1.25 million/locomotive, to be determined) to replace a Tier 0 in-state line haul locomotive with a new model meeting the latest emission standards (Tier 2 or better) plus a diesel particulate filter, or equivalent</p>
Requirements	<p>All options</p> <ul style="list-style-type: none"> <li>• Scrap old engine, or ban old locomotive from California service and demonstrate on-going compliance</li> <li>• Commit to California-only operation until scrap, ban, or 2030</li> <li>• Commit to 80% of operation within one or more corridors</li> <li>• Install on-board location monitoring device on line-haul locomotives</li> </ul>
Assumptions	<ul style="list-style-type: none"> <li>• Total cost of a new switcher generator-set plus filter is ~\$1.5 million</li> <li>• Total cost of a new helper generator-set plus filter is ~\$2.0 million</li> <li>• Total cost of a new Tier 2 locomotive plus filter is ~\$2.5 million</li> <li>• UP/BNSF plans to comply with 1998 agreement for South Coast is submitted to ARB prior to application for bond funding in the Los Angeles/Inland Empire corridor</li> </ul>

**31. What project options is staff considering for commercial harbor craft?**

Harbor craft operate in and around ports, contributing to community health risk on shore and regional pollution. The freight-related commercial harbor craft that create the highest combination of emissions and health risk due to daily operations near shore include tugboats and high use commercial fishing boats. The diesel engines typically used in harbor craft were built for durability, with no requirement for emission controls on new engines until 2000.

We are considering only the dirtiest and highest use harbor craft propulsion engines to be eligible for bond funding. Recognizing the variability in engine size and horsepower, we propose partial funding, with the specific maximum dollars per horsepower to be identified in the Program Guidelines. Table 6 shows our initial thinking for project options, based on current information.

**Table 6: Commercial Harbor Craft Projects**

Eligibility	Uncontrolled (Tier 0) diesel propulsion engines for: <ul style="list-style-type: none"> <li>tugs and tows with &gt;300 operating hrs/yr,</li> <li>crew and supply boats with &gt;1,000 operating hrs/yr, and</li> <li>commercial fishing boats with &gt;2,500 operating hrs/yr</li> </ul>
Equipment Project	Partial funding (up to \$135-\$270/hp, to be determined) to replace Tier 0 engine with new model meeting latest emission standards (Tier 2 or better) and make necessary vessel modifications to accommodate the new engine
Requirements	<ul style="list-style-type: none"> <li>Scrap old engine</li> <li>Commit to California-only operation until scrap, ban, or 2030</li> <li>Commit to 80% of operation within one or more corridors</li> <li>Accept on-board monitoring device</li> </ul>
Assumptions	<ul style="list-style-type: none"> <li>Total cost of a Tier 2 engine is ~\$270/horsepower</li> <li>Out of service time (dry dock) costs not covered by bond funds</li> <li>Bond funded engine is purchased and in operation no less than 2 years prior to a regulatory compliance date</li> </ul>

**32. What project options is staff considering for shore-power for ships?**

Ships at dock run their engines to provide on-board power. These engines account for significant diesel PM emissions that impact nearby communities, as well as NOx and SOx emissions that contribute to regional ozone and particle pollution. With the development of electrical infrastructure at the ports, ships can plug in to electrical power at berth (cold-ironing) rather than running their on-board engines. The shore-side electrical power can be supplied through connections to the electricity grid or produced on-site with distributed generation. Use of shore-based electrical power also reduces greenhouse gas emissions compared to on-board power generation through the ship engines.

We are considering partial funding for the electrical infrastructure needed to provide shore-side power to berths at ports in the trade corridors. These eligibility requirements are consistent with ARB’s shore power regulation currently under development, and would achieve emission reductions more quickly.

To maximize the benefits of the State’s investment, we identify a State share of no more than half of the shoreside cost for bringing power to the berth or generating power onsite, with the specific maximum dollars per berth and per distributed generation unit to be identified in the Program Guidelines. Table 7 shows our initial thinking for project options, based on current information.

