PLEASANTVILLE

State of New Jersey

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

Department of Environmental Protection

BOB MARTIN
Commissioner

PROJECT SOLICITATION

OVERALL GOAL

The State of New Jersey, as a potential 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. Additional opportunities will be provided for public input during the upcoming months.

Submissions must be received by January 31, 2018 and 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 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 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)

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 (up to 100% if government owned). Electric charging infrastructure costs are eligible expense.
8. Forklifts and Port Cargo Handling Equipment	Repower and replacement	Up to 75% to repower or replace with electric (up to 100% if government owned). Electric charging infrastructure costs are 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 *government owned* property. Up to 80% to purchase, install and maintain infrastructure if available to public at *non-government owned* 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 up to 25% for lower volume.

PROJECT PROPOSALS

Proposals must be submitted by close of business on January 31, 2018. Electronic submittals are preferred and should be sent to VWComments@dep.nj.gov 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
Attn: 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 VWComments@dep.nj.gov

To enter information electronically use Adobe Reader

CONTACT INFORMATION

Organization Name	City of Pleasantville
Organization Address	18 N First Street
City, State Zip Code	Pleasantville, NJ 08232
Contact Person	Linda Peyton
Title/Position	City Administrator
Phone	(609) 484-3603
E-mail	lpeyton@pleasantvillenj.us

PROJECT NAME	EVCS Installation in Pleasantville, NJ

PROJECT CATEGORY OR CATEGORIES (choose from 1-9 in "Eligible Projects" section above)

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☑

PROJECT PRIORITY Priority # 1 of 1 proposals

If submitting more than one proposal, what is the sponsor's priority of this proposal?

PROJECT BUDGET

Provide total estimated project budget, include source and amount of cost share if applicable.

Funding is requested to purchase, install and maintain a dual head Level 2 EVCS that are rated at 25 mph or more. These EVCS will be installed on City owned property at City Hall. Total cost $40,000.

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

Geographic area where emissions reductions will occur? New Jersey & Pennsylvania

Estimated size of population benefitting from the emission reductions? 5 million

Estimated useful life of the project? 10 years

Number of engines/vehicles/vessels/equipment included in the project? 4 EVCSs

Estimated emission benefits should be expressed in tons per year (TPY) of emission reduced for NOx and for PM 2.5 over the lifetime of the project. Identify methodology used.

Estimated NOx benefits? 0.02 TPY

Methodology Used? CMAQ analysis

Particulate matter (PM 2.5) benefits? 0.00 TPY

Methodology Used? CMAQ Analysis

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

NA

Project partners, if any? City of Pleasantville and Pleasantville Green Team
Explain how the project will provide cost effective and technically feasible emission reductions. Cost effectiveness should be expressed in dollars per ton per year of emissions reduced for NOx and for PM 2.5. Electric cars produce fewer greenhouse gases, depending on the source of the electric power. Even when generated from coal-burning plants, electric cars would reduce carbon dioxide emissions by as much as 22 percent when compared to cars. Increase use of electric cars reduce the amount of smog-forming pollutants by as much as 32 to 99 percent.
Estimated timeframe for implementation? Include a project timeline that identifies start and end dates, as well as the timeframe for key milestones. Based on discussions with local suppliers of EVCSs, procurement many take 30 days and installation should be completed in 30 days.
Demonstrated success in implementing similar projects? There are many demonstrated successes in implementing similar projects. For example, Hunterdon Medical Center installed a dual charging station at the hospital in collaboration with Raritan Township using a $10,000 Sustainable Jersey grant. It is available 24 hours a day and it used by hospital employees and those who work or frequent the area.
If your proposed project involves alternative fuels, provide a demonstration of current or future plans to provide adequate refueling infrastructure. The Pleasantville EVCSs will be located adjacent to municipally owned buildings, so electric power is readily available.
Has your organization been approved to receive and expend any other grant funds related to this project? If so, please provide details. No, however, the City has applied for funding through Electrify America.
Please provide any additional information that supports this project. This project has been supported by the governing body as demonstrated by the attached resolution. Letters of support are provided by the County Executive, Senator Chris Brown and Assemblymen Mazzeo and Amato.

