



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Carl Moyer Memorial Air Quality Standards Attainment Program

Stationary Agricultural Engine Replacement and/or Retrofit Funding

General

As of July 14, 2014 the Bay Area Air Quality Management District (District) will accept applications for the Carl Moyer Program on a first-come first-served basis. The purpose of the program is to provide funding to replace or retrofit heavy-duty diesel engines with lower-polluting engines and equipment.

Apply on-line at: www.baaqmd.gov/moyer

Eligible Agricultural Projects

The items below show the maximum percentage of total equipment replacement or installation costs that can be reimbursed by the Moyer grant for eligible agricultural projects:

1. Diesel agricultural engine replacement projects – 85%
(New equipment: Electric, Certified Spark Ignition (SI) engine, or Tier 3 and 4 diesel engines)
2. Installing CARB-Verified retrofit devices on Diesel stationary equipment – 100%
3. Certified SI engine replacement- 85%
4. Electric Motor New Purchase – 20%
5. Non-Engine Agricultural-Use Projects (on a case-by-case basis)

Who can apply?

Owners of mobile equipment and stationary and portable engines with horsepower greater than 25 hp may be eligible for grants. All vehicles and equipment funded with a grant must operate within the Air District's boundaries. **Priority will be given to projects that reduce emissions in the following nine impacted communities:** 1) Concord, 2) Richmond/San Pablo, 3) Western Alameda County, 4) San Jose, 5) Livermore, 6) Eastern San Francisco, 7) San Rafael, 8) Vallejo, and 9) Antioch/ Pittsburg. For a map of impacted communities in the Bay Area, see: <http://www.baaqmd.gov/moyer>.

The following counties are part of the Air District's jurisdiction: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo and Santa Clara counties. The southern portions of Solano and Sonoma counties are also part of the Air District.

What can I do now, before I start my application?

- Read the Air District Carl Moyer Program Overview Fact Sheet for rules that apply to all project types available from the Air District or online at <http://www.baaqmd.gov/moyer>.
- Understand any applicable regulations may apply to your equipment
- Start collecting information needed for your application.
- Contact your engine or equipment dealer to discuss possibilities for your equipment.
- Review the California Air Resources Board (CARB) Carl Moyer Program Guidelines Chapter 10 "Agricultural Sources". The Guidelines are available on the CARB webpage <http://www.arb.ca.gov/msprog/moyer/guidelines/current.htm>

If you have any questions about this program or the application process, please contact Judy Williams at (415) 749-4738 or by e-mail at: jwilliams@baaqmd.gov

Carl Moyer Program AGRICULTURE

Quick-Reference Guide

For questions or more information, please contact Judy Williams, Grants Analyst
jwilliams@baaqmd.gov or 415-749-4738

Eligible Projects and Costs	
Eligible Agricultural Equipment	<ul style="list-style-type: none"> - In-Use stationary and portable diesel engines, 1996 /1997 model year and NEWER with power rating of 25 hp and greater - Diesel engines 50 hp and greater must be registered with the BAAQMD in order to be eligible for funding. Register engines here: http://www.baaqmd.gov/ag_diesel - Limited-use stationary compression ignition (diesel) engines qualifying for an alternative compliance plan under Regulation 11 Rule 17. Contact Guy Gimlen for more details (415) 749-4734
Eligible Agricultural Projects	<ul style="list-style-type: none"> - Repower: replace in-use engine with <ul style="list-style-type: none"> o New electric motor o New diesel engine that meets applicable emission standards o New spark-ignited engine that meets applicable emission standards - Retrofit: retrofit devices include selective catalytic reduction devices, diesel oxidation catalysts or diesel particulate filters - New equipment purchase
Eligible Agricultural Project Costs	<ul style="list-style-type: none"> - The capital cost of the new engine - Tax and transport for eligible parts or costs - Labor for installation of or modification to parts eligible for funding <p>Electric Motors and Equipment:</p> <ul style="list-style-type: none"> - Capital cost of new motor - Peripheral equipment associated with electric motor projects (control panel, motor leads, service pole with guy wire, connecting electric line from the meter) - New electric equipment costs
Project Requirements	
Minimum project life and contract term	At least 1 year for engines subject to the Stationary Diesel Engine Air Toxic Control Measure (ATCM). If a longer project life is feasible (ex: low-usage engines that qualify for alternative compliance plan), the minimum project life should be 3 years.
Surplus Emission Reductions	The project must be complete (engine installed and operational) at least 1 year prior to the associated ATCM compliance date or within three years of the ARB rule adoption date. See tables 10-2 and 10-3 for compliance schedule.
What if I can't replace my engine one year before the ATCM compliance date?	Still Apply! The District has an Agricultural Assistance program to help those that need longer project lives to achieve cost effective projects or can't meet the 1 year surplus requirement.
The Carl Moyer Program pays for a percentage of project costs	<ul style="list-style-type: none"> - Tier 3 or Tier 4 repower – 85% - Certified SI engine repower – 85% - Electric motor repower – 85% - Electric motor new purchase – 20% - Retrofit device – 100%
Cost-effectiveness	Projects must meet a cost-effectiveness of \$17,720 per weighted ton of NOx, ROG and PM10 reduced to be eligible
Area of activity and required hour meter	<ul style="list-style-type: none"> - Must be operated within the BAAQMD jurisdictional boundaries - All operation hours must be tracked by a functioning hour meter

