

Chapter 5: ON-ROAD HEAVY-DUTY VEHICLES FLEET MODERNIZATION

This chapter describes the minimum criteria and requirements for Carl Moyer Program on-road heavy-duty vehicles (HDV) fleet modernization projects.

1. Projects Eligible for Funding

All projects that are subject to in-use regulations described in Chapter 4: On-Road Heavy-Duty Vehicles also apply in this chapter. Fleet modernization provides incentives to replace old high-polluting heavy-duty vehicles with newer, lower-emission replacement vehicles, providing real emission benefits earlier than would have been expected through normal attrition.

Please see Section 4 (Project Criteria) for detailed minimum eligibility requirements. Most on-road vehicles are subject to more stringent requirements as described in Section 3.

The following HDV fleet modernization projects may be eligible for funding. Note: the existing old vehicle engine must be model year 2002 or older. Existing old school buses may have an engine of any model year.

- **New Replacement Vehicle Purchase.** The purchase of a new vehicle or school bus with an engine certified to the 2007 or newer emission standards to replace an existing vehicle that is to be scrapped.
- **Used Replacement Vehicle Purchase.** The purchase of a used vehicle or school bus with an engine certified to the 2007 or newer emission standards to replace an existing vehicle that is to be scrapped.

2. Maximum Eligible Funding Amounts

Table 5-1 summarizes the maximum eligible funding for each Carl Moyer Program fleet modernization project:

**Table 5-1
Maximum Funding Amounts for Fleet Modernization Projects**

NOx Certification Level (g/bhp-hr)	Grant Amount Cost Cap
0.20 g/bhp-hr new vehicle	\$60,000
1.20 g/bhp-hr new vehicle	\$50,000
1.20 g/bhp-hr used vehicle	\$40,000

All projects are also subject to the cost-effectiveness threshold defined in Chapter 2 – General Criteria.

3. Regulatory Background

Carl Moyer Program fleet modernization projects must be surplus to applicable regulatory deadlines to be eligible for funding. For regulation descriptions, please see Chapter 4 (On-Road Heavy-Duty Vehicles), Section 4(F) - Funding Eligibility for Projects Subject to In-Use Regulations.

4. Project Criteria

The project criteria listed below for fleet modernization projects provide minimum qualifications for the Carl Moyer Program. All projects must also conform to the general criteria of Chapter 2, as well as the requirements described in Chapter 3: Program Administration.

A. General Criteria

- i. For vehicles that are subject to the Statewide Truck & Bus Regulation, the following fleet modernization funding options are available:
 - a) Small Fleets: Funding is available for the first, second, and third vehicle in a small fleet through December 31, 2011 – two years in advance of the January 1, 2014 compliance deadline.
 - For the first truck to receive funding in a small fleet, funding is available for fleet modernization with a 2010 or later model year truck through December 31, 2012.
 - b) Agricultural Vehicles: Agricultural vehicles defined in the Regulation as Low Use & Specialty, accruing less than 10,000 miles per year, are eligible for fleet modernization through December 31, 2019 regardless of fleet size. Limited use agricultural vehicles, accruing more than 10,000 and less than 15,000 miles per year, are eligible for fleet modernization through December 31, 2013 regardless of fleet size.
 - c) NOx Exempt Areas: Vehicles that operate exclusively in NOx exempt areas of the state are eligible as follows.
 1. Vehicles in large fleets (4+ vehicles) with engine model years 1994-2002 are eligible for funding of NOx and ROG reductions through December 31, 2017.
 2. Vehicles in small fleets (1-3 vehicles) with engine model years 1994-2002 are eligible for funding of NOx and ROG reductions through December 31, 2018.

