

TEHAMA COUNTY AIR POLLUTION CONTROL DISTRICT OFF-ROAD EQUIPMENT REPLACEMENT PROGRAM



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The off-road Equipment Replacement Program reduces emissions by replacing old, high polluting equipment with newer, cleaner equipment earlier than would have been expected through normal wear and tear. Carl Moyer Program funds and Funding Agricultural Replacement Measures for Emission Reductions (FARMER) Program funds may be used to offset part of the cost of the replacement vehicle and the entire cost of verified diesel emission control system (RETROFIT) retrofits. The California Air Resources Board (CARB) established these programs in 2008 and 2018 because engine replacement may be impossible or not cost effective to the owner.

1. Projects Eligible for Funding

Eligible projects are those in which new equipment having the most recent model year California emission diesel engine, 25 horsepower or larger, replaces a Tier 0 (uncontrolled), Tier 1, Tier 2, or Tier 3 engine powering a fully functional piece of equipment. Large spark ignition (LSI) equipment is also eligible for funding.

The emission reductions from the project must not be required by any local, state, and/or federal rule, regulation, or other legally binding requirement. The following equipment replacement projects may be considered for funding:

- Stationary agricultural engines
- Off-road mobile agricultural equipment
- Other off-road compression ignition projects

Equipment purchased before a grant agreement for the project is fully executed is not eligible for funding.

Projects must meet a cost-effectiveness of \$34,000 per weighted ton of air pollutants reduced. Pollutants included in the cost-effectiveness calculation are NO_x (oxides of nitrogen), ROG (reactive organic gases) and diesel PM (particulate matter). PM is weighted by a factor of 20; (NO_x + ROG + 20*PM). District staff will calculate cost effectiveness using the average of two recent years of documented equipment usage. Applicants that do not provide credible records to document the previous two years' amount of historical operation in Tehama County are not eligible for funding.

2. Maximum Eligible Funding Amounts

Grants are awarded to the most cost-effective projects. The maximum funding eligible for TCAPCD Off-Road Equipment Program projects for new or used equipment purchase ranges from 75 percent to 100 percent of project costs. A maximum of \$55,000 in grant funding may be awarded per approved project, except for electric UTV projects which are capped at \$13,500 per project. Only one equipment replacement project per applicant will be considered. However, if funding remains after all qualified projects have been funded, applicants may qualify for additional projects.

3. Equipment Requirements

Existing (Old) Equipment Requirements

1. The old equipment must have an uncontrolled (Tier 0), Tier 1, Tier 2, or Tier 3 engine.
2. The applicant must have owned the old equipment in California for the previous two years. The applicant must provide two of the following to document ownership of the equipment in California.
 - a. Bill of sale for the existing engine (preferred)
 - b. Tax depreciation logs
 - c. Property tax records
 - d. Equipment insurance records
 - e. Bank appraisal for equipment
 - f. Maintenance/service records
 - g. General ledgers
 - h. Fuel records specific to the existing equipment that identify the equipment owner
 - i. Other documentation approved by CARB
3. The old equipment must be in operational condition and have an approved pre-inspection by District staff. The applicant must provide documentation to show that the equipment was operational for the previous year. The following types of documents are acceptable:
 - a. Revenue and usage records that identify operational, standby, and down hours for the equipment
 - b. Routine inspections which document the operating condition of the existing equipment (Occupational Safety and Health Administration or workplace required)
 - c. Employee timesheets linked to specific equipment use
 - d. Preventative maintenance/service records tied to specific hours of equipment use
 - e. Repair work orders specific to the equipment
 - f. Other documents approved by CARB
4. The replacement of two (or more) pieces of old, like equipment with one piece of replacement equipment is eligible for funding. Each piece of old and replacement equipment must comply with all the appropriate criteria. The replacement equipment must do the same job as the old pieces of equipment. For baseline cost-effectiveness calculation, the annual emissions of the two pieces of old equipment are summed. For the replacement equipment cost-effectiveness calculation, the usage of the two pieces of old equipment is summed for the replacement equipment usage.
5. The old equipment must be registered in the Diesel Off-road On-Line Reporting System

(DOORS) if it is subject to the Regulation for In-Use Off-Road Diesel-Fueled Fleets (Off-Road Regulation).

