

South Coast Air Quality Management District 2018 Carl Moyer Program



ON-ROAD HEAVY-DUTY VEHICLES



Project Categories



- **Heavy-Duty Trucks and Buses**
 - >14,000 lbs. GVWR
 - Statewide Truck and Bus Regulation
 - Non-drayage
- **Drayage Trucks**
 - Compliant in Drayage Truck Registry
 - Engines that are older than model year 2007 are not eligible
 - >26,000 lbs. GVWR
- **Transit Vehicles**
 - Urban buses –greater than 35 feet in length and 33,000 lbs. GVWR
 - Transit Fleet Vehicles –less than 35 feet in length and 33,000 lbs. GVWR

Project Categories (Continued)



- **Solid Waste Collection Vehicles (SWCV)**
 - Compliant with final SWCV Regulation (2006 and older engines)
 - Compliance with Truck and Bus Regulation (2007 and newer engines)
- **Emergency Vehicles**
 - Fire trucks, prisoner transport buses, pumpers, ladder trucks and water tenders
 - Defined in CA Vehicle Code Sections 27156.2 & 165
 - Replacement option only

Project Options



- **Replacement:** The replacement of an older, high polluting vehicle with a newer, cleaner one
- **Repower:** Replacing an older, high polluting engine with a newer, cleaner one (note: prototype may be required if repower has not been previously demonstrated)
- **Conversion:** Replacing or modifying the original engine/vehicle to a hybrid or zero emission technology

Heavy-Duty Vehicles Definition



Vehicle Classification	GVWR
Light Heavy-Duty (LHD)*	14,001 – 19,500 lbs
Medium Heavy-Duty (MHD)	19,501 – 33,000 lbs
Heavy Heavy-Duty (HHD)	Over 33,001 lbs

* On-Road LHD diesel vehicles with GVWR of 8,501-14000 lbs. may be considered for funding on a case-by-case basis with CARB approval.

Emission Standards for Heavy-Duty Engines (g/bhp-hr)



Model Year	NO _x	PM
2007	1.20	0.01
2010 (Current Standard)	0.20	0.01
Option Low NO _x	0.10 0.05 0.02*	0.01

*CARB has certified 8.9L and 11.9L natural gas engines meeting the optional low NO_x standard of **0.02 g/bhp-hr**

Maximum Project Life for On-Road Vehicle Projects (Years)



- Replacement* 7
- Transit Bus Replacement 12
- Repower 7
- Electric Conversion 5
- Emergency Vehicle 14
- Other On-Road Projects 3

*The Maximum project life does not consider regulatory requirements that may reduce the project life

Note: A longer project life may be considered on a case-by-case basis with CARB approval

State Funding Caps for Replacement Projects (Meeting Current Standards)



Weight Class	Funding Cap*
HHD – GVWR >33,000 lbs	\$60,000
MHD – GVWR 19,501 to 33,000 lbs	\$40,000
LHD – GVWR 14,001 – 19,500 lbs	\$30,000
Emergency Vehicles – GVWR >14,000 lbs	80% of Eligible Cost

* No more than 80% of the vehicle cost for fleets with 10 or less vehicles, no more than 50% of vehicle cost for larger fleets except for emergency vehicles.

State Funding Caps for Optional Low NO_x Replacements*



Optional Low NO _x Standard (g/bhp-hr)	HHD	MHD	LHD
0.02	\$100,000	\$80,000	\$70,000
0.05	\$80,000	\$60,000	\$50,000
0.10	\$70,000	\$50,000	\$40,000
Transit Buses	\$25,000		

* No more than 80% of vehicle cost for fleets with 10 or less vehicles, no more than 50% of vehicle cost for larger fleets except for emergency vehicles.

State Funding Caps for Optional Low NOx Engine Repowers



Vocation Type	Funding Caps*
Transit Bus	\$20,000
Other Trucks and Buses	\$40,000
Refuse Haulers**	\$40,000

*No more than 80% of repower cost for fleets with 10 or less vehicles, no more than 50 percent of repower cost for larger fleets.

**The replacement engine must be CARB-certified at or below the emissions levels of 0.10 g/bhp-hr NOx or cleaner.

State Funding Caps for Hybrid Conversions



Weight Class	Funding Caps*
LHD	\$7,500
MHD	\$10,000
HHD	\$15,000

*No more than 80% of system cost for fleets with 10 or less vehicles, no more than 50 percent of system cost for larger fleets, except for emergency vehicles.

State Funding Caps for Zero Emission Replacements or Conversions



Weight Class/Vocation Type	Funding Caps*
Transit Bus	\$80,000
HHD Truck or Bus	\$200,000
MHD Truck or Bus	\$150,000
LHD Truck or Bus	\$80,000

*No more than 80% of vehicle cost for fleets with 10 or less vehicles, no more than 50 percent of vehicle cost for larger fleets except for emergency vehicles.

