

**ELECTRIC FORKLIFT COMPONENT  
HEAVY-DUTY ENGINE  
EMISSION REDUCTION INCENTIVE PROGRAM  
GUIDELINES, POLICIES, AND PROCEDURES**

**SECTION I  
INTRODUCTION**

The San Joaquin Valley Air Pollution Control District (SJVAPCD) is seeking applications to reduce emissions from forklifts, according to the terms and conditions described in these guidelines. Funds for this program are derived from the Carl Moyer Memorial Air Quality Standards Attainment Program.

The purpose of the Heavy-Duty Engine Emission Reduction Incentive Program (Heavy-Duty Engine Program) is to assist the SJVAPCD in attaining federal and state air quality standards by encouraging the early introduction of heavy-duty motor vehicle reduced-emission technologies. The widespread use of lower-emitting heavy-duty motor vehicles can provide significant improvements to air quality in the San Joaquin Valley.

The SJVAPCD is providing incentives to municipalities, government agencies, private companies, fleet operators, and individuals interested in the purchase of:

- **New original equipment manufacturer (OEM) electric motors for forklifts.**
- **Replace an existing internal combustion engine (ICE) forklift with an electric forklift.**

The Heavy-Duty Engine Program provides incentive funds toward the differential cost associated with the reduced-emission technology as compared with the cost of conventional technology. Funds are available for electric forklifts that meet specific program criteria on a first-come, first-serve basis until the program funds are exhausted. Forklifts are used in a wide variety of applications, including, but not limited to, manufacturing, construction, retail, meat and poultry processing, lumber and building supplies, trades, agriculture, and a variety of warehouse operations.

These guidelines describe the policies and procedures of the Electric Forklift Component of the Heavy-Duty Engine Program. For application materials only, please call:

**(559) 230-5858**

For further information please contact:

**Northern Region**  
Modesto  
(209) 557-6400

**Central Region**  
Fresno  
(559) 230-5800

**Southern Region**  
Bakersfield  
(661) 326-6900

**SECTION II  
BACKGROUND**

The SJVAPCD is comprised of eight (8) counties: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and the San Joaquin Valley portion of Kern. The SJVAPCD does not meet the health based National Ambient Air Quality Standards (NAAQS) for ozone and particulate matter ten (10) microns or less in diameter (PM-10), and is required to implement strategies that will result in emissions reductions. Nitrogen oxides (NOx) are an important factor in the formation of ozone and secondary PM-10. Heavy-duty motor vehicles are a significant source category that provides an opportunity to pursue cost-effective emission reductions.

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**SECTION III  
ELIGIBLE  
PARTICIPANTS  
AND FORKLIFTS**

Any individual, company or public agency may apply to receive an incentive under this program.

The criteria for **eligible forklifts** are as follows:

- The equipment is an electric forklift:
  - ◆ Rated Class 1 (lift code 5) four wheel sit-down counterbalanced model, cushion tire, or
  - ◆ Rated class 1 (lift code 6) four wheel sit-down counterbalanced model.
- The electric forklift is:
  - ◆ Replacing an older non-electric forklift in existing business/fleet, or
  - ◆ Part of business fleet/expansion, or
  - ◆ For new facility or business.
- All eligible projects must also include the installation of battery chargers that correspond to the number of forklifts purchased.
- For existing, new, and expanding facilities, all forklifts must be purchased new, and rated for a minimum lift capacity of 6,000 pounds.
- All expanding facilities must provide documentation that indicates a significant physical change in the facility, such as a 25% or greater increase in square feet.
- All eligible projects will be required to have an hour meter on each forklift, and track annual hours of operation.
- All applicants must sign a declaration that the applicant is not replacing an old electric forklift with a new electric forklift.
- For existing facilities, the ICE forklift which is being replaced must have an engine rated for 50 horsepower or greater.