**Table 7: Shore-Power Projects**

Eligibility	Owners or companies that lease existing cargo ship berths at ports located in designated trade corridors
Equipment Project	Option (1) Partial funding (up to \$2.5 million/berth) of the shore-side capital costs of installing permanent, grid-based electrical power at a berth or Option (2) Partial funding (up to \$1.5-2.0 million/unit, to be determined) of the capital costs of distributed electrical generation that provides equivalent power and emissions as permanent shore power at a berth or multiple berths
Requirements	Option (1) <ul style="list-style-type: none"> <li>• Commit to the use of shore power for 90%+ of the ship visits at the berth</li> </ul>
Assumptions	<ul style="list-style-type: none"> <li>• Total shoreside cost of equipping a berth with permanent grid-based electrical power is ~\$5.0 million/berth; some ports may incur additional costs to bring new/additional power capacity to the terminals</li> <li>• Shiplside modifications will cost ~\$1 million/ship</li> <li>• Bond funded shore power is installed and in operation at least 3 years prior to a regulatory compliance date</li> </ul>
Requirements	Option (2) <ul style="list-style-type: none"> <li>• Commit to use distributed generation power for 90% of the ship visits until replaced with lower-emission technology</li> </ul>
Assumptions	<ul style="list-style-type: none"> <li>• Total cost of distributed generation power is anticipated to be in the range of ~\$3.0 to \$4.0 million/unit</li> <li>• Shiplside modifications will cost ~\$1 million/ship</li> <li>• Bond funded distributed generation shore power is installed and in operation at least 3 years prior to a regulatory compliance date</li> </ul>

**33. What project options is staff considering for cargo handling equipment?**

ARB’s 2005 regulation for cargo handling equipment already requires significant emission reductions from almost all off-road diesel-fueled engines operating at major seaports and intermodal rail yards in California. We looked at cost-effective opportunities to achieve emission reductions beyond those required under the regulation and identified one type of project with potential for funding. Rubber-tired gantry (RTG) cranes, which are used to lift and move containers, may be a suitable candidate for energy storage systems with co-funding from the Program if cost-effectiveness can be demonstrated. These hybrid systems (including flywheel, battery or other energy storage devices) reduce peak power demands, resulting in reduced fuel consumption and consequently reductions in diesel PM, NOx, and greenhouse gas emissions.

To maximize the benefits of the State’s investment in the emission reduction technologies, we recommend a State share of half or less of the total cost of the equipment, with the specific maximum dollars per project to be identified in the Program Guidelines. Table 8 shows our initial thinking for project options, based on current information.

**Table 8: Cargo-Handling Equipment Projects**

Eligibility	Owners of diesel powered rubber tire gantry cranes with Tier 4 engines operating at seaports or intermodal rail yards
Equipment Project	Partial funding (up to \$80,000 - \$160,000/crane, to be determined) of energy storage systems for rubber tire gantry cranes
Requirements	<ul style="list-style-type: none"> <li>• Commit to California operation in port or intermodal rail yard service through 2030 or until prohibited</li> <li>• Accept on-board monitoring device</li> </ul>
Assumptions	<ul style="list-style-type: none"> <li>• Total cost of energy storage unit is ~\$160,000 - \$320,000 per crane</li> </ul>

**34. What project options is staff considering for truck stop/distribution center electrification?**

The final type of eligible project listed in Senate Bill 88 (Chapter 181, Statutes of 2007) is electrification infrastructure to reduce engine idling and use of internal combustion auxiliary power systems at trucks stops, intermodal facilities, distribution centers, and other places where trucks congregate. The emissions from the trucks themselves, together with their auxiliary power units for cabin comfort and transport refrigeration units that chill perishable loads, impact nearby communities.

However, staff is assessing whether electrification infrastructure at these facilities is the most effective investment of bond money to reduce the health impacts from these operations, considering current and upcoming regulations. ARB already has several regulations in place that will substantially reduce emissions from heavy-duty trucks, truck idling, transport refrigeration units, and auxiliary power units.