New Engine Emission Requirements (ATCM)	
<p>Agricultural In-Use Stationary Diesel Air Toxic Control Measure (ATCM)</p>	<p>The ATCM requires the replacement or retrofit of older in-use diesel engines with cleaner burning models over a period of 3 to 12 years. The compliance date is dependent upon the Tier of the engine.</p> <ul style="list-style-type: none"> - In-Use uncontrolled engines have the earliest compliance date - All new engines 50 hp and greater must certify to meet U.S. EPA Tier 3 or cleaner emission standards - Engines less than 50 hp do not need to meet emission standards
<p>Do I qualify for Low Usage Alternative Compliance Plan?</p>	<p>Air District Regulation 11, Rule 17</p> <p>The Air District’s regulation was adopted to provide an extension of the State regulation’s compliance deadlines for certain low-use agricultural engines, while achieving greater emissions reductions in the long-term. Regulation 11, Rule 17 provides an Alternate Compliance Plan for low-use agricultural diesel engines. The Alternate Compliance Plan will:</p> <ul style="list-style-type: none"> - For Tier 0 and Tier 1 engines, extend the compliance deadline to December 31, 2020 - For Tier 2 engines, extend the compliance deadline to December 31, 2025 - Require that each Tier 0, Tier 1, or Tier 2 engine be replaced with an engine meeting Tier 4 emissions standards, or the cleanest emissions engine available at the time of replacement. <p>You must have applied and qualified for the Alternate Compliance Plan (by December 31st 2011) to be subject to the extended compliance deadlines. To qualify for the Alternate Compliance Plan, an engine must:</p> <ul style="list-style-type: none"> - Be used exclusively for an agricultural operation - Be registered in the Air District’s Agricultural Diesel Engine Registration Program - Be equipped with a non-resettable hour meter - Be used less than 100 hours per (one-year) registration renewal period averaged over any consecutive three registration renewal periods, and must not exceed 150 hours in any registration renewal period - Be located more than 1,000 feet from housing, schools or health care facilities, OR conduct a Health Risk Screening Analysis to demonstrate that site-specific and cumulative cancer risks and PM2.5 ground level concentrations meet required limits
<p>Engine Registration Requirements</p>	<p>State regulations required that owners and operators of existing agricultural diesel engines rated at greater than 50 hp, register their engines with the Air District by March 1, 2008. Register your engines here www.baaqmd.gov/ag_diesel.</p>

What Tier is my engine?

Engine Power (hp)	Manufacture Year	Tier
$50 \geq \text{hp} < 75$	Pre 1998	Tier 0
	1998 - 2003	Tier 1
	2004 - 2007	Tier 2
$75 \geq \text{hp} < 100$	Pre 1998	Tier 0
	1998 - 2003	Tier 1
	2004 - 2007	Tier 2
$100 \geq \text{hp} < 175$	Pre 1997	Tier 0
	1997 - 2002	Tier 1
	2003 - 2006	Tier 2
$175 \geq \text{hp} < 300$	Pre 1996	Tier 0
	1996 - 2002	Tier 1
	2003 - 2005	Tier 2
$300 \geq \text{hp} < 600$	Pre 1996	Tier 0
	1996 - 2000	Tier 1
	2001 - 2005	Tier 2
$600 \geq \text{hp} \leq 750$	Pre 1996	Tier 0
	1996 - 2001	Tier 1
	2002 - 2005	Tier 2
$\text{hp} > 750$	Pre 2000	Tier 0
	2000 - 2005	Tier 1
	2006 - 2010	Tier 2

When do I need to replace my engine?

please note that these compliance schedules apply to all engines that

- *do not qualify for a low usage alternative compliance plans or*
- *did not apply for the extension by the deadline (December 31, 2011)*

**Table 10-2
Non-certified In-Use Stationary Diesel Agricultural Engine Emission Limits**

Horsepower Range	Compliance Date	Diesel PM Not to Exceed (g/bhp-hr)	Off-Road CI certification Standard
> 50 to 99 hp	December 31, 2011	0.30	Tier 3 or Interim Tier 4
100 to 174 hp	December 31, 2010	0.22	Tier 3
175 to 750 hp	December 31, 2010	0.15	Tier 3
> 750 hp	December 31, 2014	0.075	Tier 4

**Table 10-3
Tier 1 and Tier 2-certified In-Use Stationary Diesel Agricultural Engine Emission Limits**

Horsepower Range	Compliance Date	Diesel PM Not to Exceed (g/bhp-hr)	Off-Road CI certification Standard
> 50 to 75 hp	December 31, 2015*	0.02	Tier 4
75 to 174 hp	December 31, 2015*	0.01	Tier 4
175 to 750 hp	December 31, 2014*	0.01	Tier 4
> 750 hp	December 31, 2014*	0.075	Tier 4

* Or 12 years after the date of initial installation, whichever is later