April and May 2019 Stakeholder Workgroup Meeting for Implementing California’s VW Mitigation Trust

Administered statewide by:
- South Coast Air Quality Management District
- Bay Area Air Quality Management District
- San Joaquin Valley Air Pollution Control District

Public Comments accepted until May 12, 2019

Online forms to submit public comments

- Zero-emission transit, school, and shuttle buses
  [www.tfaforms.com/4730802](http://www.tfaforms.com/4730802)

- Zero-emission class 8 freight and port drayage trucks
  [www.tfaforms.com/4731018](http://www.tfaforms.com/4731018)

- Combustion freight and marine projects
  [www.tfaforms.com/4731032](http://www.tfaforms.com/4731032)

- Zero-emission freight and marine projects
  [www.tfaforms.com/4731031](http://www.tfaforms.com/4731031)

- Light-duty zero-emission vehicle infrastructure
  [www.tfaforms.com/4731034](http://www.tfaforms.com/4731034)
Overview of the Volkswagen Environmental Mitigation Trust

VW Mitigation Trust Funding for California

- **Zero-Emission Transit, School, and Shuttle Bus**
  - $130M Total
  - $65M in 2019
  - $65M in 2019

- **Zero-Emission Class 8 Freight and Port Drayage Trucks**
  - $90M Total
  - $27M in 2019

- **Combustion Freight and Marine Projects**
  - $60M Total
  - $30M in 2019

- **Zero-Emission Freight and Marine Projects**
  - $70M Total
  - $35M in 2019

- **Light-Duty Zero-Emission Infrastructure**
  - $10M Total
  - $5M in 2019
### Grantee Reporting and Operational Requirements

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspections</td>
<td>Make old and new engine / vehicle available for inspection</td>
</tr>
<tr>
<td>Operations</td>
<td>Operate the “grant-funded” engine / vehicle in accordance with the contract</td>
</tr>
<tr>
<td>Payment</td>
<td>Submit request for grant funds AFTER receiving award and completing project</td>
</tr>
<tr>
<td>Reporting</td>
<td>Submit annual reports for the term of the contract (expected 3 years)</td>
</tr>
<tr>
<td>Scrapping</td>
<td>Scrap an older engine / vehicle and replace it with the “grant-funded” engine / vehicle</td>
</tr>
</tbody>
</table>

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**Zero-Emission Transit, School, and Shuttle Buses**

Administered by

San Joaquin Valley Air Pollution Control District
Zero-Emission Transit, School, and Shuttle Buses
Key Points

- Open to public and private organizations
- First Come, First Served
- $130M Total Funding
  - $65M available in 2019
- 50% of funding to disadvantaged or low-income communities

Zero-Emission Transit, School, and Shuttle Buses
Eligible Projects and Funding Amounts

$65M to Replace Class 4-8 School, Transit and Shuttle Buses

<table>
<thead>
<tr>
<th>Category</th>
<th>Funding Amount</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Buses</td>
<td>Up to $400,000</td>
<td>To replace an eligible school bus with new, commercially-available, zero-emission technology</td>
</tr>
<tr>
<td>Transit Buses</td>
<td>Up to $180,000</td>
<td>For a new, commercially-available, battery-electric bus</td>
</tr>
<tr>
<td></td>
<td>Up to $400,000</td>
<td>For a new, commercially-available, fuel-cell bus</td>
</tr>
<tr>
<td>Shuttle Buses</td>
<td>Up to $160,000</td>
<td>To replace an eligible shuttle bus with new, commercially-available, zero-emission technology</td>
</tr>
</tbody>
</table>

- Total funding for this category is $130 million, with the initial $65 million increment available in 2019
- No more than 50% of available funds in each increment will be allocated to a single bus category
- Total cost per vehicle must not exceed 75% for non-government owned and 100% for government owned vehicles
- Stacking of VW funds with HVIP and other CARB funds not allowed
Zero-Emission Transit, School, and Shuttle Buses

