

CHAPTER 4: ON-ROAD HEAVY-DUTY VEHICLES

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I. Guidance

This chapter describes the minimum criteria and requirements for Carl Moyer Memorial Air Quality Standards Attainment Program (Moyer Program) on-road heavy-duty vehicles. All projects must also conform to the requirements in Chapter 2: General Criteria and in Chapter 3: Program Administration, unless otherwise specified by this chapter. Participating air quality management districts or air pollution control districts (air districts) retain the authority to impose additional requirements to address local concerns.

A. Projects Eligible for Funding

The California Air Resources Board (CARB) has adopted fleet rules that affect on-road heavy-duty vehicles. Various types of projects can be incentivized to provide surplus (i.e., earlier to or in excess of a compliance standard a fleet must meet set by a local, state, or federal rule, regulation, or requirement) emission reductions from on-road heavy-duty (HD) vehicles. Table 4-1 summarizes project types and categories eligible for funding as well as whether those projects may be executed through contracts or the Voucher Incentive Program (VIP or Voucher). For more information on VIP, please see the VIP Guidelines at: [On-Road Heavy-Duty Voucher Incentive Program](#). Moyer Program funded projects must not be used to meet any local, state, or federal rule, regulation, or requirement during the contract or voucher period. Moyer Program funded projects that have completed their contract or voucher period and obligations may be used to meet future compliance with any local, state, or federal rule, regulation, or requirement.

**Table 4-1
Summary of On-Road Heavy-Duty Projects**

Project Category	Replacement	⁽¹⁾ Repower/ Conversion	Execution Path
Heavy-Duty Trucks and Buses (not including school buses or transit buses)	Yes	Yes	Voucher or Contract
School Buses	Yes	Yes	Contract
Innovative Clean Transit Buses	Yes	Yes	Contract
Drayage Trucks	Yes	Yes	Voucher or Contract
Solid Waste Collection Vehicles	Yes	Yes	Contract
Public Agency/Utility Vehicles	Yes	Yes	Contract

Project Category	Replacement	⁽¹⁾ Repower/ Conversion	Execution Path
Emergency Vehicles	Yes	No	Contract
Airport Shuttles	Yes	Yes	Contract
Case-by-case projects*	Yes	Yes	Contract

⁽¹⁾Retrofit projects that demonstrate at least 15% emission reduction of oxides of nitrogen (NOx) or particulate matter (PM) may also be eligible for funding on a case-by-case basis. Please see Section C.2.(G) for more information about case-by-case projects.

1. Vehicle Project Types

Projects must include commercially available technologies certified by CARB, including meeting CARB’s Zero-Emission Powertrain Certification (ZEP Certification Regulation) for zero-emission (ZE) technologies, to be cleaner than the baseline engine (unless otherwise noted). Project types and applications include:

- (A) Vehicle Replacements: The replacement of an older, dirtier vehicle with a newer, cleaner one. These projects may be funded through contracts or VIP.
- (B) Repowers: Repowers involve the replacement of an older, dirtier engine with a newer, cleaner one. Repowers may be funded in various applications. To ensure durability, certain projects may require prototype testing. However, if the project has been previously completed by the manufacturer, prototype testing is not required. Air districts that wish to fund repowers must receive prototype testing results. The testing must comply with the engine manufacturer quality assurance process that is equivalent to an Original Equipment Manufacturer (OEM) package. In these cases, a prototype vehicle (or vehicles) is thoroughly reviewed and tested to ensure that the installation meets OEM requirements, and the successful prototype installation is then replicated in other vehicles with the same chassis and engine combination. Air districts may approve repower projects that meet the OEM quality assurance process described above, subject to the following:
 - (1) Moyer Program funding may not be used for any costs associated with the prototype vehicle or vehicles.
 - (2) Repower contracts may not be executed until the prototype testing specified by the engine manufacturer is successfully completed.
 - (3) Written documentation from the engine manufacturer confirming that the prototype was successful must be maintained in the project file.
 - (4) If the proposed repower has been done previously by the manufacturer

on the same chassis/engine configuration, prototype testing is not required. The manufacturer must provide written confirmation that the previous work was performed successfully and met OEM requirements.

(C) Conversions: Conversions involve the replacement or modification of the original engine or vehicle to include either a cleaner engine or other system that provides motive power and change of the fuel type used. Hybrid conversion systems using internal combustion engines must be certified according to "California Certification and Installation Procedures for Medium- and Heavy-Duty Vehicle Hybrid Conversion Systems." The baseline engine model year (EMY) for hybrid conversions must be in compliance with applicable regulations or beyond what is required. All ZE conversion systems must receive an exemption Executive Order per Vehicle Code Section 27156. The conversion system manufacturer must provide written confirmation that the funded vehicle would not exceed the certified allowable emission limits on the Executive Order. The conversion system manufacturer must certify that the converted vehicle adheres to all applicable local, State, and federal requirements including safety standards issued by National Highway Traffic Safety Administration (NHTSA) and California Highway Patrol (CHP).

2. Project Categories

(A) All fleets must demonstrate compliance with and surplus to current applicable rules, regulations, and requirements. Eligibility of a project category and/or the maximum project life may be impacted by a compliance standard a fleet must meet set by a local, state, or federal rule, regulation, or requirement. For information about applicable rules, regulations, and/or requirements a fleet must demonstrate surplus to, please go to the [Moyer On-road Heavy-Duty Vehicles](#). Taking the above project types into consideration, the following categories may be eligible for funding, and information on project eligibility criteria are provided in referenced sections within Table 4-2 below:

**Table 4-2
Summary of On-Road Heavy-Duty Project Category Considerations**

Project Category and Project Criteria Section	Moyer Eligible Gross Vehicle Weight Rating (GVWR) ⁽¹⁾	Minimum GVWR for Fleet Size Determination ⁽²⁾	Applicable Statewide Regulations ⁽³⁾
Heavy-Duty Trucks and Buses Section C.2.(A)	14,001 lbs and greater	8,501 lbs and greater and if applicable, light-duty package delivery vehicles	<ul style="list-style-type: none"> • Advanced Clean Fleets • Truck and Bus Regulation • Clean Truck Check Heavy-Duty Inspection and

Project Category and Project Criteria Section	Moyer Eligible Gross Vehicle Weight Rating (GVWR) ⁽¹⁾	Minimum GVWR for Fleet Size Determination ⁽²⁾	Applicable Statewide Regulations ⁽³⁾
		and/or off-road yard tractors.	Maintenance (HD I/M) Program
School Bus Section C.2.(B)	8,501 lbs and greater	8,501 lbs and greater	<ul style="list-style-type: none"> • Assembly Bill (AB) 579 (2023) • Truck and Bus Regulation • Clean Truck Check HD/IM Program
Innovative Clean Transit Buses Section C.2.(C)	14,001 lbs and greater	14,001 lbs and greater	<ul style="list-style-type: none"> • Innovative Clean Transit (ICT) • Clean Truck Check HD/IM Program
Drayage Trucks Section C.2.(D)	14,001 lbs and greater	8,501 lbs and greater and if applicable, light-duty package delivery vehicles and/or off-road yard tractors.	<ul style="list-style-type: none"> • Advanced Clean Fleets, Truck and Bus Regulation • Clean Truck Check HD/IM Program
Solid Waste Collection Vehicles Section C.2.(E)	14,001 lbs and greater	8,501 lbs and greater and if applicable, light-duty package delivery vehicles and/or off-road yard tractors.	<ul style="list-style-type: none"> • Solid Waste Collection Vehicle Regulation • Advanced Clean Fleets Regulation • Clean Truck Check HD/IM Program
Public Agency/Utility Vehicles Section C.2.(F)	14,001 lbs and greater	8,501 lbs and greater	<ul style="list-style-type: none"> • Fleet Rule for Public Agencies and Utilities • Advanced Clean Fleets Regulation • Clean Truck Check HD/IM Program
Emergency Vehicles Section C.2.(G)	14,001 lbs and greater	8,501 lbs and greater	<ul style="list-style-type: none"> • Clean Truck Check HD/IM Program (only exempt if authorized)
Airport Shuttles	14,001 lbs and	8,501 lbs and	<ul style="list-style-type: none"> • Zero-Emission Airport Shuttle

Project Category and Project Criteria Section	Moyer Eligible Gross Vehicle Weight Rating (GVWR) ⁽¹⁾	Minimum GVWR for Fleet Size Determination ⁽²⁾	Applicable Statewide Regulations ⁽³⁾
Section C.2.(H)	greater	greater	Regulation <ul style="list-style-type: none"> • Clean Truck Check HD/IM Program
Case-by-case projects Section C.2.(I)	8,501 lbs and greater	8,501 lbs and greater and if applicable, light-duty package delivery vehicles and/or off-road yard tractors.	<ul style="list-style-type: none"> • Depends on project, includes but not limited to: <ul style="list-style-type: none"> ○ Transport refrigeration units (TRU) subject to the Airborne Toxic Control Measure (ATCM) for In-Use Diesel Fueled TRUs (refer to Chapter 5 Section L more information), ○ Auxiliary Power Units (APU) • See Section C.2(G) for more information.

⁽¹⁾ The Moyer eligible GVWRs listed by project category type reflect the minimum GVWRs that are eligible for Moyer funding consideration.

⁽²⁾ The minimum GVWRs for fleet size determination listed by project category type reflect the listed applicable regulations minimum GVWRs project categories are subject to.

⁽³⁾ Applicable statewide regulation listed represents current statewide fleet in-use regulations and may be subject to change. Federal, local, and additional statewide regulations, rules, or requirements not listed in this table that may impact a fleet’s in-use requirements should additionally be considered when evaluating the surplus of a project for funding eligibility.

3. Infrastructure Projects

See Chapter 10 for details regarding applicant eligibility and project types for infrastructure projects in support of on-road applications. This includes infrastructure such as battery charging and alternative fuel stations for light heavy-duty, medium heavy-duty, and heavy heavy-duty trucks. It also includes infrastructure for truck stop electrification, Transport Refrigeration Units (TRU), transit vehicles, emergency vehicles, and school buses.

B. Determining Funding Amounts

The information contained in this section shall be used to determine the funding amount for which any given heavy-duty on-road project is eligible. Determination of the maximum grant amount is also subject to the requirements in Appendix C, Section B.1.

1. State Funding Limits

Funding for an on-road heavy-duty project includes funds from all State sources including the Moyer Program. The maximum dollar amount or maximum percentage of eligible cost (Tables 4-3 through 4-8), as applicable, represents a funding cap, or the maximum funding available for the project. If the project is co-funded with other State funds, the funding cap represents the maximum amount of funds from all State sources that can be applied to the project. For ZE conversion or replacement projects for public fleets (i.e., school buses, transit, utilities, etc.), the funding cap represents the potential maximum amount of Moyer funds that can be applied to the project, as long as all requirements of Chapter 3, Section N are met, including the sum of the project funding from all sources does not exceed the total project cost (Ch. 3, Section N.6). Federal, local, or other non-State grant funds can be used in addition to the funding caps stated in this chapter if the criteria for co-funded projects in Chapter 3, Section N are satisfied.

2. Cost-Effectiveness

The maximum amount of funding available to a project is limited by the applicable cost-effectiveness limit(s) (see Appendix C), in addition to the funding caps specified below.

3. Maximum Funding Percentage

For fleets with 20 or fewer vehicles, with Moyer eligible GVWR vehicles as seen on Table 4-2 are eligible for funding, where the State funding amount cannot exceed 80 percent of the vehicle cost. For fleets with more than 20 vehicles, the funding amount cannot exceed 50 percent of the vehicle cost. School buses, repowers, and emergency vehicles are not limited by maximum funding percentages based on fleet size. The funding caps that apply from these maximum percentages of eligible cost and maximum dollar amounts, as applicable, are summarized in Tables 4-3 through 4-8.

**Table 4-3
State Funding Caps for Moyer School Bus Projects⁽¹⁾**

Project Type	Funding Cap
School Bus Diesel or Alternative Fuel Replacements	\$165,000
School Bus Optional Low-NOx or Hybrid Replacements	\$220,000
School Bus Zero-Emission Replacements ⁽²⁾	\$400,000
School Bus Repowers	\$70,000

Project Type	Funding Cap
School Bus ZE Conversions ⁽²⁾	\$400,000

⁽¹⁾ For co-funding purposes, small fleets for school buses are considered to be 20 or fewer vehicles. Small school bus fleets are not subject to fleet size funding percentages.

⁽²⁾ For ZE conversion or replacement projects for public school bus fleets, the funding cap represents the potential maximum amount of Moyer funds that can be applied to the project, as long as all requirements of Chapter 3, Section N are met, including the sum of the project funding from all sources does not exceed the total project cost (Ch. 3, Section N.6).

**Table 4-4
State Funding Caps for Exempt Vehicle Replacements**

Weight Class	Funding Cap ⁽¹⁾
Heavy Heavy-Duty (HHD) GVWR > 33,000 lbs.	\$60,000
Medium Heavy-Duty (MHD) GVWR 19,501-33,000 lbs.	\$40,000
Light Heavy-Duty (LHD) GVWR 14,001-19,500 lbs.	\$30,000
Emergency Vehicles GVWR > 14,000 lbs.	80% of Cost

⁽¹⁾ No more than 80 percent of vehicle cost for fleets with 20 or fewer vehicles, no more than 50 percent of vehicle cost for larger fleets except for emergency vehicles.

**Table 4-5
State Funding Caps for Certified 0.1 NOx Standard or Cleaner Replacements⁽¹⁾**

0.1 NOx Standard or Cleaner (g/bhp-hr)	HHD	MHD	LHD
Optional Low NOx or cleaner ⁽²⁾	\$160,000	\$120,000	\$70,000
0.05	\$80,000	\$60,000	\$50,000
0.1	\$70,000	\$50,000	\$40,000

⁽¹⁾ No more than 80 percent of vehicle cost for fleets with 20 or less vehicles, no more than 50 percent of vehicle cost for larger fleets except for emergency vehicles.

⁽²⁾ For "Optional Low NOx or cleaner" standard by EMY, please see Section C.1.(F)(3).

**Table 4-6
State Funding Caps for Certified Optional Low NOx Standard or
Cleaner Repowers**

Vocation Type	Funding Caps
Trucks and Buses not subject to the ICT Regulation	\$40,000

**Table 4-7
State Funding Caps for Zero-Emission Replacements or Conversions**

Weight Class/Vocation Type	Funding Caps ⁽¹⁾
Transit Bus with Federal Transit Administration (FTA) funding	\$80,000
Transit Bus without (FTA) funding ⁽²⁾	80%
HHD Truck or Bus ⁽²⁾	\$410,000
MHD Truck or Bus ⁽²⁾	\$180,000
LHD Truck or Bus ⁽²⁾	\$170,000

⁽¹⁾ No more than 80 percent of vehicle cost for fleets with 20 or less vehicles, no more than 50 percent of vehicle cost for larger fleets except for emergency vehicles.

