APPENDIX C

Incentives

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This section describes and assesses incentive programs that may be available for engine and vehicle replacement for on-road heavy-duty diesel trucks in goods movement operations at California ports. The incentives focus primarily on federal and state grant programs, air quality management district assistance, port incentives, and other non-monetary incentives. In order to provide an informative analysis, ARB staff reviewed incentive program information, contacted major ports and local districts, and reviewed related literature.

A. Air Resources Board Carl Moyer Program [1]

California's Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) is an incentive-based program to help achieve near-term emission reductions from heavy-duty diesel engines. Since 1998, the Carl Moyer Program has provided grants to encourage the owners of heavy-duty diesel engines to go beyond regulatory requirements by retrofitting, repowering, or replacing their engines with newer and cleaner ones.

The Carl Moyer Program is implemented through the cooperative efforts of ARB and the local air pollution control and air quality management districts (districts). Annually, ARB makes grant awards to air districts that apply to implement local incentive programs. The districts, following the Carl Moyer Program guideline criteria approved by ARB, provide grants for the incremental capital cost of cleaner-than-required engines and/or equipment. During the first five years, the Carl Moyer Program received annual budget appropriations totaling $154 million.

On January 1, 2005, new legislation (AB 923, Firebaugh) took effect, which expands the Carl Moyer Program to include additional pollutants, as well as new sources of air pollution. This and other legislation provided new sources of up to $141 million in annual funding for the Carl Moyer Program through 2015. The inclusion of additional project categories along with increased funding allows the Carl Moyer Program to provide more incentives to improve the air quality in California. Ten percent of the Carl Moyer funds that flow through the state budget are reserved, by ARB, for projects of statewide significance, including goods movement-related clean up. Guidelines are established to formalize the administrative requirements for both ARB and the local districts that administer the program. All emission reductions funded by the Carl Moyer Program funds must be real, surplus, quantitative, and enforceable. These guidelines describe project criteria to ensure that the projects funded achieve California State Implementation Plan (SIP) creditable emission reductions. Additional information regarding this program may be found on the Carl Moyer website http://www.arb.ca.gov/msprog/moyer/moyer.htm.

[1] Carl Moyer Program. (2005). http://www.arb.ca.gov/msprog/moyer/moyer.htm

B. Sacramento Emergency Clean Air and Transportation Program (SECAT)[2,3]

The Sacramento Emergency Clean Air and Transportation Program (SECAT) was initiated in 2000 to reduce emissions from heavy-duty truck fleets operating in the Sacramento area. The SECAT program is a partnership between Sacramento Area Council of Governments (SACOG) and the Sacramento Metropolitan Air Quality Management District (SMAQMD). The goal of this partnership was primarily to reduce NOx emissions from on-road heavy-duty diesel engines. This program targeted mobile sources because these contribute more than 70 percent of the local air pollution.

SECAT provides $70 million in transportation funds to clean up the region's heavy-duty diesel truck fleet by 2005. The program is authorized by the State Legislature in Assembly Bill 2511 (AB 2511). The $70 million is funded by the governor, the local transportation office (from Congestion Mitigation Air Quality, or CMAQ funds), and matching funds allocated by the SACOG.

The funding provided by SECAT is awarded based on the emission reduction benefit achieved. The program uses a heavy-duty diesel emissions calculator to determine potential NOx reductions and corresponding incentive dollars. Applications are evaluated on a first come, first served basis. The incentive money can be used to purchase a new heavy-duty vehicle equipped with engines certified by the California Air Resources Board, re-power existing heavy-duty diesel vehicles with ARB-certified diesel or alternative-fuel engines, or retrofit existing heavy-duty diesel vehicles with exhaust after treatment devices.