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

The site of the proposed installation is located in the heart of Pleasantville, in close proximity to the downtown shops and restaurants as well as the library, city hall and other public buildings.

Municipal Parking Lot (Washington Avenue)

A dual Level 2, pedestal charging station will be installed in the parking lot adjacent to City Hall. Electrical service will be run from the building to the parking spaces. The charging stations will be installed on a concrete base and two parking spaces will be marked for use by electric vehicles. The Municipal Parking Lot is located in the heart of the City's commercial district where many residents and visitor work and shop, an ideal location for EVCSs.

NJDEP, VW Settlement Grant

Installation of Electric Vehicle Charging Stations (EVCS)

City of Pleasantville, Atlantic County

Requested Grant - $20,000

Action Plan & Timeline

Impact of Project - Describe how the completion of this project will advance your energy conservation, energy efficiency, energy resilience or renewable energy efforts. Also address how the project will augment existing green team efforts and/or be a catalyst to advance your energy initiatives.

Pleasantville is a bayfront city located just west of Atlantic City. This EVCS project will continue the City's effort to encourage alternative vehicles, to reduce emissions and to reduce the use of fossil fuels. This will not only help to make Pleasantville a sustainability leader but will also accommodate and attract electric vehicle owners who are residents or are visitors to the area. By implementing this project, the Borough will qualify for the Public Electric Vehicle Charging Infrastructure Action through Sustainable Jersey. Pleasantville is actively involved in Sustainable Jersey.

PROJECT BUDGET Provide total estimated project budget.

Funding is requested to purchase, install and maintain one dual head Level 2 EVCS that are rated at 25 mph or more. These EVCS will be installed at the City Hall parking lot. The total cost is $20,000. This cost includes a 5 year network and maintenance fee.

The City has applied for Electrify America funding.

Project Description

Pleasantville has a year-round population of 20,249 and is located just west of Atlantic City, a growing tourist destination that attracts more than twenty million visitors each year, many of whom drive electric vehicles. EVCSs have been installed throughout the State of New Jersey; however, there is a significant deficiency of stations, especially in Atlantic County. The nearest charging stations are in Egg Harbor Township; however, these stations are limited to Testas. Additional EVCSs are located at the Borgata Casino Hotel, Golden Nugget Casino Hotel and the Wave Parking Garage all in Atlantic City but they are only available to customers of those facilities. There are no publicly accessible EVCSs in Pleasantville.

The site of the proposed installation is located in the heart of Pleasantville, in close proximity to the downtown shops and restaurants as well as the library, city hall and other public buildings.

Municipal Parking Lot (Washington Avenue)

A dual Level 2, pedestal charging station will be installed in the parking lot adjacent to City Hall. Electrical service will be run from the building to the parking spaces. The charging stations will be installed on a concrete base and two parking spaces will be marked for use by electric vehicles. The Municipal Parking Lot is located in the heart of the City's commercial district where many residents and visitor work and shop, an ideal location for EVCSs.

Project Partners?

City of Pleasantville and Pleasantville Green Team

Evaluation - Describe how the impact of the project will be measured. This grant does not require a rigorous or formal evaluation process. However, grant recipients are expected to report on specific and/or measurable results or outcomes and other non-quantifiable impacts.

The EVCS will be part of a network of stations so it will be advertised via the internet and GPS.

Estimated emission benefits expressed in tons per year of emission reduced for NOx and for PM 2.5 over the lifetime of the project. Identify methodology used.

Electric cars produce fewer greenhouse gases, depending on the source of the electric power. Even when generated from coal-burning plants, electric cars would reduce carbon dioxide emissions by as much as 22 percent when compared to cars. Increase use of electric cars reduce the amount of smog-forming pollutants by as much as 32 to 99 percent.

