State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER G-16-009
February 2016

WHEREAS, sections 39600 and 39601 of the Health and Safety Code authorizes the Air Resources Board (ARB or Board) to adopt standards, rules, and regulations and to do such acts as may be necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, section 39003 of the Health and Safety Code charges the Board with coordinating efforts to attain and maintain ambient air quality standards, to conduct research into the causes of and solution to air pollution, and to systematically attack the serious problem caused by motor vehicles, which is the major source of air pollution in many areas of the State;

WHEREAS, sections 39666 and 39667 of the Health and Safety Code authorize the Board to adopt regulations and measures to reduce emissions of toxic air contaminants from vehicular and non-vehicular sources;

WHEREAS, sections 43013 and 43018 of the Health and Safety Code direct the Board to achieve the maximum degree of emission reduction possible from vehicular and other mobile sources, to attain State air quality standards by the earliest practicable date;

WHEREAS, chapter 3.2 commencing with section 39625 of the Health and Safety Code established the Proposition 1B: Goods Movement Emission Reduction Program (Program) to implement the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, also known as Proposition 1B, which authorizes one billion dollars ($1,000,000,000) in bond-funded incentives for ARB to reduce emissions associated with the movement of freight along California's trade corridors;

WHEREAS, section 39625.5(b)(1) of the Health and Safety Code requires the Board to allocate funds to local agencies 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;

WHEREAS, section 39626.5(b) of the Health and Safety Code requires the local agencies receiving grants from ARB to award contracts and liquidate funds within set timeframes or the funds revert back to the legislatively-controlled California Ports Infrastructure, Security, and Air Quality Improvement Account;

WHEREAS, in Resolution 08-12 adopted on February 28, 2008, the Board adopted the Proposition 1B: Goods Movement Emission Reduction Program Guidelines for Implementation (Program Guidelines);

WHEREAS, in Resolution 15-20 adopted on June 25, 2015, the Board adopted updated Program Guidelines;

WHEREAS, in Resolution 10-18, adopted on March 25, 2010, the Board delegated to the Executive Officer, or his or her designee, the authority to recapture funds previously awarded by the Board to a local or State agency for reallocation and expenditure, according to the terms and conditions stated in the Program Guidelines (recapture provisions). The ARB Executive Officer, or his or her designee, may amend or modify an impacted grant or interagency agreement or establish a new grant or interagency agreement to implement this policy, consistent with the Program Guidelines;

WHEREAS, in Resolution 10-27 adopted on June 24, 2010, the Board delegated authority to the Executive Officer, and his or her designee, to select the projects to be funded from any recaptured funds to Board-approved primary or backup projects consistent with Program funding priorities and to enter into grant agreements with the local agencies;

WHEREAS, in Resolution 13-34 adopted on July 25, 2013, the Board directed ARB staff to closely monitor local agency implementation of grant agreements to ensure funds are being used effectively and expeditiously, and to implement the recapture provisions stated in the Program Guidelines if ARB staff believes that the grants cannot be fully utilized by the specified deadlines;

WHEREAS, ARB was notified by local agencies that a portion of Program funds from prior allocations were not obligated or liquidated by Program deadlines specified in the grant agreements and these funds are available for recapture;

WHEREAS, pursuant to the delegated authority in Resolutions 10-18 and 10-27, the Executive Officer, or his or her designee, should implement the recapture provisions stated in the Program Guidelines, and reallocate Program funds, as identified in Attachment A;

WHEREAS, in Resolution 10-18, the Board affirmed the existing authority of ARB staff to interpret or clarify the Program Guidelines, and delegated to the Executive Officer, or his or her designee, the authority to adopt changes to the Program Guidelines that he or she deems necessary to enable effective implementation of the Program, provided that such changes are consistent with statute and the goals established by the Board. These modifications can be found in Attachment B;

NOW, THEREFORE, IT IS ORDERED pursuant to the delegation of authority by the Board in Resolution 10-18, the Executive Officer, or his or her designee, hereby reallocates recaptured funds for implementation of equipment projects, using the recapture provisions stated in the Program Guidelines, and as shown in Attachment A, as deemed necessary to support Program goals. Any grants for projects made with these monies shall be subject to the provisions of the Program Guidelines, and as modified via Board Resolution or Executive Order.