- In February 2005, the commercial truck idling regulation took effect, prohibiting idling main or auxiliary engines for more than five minutes.
- In January 2008, the new and in-use truck idling regulation for sleeper berth-equipped diesel trucks goes into effect, limiting idling and auxiliary power unit operations for these vehicles.
- Also in January 2008, emission performance requirements go into effect for auxiliary power systems and fuel fired heaters installed on 2007 and newer truck engines.

These regulations are in addition to the in-use truck rule currently under development and anticipated for Board consideration in mid-2008.

We are seeking public input on the benefits and cost-effectiveness of electrifying truck stops or distribution centers, after accounting for the impacts of adopted ARB rules. The objective is to determine if there are electrification projects that can offer benefits per State dollar invested similar to the optimum projects discussed for other source categories..



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**35. What criteria is staff developing to guide local agency selection of competing equipment projects in each source category?**

Similar to ARB's process for awarding local agency grants, the legislation requires local agencies to use a competitive process to select equipment projects for funding. We believe that three primary criteria should be used to prioritize eligible projects at this step in the process:

- The average pollutant-weighted emission reductions in the trade corridors to be achieved by each piece of equipment over the allowable life of the equipment. The greater the emission reductions per unit, the higher the project would rank. This factor would also recognize the benefits of cleaning up equipment that will operate in multiple corridors.
- The pollutant-weighted emission reductions in the trade corridors to be achieved by the project over the allowable life of the equipment, per dollar of State funding invested. The greater the benefits per State dollar, the higher the project would rank. This factor would create an advantage for projects with higher non-State match funding.
- The projected time needed to complete the project and have the cleaner equipment in operation. The sooner the upgraded equipment could be operating, the higher the project would rank. This factor would advantage project proponents who are ready to move quickly.

Another important factor is project location. The statute calls for project selection to consider the earliest possible reduction of health risk in communities with the highest risk from goods movement and whether the emission reductions are likely to occur in locations with high emissions and exposure. Since we do not have air monitoring or health risk assessments for each community in each corridor, this factor will need to be more qualitative and we are seeking input on how to construct the appropriate criterion.

The Program Guidelines will include specific criteria and procedures for local agencies to use in prioritizing and selecting projects within each source category, including the protocol for weighting reductions of each pollutant.

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***Relationship to Other Programs***

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**36. Can this Program fund equipment required to comply with current regulatory requirements?**

No. Funding equipment used to comply with existing requirements is prohibited. Proposition 1B and Senate Bill 88 (Chapter 181, Statutes of 2007) specify that the funds used for the Program are made available for emission reductions not otherwise required by law or regulation.

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**37. Can this Program fund equipment subject to *future* regulatory compliance dates?**

Yes, with conditions. Similar to the Carl Moyer Program, this Program may fund equipment projects that provide early emission reductions in advance of regulations or emission reductions that go beyond regulatory requirements. Thus, the Program may fund equipment projects that are subject to future regulations so long as the project is completed and operating within a prescribed period prior to the regulatory compliance date. Alternatively, eligible projects can be funded if they achieve emission reductions that go beyond the regulatory requirements. The Program Guidelines will specify how far in advance of regulatory requirements the project must be completed.

**38. What will happen to bond-funded equipment projects once *future* regulations take effect?**

All equipment subject to a future regulation must comply with any adopted requirements regardless of whether or not the equipment was co-funded under a State incentive program.

With this in mind, we recognize that several ARB regulatory efforts currently in development will have a direct impact on the source categories eligible for funding under this Program. These include:

- Commercial Harbor Craft Regulation, currently scheduled for October 2007.
- At-Berth Ocean-Going Vessel Regulation (Shore Power), currently scheduled for December 2007.
- In-Use On-Road Heavy-Duty Diesel-Fueled Intermodal Drayage Truck Regulation, currently scheduled for December 2007.
- In-Use On-Road Heavy-Duty Diesel-Fueled Vehicle Regulation, anticipated in mid-2008.

