

Report to the California Legislature

Annual Report on Implementing the Proposition 1B: Goods Movement Emission Reduction Program

Report Submitted By:
California Air Resources Board
Pursuant to Health & Safety Code § 39627.5
and Government Code § 16724.4

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DOCUMENT AVAILABILITY

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TABLE OF CONTENTS

PROPOSITION 1B: GOODS MOVEMENT EMISSION	N REDUCTION PROGRAM
Executive Summary	1
December 2018 Semi-Annual Status Report	2

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Proposition 1B: Goods Movement Emission Reduction Program

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EXECUTIVE SUMMARY

The \$1 billion Proposition 1B: Goods Movement Emission Reduction Program (Program) is being implemented in California's four priority trade corridors, reducing freight pollution and the associated health risks in communities near seaports, railyards, freeways, and distribution centers. Health and Safety Code section 39625 et seq. established the Program and directed the California Air Resources Board (CARB) to maximize emission reduction benefits while achieving the earliest possible health risk reductions. This report describes the progress of the Program through September 2018, including a listing of each grant with the funding amount, location, the number of trucks or other equipment that has been or are being upgraded, the timeframe for completion, and the expected emission reductions.

Of the \$1 billion authorized, CARB has allocated \$980 million for local agency projects and CARB's administration costs (\$20 million is retained by other State agencies for bond issuance and oversight costs). Of this amount, CARB has received or been approved for \$940 million in cash. CARB will need to request the remaining \$40 million to cover projects and provide for CARB's administration costs over multiple years. CARB awards and oversees grants to local agencies that in turn offer competitive incentives to diesel equipment owners to upgrade to cleaner technologies ahead of, or beyond, regulatory requirements. To ensure accountability and effectiveness, all grants are awarded in an open, public process as required by CARB Program Guidelines.

The local agencies have completed the Year 1 through Year 4 projects with over 12,800 diesel trucks replaced or retrofitted and operating in the four primary trade corridors. Additionally, 25 upgraded locomotives are operating in the Central Valley and Los Angeles/Inland Empire; grid-based electrical power was installed at 37 ship berths at the Ports of Oakland, Los Angeles, Long Beach, and Hueneme; and 3 upgraded commercial harbor craft are operating in California waters. These projects will reduce over 4.5 million pounds of fine particulate matter (PM) and almost 149 million pounds of nitrogen oxides (NOx) over the term of the contracts.

The local agencies are currently implementing Year 5 truck, locomotive, ships-at-berth, cargo handling equipment, transportation refrigeration unit, and commercial harbor craft projects to replace or upgrade over 3,500 pieces of equipment and related electric charging infrastructure. CARB estimates these projects will reduce approximately 336,000 pounds of PM and 15 million pounds of NOx over the term of the contracts.

The report is available electronically at: https://www.arb.ca.gov/mandrpts/mandrpts.htm. To order a hard copy, please contact Mrs. Jessica Fahey at (916) 445-2191.

Previously submitted to the Department of Finance as: December 2018 Status Report to the Department of Finance

This status report provides an update on implementation of the \$1 billion Proposition 1B: Goods Movement Emission Reduction Program (Program) to reduce emissions and health risk from freight operations in California's four priority trade corridors (Los Angeles/Inland Empire, Central Valley, Bay Area, and San Diego/Border). Consistent with State law, the Program Guidelines for Implementation (Guidelines) and related documents detail the grant/contract requirements for the California Air Resources Board (CARB or Board), participating local agencies, and equipment owners (see Program website at: http://www.arb.ca.gov/gmbond).

CARB adopts the Guidelines, then solicits, awards, funds, and oversees grants to local agencies like air districts and seaports. The local agencies offer grants or contracts, through a competitive process, to diesel equipment owners to co-fund the upgrade of diesel equipment to cleaner technologies ahead of or beyond regulatory requirements to do so.

To ensure accountability and effective use of these public funds, the local agencies solicit for eligible projects, review applications, inspect the old equipment, provide data to rank competitively each piece of equipment based on emission reductions and cost-effectiveness, sign grants or contracts with equipment owners, inspect the upgraded equipment, make payment for the cleaner technology, and track/report on funded projects.

The information in this report is based on the local agencies' semi-annual project reports as of September 30, 2018, and supplemented with information in the Program's Goods Movement Online Database. The information is reported by year of funding, as defined below.

- Year 5: Awarded September 2015 Board Meeting.
- Year 4: Awarded July 2013 Board Meeting.
- Year 3: Awarded December 2011 Board Meeting drayage truck projects only.
- Year 2: Awarded June 2010 and December 2011 Board Meetings.
- Year 1: Awarded May 2008 Board Meeting.