⁽²⁾ For ZE conversion or ZE replacement projects for public fleets (i.e., transit, utilities, etc.), the funding cap represents the potential maximum amount of Moyer funds that can be applied to the project, as long as all requirements of Chapter 3, Section N are met, including the sum of the project funding from all sources does not exceed the total project cost (Ch. 3, Section N.6).

**Table 4-8
State Funding Caps for Hybrid Conversions**

Weight Class	Funding Caps ⁽¹⁾
LHD	\$7,500
MHD	\$10,000
HHD	\$15,000

⁽¹⁾ No more than 80 percent of system cost for fleets with 20 or less vehicles, no more than 50 percent of system cost for larger fleets except for emergency vehicles.

4. Project Life

The minimum eligible project life for all projects is one year. The maximum eligible project life for each project type is summarized in Table 4-9.

**Table 4-9
Maximum Project Lives for On-Road Vehicle Projects**

Project Type	Maximum Project Life
Replacements	7 Years
Transit Bus Replacements	12 Years
Repowers	7 Years
School Bus Replacements	10 Years
ZE Conversions	5 Years
Emergency Vehicles	14 Years
Other On-Road Projects	3 Years

A longer project life may be approved on a case-by-case basis if applicants provide justifying documentation. The maximum project life does not consider regulatory requirements that may reduce the actual project life.

5. Annual Usage

Grant amounts will be based on the average annual usage of two 12-month periods from the previous 30 months of California usage for the baseline vehicle being considered for funding. For small fleet projects in which the two most recent years of documented usage are not available, the minimum annual usage is required to be specified in the contract (Chapter 3, Section X.6.(B)). Fleet averages cannot be used. If a fleet has reported the baseline vehicle in the Truck Regulations Upload and Compliance Reporting System (TRUCRS), or other applicable CARB reporting database(s) (e.g., California Clean Truck Check, Vehicle Inspection System Portal), to comply with State on-road regulation requirements or has records demonstrating compliance under a limited-usage compliance option (such as the Low-Use Exemption or NOx Exempt Area Extension, etc.) and the historical usage exceeds the limit, the usage limit for that compliance option must be used to determine the State grant amount instead. On-road calculations shall be based on historical annual mileage instead of fuel usage or engine hours due to the fact that the mileage-based exhaust emission factors are more robust. Applicants, including where feasible for small fleet

applicants, must submit conclusive documentation of the baseline engine or vehicle's mileage such as logbooks and maintenance records maintained for individual vehicles, or CHP inspection reports. In cases where only fuel use records are available, a fuel conversion factor request can be submitted by the air district to CARB. The applicant, including where feasible for small fleet applicants, must provide at least two years of historical fuel usage documentation to the air district. Documentation must show specific usage of the baseline vehicle and may include fuel logs, International Fuel Tax Association reports for single fleets, purchase receipts or ledger entries. The fuel use will be converted to mileage according to the vocation.

6. Calculating Emissions

Emission factors and deterioration rates in Appendix D, Tables D-1 through D-10 must be used to determine the emissions of the baseline engine and replacement, repowered, or converted engine or ZE vehicle; consequently, the engine or ZE vehicle model year and applicable emission standard will determine the relevant emission factors. Emission reductions for hybrid conversion systems must be based on the projected reduced usage of the baseline engine in the converted vehicle compared to the original vehicle. This can be based on estimated usage reductions for the specific application or vocation type provided by the dealer, service provider, or manufacturer. Calculations for new hybrid vehicles will incorporate the certified emission standard and may also include projected reduced engine usage relative to a non-hybrid equivalent provided by the dealer, service provider, or manufacturer. The emission factors and deterioration rates contained in Appendix D are based on CARB mobile source emissions inventory model (EMFAC) values. Information on EMFAC is available at: [MSEI - Modeling Tools - EMFAC Software and Technical Support Documentation](#).

7. Two-for-One Replacement Calculations

Projects in which two old vehicles of similar design and function are replaced with one vehicle are eligible for Moyer Program grant funding. The two baseline vehicles must be in the same weight class (LHD, MHD, or HHD), except in the case that they are in different weight classes if there is a ten percent or less variation in GVWR. If the two baseline engines are not the same model year, the newest EMY must be used when calculating emission reductions. The maximum State funding amount must also be funded according to the lighter weight class of the two vehicles. The replacement vehicle's annual usage must be determined by adding the annual usage of both baseline vehicles together. The maximum annual usage that can count toward grant determinations for the two baseline vehicles is 30,000 miles each for a maximum total annual usage of 60,000 miles for the

replacement vehicle. The replacement vehicle is eligible for only one grant based on the combined usage of the baseline vehicles.

8. Expenses Eligible for Funding

Moyer grant funding can only be used to pay for items essential to the operation of the vehicle. Taxes, warranty, insurance, and transport fees may be considered eligible costs if determined to be an incremental cost incurred by the purchase and operation of ZE technology heavy-duty vehicle by the air district. Electronic monitoring units - while they are not required by CARB - are an eligible expense if they are required by an air district. For replacements, eligible project costs include the cost of the cab and chassis including parts that are integrated into the vehicle. The cab and chassis cost may include but is not limited to the following:

- (A) The capital cost of the cab.
- (B) The capital costs of the chassis which are deemed essential to the operation of the vehicle may include but are not limited to:
 - (1) Engine or motor
 - (2) Transmission
 - (3) Suspension system
 - (4) Steering system
 - (5) Frame
 - (6) Electrical system
 - (7) Cooling system
 - (8) Fuel system
 - (9) Emission system

C. Project Criteria

1. General Criteria

- (A) Emission Standards: Fleets must replace, repower, or convert to ZE technologies or advanced technologies meeting the certified Optional Low NOx Engine Emission Standards for Heavy-Duty Engines for 2015 and Subsequent Model Year or cleaner as detailed in the California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles, except for fleet(s) exempt from being required to operate at least the 0.2 g/bhp-hr NOx standard as defined by applicable rules, regulations, or requirements (e.g., school buses, agricultural vehicles, emergency vehicles, and NOx Exempt Areas). For more information about these cleaner technologies, go to Section C.1.(F). Eligibility of replacement vehicles and maximum project life may be impacted by

requirements set by applicable rules, regulations, or requirements.

(B) Fleet Size: All fleet sizes are eligible for funding. Fleet size determination is based on the minimum GVWRs by project category listed in Table 4-2. The following criteria must be followed for each group:

- (1) Fleet Size 1-20: To ensure smaller fleets have significant funding opportunities, air districts must reserve or prioritize funding for smaller fleets and should do so in a manner that works best with their programs. For example, air districts that issue on-road solicitations may review applications from smaller fleets first and award those fleets that are eligible prior to awarding fleets with more than 20 vehicles. Air districts that fund projects on a first-come, first-served basis may modify or remove the reserve to meet liquidation deadlines and demand after smaller fleets have had a certain amount of time to apply for funding as specified in the air district's Policies and Procedures. Reserve funds may be used for school bus projects at any time.
- (2) Fleet Size > 20: Fleets with more than 20 vehicles may receive funding of no more than 50 percent of vehicle cost, except for ZE projects for public emergency vehicles, public school buses, and public transit vehicles, as summarized in Tables 4-3 and 4-7.

(C) Weight Class Range

- (1) The replacement vehicle must be in the same weight class as the baseline vehicle (either LHD, MHD, or HHD as defined in Appendix B). An MHD vehicle can replace an HHD vehicle if they both have the same axle configuration (e.g., a baseline HHD vehicle with two axles can be replaced with an MHD vehicle with two axles) but the funding amount must be at the MHD funding level. For ZE replacement vehicle projects where the replacement ZE vehicle is not within the same weight class as the baseline vehicle (including school buses with a GVWR starting at 8,501 lbs looking to replace to a LHD or MHD weight class), refer to Section C.1.(C)(2), and C.1.(C)(2)(a) for more information about allowable weight class differences, and refer to Section C.1.(C)(3) for more information about allowable weight class differences for school buses.
- (2) On-road heavy-duty vehicles (with GVWR over 14,000 lbs.) must be powered by an engine or motor certified to the applicable heavy-duty intended service class as shown on the engine or ZE vehicle certification Executive Order. However, the following cases may be allowed:

**Table 4-10
Allowable Replacement Scenarios**

Executive Order Intended Service Class	GVWR Vehicle Weight Class	Replacement Type	Requirements for Allowance
HHD	MHD	Combustion Engine or ZE Vehicle ⁽¹⁾	Necessary for vocational purposes and GVWR is within 10% of engine's Executive Order Intended Service Class (i.e., GVWR of 29,701 lbs).
MHD	HHD	Combustion Engine or ZE Vehicle ⁽¹⁾	GVWR is within 10% of engine's Executive Order Intended Service Class (i.e., GVWR of 36,300 lbs or less), and a copy of the written warranty verification by the engine and chassis manufacturer for the project file.

⁽¹⁾ See Section C.1.(C).(2)(a). for more information about ZE replacement vehicle that is not within 10 percent of baseline engine's weight class.

- (a) In cases of ZE replacement vehicles where the GVWR is not within 10 percent of the baseline engine's weight class and there is no ZE vehicle replacement available within 10 percent of the baseline vehicle's weight class that can perform the same or equivalent level of work of the baseline vehicle, the air district may approve the ZE replacement vehicle if all of the following requirements are met:
- i. Confirmation that the intended use of the replacement vehicle would remain the same as that of the baseline vehicle.
 - ii. Justification for the deviation in GVWR not being within 10 percent and a description of the weight difference between the ZE powertrains of the baseline and replacement vehicles (e.g.,

the ZE vehicle specification sheet).

iii. How the ZE replacement vehicle will safely accommodate the equivalent level and scope of work that the baseline vehicle performs (e.g., a letter from the manufacturer or certified statement from the applicant confirming the replacement vehicle can safely operate in the same degree as the old vehicle without adversely impacting its durability).

iv. All other requirements within Section C.5 are met.

(3) For school bus projects, baseline engines with a GVWR of 8,501 lbs. or greater are eligible for project consideration. Air districts may allow ZE replacement vehicles to be in a different weight class than the baseline vehicle, provided the following:

(a) The applicant certifies to the air district stating that the replacement vehicle must be in a different weight class to accommodate additional safety or other required operational features not present in the baseline vehicle

(b) The replacement vehicle will be capable of performing the same work as the baseline vehicle, and

(c) The applicant provides proof that the replacement vehicle will perform the same work as the baseline vehicle.

(D) At least 51 percent total annual usage must occur in California. Only usage in California can be used for on-road calculations.

(E) Compliance Check

(1) Before contract execution, participants must be pre-screened for regulatory compliance, outstanding violations, open cases, and previous project funding by supplying to the air district the registered owner's name, company name or Doing Business As (DBA), address, Vehicle Identification Number (VIN) of the vehicle being replaced/repowered/converted, and TRUCRS ID number or other applicable reporting database identifier, if applicable. VINs of vehicles not subject to in-use on-road rules, regulations or requirements, should still be reported in TRUCRS for verification and participation in the Moyer Program. Every vehicle in the fleet needs to be in compliance and have no outstanding violations, including no violations or pending investigations on active complaints made toward the fleet on compliance with specific labor standards law in accordance with Assembly Bill (AB) 794 (Carrillo, Chapter 748, Statutes of 2021) and AB 2737 (Carrillo, Chapter 213, Statutes of 2022) (See Section C.1.(E)(2)c.), and must demonstrate compliance

with the Heavy-Duty Inspection and Maintenance (HD I/M) Regulation (Clean Truck Check HD I/M Program) (See Section C.1.(E)(2)d.ii.), in order to receive funding. The air district need not validate this information and will not be held liable if participants falsify their information.

- (2) The air district shall email the fleet compliance information to its CARB Moyer Program liaison. The air district should request through the CARB Moyer Program liaison, a comprehensive compliance check through CARB to inform the air district of any outstanding violations, including but not limited to, violations or compliant submissions made toward a fleet specific to labor standards law for new drayage and short-haul truck purchases funded under the Moyer Program in accordance with AB 794, and demonstrating compliance with the Clean Truck Check HD I/M Program.
 - (a) Except for school bus fleets, the fleet owner will report in TRUCRS, or any other applicable reporting database, vehicles that are subject to applicable CARB regulations. The fleet owner must also provide the air district with the following:
 - i. A copy of the TRUCRS Fleet List located on the Vehicle Info tab showing the compliance option each vehicle in the fleet is using, and
 - ii. A copy of the TRUCRS General Fleet and Compliance Information Summary showing compliance located on Compliance Status tab, and
 - iii. A copy of the Compliance Certificate printed from TRUCRS, or other reporting database, if applicable.
 - (b) Owners of school bus fleets will report in TRUCRS vehicles subject to the Statewide Truck and Bus Regulation, but the fleet owner must only provide the air district with a copy of the TRUCRS Fleet List located on the Vehicle Info tab showing the compliance option each vehicle in the fleet is using.
 - (c) For Vehicles subject to the Advanced Clean Fleets (ACF) Regulation Drayage Truck requirements, the fleet owner must provide the air district with a copy of the TRUCRS General Fleet and Compliance Information summary showing compliance located on the Compliance Status tab and TRUCRS Fleet List located on the Vehicle Info tab showing VIN and compliance status. Additionally, these fleets are subject to AB 794 and AB 2737. AB 794 and AB 2737 must be reflected in the air district Policies and Procedures in accordance with Section C.6(R), and air

districts must meet the contract requirements with the applicants in Section C.7. The following are required of the Moyer Program participant and the project file, along with additional resources and information for the air district on AB 794 and AB 2737 is provided:

- i. Prospective fleet purchasers and lessees to comply with AB 794 and AB 2737, which includes the Moyer Program participants, must complete and submit an attestation prior to eligibility evaluation, located at [Fleet Attestation for AB794](#) stating that the applicant is compliant with applicable labor laws, including Section 2810.4 of the Labor Code. The fleet purchaser and lessees, which includes the Moyer Program participants that have received grant funding, will renew the attestation each year of the contract period on the anniversary of their first attestation, reaffirming compliance with this labor standards law and is liable for repayment of the incentive for failure to comply with applicable labor standards while the contract is in effect. The Moyer Program participant must provide a copy of the attestation and renewal(s) of attestation to the air district for their project file.
- ii. Moyer Program participants that enter into a lease-to-own agreement for the purchase of their replacement drayage and short-haul trucks, or otherwise lease out their Moyer Program funded purchased drayage or short-haul truck are subject to and must comply with AB 794 and AB 2737 requirements as listed above.
- iii. If the air district becomes knowledgeable about an open judgment with the California Department of Industrial Relations (DIR) or an untruthful attestation by a fleet participating in the Moyer Program subject to AB 794 and/or AB 2737, the [AB 794 CARB webpage](#) is available as a resource for the air district on how to report the fleet. This webpage provides more information about submitting a complaint notifying CARB about the fleet, filing a new labor law violation complaint with DIR, or more information about AB 794 and AB 2737.