We are designing the Program with these regulatory efforts in mind and coordinating closely with the staff responsible for each regulation to ensure that any early investments on long-lasting equipment will achieve emission reductions that meet or go beyond the regulatory requirements.

**39. What are the key similarities and differences between this Program and the existing Carl Moyer Air Quality Standards Attainment Program?**

This Program and the Carl Moyer Air Quality Standards Attainment Program (Carl Moyer Program) are incentive programs required by State law to reduce emissions beyond what would otherwise occur through law or regulation.

In both programs, ARB is tasked with setting minimum program requirements, granting funds to local agencies, and providing program oversight. Local agencies then solicit and evaluate equipment project applications, select projects, enter into contracts with

successful equipment owners, and track project completion. Both programs seek to leverage funding to maximize emission reductions. There are, however, several important differences between the two programs, as summarized in Table 9.

**Table 9: Key Differences between the Goods Movement Emission Reduction Program and the Carl Moyer Program**

	<b>Goods Movement Program</b>	<b>Carl Moyer Program</b>
<b>Purpose</b>	Reduce emissions and public health risk associated with freight movement along California's trade corridors	Reduce community health risks, achieve SIP-creditable emission reductions
<b>Program funding</b>	\$1 billion subject to legislative appropriation (\$250 million appropriated in FY2007/08)	\$140 million/year through 2014, \$61 million/year thereafter
<b>Eligible geographic areas</b>	Four trade corridors: Los Angeles/Inland Empire, Central Valley, Bay Area, and San Diego/border	All of California
<b>Eligible source categories</b>	Limited to equipment associated with freight movement: <ul style="list-style-type: none"> <li>• Heavy duty diesel trucks</li> <li>• Diesel locomotives</li> <li>• Harbor craft</li> <li>• Shore power</li> <li>• Cargo handling equipment</li> <li>• Truck stop electrification</li> </ul>	Open to diesel engines used in a broad range of applications, plus passenger vehicle scrap: <ul style="list-style-type: none"> <li>• On-road heavy duty vehicles</li> <li>• Locomotives</li> <li>• Harbor craft</li> <li>• Shore power</li> <li>• Off-road equipment</li> <li>• Truck stop electrification</li> <li>• Agricultural pumps</li> <li>• Car scrappage</li> </ul>
<b>Local agency grant recipients</b>	Local public entities involved in goods movement or involved in improving air quality associated with goods movement	Air districts
<b>Distribution of funds</b>	Competitive between local agencies that apply for funds	Divided by formula, and allocated directly to air districts
	Competitive between equipment projects based on emission reductions and non-state match	District choice. May be first-come-first-serve or competitive
<b>Min. cost-effectiveness for funding eligibility</b>	None	\$14,300/weighted ton
<b>Project funding limits</b>	Proposes to pay a set dollar amount per piece of equipment for eligible projects	Pays no more than \$14,300/weighted ton for the incremental cost of the project

**40. Can a single equipment project be funded by both this Program and the Moyer Program?**

Practically speaking, we don't think that a project relying on a combination of Moyer and bond funding could pass the Moyer cost-effectiveness test. We also believe the programs should not compete for projects. We are evaluating ways to maximize the

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use of State dollars by including provisions for Board consideration in the guidelines for both programs that would govern goods movement projects in the four trade corridors that would otherwise be eligible for both programs. These provisions would clearly define which types of projects can be funded by the Goods Movement Emission Reduction Program, and which can be funded by the Carl Moyer Program in the same year. Any local agency or equipment owner that applies for funds in one program should be prohibited from applying for funding through the other. Some examples of how staff is considering separating the two programs include:

- Harbor Craft
  - Goods Movement Program funds: tugs, tows, work, supply, and commercial fishing projects
  - Carl Moyer Program funds: all else (ferry, excursion, charter fishing, etc.)
- Shore Power
  - Goods Movement Program funds: shoreside electrification infrastructure for cargo ships
  - Carl Moyer Program funds: shipside modifications to accept shore power and shoreside electrification infrastructure for cruise ships