Available Funding and Expenditures

Each budget appropriation authorizes CARB to use a specific amount of funding for the Program, within statutory timeframes. However, the appropriation does not provide any cash for this purpose. Therefore, the Program depends on the receipt of proceeds from State bond sales or other mechanisms to fund new projects.

The entire \$1 billion has been appropriated in State budgets (over multiple years), with \$980 million to CARB for this Program and \$20 million set aside by the control agencies to cover bond issuance and oversight costs.

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CARB has allocated \$980 million including \$938 million for local agency projects and about \$42 million for CARB's administration costs over multiple years. CARB has paid about \$896 million to local agencies and for CARB's administration costs through September 2018.

Local Agency Awarded Funds

Year 5. In September 2015, the Board awarded approximately \$221 million for truck, locomotive, ships at-berth/cargo handling equipment, transport refrigeration unit (TRU), commercial harbor craft, and truck filter substrate replacement projects throughout the State. CARB approved the local agencies' request that funds not utilized from prior year grants due to project fallout be made available for Year 5 truck projects.

Year 4. In July 2013, the Board awarded approximately \$143 million for truck projects throughout the State, including funds for loan assistance. In addition, over \$6 million was awarded for a truck filter substrate replacement project and nearly \$1 million for harbor craft projects. Any funds not utilized for projects were reallocated to Year 5 truck projects.

Year 2 and Year 3. CARB received funds for these projects in 2010 and 2011 from multiple bond sales. In June 2010, the Board awarded \$200 million in available cash primarily for truck projects and ships at-berth/cargo handling equipment projects, with smaller grants for locomotive and harbor craft projects. In December 2011, the Board awarded and allocated approximately \$122 million from bond sales and funds redirected from CARB's administration costs for truck projects. Any funds not utilized for projects were reallocated to Year 4 truck projects.

Year 1. The first year funds of approximately \$246 million were used for projects to upgrade trucks, locomotives, and ships at-berth. All of these projects were suspended for 6 to 14 months due to the December 2008 "stop work" order on bond-funded programs, which resulted in an extended delay from time of application to contract. This led to some funds being unused by the local agencies; grant agreements were amended to transfer funds from undersubscribed grants to oversubscribed grants.

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Project Results

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

Year 5. Local agencies are in the process of implementing these projects and expect over 3,500 pieces of equipment to be upgraded. These projects include 1,062 natural gas (953 low-NOx) and over 300 zero-emission trucks. Almost 400 trucks, 24 tier-four locomotives, 6 commercial harbor craft, and 26 TRU electric power plugs are operational. The majority of the remaining projects are expected to be operational in 2019.

Year 4 and 5. The Sacramento District was the implementing local agency for the Filter Substrate Replacement project. The project is complete with the replacement of 505 filter substrates on heavy-duty trucks.

Years 1 to 4. These projects are complete and all equipment is operational. The following information is by source category.

Trucks: More than 12,800 cleaner trucks are operating in the four priority trade corridors. The upgraded equipment includes approximately 1,600 trucks retrofitted with diesel soot filters and the replacement of over 600 trucks with new cleaner natural gas trucks. Small truck fleets (1 to 3 trucks) have received funding to upgrade about 5,400 trucks.

Ships At-Berth: The Bay Area District's early grant project to install grid-based electrical power for three berths at the Port of Oakland has been operational since 2011. The installation of grid-based electrical power was completed in late 2013 for 9 berths at the Port of Oakland and 25 berths at the Ports of Long Beach, Los Angeles, and Hueneme under the Year 2 grant projects. The funded berths were ready for ships to begin to plug into the grid in early 2014.

Locomotives and Commercial Harbor Craft: The Sacramento and South Coast Districts completed the upgrade of 25 locomotives that are operating in the Central Valley and the Los Angeles/Inland Empire trade corridors. In addition, the San Diego District has completed three harbor craft upgrades.

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Project Benefits – Years 1 to 5

When fully implemented, the Program expects projects included in this report will reduce almost 5 million pounds, or 2,400 tons, of particulate matter (PM 2.5), plus approximately 164 million pounds, or 82,000 tons, of oxides of nitrogen (NOx). Emission reductions for projects funded with Year 1 through Year 3 grants are calculated over the life of their grant term (e.g., 2 to 5 years for trucks and 10 years for ships at-berth). Emission reductions for the Year 4 and Year 5 grants take into consideration CARB's regulations and include only the portion of the emission reductions that are early or extra to these regulations. Additionally, emission reductions are based on completed projects and estimates for Year 5 projects.

Project Status

The tables on the following pages present the information by trade corridor (Table 1), source category (Table 2), and by grant agreement (Tables 3 through 8), and are based on the September 30, 2018, local agency reports and supplemented with additional information from the Districts. The number of equipment and emission reductions for Year 5 projects are estimates and will continue to be updated in subsequent reports as equipment becomes operational and projects and grants are completed.