The program has funded more than 1,300 projects, both public and private. These projects have resulted in NOx emission reductions of more than 1.3 tons per day in the Sacramento region. 400 trucks have been replaced, repowered, or retrofitted using $46 million of the SECAT funds. Additional information on eligibility criteria can be found on the SECAT website http://www.4secat.com

C. Gateway Cities Clean Air Program [4]

The Gateway Cities Clean Air Pilot Program was created by the Gateway Cities Council of Governments (GCCOG), ARB, South Coast Air Quality Management District (SCAQMD), and the Port of Long Beach to provide incentives to help truckers reduce pollution from heavy-duty vehicles. The Gateway Cities Clean Air Program is closely modeled after the SECAT program with the goal of reducing emissions of NOx and PM from diesel-fueled vehicles, and is intended to accelerate the replacement of older diesel trucks by providing funding for truck operators.

The Gateways Cities Clean Air Pilot Program was developed in response to a Multiple Air Toxics Exposure Study (MATES II)[5] in the South Coast Basin area, which identified

[2] Sacramento Emergency Clean Air and Transportation (2005). www.4secat.com
[3] SECAT and Other Financial Incentive Programs Reducing NOx in the Sacramento Region. www.cleansirpartnership.org/ledge.html

[4] Gateway Cities Clean Air Program. (2002) Clean Air Program Guidelines.

the area as having the highest exposure of airborne contaminates in Southern California. It was found that the major source of pollutants comes from the cargo activities in the Ports.

The funding, which would assist truckers in fleet modernization, was provided by the U.S. EPA, ARB, Port of Long Beach, Port of Los Angeles, and SCAQMD. A total of $16.1 million in funding has been committed to the program since the program began operating in September 2002.

Under the Gateway Cities program, candidates must meet specific qualifications in order to be eligible for funding. The replaced vehicle must be a 1983 or older model year, the owner must have owned and operated the replaced vehicle for the previous two years, of which 85 percent of the miles driven were within the South Coast Air Basin, and the replaced vehicle must be in operational condition and insured by the State of California.

The program also compensates owners when they buy a 1999 or newer used diesel truck that is more reliable, cleaner and more fuel efficient than the original truck. The size of the grant awarded depends on the replacement trucks condition and how many miles it has been driven in the past two years. An average grant is between $20,000 and $25,000. As of April 4, 2003, the fleet modernization component of the Gateway Cities Clean Air Pilot Program has replaced 86 trucks, and awarded a total of $2.1 million[6] in incentive funds. The total estimated annual emission reductions from these 86 trucks are 67.8 tons of NOx and 17.2 tons of diesel PM. With the currently available funding from the Gateway Fleet Modernization Program, as many as 492 vehicles could be replaced, providing estimated emissions reductions of 1,942 tons of NOx and 447 tons of diesel PM over 5 years[38].

D. SmartWays [7]

SmartWay Transport Partnership is a voluntary public-private partnership between various freight industry sectors and the U.S. EPA that establishes incentives for fuel efficiency and emission reductions. There are three primary components of this program:

- Creating partnerships to reduce NOx, PM, CO2 and other air toxics that adversely affect air quality,
- Reducing unnecessary engine idling and establishing the National Transportation Idle-Free Corridors Program, and
- Increasing efficiency and use of rail and intermodal operations.

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[5] Multi Air Toxics Exposure Study in the South Coast Air Basin (MATESII), Published March 2000. www.aqmd.gov/matesiidf/matesdoc.htm

[6] Gateway Cities and Port of Long Beach Clean Air Program Business Plan. Adopted by Gateway Cities Council of Governments – July 2003. www.gatewaycog.org/cleanairprogram/pdf/bizplanjulyfinal.pdf

[7] SmartWays Partnership Program: www.epa.gov/smartway

The U.S. EPA encourages any company or organization to improve the environmental performance of their freight operations. Virtually any company can join at no cost. Examples of participants can include independent owner operators, large truck fleets, chain stores, and small business owners. The key partners are companies that ship products, and the truck and rail companies that deliver these products. Partners determine their own improvement goals based upon their business and environmental objectives. The U.S. EPA can provide the technical tools and assistance, while the companies develop emission reduction targets.

