



Bay Area Air Quality Management District Off-Road Equipment Replacement Program Dealership Training

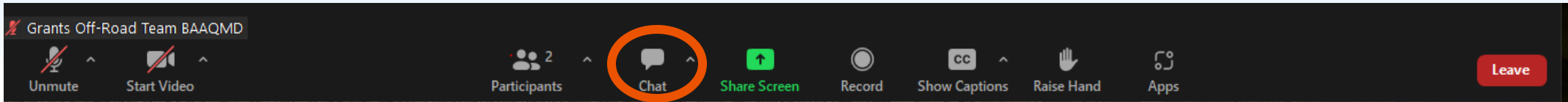
January 11, 2024

**Jessica DePrimo, Megan Mabry, Tommy Nguyen, & Itsel Guzman
Bay Area Air Quality Management District**



Webinar Information

This webinar is recorded



- We have muted all the participants audio and turned off video.
- Please send your questions to the “Pls send me your question - Megan” host in the chat box. We will answer them at the end of the presentation.
- Presentation slides will be emailed to you after today's webinar.
- Email tnguyen@baaqmd.gov for a copy of the slides and recording, if needed.



Agenda

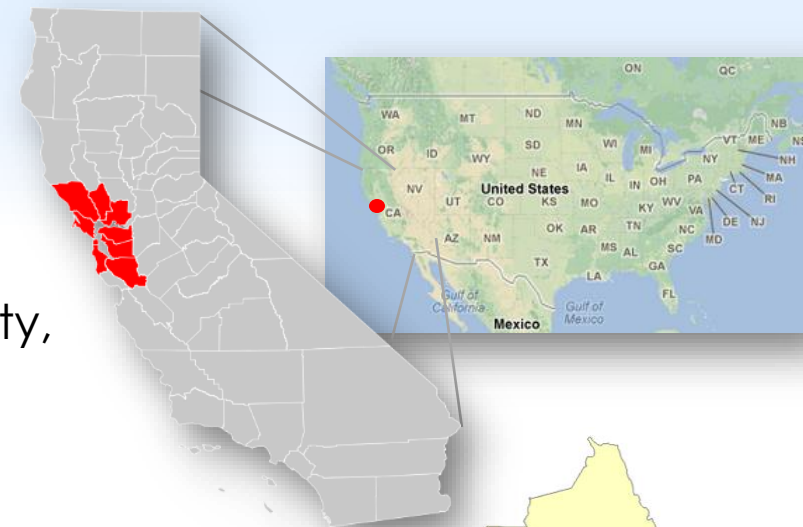
- Background on the Air District (BAAQMD)
- Available grant programs
- Equipment Replacement Program (ERP)
- Basic eligibility requirements
- Dealership Role
- Application Assistance
- Inspections
- Questions and answers



BAAQMD Background

The Air District

- Established in 1955
- Serves over seven million residents in the nine Bay Area counties
- Mission: To protect and improve public health, air quality, and the global climate



Strategic Incentives Division

- Target emission reductions from mobile sources
- Fund technologies and projects with the greatest potential to reduce air emissions from criteria pollutants
 - Criteria pollutants (NO_x, PM, and ROG)
 - Toxic air contaminants
 - Greenhouse gases (GHG)
- Help improve air quality in the highly-impacted Bay Area communities (CARE and CAP Areas)





Funding Opportunities

More than \$90 million currently available

- A voluntary state-funded program that aims to achieve emissions reductions from diesel equipment beyond what is required by law
- Higher grant amounts are available for the replacement of equipment with zero-emissions (or cleanest available) operating in:
 - West Oakland
 - East Oakland/San Leandro
 - Pittsburg-Bay Point area
 - San Jose
 - Eastern San Francisco
 - Richmond-San Pablo
 - Tri-Valley area
 - Vallejo
- Community input will help inform the Air District's project outreach and project identification processes
- Applications are currently being accepted on a first-come, first served basis until all funding has been allocated
- Focus on the cleanest available technologies and infrastructure
- Can co-fund with CORE, CEC, PG&E, or other eligible grant programs