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TABLE 1

PROJECTS BY TRADE CORRIDOR - YEARS 1 - 5

Trade	Corridor (Local Agency)	Award	PM 2.5 (lbs)	NOx (lbs)	Operational Projects	Projects in Process
Los Angeles/Inland Empire	South Coast Air Quality Management District	\$507,298,680	2,309,000	85,226,000	4,945 other trucks 1,600 drayage trucks 25 ships at-berth 20 locomotives	829 other trucks 14 cargo handling 467 TRUs
Епіріге	Port of Long Beach	\$3,550,000	57,000	609,000	67 drayage trucks	N/A
Central Valley	San Joaquin Valley Air Pollution Control District	\$189,531,717	1,366,000	42,678,000	2,959 other trucks 12 locomotives	88 other trucks 1,483 TRUs
	Sacramento Metropolitan Air Quality Management District	\$42,687,238	380,000	7,343,000	467 other trucks 15 locomotives 26 TRUs	12 other trucks 6 locomotives
Bay Area	Bay Area Air Quality Management District	\$130,067,066	531,000	20,543,000	828 other trucks 1,449 drayage trucks 2 locomotives 12 ships at-berth	124 other trucks 7 locomotives 1 ships at-berth 21 cargo handling 16 TRUs
San Diego/Border	San Diego Air Pollution Control District	\$40,600,330	128,000	4,547,000	458 other trucks 98 drayage trucks 9 harbor craft	92 trucks
San Diego/Border	Imperial County Air Pollution Control District	\$15,136,166	89,000	3,016,000	327 other trucks	N/A
Statewide - Truck F	Filter Substrate Replacement Project	\$7,300,000	7,000	0	505 filters	N/A
Statewide – Loan A	Assistance	\$1,668,227				
CARB Administration	CARB Administration					
					9,984 other trucks 3,214 drayage trucks 37 ships at-berth 49 locomotives	1,145 trucks 1 ships at-berth
	TOTAL	\$980.0 million	4,867,000 lbs or 2,434 tons	163,962,000 lbs or 81,981 tons	9 harbor craft 26 TRUs 505 filters	35 cargo handling 13 locomotives 1,966 TRUs

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TABLE 2 PROJECTS BY SOURCE CATEGORY - YEARS 1 - 5

Funding Category	Award	PM 2.5 (lbs)	NOx (lbs)	Operational Projects	Projects in Process
Other Trucks ¹	\$629,179,622	2,876,000	103,477,000	9,984	1,145
Drayage Trucks ²	\$114,928,891	869,000	18,699,000	3,214	N/A
Ships At-Berth/ Cargo Handling Equipment	\$84,041,257	469,000	29,641,000	37	36
Locomotives	\$88,083,433	610,000	10,739,000	49	13
Harbor Craft	\$1,419,436	14,000	193,000	9	N/A
Transportation Refrigeration Units	\$11,218,558	22,000	1,213,000	26	1,966
CARB Truck Filter Substrate Replacement Project ³	\$7,300,000	7,000	0	505	N/A
CARB Loan Assistance ⁴	\$1,668,227				
CARB Administration	\$42,160,000				
		4,867,000 lbs	163,962,000 lbs		
TOTAL	\$980.0 million	2,434 tons	or 81,981 tons	13,824	3,160

¹Completed projects include 274 natural gas replacements (174 low-NOx) and 696 retrofits. ²Completed projects include 561 natural gas replacements and 891 retrofits.

³See Table 7 for details.

⁴See Table 8 for details.

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TABLE 3A

LOS ANGELES/INLAND EMPIRE TRADE CORRIDOR - South Coast AQMD

Funding Year/	Project Description/	Grant		Reductions unds)	Current Project Status
Category	Grant Number	Amount	PM 2.5	NOx	•
Year 5					
Other Trucks	Replace old dirty trucks with newer clean models. GMB14-L1/13GML01	117,302,430	5,000	3,471,000	District has signed contracts for 1,069 trucks. 240 trucks have been scrapped and replaced with much cleaner trucks, including 187 natural gas (156 low-NOx).
Ships At-Berth/ Cargo Handling Equipment	Eliminate or reduce emissions from ships at-berth, and replace old dirty cargo handling equipment with newer clean models.	\$2,049,700	5,000	146,000	District has signed contracts for 14 pieces of equipment including zero-emission yard trucks, RTG cranes, and lifts.
	GMB14-L1				
Locomotives	Replace old dirty locomotives with newer clean models.	\$19,776,000	84,000	2,236,000	Project complete. 10 locomotives have been replaced with much cleaner locomotives.
	GMB14-L1				
Transportation Refrigeration Units	Replace old dirty TRUs with newer clean models. GMB14-L1	\$2,918,558	7,000	340,000	District has signed contracts for 467 TRUs and electric power plugs.
Year 4					
Other Trucks	Replace old dirty trucks with newer clean models.	\$79,480,170	180,000	13,407,000	Grant complete. 1,809 old trucks have been scrapped and replaced with much cleaner trucks.
	13GML01/G11GMLT1				
Year 3					1
Priority Drayage Trucks	Replace old dirty trucks with newer clean models serving ports and railyards.	\$3,302,250	1,000	973,000	Grant complete. 104 old trucks have been scrapped and replaced with much cleaner trucks.
	G11GMLP1				