3. Vehicles in NOx exempt areas are subject to reporting requirements, which is incorporated as a condition of funding. Beginning on January 1, 2013 for trucks with engine model year 1994-1999, and on January 1, 2014 for trucks with engine model year 2000-2002, air districts must confirm, prior to application approval, that any baseline vehicle to be replaced with fleet modernization funding meets the reporting requirements in title 13, CCR, section 2025(r)(17)(C). The owner must then provide written evidence to the air district, within 60 days of vehicle purchase, that the replacement vehicle has met the same reporting requirements.
4. Participant contracts must include a provision that requires the vehicle must operate exclusively in NOx exempt areas of the state as defined in title 13, CCR, section 2025(d)(55).
 - ii. For project contracts that extend beyond December 31, 2013, the applicant may not include Carl Moyer Program funded vehicles in the BACT Percentage Limits or Fleet Average compliance options of the Statewide Truck and Bus Regulation.
 - iii. Previous Drayage Trucks: Vehicles that have operated as a drayage truck at any time in the previous two (2) years but no longer access port and intermodal rail yard facilities subject to the Drayage Truck Regulation are eligible for funding. In order to ensure that the replacement vehicle does not operate as a drayage truck for the duration of the contract term, the replacement vehicle will be added to the Drayage Truck Registry as non-compliant until the contract end date.
 - iv. Current Drayage Trucks: On-road diesel-fueled heavy-duty drayage trucks may be subject to the ARB Drayage Truck Regulation as described in Chapter III. No Carl Moyer Program funding opportunities are available for vehicles that access the Ports of Long Beach or Los Angeles. For vehicles that access any other regulated ports or intermodal rail yards, funding is available for replacement of trucks with an engine model year of 2002 or older with a truck meeting the 2007 or newer emission standards through December 31, 2011. Cost effectiveness for these projects must be based only on NOx and ROG (not PM). For 1993 and older trucks, cost effectiveness calculations must use emission factors for a model year 1994 engine as the baseline.
 - v. Any fleet modernization project that would replace an existing vehicle with an off-road engine that is subject to an on-road regulation must comply with the surplus requirements described in this chapter. For example, a yard truck with an off-road engine that is subject to the Statewide Truck and Bus

Regulation (including yard trucks used primarily in agricultural operations) must comply with all off-road Carl Moyer Program criteria described in Chapters V and/or VII, as well as all surplus criteria described in Section (a)(1) of this Chapter.

- vi. Glider kits are replacement chassis and cab for on-road heavy-duty vehicles. Glider kits are identified with a vehicle identification number (VIN) starting with the letters “GL”. Existing glider kit vehicles are eligible. The replacement vehicle must be a complete OEM vehicle and not a glider kit.

B. Participant Requirements

Participants must meet the following requirements:

- i. The participant must provide conclusive documentation of annual mileage or vehicle usage in California.
- ii. The participant must currently own and have operated the old vehicle for the previous twenty four (24) months, documented through a copy of the old vehicle title. If it is unclear whether a vehicle is owned or leased by a participant, the district will determine whether the vehicle is eligible.
- iii. The participant must submit documentation of annual miles traveled or gallons of fuel consumed for the previous twenty four (24) months to determine cost-effectiveness. Examples of documentation include: logbooks, fuel records, and, maintenance records or tax records.
- iv. The participant must provide copies of the California Department of Motor Vehicle or California International Registration Plan (IRP) registration and proof of insurance for the old vehicle for the previous twenty four (24) months.
- v. The participant must be in compliance with all applicable air quality laws and regulations; all outstanding citations must be paid.
- vi. The participant must be the registered owner of the replacement vehicle for the project life.
- vii. The participant must maintain replacement value insurance coverage for the project life.
- viii. The participant must re-flash all trucks in the fleet that are eligible to have Low NOx Software installed prior to receiving funding. Please refer to corresponding regulations as well as Chapter 4: On-Road Heavy-Duty Vehicles for additional re-flash information.

- ix. Throughout the contract term, the participant must complete the following minimum reporting requirements:
 - a. Provide registration and proof of insurance to the district annually.
 - b. Provide annual reports that include information such as hours of operation, miles driven in the district and California, the amount of fuel consumed in the twelve months preceding the report date, details regarding maintenance and servicing, and any other items specified by the district.
 - c. For heavy heavy-duty vehicle projects, provide documentation issued by DMV that confirms the vehicle is registered with a declared Gross Vehicle Weight (GVW) or declared Combined Gross Vehicle Weight (CGW) of 60,001 or above.
 - d. If the replacement vehicle is involved in an accident, report the accident to the district within 10 business days. The participant must provide a police report of the accident, a letter from the insurance company regarding the accident and any other additional information requested by the district. The participant must repair the vehicle and return it to operation, if possible. If the vehicle is totaled, the participant and the district staff must come to an agreement regarding any requirements that still need to be met.