Project Types

- **Equipment replacements:** The replacement of older, dirtier equipment with newer, emission-certified equipment
- **Repower of existing equipment (engine repower):** The replacement of an existing engine with a newer emission-certified engine
- **Equipment conversions:** 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 in the fuel type used
- **Infrastructure:** The installation of alternative fuel and charging infrastructure to support eligible equipment





Off-Road Projects

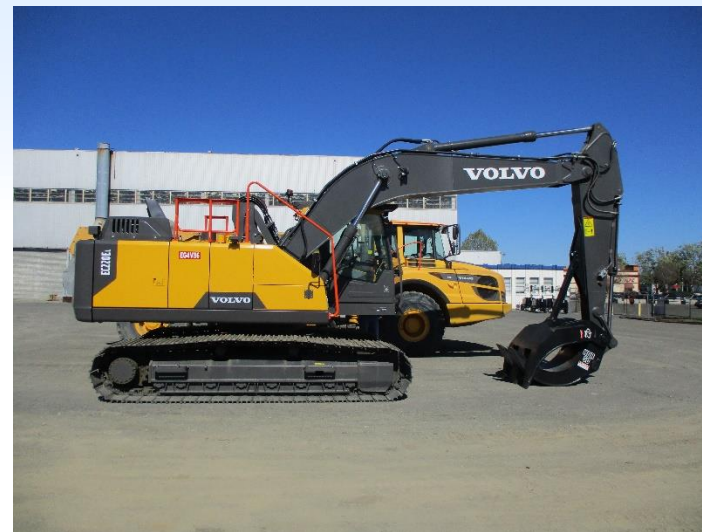
The Off-Road category includes:

- Mobile off-road equipment such as loaders, excavators, scrapers, forklifts, ground support equipment, and other off-road equipment with engines greater than 25 hp
- Portable engines/equipment such as portable generators, concrete pumps, woodchippers, etc.
- Zero-emission projects are highly encouraged

Grants up to 80-85*% of eligible costs

*Retrofit projects not limited by maximum funding percentage

www.baaqmd.gov/offroad





Agricultural Projects

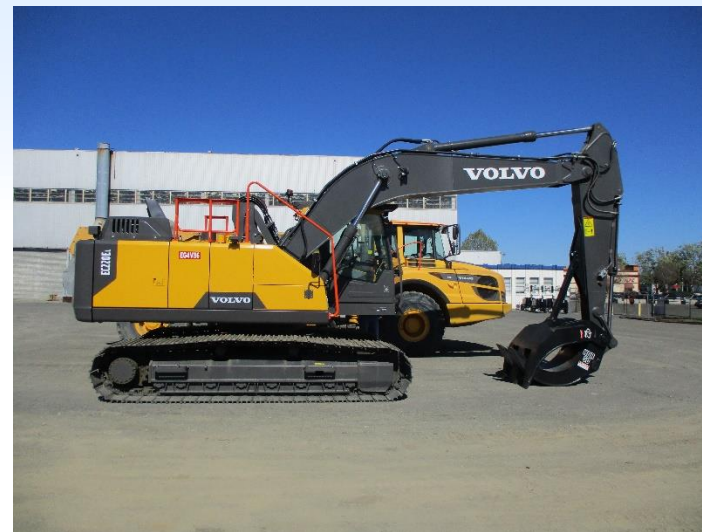
The Agricultural category includes:

- Agricultural equipment such as tractors, tractor/loaders, wheel loaders, forklifts, and other mobile agricultural equipment with engines greater than 25 hp.
- Portable and stationary engines/equipment greater than 25hp such as portable generators and water pumps.
- Zero-emission mobile agricultural replacement category

Grants up to 80-85*% of eligible costs

*Retrofit projects not limited by maximum funding percentage

www.baaqmd.gov/agriculture





Stationary and Portable Engines

- Eligible stationary and portable agricultural diesel engines must be:
 - Greater than or equal to 25 horsepower (hp) but less than or equal to 50 hp with Tier 0 to Tier 3
 - Greater than 50 hp with Tier 3
 - Greater than 50 hp remotely located and agricultural emergency standby generator set engines with Tier 0 to Tier 3
- Diesel engines 50 hp and greater must be registered with BAAQMD, and portable engines 50 hp and greater must be registered with California's Portable Engine Registration Program (PERP) to be eligible for funding.
- The minimum project life is at least 1 to 3 years, and the project must be completed before the associated ATCM compliance date.