- Forklifts used in commercial (passenger) and military airport operations were not included in the forklift emissions inventory. However, they may be eligible for funding provided they meet both forklift and Electric Ground Support Equipment project criteria.
- All applicants must purchase new forklifts for their use. Organizations or business that rent or lease-to-own are not eligible for funding. Rental or leased equipment costs are also not eligible for funding. Rental or leased equipment costs are also not eligible for funding.
- The following are not eligible for funding under this program: food retail stores, cold storage, and confined space operations (such as freezers).
- The following forklift purchases are not eligible: standup electric forklifts (Class 1, lift code 1), three-wheel electric sit-down rider (class 1, lift code 4), narrow aisle electric forklifts (class 2) or hand/rider trucks (class 3).
- The purchase is not required by, or used to comply with, any local, state, or federal rule or regulation, Memorandum of Understanding (MOU) or Memorandum of Agreement (MOA).
- The amount of emission reduction is not required by any local, state, or federal MOU or MOA.
- **Applicants must obtain approval and have a signed, executed contract from the SJVAPCD prior to purchase and installation of an engine. Any engine purchased and installed prior to contract execution is ineligible. Note: The SJVAPCD Heavy-Duty Engine Program is not a rebate program.**

Fueling infrastructure is not eligible for funding and will not be considered under this program. Battery chargers are considered infrastructure and cannot be included as project costs.

**NOTE: All reduced emission engines or retrofit kits must be certified for sale in California and must comply with durability and warranty requirements. If the reduced emission technology is not certified by ARB, then the applicant must obtain approval from ARB prior to the submission of the application to the SJVAPCD.**

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**SECTION IV  
PROGRAM  
REQUIREMENTS**

In addition to the above engine/technology criteria, the following elements are set forth as program requirements:

- The electric forklift shall be based within the geographic area of the SJVAPCD. (*See map in Section IX*)

- Seventy-five percent (75%) or more of the equipment hours of operation will be within the boundaries of the SJVAPCD, for at least five (5) years from the date the electric forklift is placed into service.
- Simple annual reports will be required for five (5) years from the beginning of electric forklift operation. The reports shall include such information as hours of operation and details regarding maintenance.
- The incentive amount will be toward the differential cost associated with purchasing the reduced-emission technology, as compared to buying technology that meets the current ARB standards. The total incentive provided by the SJVAPCD will not exceed the NOx value of \$6.50 per pound (\$13,000 per ton) of emissions reduced. There are no guarantees that the entire differential cost will be awarded.

*[Applications for incentives that exceed this cost-effectiveness value may be submitted for evaluation, however, applicants will not receive incentives in excess of \$6.50 per pound. The applicant may use other funds to cover the remainder of the cost differential.]*

- If the equipment does not complete the minimum five (5) year term set forth in this program, a pro-rated portion of the funds must be returned to the SJVAPCD.
- Purchaser agrees that any emission reductions associated with this program will be claimed and retired by the SJVAPCD in the interest of air quality improvement for the residents of the San Joaquin Valley. Purchaser waives, for all time, the right to claim emission reduction credits which may accrue at any time as a result of this program, and agrees not to apply to the SJVAPCD or any other agency for such credits.
- Evidence of applicable insurance coverage must be provided prior to reimbursement by the SJVAPCD.
- Other co-funding is encouraged, and may be useful to cover unfunded portions of the differential cost, but is not required.

Criteria and requirements may be reviewed, as new information becomes available, and can be revised at the discretion of the Executive Director/Air Pollution Control Officer as needed.

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## **SECTION V APPLICATION/ PROGRAM PROCESS**