#### **41. How does this Program relate to the San Pedro Bay Ports Clean Air Action Plan?**

In November 2006, the Harbor Commissions of the Ports of Los Angeles and Long Beach adopted a joint strategy to address air quality concerns – the San Pedro Bay Ports Clean Air Action Plan. This Plan lays out actions the Ports committed to take (using their own legal mechanisms like leases and tariffs) to reduce emissions from trucks, ships, cargo equipment, and rail through 2011. The key measures to cut air pollution from port operations are the heavily-subsidized Clean Truck Program, and a shore-side expansion program to bring grid-based electrical power to ship berths. This Plan identifies a joint commitment by the Ports to over \$417 million in funding through 2011, and a South Coast Air Quality Management District commitment of over \$47 million, to support Plan implementation.

This Plan anticipated substantial funding from Proposition 1B, on the order of \$400 million, to supplement the above commitments, which would leave over \$1 billion to be raised by the Ports through impact fees on goods movement sources. ARB staff participated in Plan development and supported its adoption by the Harbor Commissions.

We believe that bond monies can be used to co-fund projects defined in this Plan, so long as they are consistent with project eligibility requirements in the statute and Program Guidelines, as well as any applicable ARB regulations. We expect that the match funding from the Ports and District will be high, making these projects competitive for bond funds.

## ATTACHMENTS

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## Attachment A

### **Excerpt from Senate Bill 77 (Chapter 171, Statutes of 2007): Governor's Statement Regarding Bond Funding for the Goods Movement Emission Reduction Program**

August 24, 2007

I am sustaining the legislative augmentation of an additional \$139,000,000 *[for a total of \$250,000,000]* provided for trade corridor emissions reductions to be expended in the budget year for this new program authorized by the voters in Proposition 1B in the November 2006 general election.

Proposition 1B provides \$1 billion to fund projects intended to improve air quality along four of California's major transportation corridors: from the Los Angeles ports to the Inland Empire, State Route 99 in the Central Valley, the San Francisco Bay Area, and the San Diego border region. The State Air Resources Board will be developing program guidelines and will solicit project proposals. The projects to be funded are intended to achieve air quality improvements above and beyond anything required by current law or regulation.

The travelers on our busy trade corridors and the individuals who reside along their routes are demanding relief now—not many years from now. However, I am concerned about taxing the ability of the State Air Resources Board to develop program guidelines and allocate \$250,000,000 in the 2007-08 fiscal year. We must ensure effective expenditure of this bond funding. It is important that we do not sacrifice accountability in the interests of expediency. Therefore, while acknowledging the challenge that the State Air Resources Board faces in distributing these funds, I am directing the State Air Resources Board to ensure that this funding be allocated consistent with the accountability safeguards identified in my Executive Order S-02-07 for all bond funds approved by the voters in the November 2006 general election.

I am requesting the State Air Resources Board to develop program administrative guidelines that make sense, reduce bureaucratic red tape, simplify and expedite project application and award procedures, and ensure projects are completed in record time. The people who voted for proposition 1B are demanding this action. I know that my colleagues in the Legislature agree with these goals, and that the staff of the State Air Resources Board is up to this challenge.

In addition, because the language adopted by the Legislature relies heavily on local and regional entities to carry out this program, I am calling on those entities to work closely with the State Air Resources Board and ensure they are prepared to submit applications to receive and allocate funding as soon as possible in this fiscal year.