(d) Vehicles Subject to Other On-Road Regulations:

- i. Fleet information must be submitted by the air district to CARB's Moyer Program district liaison to check compliance with other regulations such as the Public Agency and Utility Regulation, Advanced Clean Fleets Regulation, AB 794, Clean Truck Check

Program, and others when applicable. The fleet information needed for the compliance check may change with time.

- ii. To receive funding, a fleet owner/operator must be compliant with all federal, State, and local air quality rules, regulations, or requirements including the Clean Truck Check Program, which supersedes the Periodic Smoke Inspection Program (PSIP) in 2024. The application must include a copy of their Clean Truck Check HD I/M Program with an "Affirmation of Fleet Wide Compliance" and a statement of compliance in which the applicant must certify that they are in compliance at the time of application submittal. The Clean Truck Check HD I/M Program "Affirmation of Fleet Wide Compliance" will be provided after reporting into the database at the [California Clean Truck Check, Vehicle Inspection System \(CTC-VIS\) Portal](#) by the fleet owner. Air districts must also include the following language with a checkbox for the fleet owner/operator to indicate compliance:

I have read and understand that I am responsible for meeting the requirements of the Clean Truck Check Heavy-Duty Inspection and Maintenance (HD I/M) Program. I am either currently in compliance with Clean Truck Check HD I/M Program requirements or I have paid all penalties for non-compliance and continue to meet requirements since payment.

- (e) A regulation index for statewide on-road regulations is available at [On-Road Heavy-Duty Regulations & Certification Programs](#) and [The TruckStop Fleet Reporting](#).
- (3) The CARB Moyer Program liaison will email the air district the result of the compliance check within 10 business days. All compliance check documentation must be kept in the project file.
- (4) If the vehicle has already received funding and is still under contract with another air district as reported in the Clean Air Reporting Log (CARL), the air district will be notified, and the project must be rejected.
- (5) If there is an open case or outstanding violation, or if the fleet is not in compliance, the air district shall inform the participant in writing that no disbursement may be made until the owner provides proof that the fleet has been brought into compliance and all fines have been paid. If the outstanding violation is based on problems with the baseline engine (e.g., gross polluter), then the violation must be cleared. The engine owner must pay the fine for each violation and submit documentation of violation correction with, or before

submitting, the invoice.

- (6) Compliance Check Tool: A compliance check tool for the Truck and Bus Regulation, Solid Waste Collection Vehicle, Airport Shuttle Bus, and Advanced Clean Fleet Regulations is available on CARB's website located at: [Truck Regulation Upload, Compliance and Reporting System \(TRUCRS\)](#). To help with the initial review, air districts may check current compliance status by entering any part of the company name, TRUCRS ID, or Motor Carrier Number in the search field. Only fleets that have confirmed compliance requirements and printed their certificate will be listed. Applicants must still meet the requirements in Section C.1.(E)(1).
 - (7) Other compliance tools issued by CARB (e.g., asking through the CARB Moyer Program liaison or the CARB Moyer Program on-road compliance check lead) may be used to pre-screen compliance to help meet the requirements of Section C.1.(D)(1) in lieu of the air district pre-screening for compliance, however, this would not replace the official regulatory (e.g., TRUCRS and Clean Truck Check HD/IM Program database) certificates, attestations, and renewal of attestations required for the project file, as they become available and are approved for use for the Moyer Program.
- (F) Emission Reduction Technologies: Emission reduction technologies must be certified or verified by CARB and must comply with durability and warranty requirements. A technology granted a conditional certification or verification by CARB is considered certified or verified. Baseline engine certification may also include being certified by the United States Environmental Protection Agency (U.S. EPA) if all eligibility requirements are met and appropriate emission factors and deterioration rates are used. The following vehicle and engine certifications may be eligible for replacements if surplus and all other eligibility requirements are met:
- (1) CARB certified ZE heavy-duty (HD) vehicles meeting the ZEP Certification Regulation requirements in accordance with the California Greenhouse Gas Exhaust Emission Standards and Test Procedures for 2014 and Subsequent Model Heavy-Duty Vehicles (Phase 2);
 - (2) CARB Exemption Conversion Executive Order certification for ZE based medium-duty (MD) and HD vehicles may also be eligible if all eligibility requirements in this chapter are met. New ZE HD vehicles that have already been manufactured and certified with the CARB Exemption Conversion Executive Order as described by Section A.1.(C) may be considered new replacements if all replacement

program requirements and eligibility criteria are met, including warranty and service requirements.

(3) Advanced technology combustion-based vehicles certified to meeting the “Optional Low NOx Engine Emission Standards for Heavy Duty Engines for 2015 and Subsequent Model Year” as detailed in the California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles, which includes:

(a) For 2024 to 2026 EMY, the 0.02 grams per brake horsepower-hour (g/bhp-hr) oxides of nitrogen (NOx) and 0.005 g/bhp-hr particulate matter (PM) standards or cleaner; and

(b) For 2027 and subsequent EMYs, the 0.01 g/bhp-hr NOx and 0.005 PM standards or cleaner.

(4) Cleaner combustion-based HD replacements with 2013 or newer EMY certified to the standards listed by model year in the California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles, which includes:

(a) For 2013 to 2023 EMY, the 0.2 g/bhp-hr NOx and 0.01 g/bhp-hr PM standards or cleaner;

(b) For 2024 to 2026 EMY, the 0.05 g/bhp-hr NOx and 0.005 g/bhp-hr PM standards or cleaner;

(c) For 2027 and newer EMY, the 0.02 g/bhp-hr NOx and 0.005 g/bhp-hr PM standards or cleaner.

(G) Obtaining Financing: The participant may obtain financing to assist in the purchase of the emission reduction technology.

(H) Equipment Acquisition Options:

(1) Leasing: Moyer Program funding cannot be used for project(s) where the equipment will be acquired temporarily through a standard leasing agreement.

(2) Lease-to-Own Purchase for ZE Technology Only: Moyer funding may be used for project(s) where the equipment will be acquired through a lease-to-own agreement as long as all eligibility and program requirements are met as provided in Chapter 3, Sections V.10, X.9, BB.8., and EE.2.(D). Moyer Program funded equipment must be used by the equipment owner, which may include leasing the equipment to another user for business purposes.

- (3) Conventional Purchase: Moyer Program funding can be used for project types that will be acquired through a purchase agreement. Moyer Program funded equipment must be used by the equipment owner, which may include leasing the equipment to another user for business purposes. If financing is necessary, the equipment purchase must be financed with a conventional purchase loan or loan obtained through a CARB authorized financing assistance truck loan pilot project or program.
- (I) Surplus requirements are determined by the regulation to which a project is subject. Any vehicle with an off-road engine that is subject to an on-road regulation must also comply with the on-road 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 must comply with all off-road eligibility and funding criteria described in Chapters 5, as well as all on-road surplus criteria described in this chapter.
- (J) Engines operating under an extension not included in the applicable regulation, such as the Statewide Truck and Bus Regulation, or under program advisory are not eligible. This includes extensions received under enforcement settlement agreements.
- (K) The baseline vehicle must be based in California as shown through vehicle registration. Air districts have the option to limit eligibility to applicants that reside within the district's air basin or operate their vehicles within specified air basins, see Section C.4. for more information.

2. Project Categories and Applicable Project Types

(A) Heavy-Duty Trucks and Buses (Non-drayage)

(1) Eligibility: Fleets with heavy-duty vehicles with GVWR of 14,001 lbs. and greater in compliance with and demonstrating surplus to applicable California regulations (e.g., Statewide Truck and Bus Regulation, Advanced Clean Fleets Regulation) may apply for funding. The following are compliance options that fleets may be subject to that may be eligible for funding according to regulation and fleet applicability:

(a) Truck and Bus Regulation

(b) Advanced Clean Fleets Regulation: Federal and High Priority Fleet Vehicles

(c) Advanced Clean Fleets Regulation: State and Local Government Vehicles

Other vehicles subject to the Statewide Truck and Bus Regulation such as heavy cranes and sweepers or other vehicles approved to use credits

or extensions specified in the regulation may also be eligible.

Other vehicles subject to applicable California statewide regulations that are approved to use credits for NOx emissions or extensions to comply with meeting a compliance deadline or phase-in schedule specified in the rule, regulation, or requirement may not be eligible.

- (2) Replacement Projects: Replacement projects are executed through the contract or Voucher Incentive Program (VIP), including two-for-one replacements. Replacements are required to be surplus to applicable regulations (e.g., Truck and Bus Regulation, Advanced Clean Fleets, Clean Truck), meet Moyer program eligibility criteria, Moyer Program requirements, and be CARB certified. Please refer to Section C.1.(F) for more information on Moyer Program eligible certifications.

In VIP, on-road vehicles subject to the Truck and Bus Regulation, Advanced Clean Fleets Regulation, or other applicable California statewide rules, regulations, or requirements that are replaced with newer vehicles certified to the ZE standard with a surplus funding period of one to three years.

- (3) Repower and Conversion Projects: If the proposed repower has been done previously by the manufacturer on the same chassis/engine configuration, prototype testing is not necessary. The manufacturer must provide written confirmation that the previous work was performed successfully and met OEM requirements. If it has not been done previously, prototype testing as described in Section A.1.(B) must be completed. Conversion systems must meet certification or aftermarket exemption requirements described in Section A.1.(C).
- (4) Other Project Types: Other project types may be eligible if approved as case-by-case and must be funded through contract.
- (5) Surplus: Surplus requirements are determined by the regulation to which a project is subject. The baseline vehicle must be in compliance with applicable required emission standards (e.g., an baseline vehicle subject to the Truck and Bus Regulation must be in compliance with the regulation). For information about applicable rules, regulations, and/or requirements a fleet and vehicle must be in compliance with, please go to the [Carl Moyer Program On-Road Heavy-Duty Vehicles](#) webpage. An on-road heavy-duty project demonstrates surplus to applicable rules, requirements, or regulations through the following:
 - (a) The baseline engine must be dismantled at least one full year before the baseline vehicle is required to meet a standard or is required to be removed at the end of its useful life by any applicable rule,

regulation, or requirement.

(b) The replacement/converted/repowered vehicle must be delivered and post-inspected at least one full year before an upcoming compliance deadline to meet an emission standard required by an applicable rule, regulation, or requirement (e.g., replacing to a certified ZE vehicle standard or Optional Low NO_x Engine Emission Standards for that EMY with delivery and post-inspection at least one year prior to any local, statewide, or federal requirement to meet the replacement's standard would be eligible).

(6) Maximum State Funding Amounts: The maximum amount of State funding that can go toward the purchase of a replacement vehicle equipped with either a diesel or alternative fuel engine is shown in Table 4-4. Maximum funding for optional advanced technology replacements certified to Optional Low NO_x standard or cleaner, and ZE replacements are shown in Tables 4-5 and 4-7, respectively.

(7) Calculating Emission Reductions: Unless otherwise provided by CARB, heavy-duty truck emission factors and deterioration rates from Tables D-1 to D-4 must be used depending on GVWR weight class. The following are the emission reductions that may be calculated by project type:

(a) ZE projects (including replacements, repowers, and conversions) are eligible for NO_x, reactive organic gases (ROG), and PM emission reductions.

(b) Technologies certified to the Optional Low NO_x engine standards are eligible for NO_x and ROG emission reductions, and may be eligible PM emission reductions if the PM standard of the replacement/repower/conversion is at 0.005 g/bhp-hr PM or cleaner.

(c) All other eligible projects replacing/repowering/converting to a cleaner diesel or combustion are eligible only for NO_x and ROG emission reductions.

(B) School Buses

(1) General Eligibility: School buses with GVWR of 8,501 lbs. and greater are eligible for Moyer Program funding if they meet the general program criteria in Section C.1., as well as additional criteria in this subsection.

(2) AB 579 Requirements: School bus projects must demonstrate surplus to AB 579 which requires 100% school bus purchases to be ZE by 2035.

(a) Prior to 2035, school bus replacements, repowers, and conversions are eligible for Moyer Program funding. These project types are in

excess of the AB 579 purchase requirement with destruction of the baseline engine and with a replacement, repower, or conversion to a cleaner technology before ZE purchases are required in 2035.

- (b) After 2035, only ZE replacements or conversions to ZE project types will demonstrate surplus to AB 579 to be eligible for Moyer Program funding.
- (3) Eligible Applicants: Public school districts in California that own their own school buses are eligible for funding. Where a Joint Power Authority (JPA) has been formed by several public school districts and the JPA holds ownership of the school buses, then the JPA is also eligible for funding. Private transportation providers that own their own school buses and contract with public school districts to provide transportation services for public school children are also eligible for funding. Non-profit organizations, private schools, and other private companies are not eligible to receive funding for school bus projects.
- (4) Truck and Bus Regulation Compliance: School buses subject to the Truck and Bus Regulation are only eligible if they meet one of the following requirements:
 - (a) The baseline school bus must have an OEM diesel particulate filter (DPF) installed.
 - (b) The baseline school bus must be retrofitted with a DPF that reduces diesel PM emissions by at least 85 percent.
 - (c) The baseline school bus must be reported in TRUCRS under the Low-Use exemption.
- (5) Used Vehicle Eligibility: Used school buses are not eligible as replacements. The replacement vehicle for any project must be new.
- (6) Maximum State Funding Amounts: School bus projects have unique maximum grant amounts as summarized in Table 4-3, and cost-effectiveness limits for school bus project types can be located in Appendix C. This includes the On-road ZE Technology Limit for ZE school buses, and the school bus cost-effectiveness limit for combustion engine replacements. The cost-effectiveness limit for combustion engine school bus replacement projects, allows for funding amounts consistent with the Lower-Emission School Bus Program funding caps based on average school bus operating usage as determined by EMFAC. Individual vehicle usage that falls below the average may result in lower funding amounts.
- (7) Calculating Emission Reductions: ZE school bus projects (including

replacements, repowers, and ZE conversions) are eligible for NOx, ROG, and PM emission reductions. All other school bus projects are eligible only for NOx and ROG emission reductions. Calculating emissions must be performed using the emission factor and deterioration rate table identified below that fit the project:

**Table 4-11
School Bus Emission Factor and Deterioration Rate Reference
Table by GVWR and Intended Service Class**

Baseline School Bus GVWR (lbs)	Baseline School Bus Intended Service Class	Replacement School Bus GVWR (lbs)	Replacement School Bus Intended Service Class	Appendix D Emission Factor and Deterioration Rate Tables
Under 33,000	MD, LHD, MHD	Under 33,000	MD, LHD, MHD	D-1 or D-2
Over 33,000	HHD	Over 33,000	HHD	D-3 or D-4

(a) If the baseline or replacement engine’s or vehicle’s Executive Order intended service class is classified lower than the GVWR weight class of the vehicle, then the grant amount must be determined using the Executive Order intended service class weight classification (ex. The vehicle has a GVWR of 37,000 lbs, classifying it as a HHD, but since the Executive Order intended service class is listed for a MHD, Table D-1 emission factors and deterioration rates must be used),

(b) If an engine’s or ZE vehicle’s Executive Order only specifies that the engine or zero-emission vehicle is certified for use in vehicles with a GVWR greater than 14,000 lbs., then the intended service class must be assumed to be MHD.