Reducing unnecessary idling improves air quality, saves fuel, and saves companies money. Another component of the SmartWay Transportation Partnership is to eliminate unnecessary truck and rail idling by developing a nationwide network of idle-reduction options along major transportation corridors such as truck stops, travel centers, distribution hubs, rail switch yards, borders, and ports. In April, 2005, the U.S. EPA released a request for applications (RFA) for $5 million in grants to demonstrate effective idle-reducing technologies for the trucking industry. The grant money is available to states, nonprofit organizations, and academic institutions (www.epa.gov/oar/grants/05-09.pdf).

Railways are a very efficient mode of transportation. SmartWay Transportation Partnership also encourages efficient railroad operations and technical innovations. To increase energy efficiency while reducing greenhouse gas emissions and air pollution, all seven major freight railroads have joined EPA's voluntary SmartWay Transport Partnership. These Class one freight railroads transport more than 90 percent of all domestic rail freight. Each railroad has committed to evaluate the environmental impacts of its operations and work jointly with U.S. EPA to develop and implement a plan to improve fuel efficiency and reduce emissions over the next several years. The seven railroads include-- BNSF Railway Company, Canadian National Railway Company, Canadian Pacific Railway, CSX Transportation, Kansas City Southern, Norfolk Southern Corporation and Union Pacific Railroad.

E. Port of Oakland[8]

The Port of Oakland has established a Truck Replacement program that will assist truckers in replacing old trucks. Under the truck replacement program, the port will provide a qualifying truck owner up to $25,000 to replace an on-road heavy-duty diesel truck, operating in the port's maritime area. A 1986 or older model year truck must be replaced with one that is 1999 or newer model year. The program is voluntary with the port providing up to $2 million in total funding to replace approximately 80 trucks. The port started collecting applications August 31, 2005, and currently has replaced 1 truck.

The port is also applying for other grants through the Bay Area Air Quality Management District that would allow for truck-replacement subsidies. Preference would be given to truck owner/operators and to vehicles that primarily remain within the Port Maritime Area. Additional information is available on the Port of Oakland website, www.portofoakland.com/environm/prog_06.asp.

[8] Port of Oakland. (2005). Truck Air Quality Program www.portofoakland.com/environm/prog_06.asp

F. Energy Policy Act of 2005 – H.R. 6[9]

In September 2005, the U.S. Senate passed an amendment to the Energy Bill that would provide federal funding to reduce emissions from high polluting diesel engines. Senate Bill (SB) 1265 was introduced by Senator George Voinovich with the purpose of helping the nation's 495 and Ohio's 38 non-attainment counties meet the new ozone and PM air quality standards. This bill authorizes $1 billion over five years (2007-2011), or $200 million annually, for the retrofitting and replacement of diesel engines. The contents of this Bill are now included in the Energy Policy Act of 2005 under Title VII – Vehicles and Fuels, Subtitle G – Diesel Emission Reduction, Sections 791 through 797.

The U.S. Congress has not yet appropriated the annual funds of $200 million for the retrofitting and replacement of diesel engines. The Union of Concerned Scientists (UCS) is working with its allies in Washington as well as clean diesel advocates across the nation to ensure quick allocation of the funds and that the money authorized for this program is appropriated starting fiscal year 2007[10]

G. West Coast Diesel Emissions Reduction Collaborative [11]

The West Coast Collaborative (Collaborative) is a partnership between federal, state, and local governments, the private sector, and environmental groups throughout the west coast. The Collaborative brings attention to the need for additional funding for diesel emission reductions on the west coast, encourages voluntary projects that reduce diesel emissions, and provides grants for such projects. The goal of the Collaborative is to obtain and allocate federal funds to reduce emissions from the most polluting diesel sources in the most affected communities and to significantly improve air quality and public health.

[9] http://thomas.loc.gov, Energy Policy Act of 2005, 109th Congress, House of Representatives, Report 109-190.

[10] http://www.ucsusa.org/clean_vehicles/big_rig_cleanup/diesel-emissions-reduction-act.html

[11] West Coast Diesel Emissions Reductions Collaborative. (2005). West Coast Collaborative fact sheet. http://www.westcoastdiesel.org/files/outreach.htm