Equipment Replacement Program (ERP)

The ERP reduces emissions by replacing old, highly-polluting equipment with newer, cleaner equipment earlier than would have been expected through normal attrition.

Grant funds may be used through the ERP to offset:

- part of the cost of replacement equipment
- engine repower
- incremental costs of going to the cleanest-available technology
- associated charging infrastructure

Off-Road/ Agriculture





Off-Road Eligibility

Eligibility Criteria:

- Fleet must be in compliance with, or exempt from, all regulatory compliance requirements
- Project must be completed 1 to 3 years before any applicable baseline equipment compliance deadlines
- Equipment must be operational and operate within the Air District's boundaries 75% of the time
- Project must be cost-effective to fund
- Existing equipment must be 25 hp or greater, existing diesel must have a Tier 0, Tier 1, Tier 2, or Tier 3 engine
- Replace with new or used like-for-like equipment that meets the cleanest California emission standards (e.g., Tier 4 Final or cleaner) and up to 25% horsepower increase (up to 35% if no equivalent available)
- Document ownership and usage history for the previous 24 months
- Existing engines/equipment replaced as part of a funded project must be scrapped and destroyed



Off-Road Compliance

- Fleet and equipment must be in full compliance with all applicable regulations and registered with the California Air Resources Board (CARB) and/or the Air District, as applicable, to receive funding
- No off-road funded projects can be used towards compliance requirements while the project is under contract.
- Common applicable regulations for Off-road equipment are:
 - In-Use Off-Road Diesel Regulation Off-Road Regulation (Off-road Regulation)
 - Large Spark Ignition Fleet Regulation (LSI Regulation)
 - Regulation for Cargo Handling Equipment at Ports and Intermodal Rail Yards (CHE Regulation)
 - Portable Engine Airborne Toxic Control Measure Regulation (PERP and ATCM Regulation)
 - Statewide Truck and Bus Regulation
 - Other regulations may apply
- CARB regulatory hotline: 1-866-6-DIESEL, if customers are unsure which regulation equipment falls under or cannot determine eligibility.



Eligible Costs

- The District may consider additional features, if those features are integral to the equipment's work and featured on the baseline unit, or if they are a safety requirement.
 - This includes features such as 4-wheel drive, cabs, loader attachments, and weights.
- **INELIGIBLE:** premium additions/options, extended warranties, docking fees, non-essential attachments, optional upgrades or items.



Infrastructure Funding

The Infrastructure category includes:

- Battery charging stations (non-residential)
- Hydrogen fueling stations
- Stationary agricultural pump electrification
- Shore power
- Other infrastructure on a case-by-case basis

Eligible costs include design and engineering, equipment, installation directly related to the construction of the station, meter/data loggers, and on-site power generation systems such as solar and wind power generation equipment.