(8) CHP Safety Certification: All baseline school buses must have a current CHP safety certification (CHP Form 292) at the time funding is awarded for the project (i.e., the school bus may not have a lapsed CHP safety certification), and it must be currently registered with the Department of Motor Vehicles (DMV).

(9) School Bus ZE Conversion Projects: The baseline vehicle chassis must be 10 years old or newer. CHP requires engineering plans, certified by a California licensed engineer, to be able to safety certify the school bus.

(C) Transit Vehicles

(1) Eligibility: Buses of 14,001 lbs. GVWR and greater that are subject to the ICT regulation and that have achieved compliance with applicable

regulatory requirements are eligible for surplus emission reduction funding. New regulation requirements may affect surplus and funding amounts in the future.

- (2) Replacement Projects: A replacement vehicle project must be certified to the ZE standard. Eligibility of replacement vehicles and maximum project life may be impacted by requirements set by applicable rules, regulations, or requirements.
 - (3) Conversion Projects: Conversion systems must be to the certified ZE standard.
 - (4) Maximum State Funding Amounts: The Federal Transit Administration (FTA) provides up to an 80 percent grant (Federal funding) for new urban bus purchases and repowers. Maximum State funding for transit projects has been specified to account for greater access to other funding resources. Funding caps for various project types are shown in Tables 4-5 through 4-7. If the Moyer Program grant is used to co-fund an eligible project, the sum of all grant funds received cannot exceed the total project cost. Additional criteria on co-funding projects with a Moyer Program grant can be found in Chapter 3, Section N.
 - (5) Applicable Emission Factors: Emission factor tables for buses subject to the ICT regulation (except for school buses) are included in Appendix D as Tables D-5 through D-8. Other buses subject to the ICT regulation must use the MHD or HHD emission factor tables, Tables D-1 through D-4. Cost-effectiveness calculations for buses subject to the ICT regulation do not include deterioration since those fleets are generally well-maintained per EMFAC. Deterioration must also not be included in the cost-effectiveness calculations for other buses subject to the ICT regulation.
 - (6) Calculating Emission Reductions: Cost-effectiveness calculations can only include emission reductions from the 2007 or newer emission factors for up to a 12-year maximum project life. Transit Buses subject to the ICT regulation should only qualify for a project life that does not exceed surplus to the ICT regulation. ZE projects can be funded for only NO_x, ROG, and PM surplus emission reductions.
- (D) Drayage Trucks
- (1) Eligibility: Drayage trucks with GVWR of 14,001 lbs. and greater as defined in California Code of Regulations, title 13, Section 2027(c)(15), are eligible for Moyer Program funding for a project minimum of one year of surplus emission reductions before the applicable compliance deadline. Drayage fleets are subject to the Truck and Bus Regulation,

Advanced Clean Fleets (ACF) Regulation, Clean Truck Check Program, and may be subject to other applicable local (e.g., Port of Los Angeles Clean Air Action Plan, or Indirect Source Rule), state, and/or federal rules, regulations, and/or requirements.

- (2) Baseline Engine and Vehicle: The baseline vehicle and engine must be compliant, and the project must demonstrate surplus to all applicable rules, regulations, or requirements (e.g., Truck and Bus Regulation, ACF Regulation drayage truck requirements, Clean Truck Check HD/IM Program, etc.), to be eligible for funding.
 - (3) Replacement Projects: Replacement vehicles must be ZE and may be funded through a voucher or contract. This chapter only covers replacement projects Moyer funded through a contract, refer to the VIP Guidelines for more information about vouchers. The replacement vehicle may continue to perform drayage regulated activities (e.g., accessing the ports) during the contract period if not otherwise restricted by applicable regulation(s), rule(s), requirements, or advisories set by federal, state, or local authorities. During the contract period, the Moyer Program funded drayage truck replacement must report in TRUCRS as a publicly funded vehicle that will not count toward compliance. This will allow the funded drayage truck to continue to perform drayage regulated activities under the ACF Regulation drayage requirements.
 - (4) Conversion Projects: ZE conversion projects are eligible for Moyer Program funding. Conversion systems must meet certification or CARB Exemption Conversion Executive Order Certification requirements described in Section A.1.(C).
 - (5) Calculating Emission Reductions: NO_x, ROG, and PM emission reductions can be funded. Emission factors and deterioration rates from Tables D-1 through D-4 depending on GVWR weight class must be used.
- (E) Solid Waste Collection Vehicles (SWCV, such as Transfer Trucks and Refuse Trucks)
- (1) Eligibility: SWCV of 14,001 lbs. and greater GVWR in fleets that have achieved compliance and demonstrate surplus to applicable on-road rules, regulations or requirements (i.e., SWCV Regulation, the Truck and Bus Regulation, and the Advanced Clean Fleet Regulation) are eligible for funding. Surplus will be determined according to applicable on-road rules, regulations, and/or requirements. Eligibility of replacement vehicles and maximum project life may be impacted by requirements set by applicable rules, requirements, and/or regulations.

- (2) Replacement Projects: A replacement engine or vehicle for a replacement project must be a CARB certified ZE vehicle or CARB certified engine meeting emissions levels of Optional Low NOx standards or cleaner (See Section C.1.(F) for more information on CARB certification for ZE vehicles or Optional Low NOx engines).
 - (3) Repower and Conversion Projects: A replacement engine for a repower project must at least be a CARB certified engine meeting emissions levels of Optional Low NOx engine standards or cleaner (See Section C.1.(F) for more information about CARB certification for ZE vehicles and Optional Low NOx engines). If the proposed repower has been done previously by the manufacturer on the same chassis/engine configuration, prototype testing is not necessary. The manufacturer must provide written confirmation that the previous work was performed successfully and met OEM requirements. If it has not been done previously, prototype testing as described in Section A.1.(B) must be completed. Conversion systems must meet certification or aftermarket exemption requirements described in Section A.1.(C).
 - (4) Applicable Emission Factors: Emission factor tables for refuse trucks are included in Appendix D as Tables D-9 and D-10. Transfer trucks use Tables D-1 through D-4.
 - (5) Calculating Emission Reductions: Only NOx and ROG emission reductions can be funded. PM emission reductions may be funded for zero-emission projects.
- (F) Public Agencies and Utilities (PAU)
- (1) Eligible Vehicles: PAU of 14,001 lbs. and greater GVWR in fleets that have achieved compliance and demonstrate surplus to applicable on-road rules, regulations, or requirements (i.e., Fleet Rule for PAU, the Advanced Clean Fleet Regulation State and Local Government Requirements, and Innovative Clean Transit Regulation) are eligible for funding. Surplus will be determined according to applicable on-road rules, regulations, and/or requirements. Eligibility of replacement vehicles and maximum project life may be impacted by requirements set by applicable rules, requirements, and/or regulations.
 - (2) Replacement Projects: A replacement engine or vehicle for a replacement project must be a CARB certified ZE vehicle or CARB certified engine meeting emissions levels of Optional Low NOx standards or cleaner (See Section C.1.(F) for more information on CARB certification for ZE vehicles or Optional Low NOx engines).
 - (3) Repower and Conversion Projects: If surplus, a replacement engine for a

repower project must be a CARB certified engine meeting emissions levels of Optional Low NOx engine standards or cleaner (See Section C.1.(F) for more information about CARB certification for ZE vehicles and Optional Low NOx engines). If the proposed repower has been done previously by the manufacturer on the same chassis/engine configuration, prototype testing is not necessary. The manufacturer must provide written confirmation that the previous work was performed successfully and met OEM requirements. If it has not been done previously, prototype testing as described in Section A.1.(B) must be completed. Conversion systems must meet certification or aftermarket exemption requirements described in Section A.1.(C).

- (4) Applicable Emission Factors: Emission factor tables for PAU can range from Tables D-1 to D-10 since PAU fleets may consist of HD trucks, buses, transit buses, emergency vehicles, SWCV vehicles, or other specialty HD vehicles.
- (5) Calculating Emission Reductions: NOx, ROG, and PM emission reductions are eligible for funding for ZE projects. For surplus projects replacing or repowering to Optional Low NOx, refer to the specific vehicle type project criteria Section (HD trucks, buses, transit buses, emergency vehicles, or SWCV vehicles) for more information.

(G) Emergency Vehicles

- (1) Eligible Vehicles: Authorized emergency vehicles over 14,001 lbs. GVWR and greater, described in the California Vehicle Code 165 including, but not limited to fire apparatus, pumpers, ladder trucks, and water tenders, are eligible for funding. Other MHD and HHD diesel authorized emergency vehicles, such as prisoner buses, are also eligible for funding under this chapter. Emergency vehicles are subject to and must demonstrate compliance with Clean Truck Check HD/IM Program requirements to be eligible for Moyer Program funding. Additionally, emergency vehicles in fleets with other vehicles must demonstrate compliance with all other applicable rules, requirements, and regulations to be eligible for Moyer Program funding.
- (2) Replacement Projects: Replacement vehicles with engines certified in accordance with Heavy-duty Omnibus Regulation by EMY as described in Section C.1.(F) eligible. The older, replaced vehicle must be destroyed. A fire truck reuse option is also available on a case-by-case basis. The fire truck reuse option allows fire departments to give away the baseline old vehicle and destroy another older vehicle in its place.
- (3) Eligible Costs: Eligible project costs include those parts specified in Section B.8 but excludes parts that are not bolted on and movable, such

as the tank on the water tender. In addition, the following costs are eligible:

(a) Tax and transport for eligible parts or costs.

(b) Labor for installation of or modification to parts eligible for funding.

(4) Calculating Emission Reductions: NO_x, ROG, and PM emission reductions can be funded. Unless otherwise provided by CARB, heavy-duty emergency trucks must use emission factors and deterioration rates from Tables D-1 to D-4 depending on GVWR weight class, and emergency heavy-duty buses must use emission factors from Tables D-5 to D-8 depending on fuel type and GVWR weight class.

(H) Airport Shuttles:

(1) Eligible Vehicles: Airport shuttles with GVWR of 14,001 lbs and greater, defined by the ZEAS Regulation are eligible for funding consideration for replacements or conversion to ZE project types. Airport shuttles are subject to and must demonstrate compliance with ZEAS and any other applicable rule, requirement, or regulation.

(2) Replacement Projects: Replacement vehicles must be certified to ZE and must be funded through a contract. See Section C.1.(F) for more information on CARB certification for ZE vehicles.

(3) Conversion Projects: Conversion systems must meet certification or CARB Exemption Conversion Executive Order Certification requirements described in Section A.1.(C).

(4) Calculating Emission Reductions: NO_x, ROG, and PM emission reductions can be funded. Unless otherwise provided by CARB, heavy-duty airport shuttles must use emission factors and deterioration rates from Tables D-1 to D-4 depending on GVWR weight class.

(I) Case-By-Case Projects

(1) On-road heavy-duty diesel vehicles with GVWR of 8,501-14,000 lbs. may be considered for Moyer Program funding on a case-by-case basis.

(2) Retrofits:

(a) Only projects that reduce NO_x emissions, including alternative fuel retrofit systems, are eligible for funding. The retrofit must be certified or verified by CARB to reduce NO_x by at least 15 percent. If the baseline engine does not meet 0.01 g/bhp-hr PM standards, the retrofit must also reduce emissions by at least 85 percent (verified Level 3).

(b) The maximum State funding amount for retrofit projects is \$20,000.

(3) Transport Refrigeration Units (TRUs): TRU projects are eligible for limited

funding opportunities, but emission benefits are generally low because many older TRUs have already been replaced to meet regulatory requirements. TRUs are subject to the TRU Regulation and must demonstrate compliance with this regulation to be eligible for funding. For more information about the TRU regulation, please visit the [Transport Refrigeration Unit](#) webpage.

- (a) Funding opportunities may exist for ZE replacement projects only if the project is surplus to the compliance deadlines for fleets to phase in ZE truck TRU.
 - (b) Alternative technologies such as pure cryogenic systems are not required to be verified, but CARB must review and approve such systems in writing on a case-by-case basis.
 - (c) The participant shall install an hour-meter or other means to measure usage on the TRU to track operating hours, and shall provide this information to CARB or the air district upon request.
 - (d) The maximum State funding percentage is 50 percent.
- (4) Cost-effectiveness calculations for projects with power take-off (PTO) will be considered by CARB on a case-by-case basis. Hours of PTO operation must be documented through hour meter records or data from the emission control module.
- (5) Case-by-case projects must receive approval from CARB prior to contract execution. These projects must follow the requirements as described in Chapter 3, Section W.

3. Participant Requirements

- (A) Ownership: The participant must currently be the sole owner of the baseline vehicle, documented through a copy of the baseline vehicle title. The title must show no active lienholders. The title need not be a California title. In addition, the participant must have owned and operated the vehicle throughout at least the previous 24 months. If the title does not show sole ownership for at least the previous 24 months, the applicant must be listed as one of the owners or shown as a registered owner on registration documentation for the previous 24 months. If the baseline vehicle title is not available, then all three of the following must be used as alternative documentation until a duplicate title is received from the California DMV:
- (1) A copy of the current and valid vehicle registration,
 - (2) A copy of the DMV Vehicle Registration Record (printout), and
 - (3) A copy of the DMV receipt for duplicate title request. A copy of the duplicate title must be received by the air district before contract

execution.

If it is unclear whether a vehicle is owned or leased by a participant, the air district will determine whether the vehicle is eligible. The air district may also ask the CARB Moyer Program liaison for help in identifying whether a vehicle is owned or leased by a participant.

(B) Usage Documentation and Self-Certification for California Annual Usage: Documentation and self-certification must cover each of the two 12-month periods from the previous 30 months. Any gap between the two 12-month periods may be permitted for usage consideration if reasoning and supporting documentation demonstrating the need for the gap are provided for air district evaluation. Covering the two 12-month periods, the participant must:

(1) Submit conclusive documentation (logbooks, maintenance records, tax records, etc.) of annual miles traveled in California, and

(2) Certify that at least 51 percent of total usage has been in California.

For small fleet projects in which the two most recent years of documented usage are not available, the minimum annual usage is required to be specified in the contract, where the small fleet participant must also certify that they will meet the minimum annual usage that is at least 51% of their total usage in California.

(C) Military Service Provision: If an applicant has been on active military duty at any time during the previous 24 months, documentation prior to deployment and covering the same length of time as the deployment period may be used to meet the title, registration, usage, and operation in California requirements as described in Sections C.3.(A)-(B) and C.4.(C). The applicant must submit a copy of DD Form 214, Certificate of Release or Discharge from Active Duty to verify military service during the deployment period.

(D) Participants may only apply to one air district at a time for each project.

(E) Participants must submit an application for funding consideration.

(F) Participants must provide the air district with the full contact information of the seller/dealer of the replacement vehicle, or the business that performs the conversion or repower.