C. Existing Vehicle Requirements

All existing vehicles must meet the following conditions:

- i. The existing vehicle must have an engine of model year 2002 or older, except for school buses which may have an engine and chassis of any model year.
- ii. The existing vehicle must be based in California.
- iii. The existing vehicle must be currently registered and have been registered in California for the past twenty four (24) months, or must provide California registration history for the previous eight (8) consecutive months supplemented by alternate documentation showing California operation for the past twenty four (24) months.
 - If the existing vehicle operates seasonally, then the existing vehicle may be eligible to participate if it has been registered in California for at least three (3) months per twelve (12) month period for the previous twenty four (24) months. DMV registration documentation for each

month the vehicle was registered must be included with the application.

- iv. The existing vehicle must meet the criteria for either a medium heavy-duty vehicle or a heavy heavy-duty vehicle, as defined below:
 1. To qualify for medium heavy-duty (MHD) funding levels, eligible vehicles must have a manufacturer Gross Vehicle Weight Rating (GVWR) of 19,501 pounds or greater. GVWR may be documented with a photo of the engine tag or a copy of the manufacturer build sheet.
 2. To qualify for heavy heavy-duty funding levels, eligible vehicles must have been registered by DMV with declared Combined Gross Vehicle Weight (CGW) range or declared Gross Vehicle Weight (GVW) range greater than 60,000 pounds.
 - i. Verification of the declared CGW or GVW must be identified on the vehicle registration for the previous two years. DMV weight codes K, L, M, and N are greater than 60,000 pounds.
 - ii. If two years of CGW or GVW documentation is not available, then the vehicle must meet all of the following conditions to be eligible:
 1. The horsepower of the existing engine must be greater than 250 horsepower, and
 2. Vehicle must have a manufacturer GVWR greater than 33,000 pounds. Declared CGW or GVW may not be used to satisfy this criteria, and
 3. Current and valid vehicle registration must identify declared CGW greater than 60,000 pounds, and
 4. Manufacturer verification of GVWR and horsepower must be provided with the application.
- v. The existing vehicle must be in operational condition, as determined through a California Highway Patrol Biennial Inspection of Terminals (CHP BIT) or equivalent district-approved inspection. If the district does not conduct a pre-inspection, the following methods may be used:
 1. The vehicle owner may submit a completed CHP 90-Day Safety Inspection Form documenting the inspection. Or
 2. A participating dealership may conduct the inspection of the old vehicle and provide pictures verifying that the vehicle is in operational condition. The participant will pay the cost of the inspection.

- vi. All existing school buses must have a current CHP safety certification as of December 31, 2008, and at the time funding is awarded to replace the bus (i.e., the school bus may not have a lapsed CHP safety certification), and must be currently registered with the Department of Motor Vehicles.
- vii. If the old vehicle engine tag is missing, then verification of the engine information can be satisfied with the engine serial number. The participant must provide verification of the engine make, model, model year, engine serial number, and horsepower from the manufacturer. The participant may also verify the horsepower with the results of a dynamometer test. The dynamometer test will take into account a 15 percent loss in actual horsepower, accounting for transmission loss. Verification can include a letter or a printout from an engine manufacturer or dealership. On a case-by-case basis, ARB may approve other means of obtaining the information.

D. Replacement Vehicle Requirements

All replacement vehicles must meet the following conditions:

- i. Emission Standards: Replacement vehicles with a 2007 model year or later engine certified to a PM emission standard of 0.01 g/bhp-hr and a NOx FEL or NOx STD level of 1.20 g/bhp-hr or lower are eligible for funding.
- ii. Mileage: A used replacement truck must have less than 500,000 miles with odometer verification to occur at the post inspection.
- iii. Horsepower: If the replacement engine horsepower is more than 25 percent greater than the existing engine horsepower, it must be de-rated (reduced) to not exceed a 25 percent increase. In limited situations, the air district may approve a greater than 25 percent increase in horsepower. Auditing of the replacement vehicle's horsepower may occur throughout the length of the funding contract. The 25 percent allowable increase in horsepower is calculated as follows:

$$\text{(Old Engine Horsepower)} \times (1.25) = \text{Maximum New Engine Horsepower}$$

(Example: 300 HP x 1.25 = 375 HP)