**T**he application and program participation process is as follows (under normal circumstances):

1. Application is submitted to the SJVAPCD.

2. The application is reviewed by SJVAPCD staff for completeness within five (5) working days of receipt of the application. If the application is incomplete, it will be returned to the applicant with a description of areas in which the application is inadequate. Any application that is not returned with the requested information within fourteen (14) calendar days for processing is rendered null and void, and resubmittal is required.
3. Complete applications will be reviewed to determine that program criteria and requirements have been met, and will be evaluated to determine estimated NOx emission reductions for the life of the engine, and the proposed incentive amount. The incentive amount will be based on the differential cost associated with purchasing the reduced-emission technology as compared to purchasing technology that meets the current ARB standards, up to \$6.50 per pound of NOx emissions reduced. The incentive will not exceed that cost-effectiveness value.
4. Existing (old) forklifts will be pre-inspected by SJVAPCD staff to verify their existence and that they are currently operating.
5. Applicant will be notified of application approval or denial within sixty (60) working days of receipt. Upon approval of the application, the SJVAPCD will prepare a simple contract for signature by the applicant and the SJVAPCD. The contract process may take several weeks to complete.
6. Funds will be awarded on a first-come, first-serve basis to all applications that meet the criteria and requirements, while program funds are available. In the event that proposals are submitted on the same day, proposals will be funded in the order of the best overall cost-effectiveness until funds are exhausted.
7. Applicant orders and places the reduced-emission technology into service within one (1) year of contract signature.
8. Applicant submits equipment invoice, receipts, and SJVAPCD Claim(s) for Payment. The SJVAPCD will review the information for compliance with all contract requirements. Additionally, the applicant and engine dealer must verify that the existing (old) engine is permanently removed from operation in California by one of the following methods:
  - Applicant and their engine dealer will provide written verification that the engine will only be used or sold for operation outside of California.
  - Applicant and their engine dealer may permanently disable the engine by welding the cylinder heads closed or punching a hole through the engine block.
  - Applicant and their engine dealer may also crush the engine and provide written verification in the form of a receipt from a scrap metal recycling operation.

9. Payment will be issued upon verification (SJVAPCD staff site visit) that the replacement (new) engine is installed and operating, and the existing (old) engine has been permanently removed from operation in California.
  10. Applicant submits simple annual reports. The SJVAPCD maintains the right to monitor the project periodically.
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**SECTION VI  
INFORMATION  
NEEDED FOR  
APPLICATION**

The applicant must provide information about each electric forklift. The following information will be required when completing the electric forklift component application. Additional information may be requested during the review process if needed.

**Applicant Information**

- Organization name, address, contact name, person with contract signing authority, phone, fax, and number of existing electric forklifts in the fleet.
- The geographic area where the electric forklift will be operated. Seventy-five percent (75%) of the electric forklift hours of operation must occur within the SJVAPCD for at least five (5) years from the beginning of electric forklift operation.

**Engine and Electric Forklift Information**

- The number of electric forklifts to be purchased.
- Types of fuel currently being used.
- Type of activity for which the electric forklift will be used.
- Estimated hours of operation per year for each electric forklift.
- The specific electric motor manufacturer, model number (engine family series) and year.
- Horsepower rating of electric motor.
- Estimated electric forklift life and replacement schedule.
- Cost of new electric forklift as compared to cost of the conventional internal combustion engine technology.
- The ARB certified emission level(s) in g/bhp-hr.
- Identify the electric forklift manufacturer/dealer.

## Maintenance

- Describe your maintenance facility and practices, including any special training required for the reduced-emission technology. If the training has not been completed, provide a time line for completion.

## Charging Facility

- Describe fully how the electric forklift will be charged.
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## SECTION VII CONTRACT REQUIREMENTS

Those projects that receive funding must enter into explicit contracts with the SJVAPCD setting forth specific performance criteria to ensure compliance with statute and audit requirements.

Contract preparation will begin immediately upon SJVAPCD approval of a project. The reduced-emission technology must be put into service within one (1) year from the date of contract signature. All projects will be reimbursed only for work completed, as project costs are incurred, documented, and verified.

Prior to receiving any funds, the grantee must provide the SJVAPCD with the following documents:

1. **SJVAPCD Claim(s) for Payment** with copies of itemized invoices and receipts.
2. **Verification of appropriate signing authority** - The signing authority must be the person authorized in the contract as the person who can act on all fiscal matters on behalf of the funded agency or entity. This may be accomplished by resolution, or the like.
3. **Verification of all insurance requirements identified in the contract** - If self-insured, a letter from a risk manager or the like will be acceptable.