(G) The participant must be the sole registered owner of the replacement engine or vehicle for the duration of the contract term. Throughout the contract term (project life), the participant must annually:

(1) Provide registration and proof of insurance to the air district.

(2) Provide reports that include items specified by the air district which may

include miles driven in the air district and in California, and details regarding maintenance and servicing.

- (3) Operate the engine/vehicle within California for at least the percentage of time specified in the contract.
- (H) Report accident or loss of vehicle: If the replacement engine/vehicle is in an accident or is stolen, the accident or theft must be reported to the air district within 10 business days. The participant must provide the police report, a letter from the insurance company regarding the accident or theft, and other information requested by the air district. The participant must repair the vehicle and return it to operation, if possible. If the vehicle is totaled, the participant and the air district staff must come to an agreement regarding any requirements that still need to be met. If the participant will continue the business, efforts should be made to obtain a substitute vehicle that can take over the terms of the contract. The substitute vehicle must be at least as clean as the original Moyer Program funded vehicle, be in the same weight class, and cannot have more miles than would have been accumulated based on the mileage used to determine the funding amount, or no more than 600,000 miles for HHD vehicles, 350,000 miles for MHD vehicles, and 250,000 miles for LHD vehicles.
- (I) Any change of ownership, change in registration status, or change of mailing address during the contract term must be reported to the air district within 10 business days.

4. Baseline Engine and Vehicle Requirements

- (A) The baseline vehicle must currently operate on diesel fuel or alternative fuel such as compressed natural gas.
- (B) The baseline vehicle must have an engine model year that is 6 or more years of age prior to the current calendar year, except if it is a school bus or log truck which may be powered by an engine of any model year. The maximum chassis age for ZE conversions must be no more than 10 years old.
- (C) The baseline vehicle must either be: 1) currently registered and have been registered in California for the past 24 months supported by documentation showing no lapses (except for seasonal vehicles and those eligible under the military service provision); or 2) must have been registered in California for the previous eight consecutive months with supporting documentation supplemented by alternate documentation showing California operation for the past 24 months. California International Registration Plan (IRP) documents are acceptable. Out of State IRP or registration is not eligible. The baseline vehicle must be based in

California.

- (D) If the baseline vehicle operates seasonally, then the baseline vehicle may be eligible to participate if it has been registered in California for three to six continuous months per 12-month period for the previous 24 months. DMV partial year registration documentation for each period the vehicle was registered must be included with the application.
- (E) The participant must provide proof of insurance for the old vehicle for the previous 24 months or more.
- (F) The baseline vehicle must meet the criteria for either an LHD vehicle, MHD vehicle, or an HHD vehicle, as defined below:
 - (1) LHD vehicles must have a manufacturer GVWR of 14,001-19,500 lbs.
 - (2) MHD vehicles must have a manufacturer GVWR of 19,501-33,000 lbs.
 - (3) HHD vehicles must have a manufacturer GVWR of 33,001 lbs. or greater.
 - (4) GVWR may be documented with a photo of the vehicle manufacturer tag, or a copy of the manufacturer build sheet. Air districts may request CARB approval of alternate GVWR documentation to place in the project file.
- (G) Engine Verification
 - (1) The air district project file must include a copy of the baseline engine CARB Executive Order or if a CARB Executive Order is not available, the air district may request CARB approval to include a copy of the United States Environmental Protection Agency (U.S. EPA) Certificate of Conformity for the project file and obtain appropriate emission factors and deterioration rates based on the emission standard the U.S. Certificate of Authority certifies the engine to. If a CARB Executive Order or a U.S. Certificate of Conformity is not available, the air district may request approval of alternative documentation on a case-by-case basis.
 - (2) 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, CARB may approve other means of obtaining the information.
- (H) The baseline vehicle must be in operational or roadworthy condition, as

determined through a CHP Biennial Inspection of Terminals (BIT) or equivalent air district-approved inspection. If the air 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 an inspection that occurred within 90 days of the application date; or
 - (2) An air district approved contractor may conduct the inspection of the old vehicle and provide pictures verifying that the vehicle is in operational condition.
- (I) Glider Kits: Glider kits are replacement chassis and cabs for on-road heavy-duty vehicles. Glider kits are generally identified with a VIN starting with the letters "GL." In situations where the model years of the glider kit vehicle's chassis and engine differ, approval determination shall be made using the model year of the engine. Baseline glider kit vehicles are eligible to participate but the replacement vehicle has to be a complete Original Equipment Manufacturer vehicle; i.e., the replacement vehicle cannot be a glider kit.
- (J) Baseline Vehicle Body Components: The body of the baseline vehicle does not play a part in the participation in the program. Program funds can only be used to purchase the new vehicle, not external body components or parts used for a particular vocation (e.g., dump body). The common practice for vehicle owners to remove non-emission related body components from the baseline vehicle and place them on the replacement vehicle is still permissible as long as the components do not exist on the replacement vehicle and are not a part of the paid components for the replacement vehicle.
- (K) Operation of Baseline Vehicle After Pre-Inspection: If the baseline vehicle is in an accident or has an engine failure after completing the pre-inspection and submitting all required documentation for project approval to the air district but prior to replacement, then the baseline vehicle will still be eligible to receive funds from the program as long as all other on-road requirements have been met.

5. Replacement Engine and Vehicle Requirements

- (A) Emission Standards: Replacement vehicles with engines certified to an optional 0.02 g/bhp-hr NO_x and 0.01 g/bhp-hr PM emission standard or cleaner are eligible for funding (unless noted otherwise). New zero-emission vehicles must have a CARB-issued executive order confirming the vehicle does not emit any vehicle exhaust emissions or fuel-based evaporative emissions. If the baseline engine model year is 2010 or newer,

the replacement engine must at least be certified to a NOx standard level of optional 0.02 g/bhp-hr NOx or lower (unless noted otherwise). Replacement vehicles with engines certified to the 0.2 g/bhp-hr NOx and 0.01 g/bhp-hr PM emission standard or cleaner for vehicle categories not subject to on-road in-use regulation(s), rule(s), or requirement(s) (e.g., emergency vehicles) may be eligible. During the contract or voucher period, the replacement engine or vehicle must not be used to meet a compliance deadline set by an applicable rule, regulation, or requirement.

(B) Engine class: The engine’s primary intended service class must match the replacement vehicle’s weight class (i.e., an MHD diesel engine is used in a vehicle with a GVWR of 19,501- 33,000 lbs. and an HHD diesel engine is used in a vehicle with a GVWR greater than 33,000 lbs.). An exception is acceptable for vocational purposes which is presented in table 4-12 for allowable replacement scenarios.

**Table 4-12
Allowable Replacement Scenarios**

Executive Order Intended Service Class	GVWR Vehicle Weight Class	Replacement Type	Requirements for Allowance
HHD	MHD	Combustion Engine or ZE Vehicle ⁽¹⁾	Necessary for vocational purposes and GVWR is within 10% of engine’s Executive Order Intended Service Class (i.e., GVWR of 29,701 lbs).
MHD	HHD	Combustion Engine or ZE Vehicle ⁽¹⁾	GVWR is within 10% of engine’s Executive Order Intended Service Class (i.e., GVWR of 36,300 lbs or less), and a copy of the written warranty verification by the engine and chassis manufacturer for the project file.

⁽¹⁾ See Section C.5.(B)(1) for more information about ZE replacement vehicle that is not within 10 percent of baseline engine’s weight class.

(1) In cases of ZE replacement vehicles where the GVWR is not within 10 percent of the baseline engine’s intended service class and there is no ZE vehicle replacement available within 10 percent of the baseline

vehicle's intended service class that can perform the same or equivalent level of work of the baseline vehicle, the air district may approve the ZE replacement vehicle if all of the following requirements are met:

- (a) Confirmation that the intended use of the replacement vehicle would remain the same as that of the baseline vehicle.
 - (b) Justification for the deviation in GVWR not being within 10 percent and a description of the weight difference between the ZE powertrains of the baseline and replacement vehicles (e.g., the ZE vehicle specification sheet).
 - (c) How the ZE replacement vehicle will safely accommodate the equivalent level and scope of work that the baseline vehicle performs (e.g., a letter from the manufacturer or certified statement from the applicant confirming the replacement vehicle can safely operate in the same degree as the old vehicle without adversely impacting its durability).
 - (d) All other requirements within Section C.5 are met.
 - (e) Changes must be requested and approved prior to the purchase of the replacement vehicle.
- (C) Used Replacement Vehicle Mileage: A used HHD replacement vehicle must have less than 500,000 miles, a used MHD replacement vehicle must have less than 250,000 miles, and a used LHD replacement vehicle must have less than 150,000 miles with odometer verification to occur at the post-inspection.
- (D) All-Electric Range: ZE vehicles and hybrid vehicles (new or converted) must demonstrate an all-electric range of at least 35 miles. Those with fast charge capability must demonstrate an all-electric range of at least 20 miles. If a vehicle is not certified to meet this range, it may only be approved for funding following CARB evaluation of demonstration test data verifying that minimum all-electric range requirements are met. If demonstration data has already been submitted to another CARB funding program and approved, demonstration requirements may be waived.
- (E) Horsepower: The replacement engine horsepower must be no more than 25 percent greater than the baseline engine horsepower. In limited situations, such as the non-availability of the original horsepower range for the specific application or replacement to a ZE vehicle, the air district may approve a greater than 25 percent increase in horsepower.
- (F) Weight Class: Except for school buses as described in Section C.1.(C)(3) and ZE replacements, the replacement vehicle must be in the same weight

class as the baseline vehicle (either LHD, MHD, or HHD). An MHD vehicle can replace an HHD vehicle, or vice versa, if they both have the same axle configuration and the replacement will not carry more load than the baseline vehicle while performing the same work (e.g., a baseline HHD vehicle with two axles can be replaced with an MHD vehicle with two axles, or an MHD vehicle can be replaced with an HHD vehicle if both have the same number of axles, carry the same load, and perform the same work). The funding amount for this change must be at the MHD funding level. In the case of ZE replacements, differing weight classes to the baseline vehicle may be eligible if Sections C.5(B), C.5(G), and all requirements of Section C.5 are met and approved by the air district.

- (G) Body and Axle Configuration: The replacement vehicle must have the same axle and body configuration as the baseline vehicle. The air district may allow slight changes based on the latest technology.
- (1) In the case of ZE replacement vehicles, including ZE replacements for specialty vehicles, agricultural, and solid waste collection vehicles, differing from the baseline vehicle's axle and/or body configuration, the following must be provided when possible:
- (a) Confirmation that the intended use of the replacement vehicle would remain the same as that of the baseline vehicle.
 - (b) Justification for the deviation in GVWR not being within 10 percent and a description of the weight difference between the ZE powertrains of the baseline and replacement vehicles (e.g., the ZE vehicle specification sheet).
 - (c) How the ZE replacement vehicle will safely accommodate the equivalent level and scope of work that the baseline vehicle performs (e.g., a letter from the manufacturer or certified statement from the applicant confirming the replacement vehicle can safely operate in the same degree as the old vehicle without adversely impacting its durability).
 - (d) All other requirements within Section C.5 are met.
 - (e) Changes must be requested and approved prior to the purchase of the replacement vehicle.
- (H) Title: The replacement vehicle must have a clean title prior to purchase. The replacement vehicle must not have a salvage title and must not have been in an accident, repaired, and became available for resale.
- (I) California Registration: The replacement vehicle must be registered in California or in the California IRP.

(J) The participant must maintain insurance coverage for the replaced/repowered/converted vehicle as required by law for the duration of the project life. The participant is encouraged to have replacement value insurance coverage to ensure complete repair or replacement in the event of major damage to the vehicle. If the vehicle is not repaired and replaced during the project life, the applicant must return prorated funds. See Section C.6.(M)(3).

(K) Warranty requirements: The following warranty requirements apply:

- (1) For vehicles with internal combustion engines (ICE), except hybrid vehicles, all participants must purchase a major component engine warranty for the replacement new or used vehicle or repowered engine. The warranty must cover parts and labor. If the purchase of a new or used replacement vehicle is in accordance with currently required warranty periods or warranty requirements for newer engine model years as specified in the Heavy-Duty Low NOx Omnibus Regulation, then separate supplemental warranty is not required. However, it is recommended that the highest-grade warranty be purchased in order to avoid expensive repairs in the future.
- (2) ZE vehicles, hybrid vehicles, and conversion systems must meet ZEP Certification Regulation warranty requirements as provided in the [California Standards and Test Procedures for New 2021 and Subsequent Model Heavy-Duty Zero-Emission Powertrains](#). The ZEP Certification Regulation warranty requirements include, but are not limited to, the warranty period beginning on the date that the vehicle is delivered to the Moyer participant, the service timeframe not to exceed 30 days from the time the vehicle or powertrain is initially presented to the warranty station for repair, and having a minimum warranty period of 3 years or 50,000 miles. The warranty must cover the engine (if applicable) or motor, drivetrain, battery or energy storage, and parts and labor (including any part on the converted vehicle or engine that is damaged by the hybrid conversion system).
- (3) For ZE school buses, warranty requirements must meet ZEP Certification Regulation warranty requirements with the addition that the vendor warranty must provide protection for a minimum of 60 months or 75,000 miles, whichever comes first, and provide full warranty coverage of, at a minimum, the ZE or all-electric motor, drive train, batteries/energy storage system(s), and parts and labor. The ZEP Certification Regulation warranty requirements include, but are not limited to, the warranty period beginning on the date that the vehicle is delivered to the Moyer participant and the service timeframe not to

exceed 30 days from the time the vehicle or powertrain is initially presented to the warranty station for repair. Warranties must be fully transferrable to subsequent school bus purchasers for the full warranty coverage period. Warranties must cover the following for the full warranty period (unless otherwise denoted):

(a) Extended Motor, Drivetrain (including Battery), and ZE Components: Provide warranty coverage against defects in material and workmanship for the motor, transmission, rear axle, and electric or ZE system components including the battery. Gaskets and seals are not required to be included under the warranty coverage.

(b) Frame Rails, Cross Members, and Cab: For new school buses, coverage extends to structural cracks in the frame caused by defects in material workmanship and against corrosion perforation of the cab. For school bus conversions, the ZE school bus vendor is only responsible for damage or corrosion tied to, or resulting from, their workmanship on, or handling of, these parts.

(c) Battery Degradation Warranty: Provide warranty coverage against battery degradation below 80 percent of capacity.

(4) No 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.

(L) 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 manufacturer replacement parts), and modifications to the engine's emission control function or the electronic monitoring unit are not allowed.

(M) Service: At least one California service provider approved by the manufacturer must be available to repair and service the engine/vehicle.

6. Air District Requirements

(A) Requirements described in Chapter 3: Program Administration must be met unless otherwise stated in this chapter.