IT IS FURTHER ORDERED that pursuant to the delegation of authority by the Board in Resolution 10-18, the Executive Officer, or his or her designee, hereby adopts the modifications to the Program Guidelines shown in Attachment B for implementation of local agency truck and locomotive projects awarded FY2015-16 (Year 5) Program funds;

Executed at Sacramento, California this 9th day of February 2016.

Cynthia Marvin, Chief
Transportation and Toxics Division

ATTACHMENT A

Proposition 1B: Goods Movement Emission Reduction Program
Summary of Program Funds to be Recaptured and Reallocated for Expenditure

Table 1: Summary of Reallocation of Unspent Local Agency Funds

Trade Corridor	Local Agency	Recaptured Funds[1]	From Grant Agreement	To Grant Agreement	Total
Los Angeles/ Inland Empire	South Coast District	$1,331,238.95	G08GMLS1	GMB14-L1	$16,189,603.10
		$14,858,364.15	13GML01		
Central Valley	San Joaquin Valley District	$4,305,000.00	13GMC01	GMB14-C1	$4,305,000.00
	Sacramento District	$673,566.44	G07GMCL1	GMB14-C2	$2,154,203.99
		$1,480,637.45	13GMC02		
Bay Area	Bay Area District	$4,072,618.97	G08GMBS1	GMB14-B1	$9,051,872.75
		$2,023,780.00	G11GMBT1		
		$2,955,473.78	13GMB01		
San Diego/ Border Region	Imperial District[2]	$17,641.89	G08GMST1	GMB14-S1	$1,995,866.04
		$290,262.00	G11GMST2		
		$1,687,962.15	13GMS02		
	San Diego District	$4,977,456.21	13GMS01	GMB14-S1	$4,977,456.21

[1]Recaptured Funds – Local agencies notified ARB that Program funds were not expended by the Program deadlines specified in the grant agreement. These recaptured funds are reallocated for expenditure to provide the greatest incentive funding opportunities to truck fleets, using the recapture provisions stated in the Program Guidelines. Includes dollars for equipment projects, plus administration funds where permitted.

[2]These funds are being transferred to the San Diego Air Pollution Control District, as Imperial County Air Pollution Control District chose not to participate in Year 5.

Table 2: Summary of Reallocation of Unspent Truck Loan Assistance Funds

Trade Corridor	Local Agency	To Grant	Amount
Los Angeles/ Inland Empire	South Coast District	GMB14-L1	$4,167,584.85
Central Valley	San Joaquin District	GMB14-C1	$1,515,485.40
	Sacramento District	GMB14-C2	$378,871.35
Bay Area	Bay Area District	GMB14-B1	$1,060,839.78
San Diego/Border	San Diego District	GMB14-S1	$454,645.62

[1]Includes unspent funds from an Interagency Agreement between ARB and the California Pollution Control Financing Authority and funds awarded but not needed due to lack of project demand.

ATTACHMENT B

Changes to Proposition 1B: Goods Movement Emission Reduction Program Guidelines

I. LIMITED CHANGES TO THE PROGRAM GUIDELINES FOR PROJECTS RECEIVING FISCAL YEAR 2015-2016 FUNDS

A. Heavy Duty Trucks

- **Previously Funded Trucks.** Allow previously funded trucks with model year 2007-2009 engines to be eligible for Program funding. The local agencies have requested that these trucks be eligible as they are prime candidates to be upgraded to the newest and cleanest trucks available including zero and near-zero emission vehicles.

B. Locomotives

- **Minimum Fuel Usage.** Revise the minimum fuel usage eligibility requirement for locomotives operated by Class III railroads from 20,000 to 10,000 gallons or equivalent per year or greater and reduce associated funding levels. The modifications to the Program Guidelines are shown in Appendix B below. Revisions are shown in underline to indicate additions.