Max funding	Project Type
50%	All Projects
65%	Projects with Solar/Wind

www.baaqmd.gov/infrastructure



Funding Examples

Equipment Type	Baseline Engine	New Replacement Engine	Annual Usage	Potential Funding	Total Cost	Actual Funding
Rubber-Tired Loader	2008 diesel Tier 3, 300 hp	2022 diesel Tier 4 Final, 269 hp	2,000 hours	Up to 80% of eligible project cost	\$415,560	\$194,000
Agricultural Tractor	1997 diesel Tier 0, 93 hp	2022 diesel Tier 4 Final, 114 hp	260 hours	Up to 80% of eligible project cost	\$90,355	\$72,200
Agricultural Tractor	2012 diesel Tier 3, 89 hp	2021 diesel Tier 4 Final, 95 hp	750 hours	Up to 80% of eligible project cost	\$97,076	\$77,600
Excavator	1987 diesel Tier 0, 290 hp	2022 diesel Tier 4 Final, 198 hp	710 hours	Up to 80% of eligible project cost	\$465,365	\$307,400
Wood Chopper (Grinder)	2001 diesel Tier 2, 500 hp	2019 electric 600 hp/440 kW	24,770 Hours 5,500,000 kWh	Up to 80% (equipment), up to 50% (infrastructure) of eligible project cost	\$1,385,274	\$863,500



Preliminary Cost-Effectiveness Requests

Year 25 Cost-Effectiveness Request Form For potential Equipment Replacement Projects

To get an initial run of project numbers, please complete the following form (one per piece of equipment) and provide to a Staff Specialist via email. Be aware that final eligibility and cost-effectiveness cannot be determined until a full application is received and reviewed.

Old Equipment

Type of equipment:

Type of work owner uses equipment for:

Regulation covering this equipment (“exempt” for ag):

Fleet size (“exempt” for ag, otherwise # of equipment and total hp):

Year of manufacture of existing equipment engine:

Tier and fuel type of existing equipment engine:

HP of existing equipment engine:

Hours usage for 2021:

Hours usage for 2022:

Hours usage for 2023 ytd:

Anticipated future annual usage:

Percent operation in BAAQMD jurisdiction:

Replacement Equipment

Year of manufacture of replacement equipment engine:

Tier and fuel type of replacement equipment engine:

HP of replacement equipment engine:

Replacement equipment cost (base equipment only):

Retrofit filter make and model (or N/A if opting out):

Retrofit filter+labor cost (or N/A if opting out):

1. Request a Cost-Effectiveness request form from any Off-Road staff member
2. District staff will provide an estimate of potential grant funding
3. Dealer discusses grant estimate with the customer to determine if they are a good candidate to proceed with an application



Grant Process

Dismantler has 60 days from date of delivery to destroy equipment and have it inspected by an Air District inspector

Applicant submits application

- Applicant applies for grant and receives project approval
- MSC/BOD approval needed for \geq \$500K projects
- Dealer/District inspects old equipment listed on application

Contract execution

- Contract drafted and executed by applicant and Air District
- Dealer orders and takes delivery of new equipment
- Grantee delivers old equipment to dealer

New equipment released

- Dealer takes delivery of new equipment
- Dealer/District inspects new equipment and approves it for delivery to Grantee
- Old equipment is sent to be dismantled/scrapped within 60 days

Old equipment destroyed

- Old equipment is destroyed per specifications provided by the District
- District inspects and approves destroyed equipment

Payment

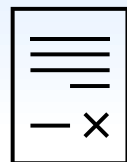
- The payment documentation is submitted for payment
- Payment issued in 30 days of receiving complete payment documentation



The Dealership Role



Participate in mandatory District training to become a District-approved CMP Dealer



Be an approved dealership in the Bay Area and adhere to the dealer contract with the Air District



Provide potential applicants with accurate program information and run preliminary cost-effectiveness requests with the Air District



Assist customers with online registration and application completion



Assist applicants in submitting all required supporting documentation for each project

Note: Dealers can provide assistance with an applicant's online application as a third-party but **cannot** submit applications on behalf of an applicant



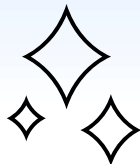
The Dealership Role (cont.)