(B) Air districts must include the on-road category as a funding option in the air district's Moyer Program Policies and Procedures Manual before funding on-road projects. The Policies and Procedures must include the administrative tools that are needed to manage on-road projects, including

memoranda of understanding (MOU) or agreements with vehicle dealerships/sellers/service providers/ air district authorized third parties (if applicable) and dismantlers, reimbursement procedures, inspections, monitoring and enforcement, contract development, etc. Air districts are not required to submit the initial Policies and Procedures to CARB for approval, but it must be available upon request.

- (C) Air districts may fund on-road projects through a regional program administered by one designated air district. The designated air district may be located within the region or maybe a large air district located outside the region.
- (D) Air districts are responsible for ensuring all Moyer Program requirements are met. Air districts are encouraged but not required to have agreements or MOUs with vehicle dealerships/service providers/sellers/ air district authorized third parties and/or dismantlers. Air districts that fund projects through both VIP and this chapter can have one agreement with each dealer and dismantler for both programs if the dealer and dismantler agree to follow the requirements of each program. State funds must not be provided by the air district for any dismantler or material costs, including hazardous waste abatement fees, labor costs, fines, permits, or other charges resulting from destruction or disposal.
- (E) If the air district does not currently have a contract with a dismantler, it must provide written verification that all dismantler requirements and obligations outlined in Section C.9 were met prior to scrappage.
- (F) If the air district does have agreements or MOUs with vehicle dealership/service provider/seller/ air district authorized third-party (contracted third-party) and/or dismantlers, the agreement or MOU should contain, at a minimum, the program requirements, what is expected of each entity and the repercussions for noncompliance with the terms of the agreement or MOU for each entity. This must include, but is not limited to the following:
 - (1) The contracted third-party must adhere to agreements or MOUs established with the air district.
 - (2) If contracted for the delivery of the baseline engine/vehicle to the dismantler, the contracted third-party agrees to:
 - (a) Deliver the baseline engine/vehicle to a qualified dismantler for their receipt and acceptance within 60 calendar days of the replacement engine delivery date to the grantee. The contracted party must immediately notify the air district of the location and date of delivery of the baseline engine/vehicle to the dismantler. The participating

dismantler may also pick up the baseline engine/vehicle.

- (b) If the contracted third-party is left in possession of the baseline engine/vehicle by the grantee, the contracted party agrees not to use or permit the use of the engines or vehicles, except when necessary to move it for destruction or storage. The contracted party also agrees to deliver the baseline engine/vehicle to the dismantler for acceptance and receipt within 60 calendar days of taking receipt of the baseline engine/vehicle.
 - (c) If specified in the MOU or agreement, compare and confirm the baseline engine/vehicle is in similar condition to the pre-inspection results (e.g., vehicle has not been stripped for parts with the exception of parts essential for vocation purposes that will be installed on the replacement vehicle) for the dismantler's acceptance and receipt by communicating with the air district, which may include reviewing a pre-inspection form provided by the air district. If the baseline engine/vehicle is deemed unroadworthy or if parts were stripped, the contracted third-party agrees to not deliver the baseline engine/vehicle to the dismantler until the air district can confirm.
- (3) If contracted for the delivery of the replacement engine/vehicle to the grantee, the contracted third-party delivers after the post-inspection occurs or delivers to a location that works for both the air district and grantee to perform the post-inspection and then be received by the grantee (e.g., at the air district).
 - (4) If the replacement engine or vehicle is in possession of the contracted third-party and the agreement or MOU specifies that the air district or other air district authorized third-party will perform any inspections, the contracted party must receive air district approval before releasing the replacement engine/vehicle to the participant.
 - (5) The contracted third-party agrees to provide the air district with all supporting documentation required under the Guidelines and, if applicable, air district agreement for each project.
 - (6) The contracted third-party meet the minimum criteria to participate as dealerships/service providers/sellers/ air district authorized third parties in the Carl Moyer Program provided in Section C.8.
 - (7) The contracted dismantler must meet the minimum criteria and requirements to participate as a dismantler in the Carl Moyer Program provided in Section C.9.
- (G) Reimbursement: To ensure that an application package is complete, the

following items must be included and complete prior to reimbursement:

- (1) Signed and completed application and fully executed contract.
- (2) Documentation showing that the baseline vehicle is roadworthy. This includes documentation showing that the old vehicle has passed a CHP BIT inspection in the past 90 days or conduct an equivalent vehicle inspection and sign as appropriate. If documentation is provided by a dealership, the air district reserves the right to audit the dealership's record of inspection.
- (3) Invoices of the purchase and all work performed. If work was performed on the replacement vehicle, the invoices must include all engine or motor, transmission, engine horsepower derating, body and other work performed on the replacement vehicle.
- (4) Digital photographs or a combination of digital photographs and digital video footage (if available) of the baseline vehicle and the replacement vehicle or engine. If a contractor conducts any inspections, the air district will specify the required digital format. Reimbursement will not be processed until all photographs and digital video footage (if available) are received and verified by the air district. All photographs and digital video footage (if available) must be clear, timestamped with the date of inspection, and all VIN and engine or motor serial numbers must be legible.
 - (a) Digital photographs or a combination of digital photographs and digital video footage (if available) of the old baseline must include the following views:
 - i. Right Side - hood down.
 - ii. Front - hood down.
 - iii. Left Side - hood down.
 - iv. Rear.
 - v. VIN Tag - inside vehicle or on frame rail.
 - vi. Engine serial number and engine information, if available (make, model year, engine family) - either tag or stamp on block.
 - vii. License plate.
 - viii. Left and right side of engine.
 - (b) Digital photographs or a combination of digital photographs and digital video footage (if available) of the replacement engine or vehicle must include the following views:
 - i. At least one side of the vehicle.

- ii. VIN Tag - inside vehicle or on frame rail.
 - iii. Engine serial number and engine information - tag (or primary motive power components).
 - iv. License plate.
 - v. Odometer reading.
 - vi. Left and right side of engine (or a viewpoint clearly identifying the primary motive power components).
 - vii. Modifications (if any).
- (5) Dealer/Service Provider// air district certification that the old engine and/or vehicle will be delivered to a qualified dismantler within 60 calendar days of receipt of the old engine or vehicle. In accordance with Chapter 3, Section AA.4.(B)(2), destruction of the old engine and/or vehicle may be delayed for up to 6 months for ZE technology (e.g., experiencing delivery delays, ZE vehicle integration into operation delays due to learning how to operate and maintain the new technology in operations, or delay(s) in installing infrastructure), with reasonable justification and it is the responsibility of the air district to ensure that the destruction timeline meets all other dismantle requirements provided in this chapter. The certification must include the make, model, year, VIN, engine make, engine serial number, and the date the engine or vehicle is expected to be delivered to the dismantler. The location of the dismantler yard where the engine/vehicle will be destroyed must also be provided. The dealer/service provider/ air district authorized third-party must also certify to not deliver the baseline vehicle to the dismantler if it is deemed unroadworthy or if parts were stripped from the baseline vehicle (except for parts essential to vocation that will be installed on the replacement vehicle). Reimbursement of the incentive grant award will be withheld until the air district can verify the baseline vehicle is delivered and accepted by the dismantler in accordance with guideline requirements.
- (6) Documentation of replacement vehicle warranty and registration (if applicable).
- (7) Proof of Project Financing: The financing package will enable the air district to determine the reimbursement costs that may be accrued in case the participant defaults on the contracted performance requirements. Proof of project financing can be a document showing the lender and the amount loaned, which at a minimum is a copy of the check given to the dealer equal to the portion of the project that was not Moyer Program funded. Proof of project financing is always required

unless the grantee paid cash (e.g., by wire transfer) for the portion of the project that was not Moyer Program funded.

- (8) Air districts are encouraged but not required to have agreements or MOUs with vehicle dealerships/service providers/sellers/ air district authorized third parties and/or dismantlers. If the air district or authorized third-party conducts the inspections, it is the air district's responsibility, which includes having a procedure within their Policies and Procedures, to ensure inspections have been performed for both the baseline and replacement vehicle before releasing the replacement vehicle to the participant. Upon request of the air district, CARB may waive inspection requirements.
 - (9) Proof of sale after the application and all required documentation have been approved by the air district.
 - (10) Copy of Title of Baseline Vehicle. For replacement projects, the title must be signed and dated by the applicant.
- (H) If needed by the participant, air districts must help participants, directly or indirectly through a contracted third-party, complete the application. 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. If needed, the air district may contract with the dealer by agreement or MOU to help the applicant fill out and submit the application package to the air district.
- (I) A third-party (e.g., engine/ZE vehicle 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 Moyer Program accessible to all potential applicants, including those that cannot afford to hire third-party assistance, air districts are encouraged to provide assistance to applicants.
- (J) Air districts must ensure the baseline vehicle and engine are scrapped within 60 calendar days of the dismantler's receipt of the vehicle. This must be confirmed through a dismantle inspection by the air district or an air district approved contractor. In accordance with Chapter 3, Section AA.4.(B)(2), destruction of the old engine and/or vehicle may be delayed for up to 6 months for ZE technology (e.g., experiencing delivery delays, ZE vehicle integration into operation delays due to learning how to operate and maintain the new technology in operations, or delay(s) in installing

infrastructure), with reasonable justification and it is the responsibility of the air district to ensure that the destruction timeline meets all other dismantle requirements provided in this chapter. The destruction of the old vehicle and engine must be properly documented in accordance with the Moyer Program requirements. If there is a delay in destruction of the old vehicle, the air district must document the communication and reasoning for the delay from the dismantler in their project file while working with the dismantler to ensure the vehicle is destroyed according to guideline requirements as soon as is feasible.

- (K) Inspections: The following inspections must be performed for each funded engine/vehicle (exceptions are allowed for public fleets and transit agencies as specified in Chapter 3) as shown in Table 4-9.

**Table 4-13
Required Inspections for On-Road Projects**

Inspection Type	Purpose(s)	Timing
Pre-inspection	Verify baseline vehicle is in operational condition. Verify baseline vehicle application information.	When application is submitted to air district but prior to approving the application.
Post-inspection	Verify replacement vehicle meets emission standard. Verify application information.	Prior to payment being issued.
Dismantle inspection	Verify engine destruction (see Section C.9.(D)(4)). Verify that frame rails are completely severed. Obtain copy of REG 42 form filed with DMV.	After engine and frame rail destruction. Within 60 days after dismantler receipt, unless the air district approves a dismantler's request for extension to dismantle the vehicle with supporting documentation for the extension to be saved to the project file. If dismantler takes photos, they must be provided to the air district within 10 business days of dismantling.

Documentation requirements are specified in Chapter 3, Section Y. and Z. Air districts may enter into a contract, written agreement, or memorandum of understanding with a contractor to perform project inspections (pre-inspections, post-inspections, or dismantle inspections). If an air district chooses to use contractors to perform inspections, air district staff must conduct and document at least one inspection on each project without the use of a contractor. Air districts must ensure all inspection requirements are met and shall retain legal responsibility for full compliance with the inspection provisions of these Guidelines, regardless of the use of contractors. Air districts that do not conduct 100 percent of required inspections themselves must audit 5 percent of each type of inspection (pre, post, and dismantle). Audits should be done randomly and occur throughout the implementation timeline of the air district. If applicable, the dismantler inspection may be performed using an authorized remote inspection protocol.

(L) Remote Inspections: In accordance with Chapter 3, Sections Y, Z, and AA, air districts may use a remote inspection protocol in lieu of physical inspections. An authorized remote inspection will allow the air district

inspector to witness a "live" streaming video taken by the applicant, dealership, or other individual with video capability.

- (1) A remote inspection protocol must include the following:
 - (a) A complete view of the entire vehicle or equipment (including front, back and side views, and license plate as applicable)
 - (b) Label showing the VIN and GVWR, as applicable
 - (c) Location and current reading of the odometer or hour meter
 - (d) Verification that the engine or vehicle is operational (with a start-up) and that the engine or vehicle is working as described in the application
 - (e) A view of the engine or motor with unique identifier (ESN or other identification number)
 - (2) The air district inspector will also make a note of identifiable markings on the vehicle (if any). These markings cannot be used in lieu of a VIN, ESN, or other unique identification number or engine tag.
 - (3) Consistent with current inspection procedures, engines without a visible and legible serial number must be uniquely identified by having the engine block stamped with a unique identification number or alternative permanent marking, such as an engine tag.
 - (4) All requirements from (C)(6)(E) must be met.
- (M) Recovery of Moyer Program Grant Funds: The air district must establish a mechanism to assure the participants fulfill all contractual obligations, including owning and operating the funded vehicle for the project life. The air district will determine noticing requirements and the method to achieve fund recovery. Air districts may consider the following options:
- (1) List the air district as co-lien holder on the title of the funded 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 air district, within 30 days of the project sale. The financing statement must have the air district as the secured party and the vehicle should be listed as collateral.
 - (2) If the funded vehicle is sold during the project life, the new owner must assume the obligations under the participant's contract with the air district and comply with the terms and conditions of the contract. The air district must approve the change in ownership prior to the sale.
 - (3) The grant recipient may return funds according to the following

prorated formula:

$$\text{Recapture Amount (\$)} = \frac{\text{Elapsed Portion of Project Life(Yrs)} * \text{Funding Amount(\$)}}{\text{Project Life(Yrs)}} - \text{Funding Amount(\$)}$$

- (N) Air districts and CARB reserve the right to deny funding to applicants that have previously received funds and did not meet the terms and conditions of the funding agreement.
- (O) Projects may be reviewed through a solicitation process or first-come, first-served as described in the air district's Policies and Procedures.
- (P) Air districts must perform compliance checks and may request CARB assistance in performing comprehensive compliance checks (see Section C.1.(E)).
- (Q) Air districts must provide training, as described in Section C.8.(A)(3) and C.9.(C)(1), and additional training in a timely manner whenever there have been substantive Moyer Program revisions.
- (R) Air districts must include in their Policies and Procedures that their contracts with Moyer Program grant recipients, sub-grant recipients, contractors, subcontractors, consultants, affiliates or representatives, who receive or use any Moyer Program Grant Funds to support the purchase, or lease for greater than one year, of new drayage or short-haul trucks contain a requirement to comply at all times with the applicable requirements of AB 794 (2021) and AB 2737 (2022) as a condition of the Moyer Program grant fund receipt or use and as a condition of participation in the Moyer Program.

7. Contract Requirements

- (A) AB 794 and AB 2737 Provision: Contracts with grantees, recipients, sub-grantees, contractors, subcontractors, consultants, affiliates or representatives, who receive or use any Moyer Program Grant Funds to support the purchase, or lease for greater than one year, of new drayage or short-haul trucks contain a requirement to comply at all times with the applicable requirements of AB 794 (2021) and AB 2737 (2022) as a condition of Moyer Program grant fund receipt or use and as a condition of participation in the Moyer Program.