APPENDIX B Locomotives and Railyards

A. Equipment Project Specifications

Eligible Equipment	**Locomotive projects**: Diesel-powered freight locomotives with no or minimal emissions control technology (i.e., uncontrolled, or meeting Tier 0 through Tier 2 standards). Equipment owner must demonstrate: • Operation or equivalent locomotive horsepower operation in California for the past 2 years. • For switchers and medium horsepower locomotives: at least 50% operation or equivalent locomotive horsepower operation within the four California trade corridors for the past 2 years. • For line haul locomotives: a majority of the minimum percentage operation or equivalent locomotive horsepower operation within the four California trade corridors for the past 2 years. • Estimated diesel fuel usage of 20,000 gallons or equivalent per year or greater for Class I or Class II railroads. • Estimated diesel fuel usage of 10,000 gallons or equivalent per year or greater for Class III railroads. **Locomotive emissions capture and control system projects**: Existing freight railyards within the four California trade corridors.
General Requirements (applicable to all project options)	Equipment owner shall: • Commit to the project life specified by the applicable equipment project option. • Adhere to all Program requirements during the project life. • Agree to equipment inspections. • Comply with record-keeping, reporting, and Program review or fiscal audit requirements. • Sign a legally binding contract with the local agency including project milestones and completion deadlines. • Properly maintain upgraded equipment in good operating condition and according to manufacturer's recommendations. • Demonstrate proof of equipment warranty and insurance on upgraded equipment. • Certify that there are no outstanding ARB violations or non-compliance with ARB regulations associated with the equipment or the owner. • Exclude any Program-funded equipment from the compliance calculations for the 1998 agreement for locomotives operating in the South Coast Air Basin for the duration of the project life (applicable to Union Pacific and BNSF Railway only).

Locomotives and Railyards (cont.)

Option (1): Switcher Locomotive (1,006 hp - 2,300 hp)

Partial funding (see options below) to replace or retrofit (retrofit Includes rebuild, repower, remanufacture, filter installation, and all other modifications other than replacement) an uncontrolled, or Tier 0 through Tier 2 switcher locomotive with a new engine or alternative technology that meets U.S. EPA Tier 4 or lower emission standards (1.30 grams per brake horsepower-hour (g/bhp-hr) or lower NOx and 0.03 g/bhp-hr or lower PM).

Funding Options

Class I, Class II, and Class III Railroads with minimum usage of 20,000 gallons/year:

Year Project is Operational	Funding Amount*
2016	85% up to $2,125,000
2017	80% up to $2,000,000
2018	75% up to $1,875,000

Class III Railroads with minimum usage of 10,000 to 19,999 gallons/year:

Year Project is Operational	Funding Amount*
2016	85% up to $1,062,500
2017	80% up to $1,000,000
2018	75% up to $937,500

*If the equipment is banned from California operation instead of scrapped, the funding amount is reduced by 20%.

Eligible costs may include a new chassis, freshly manufactured or retrofitted engine(s), new generator set(s), filter and diesel oxidation catalyst for PM control, exhaust gas recirculation and selective catalytic reduction device for NOx control, other emission control equipment, and new or upgraded mechanical/electrical/control system components necessary for safe operation.

Ineligible costs include auto start/stop devices required by regulation or agreements, GPS devices and associated monitoring and reporting costs, design, engineering, consulting, license, registration, taxes, insurance, operation, maintenance, and repair.

Requirements

The new or upgraded equipment must meet the required emission levels or standards as evidenced by a U.S. EPA Certificate of Conformity (if available) and an ARB Verification Letter of the emission levels achieved.

In addition to the General Requirements, equipment owner shall:

- Commit to 90% or 100% California-only operation for the duration of the project life; equipment is permitted to temporarily travel out-of-state for periodic maintenance, if outlined in the contract between the local agency and equipment owner.
- Commit to at least 50% of operation within the four California trade corridors for duration of the project life.
- Commit to a project life of 15 years.
- Commit to the funded locomotive using California ARB diesel fuel unless ARB approves an exemption and it is included in the contract between the local agency and equipment owner.
- Scrap the old engine/locomotive, or ban old engine/locomotive from California operation (replacements and retrofits involving engine replacement).
- Install an active GPS device on both the old equipment (if not scrapped) and the new equipment, fund and commit to data collection, and report location data.

