

# State of New Jersey

Department of Environmental Protection

PHILIP D. MURPHY Governor CATHERINE R. McCABE Commissioner

SHEILA Y. OLIVER Lt. Governor

### **PROJECT PROPOSAL**

### **OVERALL GOAL**

The State of New Jersey, as a beneficiary of the Trust established pursuant to the national Volkswagen settlement, intends to use its allocation from the mitigation trust to efficiently implement projects that reduce oxides of nitrogen (NOx) emissions in a cost effective and technically feasible manner. The implemented projects must meet the criteria of the Consent Decree. New Jersey is issuing this solicitation for project ideas to ensure a broad range of project ideas are considered.

NJDEP anticipates primarily funding pilot electrification projects, including the replacement of heavy-duty vehicles/engines such as buses, trucks, and non-road equipment in urban areas disproportionately impacted by diesel emissions, as well as electric vehicle charging/fueling infrastructure installation in strategic locations across the state.

Submissions must contain all the information outlined in the "Project Proposals" section of this document.

#### ELIGIBLE PROJECTS

A general summary is below. Click here for comprehensive list and associated definitions.

Source Category	Emission Reduction Strategy	Allowed Expenditure Amount
1. Class 8 local freight trucks & port drayage trucks	Repower and replacement	Up to 40% for repower with diesel or alternative fuel or up to 75% (up to 100% if government owned) for repower with electric. Electric charging infrastructure costs are an eligible expense. Up to 25% for replacement with diesel or alternative fuel or up to 75% (up to 100% if government owned) for electric replacement. Electric charging infrastructure costs are an eligible expense.
2. Class 4-8 school bus, shuttle bus or transit bus	Repower and replacement	Same as row 1
3. Freight switching locomotives	Repower and replacement	Same as row 1
4. Ferries/Tugs	Repower	Same as row 1
5. Oceangoing vessels	Shorepower	Up to 25% for shore side infrastructure if non- government owned (up to 100% if government owned)

Source Category	Emission Reduction Strategy	Allowed Expenditure Amount
6. Class 4-7 local freight trucks	Repower and replacement	Same as row 1.
7. Airport ground support equipment	Repower and replacement	Up to 75% to repower or replace with electric (100% if government owned). Electric charging infrastructure costs are an eligible expense.
8. Forklifts and Port Cargo Handling Equipment	Repower and replacement	Up to 75% to repower or replace with electric (100% if government owned). Electric charging infrastructure costs are an eligible expense.
9. Electric vehicle charging stations or hydrogen fueling stations for light duty vehicles only		Up to 100% to purchase, install and maintain infrastructure if available to public at <i>government</i> <i>owned</i> property. Up to 80% to purchase, install and maintain infrastructure if available to public at <i>non-</i> <i>government owned</i> property. Up to 60% to purchase, install and maintain infrastructure at a workplace or multi-unit dwelling that is not available to the general public. Up to 33% to purchase, install and maintain infrastructure for publicly available hydrogen dispensing that is high volume or 25% for lower volume.

# **PROJECT PROPOSALS (Open with Adobe Reader)**

Electronic submittals are preferred and should be sent to <u>VWComments@dep.nj.gov</u>, however paper submittals will also be accepted and should be sent to:

NJDEP Division of Air Quality Mail code 401-02E Trenton, NJ 08625-0420 <u>Attn:</u> VW Settlement

All proposals must contain the following information; incomplete applications will not be considered. If your project is selected, you may be contacted for additional detailed information. Send questions to <u>VWComments@dep.nj.gov</u>

To enter information electronically, use Adobe Reader

#### **CONTACT INFORMATION**

Applicant Name	
Applicant Address	
City, State, Zip Code	
Contact Person	
Title/Position	
Phone	
E-mail	
Owner Name	
Owner Address	
City, State, Zip Code	
Contact Person	
Title/Position	
Phone	
E-mail	

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**PROJECT PRIORITY**Priority #ofproposalsIf submitting more than one proposal, what is the sponsor's priority of this proposal?

# NOTE FOR CATEGORY 9 PROPOSALS

If your proposal is for Category 9 (Light Duty Zero Emission Vehicle Supply Equipment), follow these instructions:

<u>Electric Vehicle stations</u>: Do not complete this form. Instead, go to <u>It Pay\$ to Plug In – NJDEP's</u> <u>Electric Vehicle Charging Grants Program</u>, and apply for a Charging Grant. Volkswagen funds for charging stations will be administered through *It Pay\$ to Plug In*.

Hydrogen fuel cell vehicle supply equipment: Complete all of the questions on this form.

#### PROJECT BUDGET

Provide total estimated project budget, include source, amount of cost share, and administrative costs if applicable:

**PROJECT DESCRIPTION** (Briefly describe the project by completing the following questions)

Geographic area where emissions reductions will occur?

Estimated size of population benefitting from the emission reductions?

Estimated useful life of the project?

Number of engines/vehicles/vessels/equipment included in the project?

DEP will be modeling emission benefits for all projects. Please provide the necessary information below:

Model Year

Horsepower

Annual hours of use

Annual amount of fuel used

Will the project benefit one or more communities that are disproportionately impacted by air pollution? If so, please describe?

Only shovel ready projects will be considered. Please list project partners.

Estimated timeframe for implementation? Include a project timeline that identifies start and end dates, as well as the timeline for key milestones.

Demonstrated success in implementing similar projects?

If your proposed project involves alternative fuels, provide a demonstration of current or
future plans to provide adequate refueling infrastructure.

Has your organization been approved to receive and expend any other grant funds related to this project? If so, please provide details.

Please provide any additional information that supports this project.

Two additional pages have been provided as supplemental space to answer any of the questions above.

Supplemental Page 1

#### **Supplemental Information**

The unique characteristics of garbage trucks are that they: (i) drive very slowly, where the engine efficiency is very low and emissions correspondingly high; and (ii) are frequently stopped in idling mode, continuing to emit pollutants while loading. This results in a diesel fuel consumption of only about 3 miles per gallon, whereas a drayage truck usually realizes about 5 or 6 miles per gallon of fuel consumed.

USEPA data for a 2008 truck shows that NOx emissions at slow speeds are seven times (7X) greater than for trucks moving at cruising speeds. Garbage trucks spend most of their duty cycle time driving through communities causing direct exposure at the receptor level to the carcinogenic by-products of diesel fuel combustion, made even worse by the slow speed of travel.

A USEPA document shows the difference in NOx emissions for a 15,326 pound 2008 truck, depending on differing modes of drive operation (note "creep" mode):



The same document also shows the following chart for a cyclical driving cycle of a garbage truck (speed vs. time):



Speed Profile for Driving Cycle ID 201