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TABLE 3A (continued) LOS ANGELES/INLAND EMPIRE TRADE CORRIDOR – South Coast AQMD

Funding Year/	Project Description/	Grant		Reductions unds)	Current Project Status
Category	Grant Number	Amount	PM 2.5	NOx	
Year 2					
Other Trucks	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models. G11GMLT1/G08GMLT1	\$88,111,486	488,000	14,522,000	Grant complete. 1,522 old trucks have been scrapped and replaced with much cleaner trucks, including 2 natural gas. 386 trucks have been retrofitted with soot filters. 1 truck stop/distribution center electrification project has been completed.
Ships At-Berth/ Cargo Handling Equipment	Eliminate or reduce emissions from ships at-berth and/or cargo equipment at ports and intermodal railyards. G08GMLS1	\$58,641,886	343,000	21,841,000	Grant complete. Installation of shore power equipment for 25 berths (12 at Port of Long Beach, 10 at Port of Los Angeles, 3 at Port of Hueneme) is complete with ships plugging into the grid starting in January 2014.
Locomotives	Replace old dirty locomotives with newer clean models.	\$4,635,000	27,000	315,000	Grant complete. 6 locomotives have been repowered with much cleaner engines.
	G08GMLL1				
Year 1					
Drayage Trucks	Replace old dirty trucks serving the Ports of Los Angeles and Long Beach with newer clean models.	\$6,930,000	66,000	1,104,000	Grant complete. 132 old trucks have been scrapped and replaced with much cleaner natural gas trucks.
	G07GMLP1				
	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models serving the rail yards.	\$2,625,000	31,000	577,000	Grant complete. 50 old trucks have been scrapped and replaced with much cleaner trucks. 2 trucks have been retrofitted with soot filters.
	G07GMLP2				

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TABLE 3A (continued) LOS ANGELES/INLAND EMPIRE TRADE CORRIDOR – South Coast AQMD

Funding Year/	Project Description/ Grant Number	Grant Amount	Emission Reductions (pounds)		Current Project Status
Category	Grant Number	Amount	PM 2.5	NOx	•
Year 1					
Drayage Trucks	Replace old dirty trucks serving the Ports of Los Angeles and Long Beach with newer clean models.	\$68,539,800	511,000	10,181,000	Grant complete. 1,312 old trucks have been scrapped and replaced with much cleaner trucks, including 427 natural gas.
	G07GMLP3-03				
Other Trucks	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models. G07GMLT1	\$6,877,500	96,000	1,638,000	Grant complete. 131 old trucks have been scrapped and replaced with much cleaner trucks, including 2 natural gas.
	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models.	\$43,018,900	440,000	13,295,000	Grant complete. 823 old trucks have been scrapped and replaced with much cleaner trucks, including 4 natural gas. 33 trucks have been retrofitted with soot filters.
	G07GMLT2				
Locomotives	Replace old dirty locomotives at rail yards with newer clean models.	\$3,090,000	25,000	1,180,000	Grant complete. 4 locomotives have been repowered with much cleaner engines.
	G07GMLL1				

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TABLE 3B LOS ANGELES/INLAND EMPIRE TRADE CORRIDOR – Port of Long Beach

IADLE 3D	LOS ANGELES/INLAND EMPIRE TRADE CORRIDOR - PORT OF LONG BEACH						
Funding Year/ Project Description/	Grant Amount	Emission Reductions (pounds)		Current Project Status			
Category	Grant Number	Amount	PM 2.5	NOx			
Year 1							
Drayage Trucks	Replace old dirty trucks serving the Ports of Los Angeles and Long Beach with newer clean models.	\$3,550,000	57,000	609,000	Grant complete. 67 old trucks have been scrapped and replaced with much cleaner trucks, including 2 natural gas.		
	G07GMLP3						
	Trade Corridor Total	\$510,848,680	2,366,000	85,835,000			