Locomotives and Railyards (cont.)

Option (2): (Medium Horsepower) Locomotive (2,301 hp - 4,000 hp)

Partial funding (see options below) to replace or retrofit (retrofit Includes rebuild, repower, remanufacture, filter installation, and all other modifications other than replacement) an uncontrolled, Tier 0 through Tier 2 medium horsepower locomotive with a new engine or alternative technology that meets U.S. EPA Tier 4 or lower emission standards (1.30 g/bhp-hr or lower NOx and 0.03 g/bhp-hr or lower PM).

Funding Options

Class I, Class II, and Class III Railroads with minimum usage of 20,000 gallons/year:

Year Project is Operational	Funding Amount*
2016	85% up to $2,550,000
2017	80% up to $2,400,000
2018	75% up to $2,250,000

Class III Railroads with minimum usage of 10,000 to 19,999 gallons/year:

Year Project is Operational	Funding Amount*
2016	85% up to $1,227,500
2017	80% up to $1,200,000
2018	75% up to $1,125,000

*If the equipment is banned from California operation instead of scrapped, the funding amount is reduced by 20%.

Eligible costs may include a new chassis, freshly manufactured or retrofitted engine(s), new generator set(s), filter and diesel oxidation catalyst for PM control, exhaust gas recirculation and selective catalytic reduction device for NOx control, other emission control equipment, and new or upgraded mechanical/electrical/control system components necessary for safe operation.

Ineligible costs include auto start/stop devices required by regulation or agreements, GPS devices and associated monitoring and reporting costs, design, engineering, consulting, license, registration, taxes, insurance, operation, maintenance, and repair.

Requirements

The new or upgraded equipment must meet the required emission levels or standards as evidenced by a U.S. EPA Certificate of Conformity (if available) and an ARB Verification Letter of the emission levels achieved.

In addition to the General Requirements listed previously, equipment owner shall:

- Commit to 90% California or 100% California-only operation for the duration of the project life; equipment is permitted to temporarily travel out-of-state for periodic maintenance, if outlined in the contract between the local agency and equipment owner.
- Commit to at least 50% of operation within the four California trade corridors for the duration of the project life.
- Commit to a project life of 15 years.
- Commit to the funded locomotive using California ARB diesel fuel unless approves an exemption and it is included in the contract between the local agency and equipment owner.
- Scrap or ban the old engine/locomotive from California operation (replacements and retrofits involving engine replacement).
- Install an active GPS device on both old (if not scrapped) and new equipment, fund and commit to data collection, and report location data.

Locomotives and Railyards (cont.)

Option (3): Line-Haul Locomotive (4,001 hp or higher)	Partial funding (see options below) to replace or retrofit (retrofit Includes rebuild, repower, remanufacture, filter installation, and all other modifications other than replacement) an uncontrolled or Tier 0 through Tier 2 line-haul locomotive with a new engine or alternative technology that meets U.S. EPA Tier 4 or lower emission standards (1.30 g/bhp-hr or lower NOx and 0.03 g/bhp-hr or lower PM).
Funding Options	**90% to 100% California Operation:** Year Project is Operational — Funding Amount* 2016 — 85% up to $2,550,000 2017 — 80% up to $2,400,000 2018 — 75% up to $2,250,000 **75% California Operation:** Year Project is Operational — Funding Amount* 2016 — 70% up to $2,100,000 2017 — 65% up to $1,950,000 2018 — 60% up to $1,800,000 **50% California Operation:** Year Project is Operational — Funding Amount* 2016 — 45% up to $1,350,000 2017 — 40% up to $1,200,000 2018 — 35% up to $1,050,000 **30% California Operation:** Year Project is Operational — Funding Amount* 2016 — 25% up to $750,000 2017 — 20% up to $600,000 2018 — 15% up to $450,000 *If the equipment is banned from California operation instead of scrapped, the funding amount is reduced by 20%. Eligible costs may include a new chassis, freshly manufactured or retrofitted engine(s), new generator set(s), filter and diesel oxidation catalyst for PM control, exhaust gas recirculation, and selective catalytic reduction device for NOx control, other emission control equipment, and new or upgraded mechanical/electrical/control system components necessary for safe operation. Ineligible costs include auto start/stop devices required by regulation or agreements, GPS devices and associated monitoring and reporting costs, design, engineering, consulting, license, registration, taxes, insurance, operation, maintenance, and repair.