6. The old equipment must be scrapped/destroyed to permanently remove it from service. This ensures emissions reductions are real and prevents the existing equipment from being sold and put back into operation where emissions would continue to be emitted.

Replacement Equipment Requirements

1. The replacement equipment must have an engine meeting the most recent Model Year California emission standard. If a specific piece of equipment cannot be purchased with an engine meeting the most recent Model Year emission standard at the time the District obligates funds, then equipment with an engine meeting the previous Model Year emission standard may be purchased. Documentation from the equipment manufacturer that equipment with an engine meeting the current Model Year emission standard is unavailable must be provided to the District. Used equipment meeting the most recent Model Year California emission standard qualifies as new equipment if sold by a dealer with the required warranties and documentation of how the price was depreciated to account for the used condition and the number of hours of operation accumulated since new may also qualify.
2. Engines participating in the averaging, banking, and trading program that are certified to family emission limits higher than the applicable emission standards are ineligible to participate in the Carl Moyer Program.
3. Engines that are participating in the "Tier 4 Early Introduction Incentive for Engine Manufacturers" program, as detailed in Title 13, CCR, section 2423(b)(6), are ineligible for Carl Moyer Program funding.
4. The certification emission standard and/or Tier designation for the engine must be determined from CARB Executive Order issued for that engine which may be found at <http://www.arb.ca.gov/msprog/offroad/cert/cert.php>.
5. The replacement equipment must serve the same function and perform the same work equivalent as the old equipment (i.e., replacement of an agricultural tractor with another agricultural tractor). This requirement may be waived by the District with approval from CARB for instances where general purpose farming equipment changes commodities.
6. Only the minimum attachments normally sold with the original equipment, as determined by the District, are eligible for funding on the replacement equipment. Incentive funding can only be used to pay for items essential to the operation of the equipment.
7. The horsepower rating for the replacement equipment engine must not be greater than 125 percent of the original manufacturer rated horsepower (baseline horsepower) for the old equipment engine unless a higher horsepower rating is approved on a case-by-case basis by CARB.
8. Purchasers of new CI equipment must purchase a minimum of a one-year or 1600 hours power and drive train warranty for the replacement equipment. Purchasers of used, late model year equipment must purchase the remaining manufacturer warranty, if available, on the equipment. Warranty documentation must be provided to the District. Warranty costs are not eligible for funding. The district may waive this requirement if they have

provided CARB a satisfactory plan to ensure that funded equipment will be maintained and operated as if under warranty.

9. No funds will be issued for maintenance or repairs related to the operation of the equipment. The participant takes sole responsibility for ensuring that the equipment is in operational condition throughout the agreement period.
10. For CI equipment, a CARB verified diesel emission control system (or retrofit) is required on all replacement equipment if available. Retrofit projects that control particulate matter (PM) must use the highest level technically feasible technology available for the equipment being retrofitted.
11. If the applicant obtains financing to assist in the purchase of replacement equipment, full documentation of financing must be provided to the District. No more than the applicant's share of the cost of the equipment may be financed. The equipment shall not be used as collateral for the loan.
12. Future annual hours of equipment operation for determining emission reductions must be based only on readings from an installed and fully operational hour meter or fuel usage documentation specific for the new equipment. Documentation must include fuel logs, purchase receipts, or ledger entries. If during the project life the hour meter fails for any reason, the hour meter must be repaired or replaced as soon as possible at the owner's expense.
13. A CARB Verified Diesel Emission Control System retrofit is required on all replacement equipment if available.
 - a. Retrofit's that control PM must use the highest-level CARB-verified technology available at obligation of funds for the equipment being retrofitted.
 - b. The retrofit must be installed prior to delivery of the replacement equipment to the Grantee and must stay in operation on the replacement equipment for the project life. The issuance of a two-party check made payable to both the retrofit supplier and the Grantee is authorized if both parties agree to such payment.
 - c. The cost of the retrofit, filters, and maintenance of the retrofit needed during the project life is eligible for incentive funding, provided its inclusion in the project cost still meets the weighted cost-effectiveness limit.
 - d. For the purpose of project selection based on cost-effectiveness, the District shall use a cost-effectiveness value that is calculated by excluding cost of the retrofit.