Conduct the pre-inspections of the baseline equipment and submit inspection documents



Order new equipment or arrange for any applicable installations



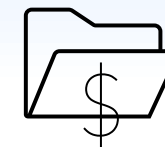
Coordinate the post-inspection of the new equipment with the Air District



Coordinate destruction inspection of the baseline equipment following Air District guidelines



Obtain salvage yard receipt and signature for payment documentation



Submit final payment paperwork to the Air District for reimbursement

Note: Dealers are subject to audit inspection by the Air District or California Air Resources Board staff



Application Assistance

All applications must be submitted online at www.baaqmd.gov/moyer

Required documents to be collected and attached to the application

1. Ownership documentation showing at least two years of ownership (e.g., Bill of Sale, tax or insurance records, appraisals or surveys, or service records)
2. Usage documentation (for the previous 24 months from the time of application submission) signed and dated with language certifying its accuracy
3. General Liability Insurance (current and future coverage if it will soon expire)
4. Compliance documentation through the California Air Resources Board signed and dated with language certifying it is accurate and true
 - 1) DOORS fleet list, 2) summary compliance snapshot with compliance status, and 3) DOORS generated list of previously funded equipment
5. Quote and manufacturer specs sheet for the replacement equipment
6. CARB Engine executive orders (EO) for the new and old engine
7. BAAQMD signed regulatory compliance statement



Quote Itemization

Replacement Tractor	Cost	Notes
Unit 1	\$ 73,000.00	
CAB	\$ -	Only available with CAB, baseline equipped with CAB
Loader	\$ 23,000.00	Baseline equipped with loader
Loader Arm Att	\$ 5,000.00	Attachment needed to install loader
Light Kit	\$ 1,400.00	Customer requested additional lights (not on baseline)
Ag Tax 3.5%	\$3,535.000	
	\$114,885.00	



DOORS Compliance Documents

Required DOORS documents to be collected and attached to the application

- 1) DOORS fleet list with EIN numbers showing fleet size
- 2) summary compliance snapshot showing compliance status, and
- 3) DOORS generated list of previously funded equipment

Your fleet, as currently reported, has met the off-road regulation requirements through the January 1, 2015 compliance date because it has earned BACT credits that will be applied towards the required BACT amounts through the January 1, 2015 compliance date. You will need to take action prior to December 31, 2015 in order for your fleet to be in compliance on January 1, 2016.

This determination is based on the make up of your CURRENT fleet in DOORS, which includes age and horsepower of engines, retrofits (if any), vehicles sold credits, if any, exempt vehicles such as Low Use (if any), subfleets (if any), and other credits (if any).

Current Fleet Statistics

Fleet Size	Large
Number of Vehicles:	
In Fleet Average	10
Low Use	0
Exempt Not Low Use	0
Total Vehicles (in fleet average)	10
Total Horsepower (in fleet average)	7,000
First Compliance Date	January 1, 2014
Next Required Compliance Date	January 1, 2016

Owner Information **Vehicle & Engine** VDECS Compliance Snapshot

Engine Repower Low-Use **Vehicle Funding** Non Standard Engine Non Diesel Engine Long-Term Rental

Search Vehicle By EIN: Search Vehicle

Show Page: 1 (200 rows per page) Show All Rows

Display Summary Fields Display All Fields

There are 5 vehicles for DOORS ID: 17147

The [redacted] are missing information fields. Please provide the missing information. Two-engine vehicles will display 2 rows with the same vehicle information but different engine information. To see vehicles with missing engines, please sort by Eng MY. * Show the most recently entered/edited vehicles on top.

Line #	Vehicle Information						Engine Information							
	EIN	Veh Serial #	Your Veh #	Veh Type	Veh Manufacturer	Veh Model	Eng Serial #	Eng Manufacturer	Eng Model	Eng MY	Eng Tier	Eng Family		
1	WC9WB6	990855222		Cranes	VAC CON	12321	2011	995959595	CHRYSLER LLC	12122111	2011	68	T3	5283963
2	UJ3T67	8645132		Bore/Drill Rigs	AICHI	asdf	2009	8687451	AGCO	8956	2007	60	T2	8645132
3	PG4L53	951753258456		Excavators	SUNWARD	okmjuh8	2007	789456123	CUMMINS ENGINE CO., INC	9s5d5	2007	60	T2	sdjfdjfdj
4	UJ3T67	8645132		Bore/Drill Rigs	AICHI	asdf	2009	325556	AGCO	8956	2007	60	T2	8645132
5	NC8X65	3454657675252		Bore/Drill Rigs	A&L	454	2000	3453465465AAA	AGCO	565	2000	50	T1U	456545654
6	TAMM45	251251023	86654321	Cranes	ABI	hfgm	2009	546464	AGCO	sfgh	2009	150	T3	af m
7	NC8X65	3454657675252		Bore/Drill Rigs	A&L	454	2000	3453465465	AGCO	565	1994	50	T0	456545654