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TABLE 4A

CENTRAL VALLEY TRADE CORRIDOR – San Joaquín Valley APCD

IADELTA	<u> </u>	<u> </u>		TATAL OIL C	Dan Joaquin Vaney Ar OB	
Funding Year/ Category	Project Description/ Grant Number	Grant Amount	Emission Reductions (pounds)		Current Project Status	
Category	Grant Number	Aillouit	PM 2.5	NOx		
Year 5						
Other Trucks	Replace old dirty trucks with newer clean models. GMB14-C1/13GMC01	\$18,069,955	0	1,235,000	District has signed contracts for 164 trucks. 76 trucks have been scrapped and replaced with much cleaner trucks, including 5 natural gas.	
Locomotives	Replace old dirty locomotives with newer clean models.	\$25,956,000	141,000	2,529,000	Project complete. 12 locomotives have been replaced with much cleaner locomotives.	
	GMB14-C1					
Transportation Refrigeration Units	Replace old dirty TRUs with newer clean models.	\$5,000,000	14,000	840,000	District has signed contracts for 1,483 TRU replacements and electric power plugs.	
Offics	GMB14-C1					
Year 4	OWD 14 O1					
Other Trucks	Replace old dirty trucks with newer clean models.	\$35,156,166	52,000	8,051,000	Grant complete. 817 old trucks have been scrapped and replaced with much cleaner trucks, including 2 natural gas.	
	13GMC01/G11GMCT1					
Year 2	1301/101/101/101/1					
Other Trucks	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models.	\$59,642,676	495,000	14,340,000	Grant complete. 1,057 old trucks have been scrapped and replaced with much cleaner trucks. 105 trucks have been retrofitted with soot filters.	
	G11GMCT1/G08GMCT1					

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TABLE 4A (continued) CENTRAL VALLEY TRADE CORRIDOR – San Joaquín Valley APCD

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Funding Year/ Category	Project Description/ Grant Number	Grant Amount	Emission Reductions (pounds)		Current Project Status
outogory		7 unounc	PM 2.5	NOx	
Year 1		1			
Other Trucks	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models. G07GMCT1	\$4,882,500	104,000	1,364,000	Grant complete. 93 old trucks have been scrapped and replaced with much cleaner trucks. 10 trucks have been retrofitted with soot filters.
	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models. G07GMCT3	\$40,824,420	560,000	14,319,000	Grant complete. 789 old trucks have been scrapped and replaced with much cleaner trucks. 12 trucks have been retrofitted with soot filters.

TABLE 4B CENTRAL VALLEY TRADE CORRIDOR – Sacramento Metropolitan AQMD

Funding Year/ Category	Project Description/ Grant Number	Grant Amount		Reductions unds)	Current Project Status
Category	Grant Number	Amount	PM 2.5	NOx	
Year 5					
Other Trucks	Replace old dirty trucks with newer clean models. GMB14-C2/13GMC02	\$3,033,075	0	234,000	District has signed contracts for 38 trucks. 26 trucks have been scrapped and replaced with much cleaner trucks, including 15 natural gas.
Locomotives	Replace old dirty locomotives with newer clean models. GMB14-C2	\$10,000,000	10,000	511,000	District has signed contracts for 6 locomotives.
Transportation Refrigeration Units	Replace old dirty TRUs with newer clean models. GMB14-C2	\$300,000	1,000	27,000	Project complete. 26 electric power plugs have been installed.

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TABLE 4B (continued) CENTRAL VALLEY TRADE CORRIDOR – Sacramento Metropolitan AQMD

TABLE 4B (continued) CENTRAL VALLEY			TRADE CORRIDOR - 8		Sacramento Metropolitan AQMD	
Funding Year/ Category	Project Description/ Grant Number	Grant Amount	(рог	Reductions unds)	Current Project Status	
Year 4			PM 2.5	NOx		
		40.574.000	11.000	4 40 4 000		
Other Trucks	Replace old dirty trucks with newer clean models.	\$6,574,208	14,000	1,124,000	Grant complete. 150 old trucks have been scrapped and replaced with much cleaner trucks.	
	13GMC02/G11GMCT2					
Year 2			<u> </u>			
Other Trucks	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models.	\$8,409,901	43,000	1,560,000	Grant complete. 178 old trucks have been scrapped and replaced with much cleaner trucks. 15 trucks have been retrofitted with soot filters.	
	G11GMCT2/G08GMCT2					
Year 1						
Other Trucks	Replace old dirty trucks with newer clean models.	\$102,847	1,000	27,000	Grant complete. 2 old trucks have been scrapped and replaced with much cleaner trucks.	
	G07GMCT2					
	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models.	\$4,640,774	40,000	1,016,000	Grant complete. 96 old trucks have been scrapped and replaced with much cleaner trucks.	
	G07GMCT4					
Locomotives	Replace old dirty long-haul locomotives with new clean models.	\$9,626,433	271,000	2,844,000	Grant complete. 15 locomotives have been repowered with much cleaner engines and are expected to travel between the Central Valley and the Los Angeles/Inland Empire trade corridors.	
	Trade Corridor Total	\$232,218,955	1,746,000	50,021,000		
	Trade Corndor Total	Φ∠3∠,∠10,933	1,740,000	50,021,000		