Tentative Schedule

<table>
<thead>
<tr>
<th>Year</th>
<th>Q2 2019</th>
<th>Q3 2019</th>
<th>2019-2023</th>
<th>Late 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>Program Development</td>
<td>Solicitation Open</td>
<td>Implementation &amp; Reporting</td>
<td>Cycle 2 Program Development</td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Zero-Emission Class 8 Freight and Port Drayage Trucks

Administered by South Coast Air Quality Management District
Zero-Emission Class 8 Freight and Port Drayage Trucks

Overview

- Total funds available: **$90 million**
- First installment: **$27 million** (starting in 2019)
- Applications will be received on a **first-come, first-served** basis
- Open to **public and private entities**
- At least **50%** of funds for projects that reduce emissions in disadvantaged or low-income communities

Eligible Vehicle Types

- **Freight Truck**
- **Dump Truck**
- **Port Truck**
- **Concrete Mixer**
- **Waste Hauler**

To be replaced with:

- **Battery Electric**
- **Hydrogen Fuel Cell**

Zero-Emission Technology
(commercially available, approved by CARB)
Zero-Emission Class 8 Freight and Port Drayage Trucks

Which Zero-Emission Vehicles Will Qualify?

Zero-emission technologies approved by CARB and available for commercial use
Zero-emission vehicles approved through the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)
Additional vendors with qualifying zero-emission vehicles in the next 1-3 years

Funding Table

<table>
<thead>
<tr>
<th>Vehicle Type</th>
<th>Engine Year (to be replaced)</th>
<th>Replacement Technology</th>
<th>Applicant</th>
<th>Maximum Funding Limit (per Vehicle)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freight Truck, Port Truck, Waste Hauler, Dump Truck, Concrete Mixer</td>
<td>1992 - 2012</td>
<td>Zero Emission</td>
<td>Government</td>
<td>Up to $200,000 (Not Exceed 100% of Total Cost)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Non-government</td>
<td>Up to $200,000 (Not Exceed 75% of Total Cost)</td>
</tr>
</tbody>
</table>
Zero-Emission Class 8 Freight and Port Drayage Trucks
Tentative Schedule

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>Q1-Q3 2019 Program Development</td>
</tr>
<tr>
<td></td>
<td>Q4-2019 Begin Awards and Contracting</td>
</tr>
<tr>
<td>2020</td>
<td>2019-2023 Implementation &amp; Reporting</td>
</tr>
<tr>
<td>2021</td>
<td>Late 2021 Cycle 2 Program Development</td>
</tr>
</tbody>
</table>

Combustion Freight and Marine Projects

Administered by South Coast Air Quality Management District
Combustion Freight and Marine Projects

Overview

- Total Funds Available: **$60 million**
- Funding will be disbursed in **two installments**
- First installment: **$30 million**
- Projects will be selected through a **competitive solicitation**
- SCAQMD to release the solicitation in **3rd or 4th quarter** of 2019
- At least **50% of funds** for projects that benefit disadvantaged or low-income communities

Combustion Freight and Marine Projects

<table>
<thead>
<tr>
<th>Eligible Vehicle Types</th>
<th>Technology Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 7 &amp; 8 On-road vehicles (GVWR &gt; 26,001 lbs)</td>
<td>Optional Low NOx (0.02 g/bhp-hr)</td>
</tr>
<tr>
<td>Locomotive</td>
<td>Tier 4</td>
</tr>
<tr>
<td>Marine</td>
<td>Tier 4 or hybrid with Tier 4-equivalent NOx emissions</td>
</tr>
</tbody>
</table>

- Project may include an engine repower or vehicle replacement
- Projects in this category will be ranked based on cost-effectiveness for NOx emissions
- Priority will be given to projects that reduce emissions in disadvantaged or low-income communities
### Combustion Freight and Marine Projects