The following assumptions were used to calculate emissions benefits:

- EVCS will be used eight hours per day, 300 days per year
- EVCS charges 25 miles per hour
- Cost of EVCS is $20,000 per unit
- EVCS will offset four trips per day at 20 miles/trip for a conventional light-duty vehicle
- Each offset trip would have covered 20 miles at average speed of 35 mph
- The average fleet-level emission rates for travel at 35 miles per hour are 0.338 grams per mile for NOx and 0.013 grams per mile for $PM_{2.5}$;
- Project lifetime is ten years
- Emission rates are 0.33 grams/mile for NOX and 0.013 grams/mile for $PM_{2.5}$

Annual VMT Reduction: 20 miles/trip x 4 trips/day x 300 days per year = **24,000 miles**

Annual Emission Benefit (grams):
NOX: 0.33 x 24,000 = **7,920 grams/year** x 1 EVCS x 2 chargers per EVSE= **15,840 grams/year**
$PM_{2.5}$: 0.013 x 24,000 = **312 grams/year** x 1 EVCS x 2 chargers per EVSE= **624 grams/year**

Project Lifetime Emission Benefit (ten years):
NOX: 15,840 grams/year x 10 = 158,400 **grams**
$PM_{2.5}$: 624 grams/year x 10 = 6,240 **grams**

Explain how the EVCS will provide cost effective and technically feasible emission reductions. Cost effectiveness should be expressed in dollars per ton per year of emissions reduced for NOx and PM 2.5.

Project Lifetime Emission Benefit (ten years):
NOX: 31,680 grams/year x 10 = 158,400 **grams = 0.15 tons**
$PM_{2.5}$: 1,248 grams/year x 10 = 6,240 **grams = 0.007 tons**

NOX: $20,000/0.15 tons = $133,333/ton
$PM_{2.5}$: $20,000/0.007 tons = 2,857,143/ton

Since this grant submission is for two EVCS, the proposed project will result in lifetime emissions reductions of 0.15 tons for NOX and 0.007 tons for $PM_{2.5}$. When the project cost is divided by the

emission benefit, a cost effectiveness of $133,333/ton for NOX and $2,857,143/ton for $PM_{2.5}$ is yielded.

Data Source/Methodology: CMAQ Analysis
https://www.fhwa.dot.gov/ENVIRonment/air_quality/cmaq/reference/cost_effectiveness_tables/report/costeff02.cfm
https://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/national_transportation_statistics/html/table_04_43.html

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

Based on discussions with local suppliers of EVCSs, procurement many take 60 days and installation should be completed in 30 days.

Demonstrated success in implementing similar projects?

There are many demonstrated successes in implementing similar projects. For example, Hunterdon Medical Center installed a dual charging station at the hospital in collaboration with Raritan Township using a $10,000 Sustainable Jersey grant. It is available 24 hours a day and it used by hospital employees and those who work or frequent the area.

The demand exists in that there are 10,000 electric vehicles on the road in New Jersey and fewer than 1,000 charging stations, many of which are not accessible to the public.

There are many demonstrated successes in implementing similar projects. In Atlantic County eight EVCSs have been installed at a local supermarket however they are limited to use by Teslas. Charging stations are also located at Borgata Casino Hotel, Golden Nugget Casino and the Wave Parking Garage but they are not open to the public. All of these stations are frequently used.

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

The Pleasantville EVCSs will be located adjacent to municipally owned buildings, so electric power is readily available.

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

No, however, the City has applied for funding through the Electrify America Program.

Please provide any additional information that supports this project.

This project has been supported by the governing body as demonstrated by the attached resolution. Letters of support are provided by the County Executive Dennis Levinson, Senator Chris Brown and Assemblymen Mazzeo and Amato.

Describe locational/regional importance

Pleasantville is located just west of Atlantic City, a tourism destination that attracts over 20 million visitors annually. As a destination county it is essential that EVCSs be available throughout the region.

DVRPC has released estimates for PHEV/AEV sales for southeast PA (https://www.dvrpc.org/Reports/12055A.pdf). Southeast Pennsylvania is closely connected to southern New Jersey and accounts for a large portion of visits and travel to the region, particularly along the Shore. The Delaware Valley Regional Planning Commission predicts that by 2020 there will be more than 17,000 electric vehicles deployed in the five southeastern counties in Pennsylvania. These counties are anticipated to account for a higher proportion of EVs than any other region of Pennsylvania. Given the income characteristics of early and likely electric vehicle adopters and the prevalence of second homes in Atlantic County, it is likely that Pleasantville faces significant latent electric vehicle charging station demand, and the provision of charging stations in all Jersey Shore communities will provide visibility and emissions benefits for the region.