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**Attachment B**  
**Executive Order S-02-07: Governor Schwarzenegger's**  
**Executive Order on Bond Accountability**  
January 24, 2007

EXECUTIVE ORDER S-02-07  
by the  
Governor of the State of California

WHEREAS in the 1950s and 1960s, Californians made a phenomenal investment in the state's highways, water supply systems, schools and universities providing the infrastructure that is now the foundation of the eighth largest economy in the world; and

WHEREAS in 1950s the state's population was about 13 million, but is now approaching 38 million, and over the next two decades it will increase by another 23 percent; and

WHEREAS the infrastructure investments of a half century ago are showing their age and straining to support a vibrant economy and population much larger than they were designed to accommodate; and

WHEREAS a massive infusion of new infrastructure investment is necessary to ensure the state's high quality of life and California's position as a global economic powerhouse; and

WHEREAS on November 7, 2006 the people of California approved a \$42.7 billion bond package to partially fund the first phase of an historic twenty-year California Strategic Growth Plan that is intended to build a prosperous future for our children and grandchildren; and

WHEREAS I am proposing an additional \$43.3 billion of bond funding to complete the first phase of the Strategic Growth Plan; and

WHEREAS it is the obligation of state government to ensure that the foresight and commitment shown by the voters results in the high quality infrastructure future which they support; and

WHEREAS the essence of that obligation is for state government to be accountable to the people for how Strategic Growth Plan bond proceeds are spent; and

WHEREAS that accountability consists both of ensuring that bond expenditures contribute to long-lasting, meaningful improvements to critical infrastructure, and providing the public with readily accessible information about how the bonds they approved and are paying for are being spent.

NOW, THEREFORE, I ARNOLD SCHWARZENEGGER, Governor of the State of California, by the virtue of the power and authority vested in me by the Constitution and laws of the State of California, do hereby issue this Executive Order to become effective immediately:

1. All agencies, departments, boards, offices, commissions and other entities of state government (hereinafter referred to "departments") that are responsible for expending the proceeds of already authorized and future state general obligation bonds and lease revenue bonds shall be accountable for ensuring that those bond proceeds are expended in a manner consistent with the provisions of either the applicable bond act and the State General Obligation Bond Law or laws pertaining to state lease revenue bonds and all other applicable state and federal laws. In addition, departments shall be accountable for ensuring that bond proceeds are spent efficiently, effectively and in the best interests of the people of the State of California.
2. Each department shall establish and document a three part accountability structure for the Strategic Growth Plan bond proceeds.

#### Front-End Accountability

Each department shall follow criteria or processes that will govern the expenditure of bond funds, and the outcomes that such expenditures are intended to achieve. Such criteria and outcomes must be defined in, or derived from, one or more of the following:

- \* Requirements of state or federal law.
  - \* Regulations defining the basis upon which bond proceeds are to be allocated for a program administered by the department.
  - \* A strategic plan for implementing the mission of the department or the pertinent program funded by bond proceeds. Such a strategic plan shall have been duly adopted by the executive officer or governing body of the department and be available to the public.
  - \* A capital outlay program that identifies departmental infrastructure needs and delineates projects or strategies for addressing those needs. Such a program shall have been duly adopted by the executive officer or governing body of the department and be available to the public.
  - \* Performance standards or outcome measures duly adopted by the executive officer or governing body of the department and available to the public.
- All projects, grants, loans or other expenditures of bond proceeds must be made consistent with these criteria and processes. In addition, each department shall prepare a list of all projects, grants, loans or other activities funded from bond proceeds that will be made available to the public.

## In-Progress Accountability

Each department shall document what ongoing actions it will take to ensure that the infrastructure projects or other permissible activities funded from bond proceeds are staying within the scope and cost that were identified when the decision was made to fund the project or activity. Each department shall make semi-annual reports to the Department of Finance (Finance) of these actions to ensure that the projects and activities funded from bond proceeds are being executed in a timely fashion and achieving their intended purposes.

## Follow-Up Accountability

Department expenditures of bond proceeds shall be subject to audit to determine whether the expenditures made from bond proceeds:

- \* Were made according to the established front-end criteria and processes.
- \* Were consistent with all legal requirements.
- \* Achieved the intended outcomes.

Departments shall contract with Finance for the performance of these audits unless alternative audit arrangements are made with the concurrence of Finance.