- iv. Weight Class: Weight class requirements are as follows:
 - a. If the existing vehicle qualified for funding as a heavy heavy-duty vehicle, then the following requirements apply:
 - i. The replacement vehicle must be registered by DMV with a declared Gross/Combined Gross Vehicle Weight range greater than 60,000 pounds;
 - ii. Verification of the declared Gross/Combined Gross Vehicle Weight Range must be identified on the vehicle registration or other documentation issued by DMV for the duration of the

- contract term. DMV weight codes K, L, M, and N are greater than 60,000 pounds.
- b. If the existing vehicle qualified for funding as a medium heavy-duty vehicle, then the following requirements apply:
 - i. the replacement vehicle GVWR must be within 20 percent of the existing vehicle GVWR.
 - ii. If the ARB Executive Order for the existing vehicle engine specifies a medium heavy-duty Intended Service Class, the replacement vehicle engine must also be certified with a medium heavy-duty Intended Service Class.
 - v. **Body and Axle Configuration:** The replacement vehicle must have the same axle and body configuration as the old vehicle. The district may allow slight changes based on the latest technology. Changes must be requested and approved prior to the purchase of the replacement vehicle.
 - vi. **Warranty Requirements:** Except for school buses, all participants must purchase a minimum of a one-year or 100,000-mile major component engine warranty for the replacement vehicle. The warranty must cover parts and labor. It is recommended that the highest grade warranty be purchased in order to avoid expensive repairs in the future. No Carl Moyer Program funds will be issued for maintenance or repairs related to the operation of the vehicle. The participant takes sole responsibility for ensuring that the vehicle is in operational condition throughout the agreement period.
 - vii. **Engine and Emission Control Modifications:** Emission controls on the replacement vehicle engine cannot be modified except as permitted by law. Unauthorized modification to engine performance including, but not limited to, changes in horsepower, emission characteristics, engine emission components (not including repairs with like-original equipment manufacturers replacement parts), and modifications to the engine's emission control function or the EMU are not allowed.
 - viii. **Replacement Agricultural Vehicles** must comply with the Reporting Requirements for Agricultural Fleets as specified in the Statewide Truck and Bus Regulation (Title 13, CCR, Section 2025(q)(9)).

E. District Administrative Requirements

Air districts must include fleet modernization as a funding option in the district's Carl Moyer Program policies and procedures before funding fleet modernization projects. The policies and procedures must include the administrative tools that are needed to manage fleet modernization projects, including MOUs or agreements with vehicle dealerships and dismantlers, reimbursement procedures, inspections, monitoring

and enforcement, contract development, etc. Air districts are not required to submit the initial fleet modernization policies and procedures to ARB for approval, but it must be available upon request.

Smaller air districts may fund fleet modernization projects through a regional program administered by one designated air district. The designated air district may be located within the region, or may be a large district located outside the region.

F. Determining Grants

Grant award determinations must be made with the following considerations:

- i. Grant awards are based on the average usage during the previous twenty four (24) months. Fleet averages cannot be used. Participants must submit conclusive documentation of mileage or fuel consumed including logbooks, fuel records, and maintenance records maintained for individual vehicles.
- ii. The emission benefit of the project is calculated based on the difference in emission factors of the replacement, new vehicle engine (new emission factors) and the baseline vehicle engine (baseline emission factors).
- iii. For vehicles other than school buses, the grant amount will be the lesser of the following:
 - a. the cost-effective value of the project based on the weighted emission benefits and the current cost-effectiveness cap; and
 - b. the maximum funding amount shown in Table 4-1.
- iii. The replacement of two old, like trucks with one replacement truck is eligible for funding. Each old truck and the replacement truck must comply with all of the applicable guidelines. To determine cost-effectiveness, the annual emissions of the two old trucks are determined using emissions factors that correspond to the model year of each truck. The usage of the two old trucks is summed to establish projected replacement truck usage. The maximum allowable combined mileage is 60,000 miles per year (or 30,000 miles per truck per year). Replacement trucks are eligible for only one grant based on the combined usage – the amount of the grant award is not doubled.
- iv. The eligible project life for cost-effectiveness calculations is as follows:
 - a. The minimum project life for small fleets of three or fewer trucks is two years.