Contact info:

DOORS Phone Number: 877-593-6677

DOORS Website:

https://ssl.arb.ca.gov/ssldoors/doors_reporting/doors_login.html

Line #	Vehicle Information						Engine Information			VDECS Information		Funding Information					
	EIN	Veh Serial #	Your Veh #	Veh Type	Veh Manufacturer	Eng Manufacturer	Eng MY	Eng HP	VDECS Family Name	VDECS Serial Number	Funding Source	Funding Sponsor	What was funded?			Date Contract Begin	Date Contract End
Add/Edit													Vehicle Replacement	Engine Repower	Retrofit (VDECS)	(yyyy-mm-dd)	(yyyy-mm-dd)
1	SL8V79	23456789		Crawler Tractors	ABG	CASE CORPORATION	1996	1000									



Inspections Overview

Pre-Inspection:

- Inspection of baseline equipment to verify information and equipment operability
- Must be able to document model year and HP in order to calculate emission reductions
- Occurs prior to project approval for funding

Post-Inspection:

- Inspection of replacement equipment to verify information and equipment operability
- Occurs after project approval but prior to equipment being released to grantee
- Air District staff will notify you if the inspection has been approved and when the old equipment can be sent to be destroyed

Destruction Inspection:

- Inspection of destroyed baseline equipment to verify destruction in accordance with District guidelines
- Occurs no more than 60 days after grantee takes custody of the replacement equipment



Inspection Leads

Performed by the Dealer:

- Pre-Inspections for unregulated (i.e., agricultural) equipment are typically performed by the dealer
- The dealer takes the required photos of the baseline equipment and fills out the provided inspection form to verify operability
- Dealer provides photos and completed inspection form to the Air District

Performed by the District:

- All regulated pre-inspections, post-inspections, and destruction inspections



District Inspection Process

Virtual:

- Virtual inspections are done live-streamed through a video device (e.g., a smartphone or tablet)
- Either the dealer or applicant must handle the video device during the inspection (no third-parties)
- Prior to the inspection, Dealer or Applicant must provide:
 - Required photos of the equipment
 - Signed affidavit stating provided photos are an accurate and true representation of the equipment
- District will complete the inspection form

In-Person:

- District will send a District Inspector on-site to perform all aspects of the inspection
- There must be someone available to show District Inspector the equipment and infrastructure (if applicable)