3. By March 1, 2007, each department shall submit its three part accountability structure as delineated in paragraph 2 above to Finance for review. Finance shall determine the reasonableness of the structure and ensure its consistency with this Executive Order. No department shall expend bond proceeds until Finance has determined that the department's plan is adequate. However, Finance may authorize a department to expend funds for up to four months prior to approval of its accountability structure in extraordinary cases for an established program for which bond proceeds are continuously appropriated by the terms of a bond measure, or when the necessity of a department's governing board meeting schedule will make the March 1 date an unattainable deadline.

4. Finance shall establish a web site to provide the public with readily accessible information on how proceeds of State general obligation bonds and lease revenue bonds are being utilized. The web site shall include:

- \* The three part accountability structure for each department.
- \* A listing of the projects, programs or other authorized activities being funded under the provisions of each general obligation bond act and a description of each project funded through State lease revenue bonds, and the amounts expended for each.

\* The ongoing in-progress actions being taken to ensure that bond-funded projects and activities are remaining within scope and cost.

\* The results of the completed projects, programs or other authorized activities funded from State general obligation and lease revenue bond proceeds.

Each department shall provide Finance the information necessary to support this web site in the form and time frame determined by Finance.

IT IS FURTHER ORDERED that State agencies and departments shall cooperate in the implementation of this Order. Other entities of State government not under my direct executive authority, including the California Public Utilities Commission, the University of California, the California State University, California Community Colleges, constitutional officers, and legislative and judicial branches are requested to assist in its implementation.

This Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its departments, agencies, or other entities, its officers or employees, or any other person.

I FURTHER DIRECT that as soon as hereafter possible, this Order be filed in the Office of the Secretary of State and that widespread publicity and notice be given to this Order.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 24th day of January 2007.



**Attachment C**  
**Excerpt from Senate Bill 88 (Chapter 181, Statutes of 2007):**  
**Implementing Legislation for the**  
**Goods Movement Emission Reduction Program**  
August 24, 2007

Chapter 3.2. Goods Movement Emission Reduction Program

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.

39265.02. (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 2.49 (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 8879.20 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 may not approve project fund allocations for any 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 useable 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 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), 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.

(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, or by a memorandum of understanding or any other agreement executed between a railroad company and 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, 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.

(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, including a local 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 to award the contract for implementation of the 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 liquidation period 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 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.

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**Attachment D**  
**Assembly Bill 201 (Chapter 187, Statutes of 2007)**  
**Additional Implementing Legislation**  
**for the Goods Movement Emission Reduction Program**  
August 24, 2007

AB 201, Committee on Budget. Transportation bonds: implementation.

Existing law, the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, approved by the voters as Proposition 1B at the November 7, 2006, general election, authorizes the issuance of general obligation bonds for various transportation-related purposes, including reducing emissions and improving air quality in trade corridors. SB 88 of the 2007-08 Regular Session, as proposed to be enacted, describes the types of projects eligible for funding in that regard, among other things, to include projects for the replacement, repower, or retrofit of diesel locomotive engines, except to the extent the project is otherwise required by law or regulation or pursuant to a memorandum of understanding or other agreement between a railroad company and a public agency, as specified.

This bill would amend the provisions to be added by SB 88 to allow projects for the replacement, repower, or retrofit of diesel locomotive engines to be eligible for funding in the case where a railroad company has entered into a memorandum of understanding or other agreement with a public agency, provided that the State Air Resources Board determines that the emission reductions that would be achieved by the locomotive engine are not necessary to satisfy any mandated emission reduction requirements under any such agreement.

This bill would also declare that it is to take effect immediately as an urgency statute.

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Section 39625.5 of the Health and Safety Code, as added by Senate Bill 88 of the 2007-08 Regular Session, is amended to read:

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.

SEC. 2. Section 1 of this act shall become operative only if Senate Bill 88 of the 2007-08 Regular Session is also enacted and becomes operative.