The contract will require the applicant to perform adequate record keeping allowing the SJVAPCD to take credit for the emission reductions resulting from the project. It will also include reporting requirements by the applicant. Contract monitoring will be performed by SJVAPCD staff on a periodic basis. Additionally, the SJVAPCD reserves the right to conduct a fiscal audit to ensure appropriate expenditure of funds.

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## SECTION VIII INCENTIVE LEVELS

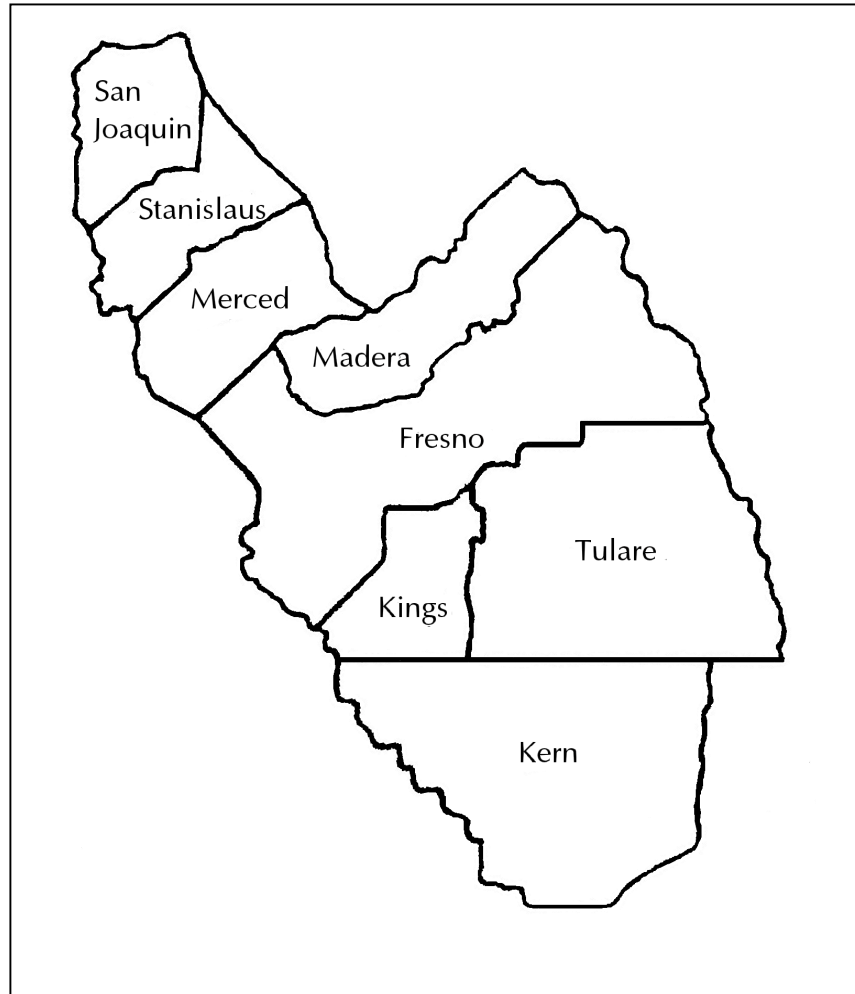
The emission reduction benefit will be calculated for NOx emissions and will be determined using the annual hours of operation.

The eligible portion of the cost for an electric forklift project to be funded through this program is the difference between the cost of purchasing a new electric forklift and buying a

conventional fuel forklift. Only the amount of money provided by the program can be used in the cost-effectiveness calculations.

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**SECTION IX  
MAP OF THE  
SJVAPCD**





**ELECTRIC FORKLIFT COMPONENT  
HEAVY-DUTY ENGINE  
EMISSION REDUCTION INCENTIVE PROGRAM  
APPLICATION**

**A**pplication to the San Joaquin Valley Air Pollution Control District (SJVAPCD) for incentive funds for the purchase of new electric forklift equipment.