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TABLE 5 BAY AREA CORRIDOR – Bay Area AQMD

BAY AI	REA CURRID	OR – Bay <i>F</i>	Area AQIVID	
ear/ Project Description/ Grant (nounds)		Current Project Status		
Grant Number	Amount	PM 2.5	NOx	
Replace old dirty trucks with newer clean models.	\$26,713,135	1,000	1,000,000	District has signed contracts for 145 trucks and 21 trucks have been scrapped and replaced with much cleaner trucks including 1 zero-emission.
GMB14-B1/13GMB01				
Eliminate or reduce emissions from ships at-berth, and replace old dirty cargo handling equipment with newer clean models.	\$5,000,000	5,000	212,000	District has signed contracts for 22 pieces of equipment, including 1 ship emissions capture and control device and 21 cargo handling equipment including zero-emission yard trucks and forklifts.
GMB14-B1				
Replace old dirty locomotives with newer clean models.	\$15,000,000	52,000	1,124,000	District has signed contracts for 9 locomotives and 2 have been replaced with much cleaner locomotives.
GMB14-B1				
Replace old dirty TRUs with newer clean models.	\$3,000,000	0	6,000	District has signed contracts for 16 electric power plugs.
GMB14-B1				
Replace old dirty trucks with newer clean models.	\$8,525,519	17,000	1,637,000	Grant complete. 220 old trucks have been scrapped and replaced with much cleaner trucks, including 6 natural gas.
13GMB01/G11GMBT1				
Replace old dirty trucks with newer clean models serving ports and railyards.	\$10,311,000	1,000	2,678,000	Grant complete. 357 old trucks have been scrapped and replaced with much cleaner trucks.
G11GMBP1				
	Project Description/ Grant Number Replace old dirty trucks with newer clean models. GMB14-B1/13GMB01 Eliminate or reduce emissions from ships at-berth, and replace old dirty cargo handling equipment with newer clean models. GMB14-B1 Replace old dirty locomotives with newer clean models. GMB14-B1 Replace old dirty TRUs with newer clean models. GMB14-B1 Replace old dirty trucks with newer clean models. GMB14-B1 Replace old dirty trucks with newer clean models. 13GMB01/G11GMBT1 Replace old dirty trucks with newer clean models serving ports and railyards.	Replace old dirty trucks with newer clean models. GMB14-B1/13GMB01 Eliminate or reduce emissions from ships at-berth, and replace old dirty cargo handling equipment with newer clean models. GMB14-B1 Replace old dirty locomotives with newer clean models. GMB14-B1 Replace old dirty TRUs with newer clean models. GMB14-B1 Replace old dirty trucks with newer clean models. GMB14-B1 Replace old dirty trucks with newer clean models. GMB14-B1 Replace old dirty trucks with newer clean models. GMB14-B1 Replace old dirty trucks with newer clean models. \$3,000,000 \$3,000,000 \$1	Project Description/ Grant Number Replace old dirty trucks with newer clean models. GMB14-B1/13GMB01 Eliminate or reduce emissions from ships at-berth, and replace old dirty cargo handling equipment with newer clean models. GMB14-B1 Replace old dirty locomotives with newer clean models. GMB14-B1 Replace old dirty TRUs with newer clean models. GMB14-B1 Replace old dirty TRUs with newer clean models. GMB14-B1 Replace old dirty trucks with newer clean models. GMB14-B1 Replace old dirty trucks with newer clean models. GMB14-B1 Replace old dirty trucks with newer clean models. \$8,525,519 17,000 Replace old dirty trucks with newer clean models. \$10,311,000 1,000	Replace old dirty trucks with newer clean models. GMB14-B1 Replace old dirty TRUs with newer clean models. GMB14-B1 Replace old dirty TRUs with newer clean models. GMB14-B1 Replace old dirty TRUs with newer clean models. GMB14-B1 Replace old dirty TRUs with newer clean models. GMB14-B1 Replace old dirty TRUs with newer clean models. GMB14-B1 Replace old dirty TRUs with newer clean models. GMB14-B1 Replace old dirty TRUs with newer clean models. GMB14-B1 Replace old dirty trucks with newer clean models. GMB14-B1 Replace old dirty trucks with newer clean models. \$8,525,519 Replace old dirty trucks with newer clean models serving ports and railyards.