- b. The maximum project life for small fleets is five (5) years.
- c. The maximum project life for school buses to be replaced through a fleet modernization program is as follows:
 - i. Pre-1977 model year school buses: five years
 - ii. 1977 and newer model year school buses: eleven years

However, the surplus period for PM reductions may be less than the maximum project life due to school bus compliance deadlines specified in the Statewide Truck & Bus Regulation at Title 13, CCR, Section 2025(j). See Chapter III Section IV(g)(4) of these Guidelines for specific surplus criteria.

- v. The maximum reimbursement for school bus awards will be the lesser of either:
 - a. 100 percent of the used school bus value or 100 percent of the invoiced price of a new school bus, or
 - b. The maximum cost-effective value of the project based on the weighted emission benefits and the current cost-effectiveness cap.
- vi. The district may make full payment to the dealer at the time the dealer delivers the new vehicle to the applicant under the following framework: (a) District must complete the pre-inspection of the old vehicle and new vehicle to make sure the vehicles comply with program requirements; (b) District must sign separate MOU with the dealer and the dismantler that contains, at a minimum, the program requirements (including, but not limited to, the requirement that the dealer delivers the existing vehicle to a qualified dismantler within 30 calendar days of the date that the old vehicle was turned in to the dealer by the applicant) that are expected of each entity and the repercussions for non-compliance with the terms of the MOU for each entity; (c) District must ensure the vehicle is scrapped within 60 calendar days of the dismantler's receipt of the vehicle through post-inspection with the dismantler to properly document the destruction of the old vehicle in accordance with the Carl Moyer fleet modernization program requirements; and (d) Failure on the district's part to follow up with such post-inspection would constitute a finding in a future ARB audit.
- vii. Grant funding can only be used to pay for items essential to the operation of the vehicle.
- viii. The participant may obtain financing to assist in the purchase of a replacement vehicle.

G. Dealer Requirements

Districts are encouraged to establish contracts with dealers that sell replacement vehicles to fleet modernization participants. Dealers are encouraged to provide participants with assistance in the application process. Reimbursement cannot be issued until all forms are submitted and approved by the district.

Replacement vehicles may be purchased from a private party, provided all required documentation is submitted. This includes warranty requirements and all other fleet modernization requirements.

- i. Vehicle dealers must:
 - a) Provide basic information to vehicle owners about the fleet modernization program.
 - b) Help participants complete the application, if necessary. It is important to make sure that all information is filled out correctly and that the participant understands the meaning of the program and the contract. Once complete, the dealer submits the application package to the district.
- ii. To ensure that an application package is complete, the dealer must ensure that all the following items are complete and included in the participant's submission to the district. The dealer must complete the following before the district can reimburse the dealer:
 - a) Submit a signed and complete application and fully executed contract with grantee.
 - b) Provide documentation showing that the existing vehicle is roadworthy. This includes documentation showing that the old vehicle has passed a CHP BIT inspection old vehicle in the past 90 days or conduct an equivalent vehicle inspection and sign as appropriate. The district reserves the right to audit the dealer's record of inspection.
 - c) Provide invoices of all work performed on the replacement vehicle. The invoices must include all engine, transmission, engine horsepower derating, body and other work performed on the replacement vehicle.
 - d) Submit digital photographs of the existing vehicle and the replacement vehicle to the district. The district will specify the required digital format. Reimbursement will not be processed until all photographs are received and verified by the district. Before

submitting photographs to the district, dealers must verify that photographs are clear. All VIN and engine serial numbers must be legible.

1. Photographs of the old vehicle must include the following views:
 - A. Right Side - hood down.
 - B. Front - hood down.
 - C. Left Side - hood down.
 - D. VIN Tag - inside vehicle or on frame rail.
 - E. Engine - left side.
 - F. Engine - right side.
 - G. Engine Serial Number - either tag or stamp on block.
 - H. License plate.
 - I. Rear.

 2. Photographs of the replacement vehicle must include the following views:
 - A. Right Side - hood down.
 - B. Front - hood down.
 - C. Left Side - hood down.
 - D. VIN Tag - inside vehicle.
 - E. VIN Tag - on frame rail.
 - F. Engine - left side.
 - G. Engine - right side.
 - H. Engine Serial Number and Engine Information – tag.
 - I. License plate.
 - J. Rear.
 - K. Diesel Emission Control Device (if available).
 - L. Odometer Reading.
- e) Provide certification that the old vehicle will be delivered to a qualified dismantler within 30 calendar days of receipt of the old truck. The certification must include the make, model, year, VIN, engine make, engine serial number, and the date the vehicle is expected to be delivered to the dismantler.
 - f) Provide documentation of replacement vehicle warranty and registration.
 - g) Provide proof of replacement vehicle financing. The financing package will enable the district to determine the reimbursement costs that may be accrued in case the participant defaults on the contracted performance requirements.

