

TEHAMA COUNTY FARM EQUIPMENT REPLACEMENT PROGRAM



TCAPCD-10/14/2009
YEAR 12 OFF ROAD FARM EQUIPMENT REPLACEMENT PROGRAM

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 attrition. Carl Moyer 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 (VDECS) diesel retrofits. The ARB established this program in 2008 because for some equipment, replacing the engine only, (i.e., repowering) is not possible and for other equipment, the diminished value of the old equipment may not justify investing significant funds for engine replacement.

I. Projects Eligible for Funding

Equipment Replacement projects must meet the following general eligibility requirements:

- Eligible projects are those in which new equipment having the most recent Model Year California emission diesel engine, 25 horsepower or larger, replaces an **uncontrolled (Tier 0)**, fully functional piece of self propelled farm equipment that is to be scrapped. Tier 1 and Tier 2 engine replacements may be eligible if approved by ARB. Spark ignition equipment is not 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 meet this requirement and may compete for funding:
 - **Farm tractor replacement projects**
 - **Farm Off-Road equipment replacement projects**
- Equipment purchased before a Grant Agreement for the project is fully executed is not eligible for funding.
- Applicants that do not provide credible records to document the previous two year's amount of historical operation in Tehama County are not eligible for funding.
- All projects must achieve a cost-effectiveness of \$16,400 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). The District staff will calculate cost effectiveness using the average of two recent years of documented equipment usage.

II. Maximum Eligible Funding Amounts

- Grants are awarded to the most cost-effective projects. Projects reducing the most emissions for the least amount of requested funding have the best chance of approval.
- If a Tier 3 or cleaner engine is available for the old equipment, up to 85% of the cost of the repower or \$35,000 maximum grant per project, whichever is less up to the weighted cost-effectiveness limit, may be requested for equipment replacement.

If a Tier 3 or cleaner repower engine is not available for the old equipment, up to 80% of the cost of the new equipment or \$35,000 maximum grant per project, whichever is less up to the weighted cost-effectiveness limit, may be requested for equipment replacement. Written documentation stating that no Tier 3 repower is available for the old equipment must be submitted with the application.

Only one equipment replacement project per applicant will be considered. However, if money remains after all qualified projects have been funded, applicants may apply for grants for additional projects.

- VDECS are eligible for up to 100 percent of the total costs, including all filters and maintenance of the filters needed during the project life. Total retrofit cost is eligible for funding provided its inclusion in the project still meets the weighted cost effectiveness limit (2008 Carl Moyer Program Guidelines, pg. VII-8, Section IV (c) (9) (E).

III. Equipment Requirements

a). Existing (Old) Equipment Requirements

- (1) The old equipment must have an uncontrolled (Tier 0) engine. Equipment powered by Tier 1 or Tier 2 engines is **not** eligible for replacement.
- (2) The applicant must have owned and operated the old equipment in California for the **previous two years**. The applicant must provide the following documentation:
 1. Bill of sale for the old equipment and
 2. Two years of documentation for at least one item in the following list. If a bill of sale can not be provided, two items from the following list may be submitted in substitution:
 - a. Tax depreciation logs
 - b. Property tax records
 - c. Equipment insurance records
 - d. Bank appraisals for equipment
 - e. Maintenance/service records
 - f. General ledgers
 - g. Fuel records specific to the old equipment (To be used as evidence of CA residency the fuel records must also identify the equipment owner)
 - h. Other documentation approved by ARB
- (3) The old equipment must be in operational condition. The applicant must provide documentation for the previous year for at least one of the following:
 1. Maintenance/service records
 2. Revenue and usage records that identify operational, standby, and down hours for the equipment
 3. Routine inspections which document the operating condition of the old equipment (OSHA or workplace required)
 4. Other documentation approved by ARB. In addition, the district will conduct a pre-inspection of the old equipment prior to funding to verify the operational status of the equipment.
- (4) Applicants must submit documentation of annual usage of the old equipment for the previous two years. Usage from this documentation will be used to calculate the cost-effectiveness of the project. The applicant must provide at least one of the following types of documentation:
 1. Hour meter reading log collected at minimum of once per year from an installed and fully functioning hour meter or historical fuel usage documentation specific for the old equipment. Documentation must include fuel logs, purchase receipts, or ledger entries. Or
 2. At least two items from the following list:
 - a. Revenue and usage records that identify operational, standby, and down hours for the equipment
 - b. Employee timesheets linked to specific equipment use

- c. Preventative maintenance records tied to specific hours of equipment use
- d. Repair work orders specific to the equipment
- e. Six months of tracking normal equipment usage with a functional, tamper proof hour meter with prior district approval
- f. Other documentation approved by ARB

(5) 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 of the appropriate criteria. The replacement equipment must execute 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.

b. Replacement Equipment Requirements

- (i) The replacement equipment must have an engine meeting the most recent Model Year California emission standard. If a specific piece of equipment can not 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.
 - (a) 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.
 - (b) 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.
 - (c) The certification emission standard and/or Tier designation for the engine must be determined from the ARB Executive Order issued for that engine which may be found at <http://www.arb.ca.gov/msprog/offroad/cert/cert.php>.
- ii) 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 ARB for instances where general purpose farming equipment changes commodities.
- iii) 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.
- iv) 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 ARB.
- v) The maximum project life for all off-road compression ignition equipment replacement projects is five years unless longer project lives are approved by ARB.
- vi) Purchasers of new CI equipment must purchase a minimum of a three-year or 5000 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 ARB a satisfactory plan to ensure that funded equipment will be maintained and operated as if under warranty.

- vii) 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.
- viii) 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.
- ix) 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.
- x) An ARB Verified Diesel Emission Control System (VDECS) is required on all replacement equipment if available.
 - (1) If the additional cost of the VDECS causes the cost-effectiveness to be above the \$16,400 per ton of pollutants reduced, then the VDECS is not required.
 - (2) If documentation is provided to the District or ARB that a VDECS is not technically feasible, available, or safe, then the retrofit is not required. Refer to Section 2449(e)(8) of the In-Use Off Road Diesel Vehicle Regulation for the required documentation procedure.
 - (3) VDECS that control PM must use the highest level ARB-verified technology available at obligation of funds for the equipment being retrofitted.
 - (4) The VDECS 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 VDECS supplier and the Grantee is authorized if both parties agree to such payment.
 - (5) The cost of the VDECS, filters, and maintenance of the VDECS needed during the project life is eligible for incentive funding, provided its inclusion in the project cost still meets the weighted cost-effectiveness limit.
 - (6) 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 VDECS.

(c) Existing Equipment Destruction Requirements

The Equipment Replacement Program requires the existing equipment to be scrapped. 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.

IV. District Administrative Requirements

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

- I. The District's request for proposals (RFP) will solicit applications for off road equipment replacement projects along with the other Moyer 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.
- II. 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 ARB's CARL database. Additional forms will be submitted to ARB for approval before they are used.
- III. 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.
- IV. 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.
- V. 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.
- VI. After pre-inspection of the old equipment and post-inspection of the new equipment have been completed, and upon receipt of an invoice for the new equipment, payment will be approved for 50% of the grant. Payment will be approved for the remainder of the grant after District staff confirms, by inspection, that the old equipment is destroyed. All payments will be issued to the applicant. Two party checks may be issued to both the applicant and dealer if requested by the parties.
- VII. Monitoring and enforcement of Grant Agreements is covered in Section 16 of the District's Policies and Procedures manual as follows:

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.

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).

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.