Destruction Inspection

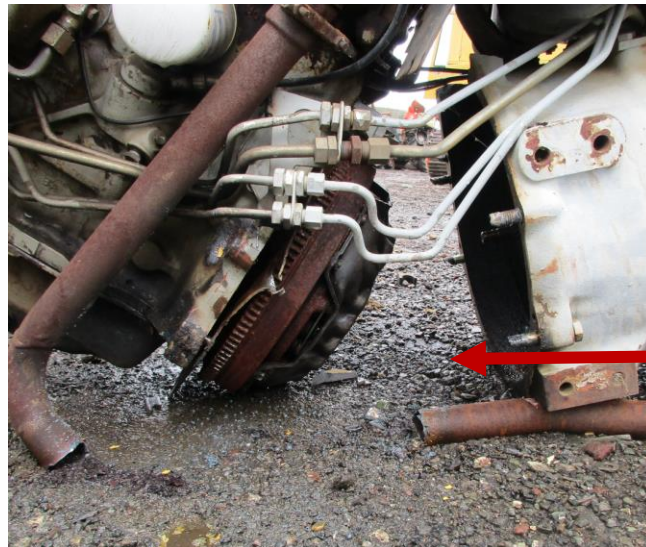
- Baseline equipment must be scrapped, and destruction inspection must be completed, no more than 60 days after the grantee takes custody of the replacement equipment.
- Destruction Requirements:
 - Destroyed engine block must have a jagged cut at least three inches at the narrowest point, the hole must be irregularly shaped, and a section of the oil pan flange must be removed as part of the hole or have a line cut through it that connects the hole
 - The chassis, or equivalent, must be cut in such a manner as to make it permanently unusable and irreparable
 - Permanent frame rails running the length of the equipment must be completely severed between the front and rear axles, removable/bolt-on frame rails or without frame rails must incur structural damage with cuts or otherwise that renders the main body of the equipment inoperable and unrepairable, and articulated equipment must incur cuts or otherwise to the articulation joints of front and rear halves of the equipment so that neither half can be joined.
- **Please ensure that equipment and engine serial numbers are still visible on the destroyed equipment at the time of destruction inspection.**



Example Destruction Photos



**Irregularly
shaped 3" hole
in the engine
block**



**Severed
frame**



Recent Program Changes

- Non-Agricultural Projects: Priority Areas only; Geographic Eligibility Form required
 - Agricultural projects: any location; no Geographic form required
- Increase cost-effectiveness limits:
 - \$34,000/ton pollutants reduced for diesel to diesel
 - \$522,000/ton pollutants reduced for zero-emission
- Accelerated application review timelines: 5 business days
- Horsepower increases: 135% and beyond (customer pays in some situations)



Recent Program Changes, cont.

- Eligible costs expanded: ***essential to ensure replacement equipment can perform the same function as the baseline***
 - This also includes freight & shipping
- Need from you:
 - Robust description of the baseline equipment functions
 - Communicate about how you propose to build or outfit the equipment—what considerations
 - Justifications of itemized costs
 - Clearly mark ineligible costs (optional, upgrades, etc.)



Recent Program Changes, cont.