Please provide the following information regarding your proposed purchase and application. Additional information may be requested during the review process if needed. Applicant acknowledges that award of cash incentive is conditional upon approval of the SJVAPCD and must meet the minimum eligibility criteria.

The applicant will be informed as to whether or not the application meets the minimum qualifications. If the application does not meet the minimum qualifications, SJVAPCD staff will provide the applicant with a list of deficiencies. If you have any questions regarding the application process, please contact the nearest SJVAPCD regional office.

**Northern Region**  
Modesto  
(209) 557-6400

**Central Region**  
Fresno  
(559) 230-5800

**Southern Region**  
Bakersfield  
(661) 326-6900

Submit applications to the following location ONLY:

**San Joaquin Valley Air Pollution Control District  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244**

✓ **CHECK LIST FOR APPLICATION ITEMS** ✓

Be sure the following items are included with your application submittal. Check each applicable box below to indicate inclusion of material.

- Completed Applicant Information Form
- Completed Existing Fleet Information
- Completed New Equipment Information
- Completed Information About Existing Forklift Being Replaced
- Completed Information for Operation/Facility Expansion or New Facility
- Other \_\_\_\_\_

✓ **CHECK LIST FOR ELIGIBILITY CRITERIA** ✓

Please check each applicable box to indicate eligibility of proposed reduced-emission engine/retrofit technology.

- The equipment is an electric forklift:
  - Rated Class 1 (lift code 5) four wheel sit-down counterbalanced model, cushion tire, or
  - Rated Class 1 (lift code 6) four wheel sit-down counterbalanced model.
  
- The electric forklift is:
  - Replacing an older non-electric forklift in an existing business/fleet, or
  - Part of business/fleet expansion, or
  - For new facility or business.
  
- The electric forklift is rated:
  - 6,000 pound or greater lift capacity (for new or expanding fleet).
  
- A battery charging unit for the electric forklift will be purchased (includes fast charger for multiple forklifts).
  
- The purchase is not required by, or used to comply with, any local, state, or federal rule or regulation, Memorandum of Understanding (MOU) or Memorandum of Agreement (MOA).
  
- The amount of emission reduction is not required by any local, state, or federal MOU or MOA.
  
- Seventy-five percent (75%) or more of the equipment fuel consumption or hours of operation will be within the boundaries of the SJVAPCD, for at least five (5) years from the date the equipment is placed into service.
  
- Applicants must obtain approval and have a signed, executed contract from the SJVAPCD prior to purchase and installation of an engine. Any engine purchased and installed prior to contract execution is ineligible. Note: The SJVAPCD Heavy-Duty Engine Program is not a rebate program.

Fueling infrastructure (battery charging unit) is not eligible for funding and will not be considered under this program.

**NOTE: All reduced emission engines or retrofit kits must be certified for sale in California and must comply with durability and warranty requirements. If the reduced emission technology is not certified by ARB, then the applicant must obtain approval from ARB prior to the submission of the application to the SJVAPCD.**

## ELECTRIC FORKLIFT APPLICATION

<b>A. APPLICANT INFORMATION</b>		
Organization/Company name:		
Business type:		
Contact name:		
Person with contract signing authority:		
Street/mailling address:		
City:	State:	Zip code:
Phone: (      )	Fax: (      )	
E-mail:		
Geographic area served by organization:		
Current operation/facility size (square feet):		
Expanded operation/facility size (square feet):		
Geographic area to be served by low-emission equipment (if different than above):		

I hereby certify that all information provided in this application and any attachments are true and correct to the best of my knowledge, and that I have read the separate Guidelines, Policies and Procedures document for this program component.

Printed Name of Responsible Party:	Title:
Signature of Responsible Party:	Date:

## ELECTRIC FORKLIFT APPLICATION SECTION

If you are replacing a non-electric forklift in your current fleet/business or if this proposed purchase is for fleet/business expansion. If you are a new facility/business, please continue to Part C.