Locomotives and Railyards (cont.)

Requirements	The new or upgraded equipment must meet the required emission standards as evidenced by a U.S. EPA Certificate of Conformity (if available) and an ARB Verification Letter of the emission levels achieved. In addition to the General Requirements listed previously, equipment owner shall: • Commit to a minimum percentage of California operation per the appropriate funding level for the duration of the project life. Equipment is permitted to temporarily travel out-of-state for periodic maintenance, if outlined in the contract between the local agency and equipment owner. • Commit to at least a majority of the percentage California operation being within the four California trade corridors for the duration of the project life. • Commit to a project life of 15 years. • Commit to the funded locomotive only using California ARB diesel fuel unless ARB approves an exemption and it is included in the contract between the local agency and equipment owner. • Scrap or ban the old (uncontrolled through Tier 1+) engine/locomotive from California operation for (replacements or retrofits involving engine replacement). If upgrading a Tier 2 engine/locomotive, the Tier 2 equipment may remain in California and a Tier 0 through Tier 1+ engine/locomotive must be scrapped or banned from California operation (replacements and retrofits involving engine replacement). • Install an active GPS device on both the old (if not scrapped) and the new equipment, fund and commit to data collection, and report location data.
Option (4): Locomotive Emissions Capture and Control System	Partial funding for the lower of 80% of eligible costs or a level commensurate with a cost-effectiveness of at least 0.10 pounds of weighted emissions reduced per State dollar invested for the purchase and installation of an ARB-approved locomotive emission capture and control system (a.k.a. hood or bonnet) to reduce diesel PM and NOx emissions from freight locomotives. Eligible costs include the purchase and installation of the emission treatment system and ducting, and hoods/bonnets necessary to connect to locomotives. Ineligible costs include those associated with increasing the capacity of electrical power transmission to the facility, locomotive modifications to accept capture and control system, locomotive or other acquisition and modification for a portable system, design, engineering, consulting, environmental review, legal fees, permits, licenses and associated fees, taxes, utility construction or metered costs, insurance, operation, maintenance, and repair.

Locomotives and Railyards (cont.)

Requirements	In addition to the General Requirements listed previously, equipment owner shall: • Commit to 100% operation within the four California trade corridors for the duration of the project life. • Commit to a project life of 10 years. • Document the system is commercially available and achieves an overall capture and control efficiency rate of at least 80% for the removal of NOx and PM. • Demonstrate system performance and efficiency with source testing prior to funding and annually thereafter by capturing emissions from an operating locomotive undergoing diagnostic procedures. Performance measures include: (i) no visible emissions after bonnet is connected to the locomotive (opacity <20%); and (ii) establish overall system efficiency rate is at least 80% using ARB approved methods for flow rate (Methods 1 to 4), NOx (ARB Method 100) and PM (ARB Method 5). Any alternative test methods must be approved by ARB. • Obtain a 10-year manufacturer's warranty (including labor and materials) to repair and/or replace system component(s) as needed to correct any mechanical, electrical or control system equipment or installation problems, which may cause significant loss of capture, treatment efficiency or usability. The manufacturer's warranty may exclude minor items that are subject to normal wear and tear if approved by ARB. • Comply with all local permitting requirements.
Excluded Funding Components	• Electricity costs required to operate the hood control system. • Other operation and maintenance costs.
Project Cost Assumptions	• Estimated total cost of a Tier 4 switcher, medium horsepower, or line-haul locomotive is ~$2.5-$3 million (repower and new, respectively). • Estimated capital cost for the locomotive emissions capture and control system of one 12,500 scfm unit (standard cubic feet/minute) with 12 bonnets is ~$9 million.