Existing Equipment Destruction Requirements

The TCAPD Off-Road Equipment Replacement Program requires the existing equipment to be scrapped to permanently removed it from service. The chassis and engine must be destroyed to permanently remove old equipment from service. The applicant/owner shall permanently destroy and render useless or cause to be destroyed permanently or rendered useless each engine and equipment chassis. Critical mating surfaces in the engine cylinder block and cooling or lubricant passages shall be breached, by burning, cutting, or breaking. The chassis shall be cut in such a manner as to make it permanently unusable and not repairable. The applicant/owner shall make each destroyed component available for District inspection in order for the District to certify such work has been properly done.

4. District Administrative Requirements

District staff will implement the Off-Road Equipment Replacement Program using the following administrative procedures:

1. The District's request for proposals (RFP) will solicit applications for off road equipment replacement projects along with the other Carl Moyer and/or FARMER Program categories listed in the District's policies and procedures manual. Each application will be evaluated and ranked in accordance with the District's policies and procedures. Off road equipment replacement project applications will compete for funding with all applications received before the RFP's application submittal deadline.
2. The District staff will work with equipment dealers and/or applicants to complete the standard "Off-Road Equipment Replacement Project Application" and may develop additional forms if necessary to collect all information, records, and price quotes necessary to evaluate the proposal and to populate the data fields in the CARB's CARL database. Additional forms will be submitted to CARB for approval before they are used.
3. The District staff will evaluate each proposal to verify the eligibility and cost-effectiveness in accordance with the CMP Guidelines. As part of the evaluation, staff will conduct a pre- inspection on the old equipment.
4. A Grant Agreement will be executed for each off-road equipment replacement project that competes successfully in the RFP process and is approved by the District Air Pollution Control Officer.
5. Upon delivery of the new equipment to the dealer, the District staff will conduct a post-inspection. The dealer shall not deliver the new equipment to the applicant until the post inspection is complete.
6. Payment may be approved after approved pre-inspection of the old equipment, approved post-inspection of the new equipment, approved salvage inspection and receipt of an approved invoice for the new equipment. All payments will be issued to the applicant.
7. Monitoring and enforcement of Grant Agreements is covered in Section 16 of the District's Policies and Procedures manual as follows:
 - a. The district audits at least five percent of the projects that have more than a three-year project life and are within two years of contract expiration. In addition, district audits include all of the projects whose owners fail to report annually. The district audit should be conducted by the TCAPCD Moyer staff. The Moyer staff should contact the randomly selected grantees via mail for notification. The selected grantee shall contact the TCAPCD Moyer staff within 15 days of notification to schedule an audit.
 - b. The audit includes verification that the engines and equipment paid for are still operational and meet the mileage, fuel usage, or hours of operation indicated on the executed contract. This is completed by checking the serial number of the engine; witnessing the engine operate; and checking the odometer, hour meter/usage device, fuel receipts, or electronic monitoring unit (EMU).
 - c. The district also randomly audits at least five percent of the projects at the end of

the contract term. Included are projects whose owners failed to report annually and those projects that were found to be below the level of use during the audit two years prior to the end of the contract. The district audit should be conducted by the TCAPCD Moyer staff The Moyer staff should contact the randomly selected grantees via mail for notification. The selected grantee shall contact the TCAPCD Moyer staff within 15 days of the notification is dated to schedule an audit.