Replacement Tractor	Cost	Notes
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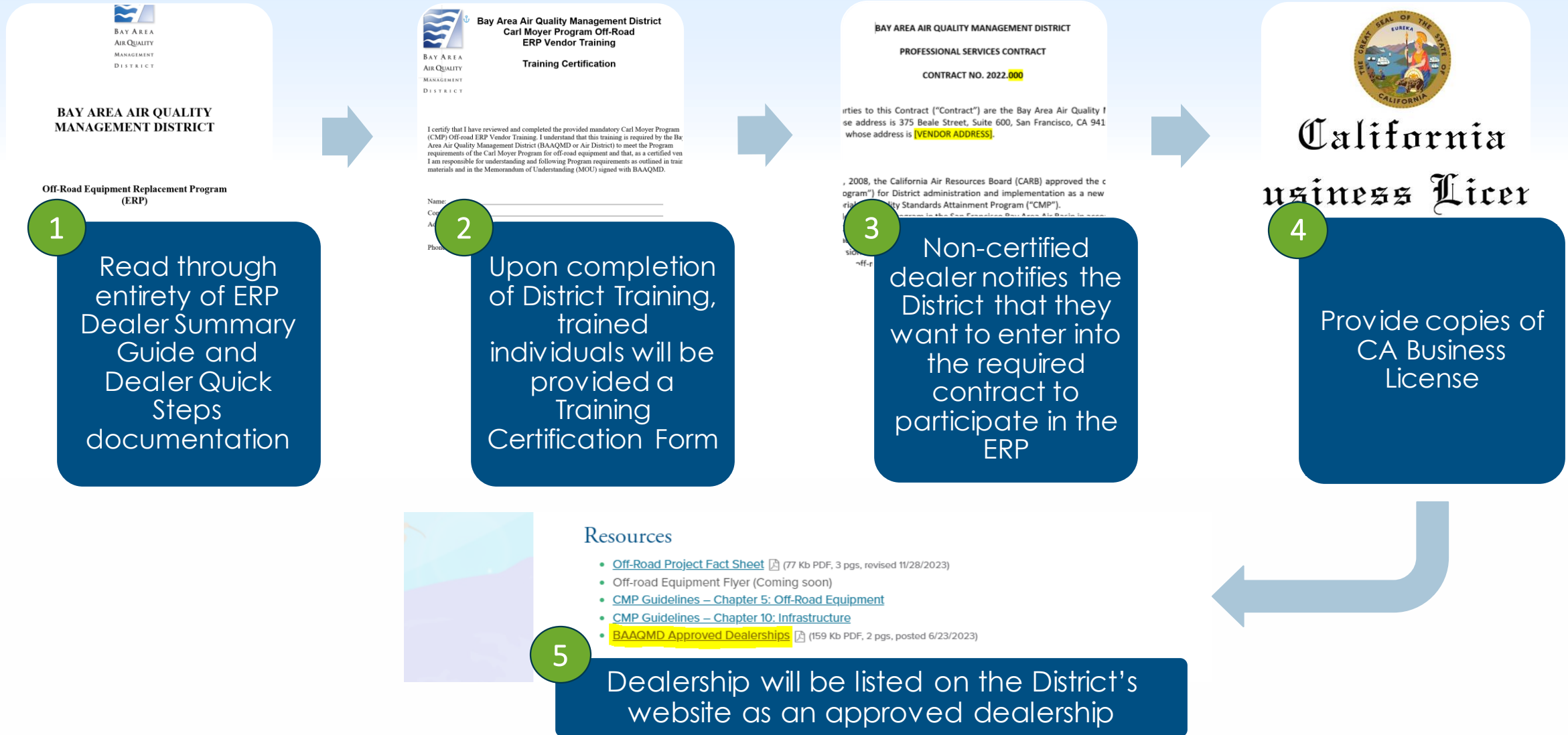


Forklift Eligibility Updates

- CARB new rule: Zero Emission Forklifts: June 2024
- Once rule is adopted, opportunities for Class 4 and 5 Large Spark Ignition forklifts will be very limited
 - Includes propane, LPG, gasoline forklifts
 - (Not applicable to diesel forklifts)
- March 28, 2024 – Moyer closes – urgent to get forklift applications in.
- Exception: if lift capacity is 8,001 lb or better, eligibility remains for the VW program



Becoming an Approved Dealer





Additional Resources

Clean Off-Road Equipment Voucher Incentive Project: <https://ww2.arb.ca.gov/our-work/programs/clean-off-road-equipment-voucher-incentive-project>

California CORE website: <http://californiacore.org/>

California Air Resources Board

- Diesel Hotline: 866-6DIESEL or email: 8666diesel@arb.ca.gov
- The Off-Road Zone: <https://ww3.arb.ca.gov/msprog/offroadzone/offroadzone.htm>

CA Volkswagen Mitigation Trust: <https://www.californiavwtrust.org/zero-freight-marine/>





Contact Information

Carl Moyer Program: www.baaqmd.gov/moyer

Community Health Protection Program: www.baaqmd.gov/ab617grants

Staff	Program	Email Address	Phone Number
Jessica DePrimo	Off-Road & Agriculture	jdeprimo@baaqmd.gov	(415) 749-4693
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Kenneth Mak	On-Road	kmak@baaqmd.gov	(415) 749-8660
Clair Keleher	School Bus	ckeleher@baaqmd.gov	(415) 749 4692
Yu Zhang Liu	Marine Vessels & Locomotive	yliu@baaqmd.gov	(415) 749-8430

The image shows a vast, aerial view of a sea of white, fluffy clouds. The clouds are dense and cover most of the lower two-thirds of the frame. Above the clouds, the sky is a clear, light blue, with a few wispy clouds near the horizon. The overall scene is bright and airy.

Questions?