8. Dealership/Seller/Service Provider/ Air District Authorized Third-party Minimum Qualifications to Participate in the Carl Moyer Program

- (A) Dealership/seller/service provider/ air district authorized third-party participating within the program must certify that they meet the following minimum qualifications and will continue to meet these qualifications throughout participation in the Program:

- (1) Dealership/seller/service provider// Air District authorized third-party has had a valid business license issued in California for a minimum of the last two years.
 - (2) The participating dealership has had a valid vehicle dealership license with DMV for a minimum of the last two years. The service provider/seller is authorized by the manufacturer.
 - (3) Dealership/seller/service provider/air district authorized third-party maintains a minimum of one representative that is knowledgeable about and/or works with the air district to understand the terms, conditions, and requirements of the Program that they are to participate in or perform services to assist air districts in meeting program requirements.
- (B) Dealership/Installer agrees to allow the air district or CARB to inspect vehicles during normal business hours.
- (C) Dealership/seller/service provider must be able to provide basic information to vehicle owners about the Moyer Program.
- (D) Dealership/seller/service providers/ air district authorized third-party must adhere to agreements or MOUs established with the air district if applicable.
- (E) The applicant must provide proof of payment from the financial institution, including those made by dealerships, to the air district to process the grant payment.
- (F) For ZE or hybrid vehicles (new or converted), the dealership/installer/manufacturer must provide the purchaser/participant, and upon request provide the air district, with a copy of the owner's manual and other materials. The owner's manual and other materials must at least include the following information:
- (1) A brief description of the vehicle/conversion system, including major components and their theory of operation and proper operating procedures;
 - (2) Maintenance best practices, including for batteries, and charging/re-fueling procedures and protocols, if applicable;
 - (3) A listing of necessary service intervals and service requirements;
 - (4) A statement that the hybrid converted vehicle is subject to all in-use vehicle inspection and maintenance programs applicable to its size, type, and class;
 - (5) The name, physical address, e-mail address, phone number, and

website, if available, of the manufacturer and authorized installer, as well as a list of the names, addresses, and phone numbers of the major dealers who supply parts for, or service the vehicle;

(6) All information necessary for the proper and safe operation of the vehicle, including information on safe handling of the battery or energy storage system, and emergency procedures to follow in the event of battery leakage or other malfunctions that may affect the safety of the vehicle operator, emergency personnel, or laboratory personnel;

(7) The product warranty statement.

9. Dismantler Minimum Qualifications and Requirements to Participate in the Carl Moyer Program

(A) If the baseline engine or vehicle is replaced or removed, it must be dismantled. This requirement has been established to ensure that emission reductions are real, preventing the engine from continuing to emit high levels of pollutants. Destruction of the baseline vehicle chassis and engine permanently removes the old, high emitting vehicle from service. The baseline vehicle and engine specified in the application (or engine only for repower and conversion projects) must be dismantled and may not be substituted with a different vehicle.

(B) Agreements or MOUs between the air district and dismantler are encouraged but not required.

(C) To participate in the Program, dismantlers must:

(1) Have at least one active employee who received training by the air district on the requirements of the Moyer Program. If a dismantler has more than one location, then the dismantler must have at least one active employee trained by the air district at each location that will be accepting engines/vehicles for the Moyer Program. If a dismantler is participating within the Program, the dismantler must work with the air district to understand and meet the requirements of the Program.

(2) Be licensed by DMV as a dismantler for at least the previous two years.

(3) Have had a valid business license issued in California for a minimum of the last two years.

(4) Possess a current, valid California Environmental Protection Agency Hazardous Materials Generators Permit.

(5) Be in compliance with all local, State, and federal laws and regulations.

(D) The dismantler must do the following for each engine/vehicle:

(1) If upon receipt, the baseline vehicle is deemed unroadworthy or if parts

were stripped (see Section C.6.(F)), the dismantler must reject the baseline vehicle. Exempt from rejection are cases when parts removed are essential to vocation that will be installed on the replacement vehicle (see Section C.4.(J)).

- (2) Dismantle the old vehicle in accordance with Moyer Program Guidelines within 60 calendar days of receipt and acceptance of the baseline vehicle. Upon dismantler request, the air district may approve an extension. If there is a delay in destruction of the old vehicle, the air district must document the communication and reasoning for the delay from the dismantler in their project file while working with the dismantler to ensure the vehicle is destroyed according to guideline requirements as soon as is feasible.
- (3) Destroy and render useless the baseline vehicle and/or engine. At a minimum, the destruction must include the following:
 - (a) Both frame rails must be completely severed between the front and rear axles.
 - (b) A hole must be put in the engine block with a diameter of at least three inches at the narrowest point. The hole must be irregularly shaped (i.e., no symmetrical squares or circles). A section of the oil pan flange must be removed as part of the hole or have a line cut through it that connects to the hole.
- (4) If the vehicle is to be scrapped, the dismantler must completely sever the frame rails of the old vehicle to ensure that the vehicle will not be used again.
- (5) Air district staff or the dismantler must take photographs or a combination of photographs and digital video footage of the destroyed engine and severed frame rails. Dismantler photographs or a combination of photographs and digital video footage of the destroyed engine block and severed frame rails must be provided to the air district within 10 business days of dismantling the vehicle. The following picture views must be taken:
 - (a) Holistic view of vehicle with hood down including license plate, if available, and identifiable markers, if able. For example, air districts may affix an identification number to the vehicle during the pre-inspection for later identification during the dismantle inspection (vehicle scrap).
 - (b) VIN tag (vehicle scrap).
 - (c) Engine serial number either stamped on the block or on the tag

- (engine or vehicle scrap).
 - (d) Left and right side of destroyed engine block either in-frame or out of frame (engine or vehicle scrap).
 - (e) Hole in engine block (engine or vehicle scrap).
 - (f) Completely severed frame rails (vehicle scrap).
- (6) Prepare and submit to DMV either of the following:
- (a) An ["Application for Salvage Certificate or Non-Repairable Vehicle Certificate" \(REG 488C\)](#) found on the DMV website (instructions on how to complete the form and more information can be located at [Total Loss Salvage & Non-Repairable Vehicles](#)). Once this certificate is issued, the vehicle cannot be titled or re-registered for use as a "Junk/Revived Salvage".
 - (b) Submit a ["Dismantled Vehicle Application"](#) or "Dismantled Vehicle Bundles" (bundle) found on the DMV website, which will provide instructions on what materials will be needed by the dismantler for the online application that automatically generate the "Transmittal of Registration Application" (FO 247V) and "Notice of Acquisition" (REG 42V) for the dismantler's electronic signature, and the "Report of the Vehicle to be Dismantled" (REG 42) form ensuring the VIN can never be registered again in California will be automatically generated for dismantlers to mail to DMV. An email containing the status of each transaction will be sent by the DMV when the bundle is completed.
- (7) Within 90 calendar days of the dismantle inspection date, the dismantler must provide verification to the air district that the baseline vehicle has been registered with DMV as "non-repairable" by providing the air district a copy of the DMV-issued "Salvage or Non-Repairable Vehicle Certificate".
- (8) Upon request of the air district, CARB may approve an alternative disposition for the old engine/vehicle.
- (E) As specified in California Code of Regulations, title 13, Section 2706(i)(3)(G), no party shall advertise, sell, lease, or offer for sale or lease, a used verified diesel emission control strategy.
- (F) Dismantler Inspection: Once the air district is notified, a dismantler inspection will be scheduled and photos documenting the destruction of the engine will be taken in accordance with the Guidelines. The dismantler shall not move the vehicle off of their property or part out a vehicle until a dismantler inspection by the air district or a designated contractor has been performed and given approval by the air district. If applicable, the

dismantle inspection may be performed using an approved remote inspection protocol.

- (G) Use of Engine or Vehicle Pending Destruction: The dismantler may not use or permit the use of the engines or vehicles, except as necessary to move it for destruction or storage.

II. Acronyms

Acronym	Definition
APU	Auxiliary Power Units
ARBER	Air Resources Board Equipment Registration
BIT	Biennial Inspection of Terminals
CARB	California Air Resources Board
CHP	California Highway Patrol
DBA	Doing Business As
DMV	Department of Motor Vehicles
DPF	Diesel Particulate Matter
DTR	Drayage Truck Registry
EMFAC	CARB's On-Road Motor Vehicle Emission Inventory Model
ESN	Engine Serial Number
FTA	Federal Transit Administration
GVWR	Gross Vehicle Weight Rating
HHD	Heavy Heavy-Duty
ICT	Innovative Clean Transit Bus Regulation
IRP	California International Registration Plan
JPA	Joint Power Authority
LHD	Light Heavy-Duty
MHD	Medium Heavy-Duty
MOU	Memorandum Of Understanding
NHTSA	National Highway Traffic Safety Administration
NO _x	Oxides Of Nitrogen
OEM	Original Equipment Manufacturer
PM	Particulate Matter
PSIP	Periodic Smoke Inspection Program
PTO	Power Take-Off
ROG	Reactive Organic Gases
SWCV	Solid Waste Collection Vehicle
TRU	Transport Refrigeration Units
TRUCRS	Truck Regulations Upload and Compliance Reporting System
TRUCRS ID	Truck Regulations Upload and Compliance Reporting System Identification Number
TTC	Type Transaction Code
VIN	Vehicle Identification Number
VIP	On-Road Heavy-Duty Voucher Incentive Program
ZE	Zero-Emission

Acronym	Definition
ZEP	Zero-Emission Powertrain

III. Definitions

Air District or District: An air pollution control district or an air quality management district.

Auxiliary Power Unit: Any device that provides electrical, mechanical, or thermal energy to the primary diesel engine, truck cab, or sleeper berth as an alternative to idling the primary diesel engine.

Baseline Technology: Engine technology applied under normal business practices, such as the existing engine in a vehicle or equipment for replacements, repowers, and retrofits.

Case-by-Case Determination: A process in which local air districts may request Moyer Program staff to review and approve a project that varies from the specific requirements of these Guidelines only if such approval will not adversely affect the achievement of real, surplus, quantifiable, enforceable and cost-effective emission reductions. See Chapter 3: Program Administration, Section W for additional information.

Certification: A finding by the California Air Resources Board (CARB) or the U.S. EPA that a mobile source or emissions control device has satisfied applicable criteria for specified air contaminants.

Cost-Effectiveness: A measure of the dollars provided to a project for each ton of covered emission reduction (H&SC Section 44275(a)(4)).

Cost-Effectiveness Limit: The maximum amount of funds the Moyer Program will pay per weighted ton of emission reductions, using the methodology in Appendix C.

Covered Emissions: Emissions of oxides of nitrogen, particular matter, and reactive organic gases from an on-road vehicle source.

Covered Source: On-road vehicles sources of air pollution as defined in Section 39011.5, and other categories necessary for the State and air districts to meet air quality goals (H&SC Section 44275(a)(7)), as determined by the State Board.

Deterioration: The increased exhaust emissions over time taking into account wear and tear on engines and emissions control devices.

Deterioration Rate (DR): Rates that estimate increased emissions of NO_x, ROG and PM from engine wear and tear and other variables that increase engine emissions over time. On-road deterioration rates are established by weight class and engine model year, based on values in CARB's on-road emission inventory model.

Drayage Truck: Any in-use on-road vehicle with a gross vehicle weight rating (GVWR) greater than 26,000 lbs. that is used for transporting cargo, such as containerized, bulk, or break-bulk goods that operates:

On, or transgresses through, California seaport or intermodal railyard property to load, unload, or transport cargo, including empty containers and chassis; or

Off seaport or intermodal railyard property to transport cargo or empty containers or chassis that originated from or is destined for a seaport or intermodal railyard property.

Drayage trucks are not vehicles operating off of seaport or intermodal railyard properties and transporting cargo that originated from a seaport or intermodal railyard property but was off-loaded from the equipment (e.g., a trailer or container) that transported the cargo from the originating seaport or intermodal railyard; or vehicles operating off of seaport or intermodal railyard properties and transporting cargo destined for a seaport or intermodal railyard but that will be subsequently transferred into or onto different equipment (e.g., a trailer or container) before being delivered to a seaport or intermodal railyard.

Emission Control System: Any device, system, or element of design that controls or reduces the emissions of regulated pollutants from a vehicle.

Emission Factor (EF): A category specific estimate of emissions per unit of activity. On-road emission factors are based on CARB mobile source emission inventory model values.

Executed Contract: A legally binding contract signed by the local air district Air Pollution Control Officer, or other air district designated representative, and the grantee to fund an eligible engine, equipment, or vehicle project that will reduce covered emissions. An executed contract is a program milestone in which parties agree to meet the obligations within the contract by a specified date.

Federal Funds: Awards of financial assistance to an individual or organization from the U.S. government to carry out a government-authorized purpose, and not provided as personal benefits or assistance from the government.

Family Emission Limit (FEL): An emission level declared by the manufacturer to serve in place of an otherwise applicable emission standard under a federal or State averaging, banking, and trading program.

Funding Amount: The amount of funds dedicated to a contracted project for reporting purposes in Clean Air Reporting Log (CARL); this value may never exceed the grant amount.

Funding Cap: The maximum dollar amount or maximum percentage of Moyer or State funds that may be expended on a project, as specified by source category and limited by variables that include the contribution of other incentive programs, rules, regulations, and incremental cost.

Grant Amount: Contracted amount of Moyer funds for a project, which may not exceed the maximum dollar amount or maximum percentage of eligible cost specified by source category and project type.

Glider Kit: A replacement chassis and cab for on-road heavy-duty vehicles. Glider kits are identified with a vehicle identification number starting with the letters "GL".

Gross Vehicle Weight Rating (GVWR): A value specified by the vehicle manufacturer as the maximum design loaded weight of a single vehicle. Examples are shown in Table B-1.

Heavy-Duty Vehicles (HDV): Trucks and buses in the weight classes shown in Appendix B, Table B-1, also provided below.

**Table B-1
Heavy-Duty Vehicle Classification for Moyer Program On-Road Projects**

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

Incremental Cost: The cost of the project less a baseline cost that would otherwise be incurred by the applicant in the normal course of business. Incremental costs may include added lease, energy, or fuel costs pursuant to Health and Safety Code Section 44283 as well as incremental capital costs.

Large Fleet: Fleets with more than 10 vehicles.

Lease-to-Own: Program funds are used to subsidize a leasing program where the lessee takes ownership of the vehicle at the end of the lease.

Local Funds: Monies provided by any unit of local government including a publicly owned utility and Joint Powers Authority (JPA).

Maximum Dollar Amount: The maximum amount of funds that may be expended on a project as specified by source category and project type, often to reflect incremental cost.

Maximum Grant Amount: The maximum amount of money a grantee is eligible to receive for a cost-effective Moyer Program project. The maximum grant amount for a project is the lowest of the three following values: (a) the grant amount at the cost effectiveness limit; (b) the maximum percentage of eligible cost; or (c) any maximum dollar amount specified in the relevant source category chapter.

Maximum Percentage: The maximum percentage of eligible cost that may be expended on a project as specified by source category and project type, often to reflect incremental cost.

Memorandum of Agreement (MOA) or Memorandum of Understanding (MOU): A document recording the basic terms of a proposed transaction or setting forth the principles and guidelines under which parties will work together.

Mitigation Funds: Monies received for the compensation for the impacts to the environment from a proposed activity.