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December 2018 Status Report to the Department of Finance

TABLE 5 (continued) BAY AREA CORRIDOR – Bay Area AQMD

Funding Year/ Category	Project Description/ Grant Number	Grant Amount		Reductions unds) NOx	Current Project Status
Year 2			1 111 210	NOX	
Other Trucks	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models.	\$18,178,650	84,000	2,574,000	Grant complete. 348 old trucks have been scrapped and replaced with much cleaner trucks, including 4 natural gas. 28 trucks have been retrofitted with soot filters.
	G11GMBT1/G08GMBT1				
Ships At-Berth/ Cargo Handling Equipment	Eliminate or reduce emissions from ships at-berth and/or cargo equipment at ports and intermodal railyards.	\$15,927,381	98,000	6,278,000	Grant complete. Installation of shore power equipment for 9 berths at the Port of Oakland is complete with ships plugging into the grid starting in January 2014.
	G08GMBS1				
Year 1					
Drayage Trucks	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models.	\$14,526,891	174,000	1,892,000	Grant complete. 203 old trucks have been scrapped and replaced with much cleaner trucks. 889 trucks have been retrofitted with soot filters.
	G07GMBP1				
Other Trucks	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models. G07GMBT1	\$10,462,200	81,000	1,978,000	Grant complete. 198 old trucks have been scrapped and replaced with much cleaner trucks. 13 trucks have been retrofitted with soot filters.
Ships At-Berth	Install grid-based shoreside electrical power at 3 berths at the Port of Oakland so ships can plug in and turn off their engines while docked. G07GMBS1	\$2,422,290	18,000	1,164,000	Grant complete. Installation of shore power equipment for 3 berths at the Port of Oakland with ships plugging into the grid starting in 2011.

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TABLE 5 (continued) BAY AREA CORRIDOR – Bay Area AQMD

Funding Year/	Project Description/ Grant Number	Grant	Emission Reductions (pounds)		Current Project Status				
Category	Grant Number	Amount	PM 2.5	NOx					
Year 1	Year 1								
Locomotives	Replace old dirty locomotives at rail yards with newer clean models. G07GMBL1	\$0	0	0	Grant terminated and funds transferred to the existing drayage truck grant G07GMBP1, at the District's request.				
	Trade Corridor Total	\$130,067,066	531,000	20,543,000					

Previously submitted to the Department of Finance as:
December 2018 Status Report to the Department of Finance

TABLE 6A

SAN DIEGO/BORDER TRADE CORRIDOR - San Diego APCD

Funding Year/	Project Description/	Grant Emission Reduction (pounds)			Current Project Status
Category	Grant Number	Amount	PM 2.5	NOx	,
Year 5					
Other Trucks	Replace old dirty trucks with newer clean models.	\$16,326,700	0	1,000,000	District has signed contracts for 124 trucks. 32 trucks have been scrapped and replaced with much cleaner trucks, including 27 natural gas (18 low-NOx).
	GMB14-S1/13GMS01				
Ships At-Berth/ Cargo Handling Equipment	Eliminate or reduce emissions from ships at-berth and replace old dirty cargo handling equipment with newer clean models.	\$0	0	0	District requested and CARB approved the transfer of \$0.7 million to Other Trucks.
	GMB14-S1				
Locomotives	Replace old dirty locomotives with newer clean models.	\$0	0	0	District requested and CARB approved the transfer of \$2.5 million to Other Trucks.
	GMB14-S1				
Commercial Harbor Craft	Replace old dirty engines in harbor craft with newer clean engines.	\$1,124,025	11,000	150,000	Project complete. 6 harbor craft vessels have been repowered with much cleaner engines.
	GMB14-S1				
Transportation Refrigeration Units	Replace old dirty TRUs with newer clean models. GMB14-S1	\$0	0	0	District requested and CARB approved the transfer of \$0.6 million Commercial Harbor Craft.

Previously submitted to the Department of Finance as: December 2018 Status Report to the Department of Finance

TABLE 6A (continued) SAN DIEGO/BORDER TRADE CORRIDOR – San Diego APCD

Funding Year/	Project Description/	Grant	Emission Reductions (pounds)		Current Project Status
Category	Grant Number	Amount	PM 2.5	NOx	
Year 4					
Other Trucks	Replace old dirty trucks with newer clean models. 13GMS01	\$4,653,480	5,000	507,000	Grant complete. 102 old trucks have been scrapped and replaced with much cleaner trucks, including 18 natural gas.
Commercial Harbor Craft	Replace old dirty engines in harbor craft with newer clean engines. 13GMS01	\$180,125	2,000	32,000	Grant complete. 2 harbor craft vessels have been repowered with much cleaner engines.
V	13GW301				
Year 2					
Other Trucks	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models. G11GMST1/G08GMST2	\$11,376,764	69,000	1,830,000	Grant complete. 222 old trucks have been scrapped and replaced with much cleaner trucks, including 2 natural gas. 70 trucks have been retrofitted with soot filters.
Commercial Harbor Craft	Replace old dirty engines in harbor craft with newer clean engines. G08GMSH1	\$115,286	1,000	11,000	Grant complete. 1 harbor craft vessel has been repowered with much cleaner engines.