**All requested information below must be provided.**

<b>B. EXISTING FLEET INFORMATION</b>	
1.	Number of forklifts in applicant's existing fleet:
2.	Number of non-electric forklifts in the applicant's current fleet:
3.	Business or industry of applicant:
4.	Does the applicant rent or lease forklifts to other parties?
5.	Routine work application of current forklift fleet:
6.	Is the current forklift fleet generally used inside or outside?
7.	Number of forklifts in existing fleet that are currently used on rough terrain, or inclines greater than 10%:
8.	Does the applicant currently own or lease charging equipment?

<b>C. GENERAL INFORMATION ABOUT NEW EQUIPMENT CONSIDERED FOR PURCHASE (To be filled out by all applicants)</b>			
9.	Number of electric forklifts, rated Class 1 (lift code 5 or 6) considered for purchase:		
10.	Do you intend to purchase more than one battery pack for each forklift?		
11.	Number of chargers considered for purchase:		
12.	Will the forklifts be used primarily inside or outside?		
13.	Primary function or work application of equipment:		
14a.	Estimated total annual hours of operation:	14b.	Percent within SJVAPCD boundaries:
15a.	Estimated annual electrical consumption for each forklift (kilowatt hours):	15b.	Percent within SJVAPCD boundaries:
16.	Describe how, and where the forklift(s) will be charged. <i>(for example, charge forklift overnight or when not in use, or fast charge multiple forklifts, or remove batteries from forklift to charge and replace with charged battery packs for multiple shift operations).</i>		

<b>D.</b>	<b>NEW ELECTRIC FORKLIFT (All applicants please fill out for each forklift purchased or considered for purchase)</b>
17.	Equipment make:
18.	Equipment model:
19.	Model year:
20.	Serial number:
21.	Maximum lift capacity (pounds) for each forklift:
22.	Forklift class and lift code rating:
23.	What kind of tires does the forklift have (air-filled, cushion, other)?
24.	Estimated project life (do not include a range):
25.	Estimated replacement schedule:
26.	Cost of new electric forklift (do not include battery pack):
27.	Cost of one battery pack:

<b>E.</b>	<b>GENERAL INFORMATION ABOUT THE MANUFACTURER/DEALER</b>	
Manufacturer/Dealer:		
Street address:		
City:		State:
Phone: (     )		Fax: (     )
Contact name:		

<b>F.</b>	<b>INFORMATION ABOUT EXISTING FORKLIFT BEING REPLACED (fill out if you are replacing a non-electric forklift in your existing fleet. If you are expanding your current fleet/business or are a new facility/business, go to section G)</b>		
1.	Forklift manufacturer:		
2.	Forklift model and serial number:		
3a.	Year purchased:	3b.	Year manufactured:
4a.	Manufacturer's Maximum Rated Brake Horsepower Rating:	4b.	Lift capacity (pounds) for each forklift:
5a.	Estimated annual fuel consumption (include units):	5b.	Estimated cost of replacing equipment:
6.	Primary fuel:            Diesel            Propane            Gasoline		
7.	Primary function (work application) of forklift:		
8.	Briefly describe what you intend to do with this forklift after you have purchased the new electric forklift:		

<b>G.</b>	<b>INFORMATION ON THE NON-ELECTRIC FORKLIFT THAT YOU WOULD HAVE PURCHASED IF YOU DID NOT RECEIVE FUNDING FROM THE SJVAPCD. (fill out if you are expanding your current operation/facility or are a new operation/facility)</b>		
1.	Forklift manufacturer:		
2.	Forklift model:		
3a.	Year purchased:	3b.	Year manufactured:
4a.	Manufacturer's Maximum Rated Brake Horsepower Rating:	4b.	Lift capacity (pounds) for each forklift:
5a.	Estimated annual fuel consumption (include units):	5b.	Cost if purchased new:
6.	Primary fuel:            Diesel            Propane            Gasoline		
7.	Primary function (work application) of forklift:		
8.	Name, address and telephone number of store dealer where you would have purchased the forklift:		