Mobile Cargo Handling Equipment: Any motorized vehicle used to handle cargo delivered by ship, train, or truck such as yard trucks, rubber-tired gantry cranes, top picks, dozers, and excavators.

Moyer Eligible Cost: Costs associated with projects that are eligible for reimbursement under the Moyer Program, prior to considering the cost-effectiveness limit or any project

funding cap restrictions. This includes the sum of Moyer Paid Cost and Remaining Eligible Cost.

Moyer Ineligible Cost: Costs associated with a project that are not eligible under the Moyer Program guidelines, but are eligible project costs under other funding sources.

Moyer Program Funds: State funds awarded by CARB to local air districts to implement the Moyer Program, including project and administrative, and interest revenue from the awarded funds, and revenues from salvage of equipment scrapped under the program. Local funds that are under the air district's budget authority may also qualify as Moyer Program funds or match funds (see H&SC Section 44287(e)); however, certain limitations apply (see H&SC Section 44287(j)).

Non-Moyer Funds: Project funds from sources other than the Moyer Program, Moyer match funds, and AB 923 \$2 DMV fees.

On-road Heavy-Duty Vehicle Voucher Incentive Program (VIP): An air district incentive program using Moyer Program funds to provide a streamlined approach to replace older, high polluting heavy-duty vehicles or equipment with ZE vehicles providing early or extra emission reductions for small fleets of 10 or less vehicles. Funds for VIP projects are used to reduce some of the costs associated with replacing a vehicle.

Other Applied Funds: Funds that are not local, State, or federal that are used to co-fund a Moyer eligible project.

Policies and Procedures: An air district manual for local implementation of the Moyer Program. For more information see Chapter 3, Section C.

Power Take-Off (PTO): A secondary engine shaft (or equivalent) that provides substantial auxiliary power for purposes unrelated to vehicle propulsion or normal vehicle accessories such as air conditioning, power steering, and basic electrical accessories. A typical PTO uses a secondary shaft on the engine to transmit power to a hydraulic pump that powers auxiliary equipment.

Project Life: The period for which the Moyer Program funds surplus emission reductions for a given project.

Project Funds: Moyer Program funds designated for eligible project costs to reduce covered emissions from covered sources.

Public Entity: The State of California, a public university or college, a county, city, district, public authority, public agency, public corporation, another state government, the federal government, or any other subdivision or agency of a state government or the federal government.

Public Fleets: Heavy-duty on-road diesel-fueled vehicles operated by a municipality. A municipality is a city, county, city and county, special district, or a public agency of the State of California, and any department, division, public corporation, or public agency of this State, or two or more entities acting jointly, or the duly constituted body of an Indian reservation or Rancheria.

Public Funds: Funds provided toward project costs by local, State or federal public entities, including grants, rebates and vouchers.

Reduced Technology: Newer technology that is used by the applicant to obtain surplus emission reductions.

Remaining Eligible Cost: Project costs that are eligible under the Moyer Program but are to be paid by other sources of funding. Remaining eligible costs exist when the Moyer Paid Cost and Applicant Cost Share provide less than 100 percent of the Moyer Eligible Cost.

Repower: A repower is the replacement of the baseline engine with an electric motor or a newer emission-certified engine instead of rebuilding the baseline engine to its original specifications.

Retrofit: Modifications to the engine and fuel system so that the retrofitted engine does not have the same emissions specifications as the original engine, or the process of installing an CARB-verified emissions control system on a baseline engine.

Rural District Assistance Program: An element of the Moyer Program in which air districts pool their project funds to streamline project outreach, solicitation, and review.

School Bus: Vehicles used for the express purpose of transporting students, kindergarten through grade 12, from home to school, school to home, and to any school sponsored activities.

Short-Haul Trucks: Tractor, panel/step van, straight truck, refuse truck or 2b vehicle. Does not include any buses.

Service Provider: A company, factory, or repair shop/facility that provides installation, conversion, repairs, and maintenance services approved by a manufacturer. A service provider may be contracted with an air district to provide additional services that may be agreed upon, such as delivery of the baseline or replacement vehicle.

Small Fleet: In the on-road sector, a fleet size of 10 or less, including three or fewer vehicles as defined in the California Code of Regulations, title 13, Section 2025(d)(31)(G).

Smog Check: the motor vehicle inspection and maintenance program established by California Health and Safety Code Section 44000, et seq.

Solid Waste Collection Vehicle (SWCV): Diesel-fueled vehicles greater than 14,000 pounds GVWR with model year 1960 through 2006 engines used to collect residential and commercial solid waste.

Spark Ignition: A gasoline-fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to a combustion cycle.

State Funds: Funds provided by a State agency for the purpose of co-funding projects under the Moyer Program. State agencies include every State office, department, division, bureau, board, commission, the University of California, and the California State University.

State Implementation Plan: Under the Clean Air Act, the plan submitted by a state that

demonstrates attainment or maintenance of an air quality standard through implementation of specified control measures.

Supplemental Environmental Project: An environmentally beneficial project that a violator subject to an enforcement action voluntarily agrees to undertake in a settlement action to offset a portion of an administrative or civil penalty.

Sweeper/Scrubber: A large spark-ignition engine-powered piece of industrial floor cleaning equipment designed to brush and vacuum up small debris and litter and then scrub and squeegee the floor.

Total Project Cost: The Moyer Eligible Cost and the Moyer Ineligible Cost for vehicles, equipment, engines, accessories, installation and infrastructure within a single Moyer Program project. An applicant may not accept grant funds from all sources that exceed 100 percent of total project cost excluding the Applicant Cost-Share.

Transit Fleet Vehicle: On-road vehicles operated by a public transit agency, less than 35 feet in length and 33,000 GVWR, but greater than 8,500 GVWR, powered by heavy-duty engines fueled by diesel or alternative fuel; including service vehicles, tow trucks, dial-a-ride buses, paratransit buses, charter buses, and commuter service buses operated during peak commute hours with ten or fewer stops per day.

Urban Bus: A passenger carrying vehicle owned or operated by a public transit agency, powered by a heavy heavy-duty engine, or of a type normally powered by a heavy heavy-duty engine, intended primarily for intra-city operation. The buses are generally greater than 35 feet, and or greater than 33,000 pounds gross vehicle weight rating.

Utility: A privately-owned company that provides the same or similar service for water, natural gas, and electricity as a public utility operated by a municipality.

Verification: A determination by CARB or the U.S. EPA that a diesel emission control strategy meets specified requirements, based on both data submitted and engineering judgement.

Violator: An individual, company, or entity responsible for a violation of an environmental law, regulation or rule.

Zero-Emission Powertrain (ZE Powertrain): Defined in title 13, California Code of Regulations, Section 1956.8(j)(27) as an all-electric or hydrogen fuel-cell powertrain assembly, which includes (if applicable) the electric traction motor, system controller, generator, on-board charger, battery management system, thermal management systems, energy storage system (batteries, capacitors, and flywheels), inverter, fuel-cell stack, and the interface at which electrical power is converted to tractive mechanical power or vice-versa (in the case of a regenerative braking system), certified pursuant to the requirements in title 13, California Code of Regulations, Section 1956.8(a)(8).

Zero-Emission Truck TRU (ZE Truck TRU): A truck refrigeration system whose operation results in zero exhaust emissions of any criteria pollutant (or precursor pollutant) or GHG under any possible operational modes or conditions. The ZE truck TRU may draw power from the truck or stored energy source that is recharged by the truck only if the truck produces zero exhaust emissions while operating. The stored energy source may not be

recharged by a combustion ignition (CI) engine coupled to a generator as a source of electricity. Weight of the stored energy source does not alone qualify as “a decrease in fuel efficiency.” For example, a ZE truck TRU on a diesel-powered truck may draw power from a battery that in turn is charged by a solar cell so long as the ZE truck TRU does not also draw power from the truck’s internal combustion engine.

Zero-Emission Vehicle (ZE Vehicle): An on-road vehicle with a zero-emission powertrain that produces zero exhaust emissions of any criteria pollutant (or precursor pollutant) or greenhouse gas under any possible operational modes or conditions.

IV. References

[California Air Resource Board \(August 8, 2014\) California Certification and Installation Procedures for Alternative Fuel Retrofit Systems for 2004 and Subsequent Model Year On-Road Motor Vehicles and Engines.](https://ww2.arb.ca.gov/sites/default/files/2020-05/ADA__California%20Test%20Procedures%20Alt%20Fuel%20Retrofits%202004%2B.pdf)

[https://ww2.arb.ca.gov/sites/default/files/2020-05/ADA__California%20Test%20Procedures%20Alt%20Fuel%20Retrofits%202004%2B.pdf](https://ww2.arb.ca.gov/sites/default/files/2020-05/ADA__CATP%20--%20ITR%20--%202007%2B%20--%2020170901.pdf)

[California Air Resources Board \(September 1, 2017\) California Certification and Installation Procedures for Medium- and Heavy-Duty Vehicle Hybrid Conversion Systems.](https://ww2.arb.ca.gov/sites/default/files/2020-05/ADA__CATP%20--%20ITR%20--%202007%2B%20--%2020170901.pdf)

https://ww2.arb.ca.gov/sites/default/files/2020-05/ADA__CATP%20--%20ITR%20--%202007%2B%20--%2020170901.pdf

[California Air Resources Board \(September 9, 2021\) California Exhaust Emission Standards and Test Procedures: For 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles.](https://ww2.arb.ca.gov/sites/default/files/2022-03/Final%20Omnibus%20HDDiesel%20Engine%20TPS%20COMPLETE%20CLEAN%20ADA_03102022_8.pdf)

https://ww2.arb.ca.gov/sites/default/files/2022-03/Final%20Omnibus%20HDDiesel%20Engine%20TPS%20COMPLETE%20CLEAN%20ADA_03102022_8.pdf

[California Air Resources Board \(November 15, 2022\) Emission Factors: Mobile Source Emissions Inventory; EMFAC2021.](https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-modeling-tools-emfac-software-and)

<https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-modeling-tools-emfac-software-and>

[California Air Resources Board \(April 2021\) California Emissions Inventory Model, EMFAC2021 Volume III: Technical Documentation 1.0.1.](https://ww2.arb.ca.gov/sites/default/files/2021-08/emfac2021_technical_documentation_april2021.pdf)

https://ww2.arb.ca.gov/sites/default/files/2021-08/emfac2021_technical_documentation_april2021.pdf

[California Air Resources Board \(October 20, 2016\) Proposed Regulation to Provide Certification Flexibility for Innovative Heavy-Duty Engines and California Certification and Installation Procedures for Medium-and Heavy-Duty Vehicle Hybrid Conversion systems \(Innovative Technology Regulation \(ITR\)\).](https://www.arb.ca.gov/regact/2016/itr2016/res16-20.pdf)

<https://www.arb.ca.gov/regact/2016/itr2016/res16-20.pdf>

[California Code of Regulations, Title 13, amends Section 1900,1956.8, 1961.2, 1965, 1968.2, 1971.1, 1971.5, 2035, 2036, 2111 to 2119, 2121, 2123, 2125 to 2133, 2137, 2139 to](#)

[2149, 2423, and 2485, adopts Section 2139.5, 2166 to 2170; Chapter 1: Motor Vehicle Pollution Control Devices; Heavy-Duty Engine and Vehicle Omnibus Regulation and Associated Amendments.](#)

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2020/hdomnibuslownox/froa-1.pdf>

[California Code of Regulations, Title 13, Section 2013 to 2016; Chapter 1: Motor Vehicle Pollution Control Devices; Advanced Clean Fleets Regulation.](#)

<https://ww2.arb.ca.gov/rulemaking/2022/acf2022>

[California Code of Regulations Title 13, Section 2021; Chapter 1: Motor Vehicle Pollution Control Devices; Solid Waste Collection Vehicles.](#)

<http://www.arb.ca.gov/regact/dieselswcv/fro2.pdf>

[California Code of Regulations Title 13, Section 2023; Chapter 1: Motor Vehicle Pollution Control Devices; Article 4.3 Innovative Clean Transit.](#)

<https://ww2.arb.ca.gov/sites/default/files/2020-06/Final%20Reg%20Order%2008132019.pdf>

[California Code of Regulations Title 13, Section 2025; Chapter 1: Motor Vehicle Pollution Control Devices; Article 4.5 Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants from In-Use Heavy-Duty Diesel-Fueled Vehicles.](#)

https://ww2.arb.ca.gov/sites/default/files/classic/msprog/onrdiesel/documents/tbfinalreg.pdf?_ga=2.67941265.1238045575.1695055068-1161057217.1584749956

[California Code of Regulations, Title 13, Section 2485; Chapter 10: Mobile Source Operational Controls; Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.](#)

https://www.arb.ca.gov/msprog/truck-idling/13ccr2485_09022016.pdf

[California Code of Regulations Title 13, Section 2022; Chapter 1: Motor Vehicle Pollution Control Devices; Diesel Particulate Matter Control Measure for Municipality or Utility On-Road Heavy-Duty Diesel-Fueled Vehicles.](#)

<https://www.arb.ca.gov/msprog/publicfleets/title13ccr2022.pdf>

[California Code of Regulations Title 13, Section 2021; Chapter 1: Motor Vehicle Pollution Control Devices; Diesel Particulate Matter Control Measure for On-Road Heavy-Duty Diesel-Fueled Residential and Commercial Solid Waste Collection Vehicles.](#)

<https://www.arb.ca.gov/msprog/swcv/swcv.htm>

[California Code of Regulations Title 13, Section 2025; Chapter 1: Motor Vehicle Pollution Control Devices; Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants from In-Use Heavy-Duty Diesel-Fueled Vehicles.](#)

<https://www.arb.ca.gov/regact/2014/truckbus14/tbfroal.pdf>

[California Code of Regulations Title 13, Section 2027; Chapter 1: Motor Vehicle Pollution Control Devices; In-Use On-Road Diesel-Fueled Heavy-Duty Drayage Trucks.](#)

<https://www.arb.ca.gov/msprog/onroad/porttruck/finalregdrayage.pdf>

[California Code of Regulations Title 17, Section 95690.1 to 95690.8; Chapter 1: Air](#)

[Resources Board; Sub article 14 Zero-Emission Airport Shuttle Regulation.](https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2019/asb/fro.pdf)

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2019/asb/fro.pdf>

[California Vehicle Code Section 165: Authorized Emergency Vehicle.](https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=VEH§ionNum=165#)

https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=VEH§ionNum=165#

[California Vehicle Code Section 545: Definition of a School Bus.](https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=VEH§ionNum=545#)

https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=VEH§ionNum=545#

[California Vehicle Code Section 2807: School Bus Inspections.](https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=VEH&division=2.&title=&part=&chapter=4.&article=1.)

https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=VEH&division=2.&title=&part=&chapter=4.&article=1.

[California Vehicle Code Section 27156.2: Vehicle Emission Standards for Emergency Vehicles.](https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=VEH§ionNum=27156.)

https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=VEH§ionNum=27156.