- h) Possess documentation of a district pre-inspection of the existing and replacement vehicles prior to releasing the replacement vehicle to the participant. Upon request of the district, ARB may waive inspection requirements or allow the dealer to conduct the inspection.
- i) Provide the district with proof of replacement vehicle sale after the application and all required documentation have been approved by the district.

A third party (e.g., engine dealer or distributor) may complete an application or part of an application on an owner's behalf only if the vehicle owner signs and agrees to the application. Applications must include a signature section for third parties. The third party signature section must include signature and date lines, and sections for the third party to disclose how much they are being paid, if anything, to complete the application and the source of funds used to pay them. To make the Carl Moyer Program accessible to all potential applicants, including those that cannot afford to hire third party assistance, districts are encouraged to provide assistance to applicants.

H. Compliance Checks

Fleet modernization projects must complete the compliance check process described in Chapter 4, Section 4(B).

I. Dismantler Requirements

Fleet modernization requires that the existing truck be dismantled. This requirement has been established to ensure that emission reductions are real, preventing the truck from continuing to emit high levels of pollutants. Destruction of the existing vehicle chassis and engine permanently removes the old, high emitting vehicle from service. The existing vehicle and engine specified in the application must be dismantled, and may not be substituted with a different vehicle.

To participate in the fleet modernization program, dismantlers must:

- enter into an agreement with the air district,
- be licensed by the Department of Motor Vehicles (DMV) as an auto-dismantler,
- possess a current, valid California Environmental Protection Agency (Cal/EPA) Hazardous Materials Generators Permit, and
- be in compliance with all local, state and federal laws and regulations.

The dismantler must do the following for each vehicle:

- i. Dismantle the old vehicle in accordance with program guidelines within 60 calendar days of receipt. Upon dismantler request, the district may approve an extension.
- ii. Destroy and render useless the existing vehicle engine as specified in Chapter 3: Program Administration.
- iii. Completely sever the frame rails of the old vehicle to ensure that the vehicle will not be used again.
- iv. Take photographs of the destroyed engine and severed frame rails. Photographs of the destroyed engine block and severed frame rails must be provided to the district within ten (10) business days of dismantling the vehicle. The following picture views must be taken:
 - a) Front of vehicle with hood down.
 - b) Right side of vehicle with hood down.
 - c) Left side of vehicle with hood down.
 - d) Serial number printed either on the tag inside in the cab or on the frame rail.
 - e) Engine side view.
 - f) Engine serial number either stamped on the block or on the tag.
 - g) Destroyed engine block either in-frame or out of frame as specified in Chapter 3: Program Administration.
 - h) Cut frame rails.
- v. Prepare and submit to DMV either a “Non-Repairable Vehicle Certificate” using an “Application for Salvage Certification or Non-Repairable Vehicle Certification” (REG 488C), or a Notice of Acquisition/Report of Vehicle To Be Dismantled (REG 42) ensuring the VIN can never be registered again in California.
- vi. Upon request of the district, ARB may approve an alternative disposition for the old vehicle.

J. Recovery of Grant Funds

The district must establish a mechanism to assure the participants fulfill all contractual obligations, including owning and operating the replacement vehicle for the project life. The district will determine noticing requirements and the method to achieve fund recovery. Districts may consider the following option:

- i. List the district as co-lien holder on the title of the replacement vehicle for the term of the agreement. The participant must submit a completed Uniform Commercial Code-1 Financing Statement Form to the California Secretary of State, with a copy sent to the district, within 30

days of the purchase of the replacement vehicle. The financing statement must have the district as the secured party and the vehicle should be listed as collateral.

- ii. If the replacement vehicle is sold during the project life, the new owner must assume the obligations under the participant's contract with the district and comply with the terms and conditions of the contract. The district must approve the change in ownership prior to the sale.

DRAFT