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Engine Year (to be replaced)</th>
<th>Replacement Technology</th>
<th>Project Type</th>
<th>Applicant Type</th>
<th>Maximum Percentage of Project Cost</th>
<th>Maximum Funding Cap (per Engine/Vehicle)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freight Truck, Waste Hauler, Dump Truck, Concrete Mixer</td>
<td>1992 - 2012</td>
<td>Low NOx (certified at 0.02 g/bhp-hr)</td>
<td>Replacement</td>
<td>Non-Government</td>
<td>25% (or 50% for Class 8 Port Drayage)</td>
<td>$85,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Government</td>
<td>40%</td>
<td>$35,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Government</td>
<td>100%</td>
<td>$50,000</td>
</tr>
<tr>
<td>Freight Switcher Locomotive</td>
<td>Pre-Tier 1</td>
<td>Tier 4</td>
<td>Replacement</td>
<td>Non-Government</td>
<td>25%</td>
<td>$1,350,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Government</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Non-Government</td>
<td>40%</td>
<td>$1,000,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Government</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Ferry, Tugboat, Towboat</td>
<td>Pre-Tier 3</td>
<td>Tier 4, or Hybrid w/Tier 4-equivalent NOx emissions</td>
<td>Repower</td>
<td>Non-Government</td>
<td>40%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Government</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

### Tentative Schedule

<table>
<thead>
<tr>
<th>Year</th>
<th>Q1-Q2</th>
<th>Q3</th>
<th>Q4-Q2</th>
<th>Q3</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
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</tr>
<tr>
<td>2021</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Q1-Q2 2019**: Program Development
- **Q3 2019**: Solicitation Open
- **Q1-Q2 2020**: Awards and Contracting
- **2020-2024**: Implementation & Reporting
- **Q3 2021**: Cycle 2 Program Development
Zero-Emission Freight and Marine Projects

Key Points

- Open to public and private organizations
- Competitive Solicitation
- $70M Total Funding; $35M available in 2019
- 75% of funding to disadvantaged or low-income communities
Zero-Emission Freight & Marine Projects
Eligible Projects and Funding Amounts

$35M total, awards* up to:

- **Incremental cost**
  - Replace airport ground support equipment and vehicles
    - for starting aircraft, aircraft fueling & maintenance, transporting & loading passengers & cargo, baggage handling, lavatory & food service etc.
  - Replace heavy-lift forklift, port cargo handling equipment
    - e.g., reach stackers, side loaders, top loaders >8,000 lbs capacity, rubber-tired gantry cranes, terminal tractors, yard hosts & tractors
  - Repower ferry, tug & towboat;
    - Install shore power
    - all-electric & fuel cell for repowers; cables, cable management, coupler, distribution control systems, & power distribution for shore power

* May not exceed 75% of costs for non-government-owned vehicles and equipment

Zero-Emission Freight & Marine Projects
Tentative Schedule

<table>
<thead>
<tr>
<th>Year</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q2 2019</td>
<td>Program Development</td>
<td>Early 2020</td>
<td>Awards and Contracting</td>
</tr>
<tr>
<td>2020-2023</td>
<td>Implementation &amp; Reporting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q3 – Q4 2019</td>
<td>Solicitation Open</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Light-Duty Zero-Emission Infrastructure

Administered by
Bay Area Air Quality Management District

$5M total, awards up to:

- 100% of costs
- 80% of costs
- 60% of costs

- Public chargers
- Government owned properties

- Public chargers
- Privately owned properties

- Non-public chargers
- Workplaces & multi-unit dwellings

50% of funds to disadvantaged or low-income communities

Fill Gaps
physical & funding gaps

Competitive Solicitation

Light-Duty Zero-Emission Infrastructure
EV Charging Stations Key Points & Funding
Light-Duty Zero-Emission Infrastructure
Hydrogen Stations Key Points & Funding

Projects awarded by CEC are eligible

$5M
Total Funding

Up to 33% of costs

Light-Duty Zero-Emission Infrastructure
Tentative Schedule

Q3 – Q4 2019
Solicitation Open

Q2 2019
Program Development

2019

2020

2020-2023
Implementation & Reporting

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