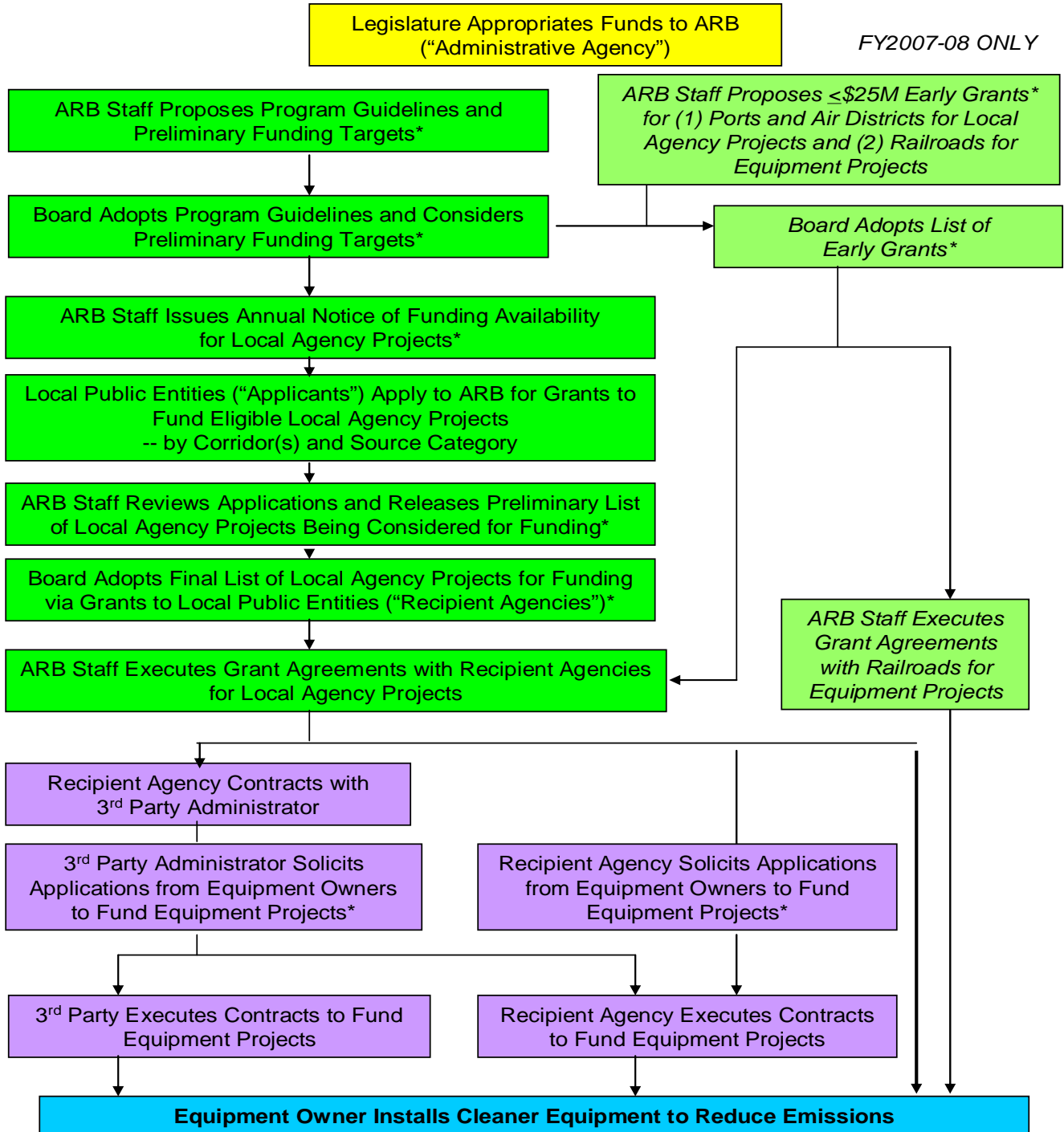
SEC. 3. This act is an urgency statute necessary for the immediate preservation of the public peace, health, or safety within the meaning of Article IV of the Constitution and shall go into immediate effect. The facts constituting the necessity are:

In order to implement the transportation programs funded by voter-approved bonds as efficiently and expeditiously as possible, it is necessary that this act take effect immediately.

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# Attachment E Program Implementation Flow Chart



\* Includes a public process

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