Previously submitted to the Department of Finance as: December 2018 Status Report to the Department of Finance

TABLE 6A (continued) SAN DIEGO/BORDER TRADE CORRIDOR – San Diego APCD

Funding Year/	Project Description/	Grant	Emission Reductions (pounds)		Current Project Status				
Category	Grant Number	Amount	PM 2.5	NOx	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Year 1	Year 1								
Drayage Trucks	Retrofit or replace trucks serving the Port of San Diego.	\$0	0	0	Grant terminated and funds transferred to the drayage truck grant G07GMSP2, at the District's request.				
	G07GMSP1								
	Replace old dirty trucks serving the Port of San Diego with newer clean models.	\$5,143,950	28,000	685,000	Grant complete. 98 old trucks have been scrapped and replaced with much cleaner trucks.				
	G07GMSP2								
Other Trucks	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models.	\$1,680,000	12,000	332,000	Grant complete. 32 old trucks have been scrapped and replaced with much cleaner trucks.				
	G07GMST2								

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December 2018 Status Report to the Department of Finance

TABLE 6B SAN DIEGO/BORDER TRADE CORRIDOR – Imperial County APCD

Funding Year/	Project Description/	Grant	Emission Reductions (pounds)		Current Project Status
Category	Grant Number	Amount	PM 2.5	NOx	,
Year 4				<u> </u>	
Other Trucks	Replace old dirty trucks with newer clean models.	\$4,677,928	8,000	1,026,000	Grant complete. 105 trucks have been scrapped and replaced with much cleaner trucks.
	13GMS02/G11GMST2				
Year 2					
Other Trucks	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models.	\$7,884,439	60,000	1,561,000	Grant complete. 147 old trucks have been scrapped and replaced with much cleaner trucks. 24 trucks have been retrofitted with soot filters.
	G11GMST2/G08GMST1				
Year 1					
Other Trucks	Retrofit trucks with soot filters and replace old dirty trucks with newer clean models.	\$2,573,799	21,000	429,000	Grant complete. 51 old trucks have been scrapped and replaced with much cleaner trucks.
	G07GMST3				

TABLE 6C SAN DIEGO/BORDER TRADE CORRIDOR – Port of San Diego

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Fiscal Year/	Project Description/ Grant Number	Grant Amount	Emission Reductions (pounds)		Current Project Status			
Category	Grant Number	Amount	PM 2.5	NOx	-			
Year 1	Year 1							
Ships At-Berth	Install grid-based shore power at the Port of San Diego. G07GMSS1	\$0	0	0	Grant terminated and funds transferred to the San Diego District's drayage truck grant G07GMSP2, at the Port's request.			
	Trade Corridor Total	\$55,736,496	217,000	7,563,000				

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December 2018 Status Report to the Department of Finance

TABLE 7 MULTI-CORRIDOR TRUCK PROGRAMS

State Agency	Project Description/	Grant	Emission Reductions (pounds)		Current Project Status			
3 ,	Grant Number	Amount	PM 2.5	NOx	,			
Year 5								
CARB	Truck filter substrate replacement	\$1,000,000	N/A	N/A	These funds were awarded at the September 2015 Board Meeting to augment the Year 4 award due to higher than anticipated initial demand for the project. Funds were not needed and may be made available to the local agencies for Year 5 projects.			
Year 4	Year 4							
CARB	Truck filter substrate replacement	\$6,300,000	7,000	0	Sacramento Air District is the implementing agency. The project was completed with 505 filter substrates replaced at a total cost of \$3.1 million. Funds not needed may be made available to the local agencies for Year 5 projects.			

TABLE 8 STATE AGENCY – LOAN ASSISTANCE – Trucks Only

IADELU	SEE 0 STATE AGENCY EGAN AGGICTANGE		Trucks City		
State Agency	Project Description/	Grant	Emission Reductions (pounds)		Current Project Status
,	Grant Number	Amount	PM 2.5	NOx	·
Year 4					
CARB	Loan assistance to replace old dirty trucks with newer clean models.	\$0	N/A	N/A	The \$5.3 million was not needed for loan assistance and was reallocated to the local agencies for Year 5 truck projects.
Year 3					
CARB	Loan assistance to replace old dirty trucks with newer clean models serving ports and railyards.	\$1,668,227	Included in the Bay Area and South Coast Districts' FY2011-12 Priority Drayage Reserve Grants.		Loan assistance to help replace drayage trucks funded under the priority drayage reserve through the South Coast and Bay Area Air Districts. Loan assistance is improved access to financing through the California Capital Access Program with funds used for a loan loss reserve account if a truck owner defaults on their loan. 136 trucks projects have utilized the loan assistance program. \$3.3 million not needed for this project was reallocated to the local agencies for Year 5 truck projects.