Eligibility Requirements - Existing Vehicle



- **EMY 2010 and older**
- **Diesel or alternative fuel**
- **Vehicle must be operational and in roadworthy condition**
- **Vehicle Title (clean title, no active lien-holder)**
- **DMV Registration & Proof of Insurance (pervious 24 months)**
 - **Seasonal registration may be eligible (3-6 months continuous registration per 12 month period for the pervious 24 months)**
- **Usage documentation (must provide mileage records for previous 24 months)**
- **Certify at least 75% of usage has been in CA**
- **Executive Order for Existing Engine**
- **Photo verifying GVWR**
- **Documentation verifying compliance with applicable CARB Regulation**

Eligibility Requirements- Replacement Vehicle



- **EMY 2013 or newer**
- **Fleet size 1-10: Replacement vehicle with engine certified at or below 0.20 g/bhp-hr NOx**
- **Fleet size > 10: Must select optional low NOx or zero emission technology**
- **Engine's intended service class must match replacement vehicle's weight class (e.g., a MHD engine must be used in a vehicle with GVWR 19,501 -33,000 lbs.) – some exceptions do exist**
- **Mileage Caps for Used Replacement Truck**
 - **HHD 500,000 miles, MHD 250, 000 miles, LHD 150,000 miles**
- **Warranty – Minimum of 1 year or 100K miles including parts & labor**
- **California registration or California IRP**

Eligibility Requirements

Engine Repower



- Engines must be certified by CARB to meet an emission level of 0.10 g/bhp-hr NO_x or cleaner
- Compliance Check Requirement (Based on VIN)
- Prototype testing may be required
 - No CMP funds can be used for prototype vehicle
 - Written confirmation from manufacturer

Eligibility Requirements- Conversions

16

- **Replacement or modification of original engine or vehicle to include a cleaner engine or other system with different fuel type**
- **Hybrid conversion must be certified by CARB**
- **All-electric conversion system must receive an exemption Executive Order**
- **Converted vehicles must adhere to all applicable local, state and federal requirements and safety standards**

Documentation of Compliance Status



- **Fleet subject to the Statewide Truck and Bus Regulation (TRUCRS)**
 - A copy of the TRUCRS Fleet list showing the compliance option for each vehicle in the fleet
 - A Copy of the TRUCRS General Fleet and Compliance Information Summary
 - A Copy of the Compliance Certificate printed from TRUCRS
- **Vehicle subject to the Drayage Truck Regulation**
 - A copy of DTR Compliance Search Page Printout showing VIN and compliance status
- **Vehicle subject to other applicable CARB Regulation**
 - SCAQMD will verify the compliance status with CARB

Projects Currently Exempt from CARB Rules



- **Emergency Vehicles as defined by CVC Sections 27156.2, 165, and 1797.84 in the California H&S Code**

(Note: Emergency Vehicles used exclusively for training purposes are subject to CARB Rules)

- **Existing Fleets with alternative fuel (CNG/LNG) engines or zero emission technologies in their entire fleet**

Case-By-Case Projects



- On-road heavy-duty vehicles with GVWR of 8,501 – 14,000 lbs.
- Retrofit projects
 - Must reduce NOx emissions by at least 15%, and at or below the 0.02 g/bhp-hr optional low NOx standard
- Transport Refrigeration Units (TRUs) – zero emission replacement projects only
- Auxiliary Power Units (APUs)
- Projects using Power Take-Off (PTO) hours of operation

Required Inspections



PRE-INSPECTION

- After application is submitted to air district, but prior to project approval

POST-INSPECTION

- Before the replacement engine/vehicle is delivered and prior to payment being issued

PRE-DISMANTLE INSPECTION (REPLACEMENT PROJECTS ONLY)

- After the existing truck is delivered to dealership before payment is issued
- Existing truck must be delivered to the dismantler within 60 days

DISMANTLE INSPECTION

- After engine and frame rail destruction
- Within 60 days after dismantler receipt
- Dismantler provides photos within 10 business days

Annual Report Template

Attachment 3

Carl Moyer On-Road Project Annual Report Form

SCAQMD Contract Number:		Reporting Period: Start Date:		End Date:			
Title of Project:							
Name / Company:				Contact Name:			
Business Phone:		Cell Phone:		Email Address:			
Address:							
Vehicles Information							
Unit ID#	Vehicle Identification Number(VIN)	Vehicle Make	Vehicle Model	Engine Make	Engine Model	HP	Engine Serial Number(ESN)
Vehicles Operational Information							
Unit ID#	Estimated % Operation in CA	Miles Traveled during the Report Period (miles)	Odometer Reading	Date Odometer Reading was Recorded	(Optional) Fuel Usage during the Report Period(gal)		
<p>1. Please indicate how the vehicle(s) was/were performing during this reporting period including any repairs and maintenance performed:</p> <p>_____</p> <p>_____</p>							
<p>2. Please describe if the vehicle(s) encountered significant problems during this report period and how were the problems resolved:</p> <p>_____</p> <p>_____</p>							
<p>I certify to the best of my knowledge that the information provided is true and correct.</p> <p>Name / Title of Person Completing Report Form (Print) _____</p> <p>Signature _____ Date _____</p>							

Questions/Comments

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**Application Deadline:
June 05, 2018 at 1:00 pm**