LION ELECTRIC

State of New Jersey
Department of Environmental Protection

Project Solicitation
LIONA & LIONC

Seman-Tov Bus Company
Memorial Dr

Neptune, NJ 07753

Tel: 732-774-4000 Fax: 732-774-4004

To Whom It May Concern,

Seman – Tov Bus Company appreciates the opportunity to present our response for the grant funding opportunity with the New Jersey Volkswagen Environmental Mitigation Trust Program. We are looking forward to being selected for thirteen (13) all-electric Type A buses and seventeen (17) Type C school buses. Seman – Tov Bus Company is responding to this Project Solicitation with the hope to accelerate adoption and deployments of zero-emissions vehicles in New Jersey; thus, improving the lives of our students, faculty and citizens the State of New Jersey.

Seman – Tov Bus Company is a family run business that started with one van in 1985. It has since grown into a large, well respected operation with over 160 vehicles serving Monmouth and Ocean counties. We provide transportation for public, private and special needs students for over 20,000 students per day. We pride ourselves on innovation, utilizing modern technology that is a gold standard in the transportation industry for the safety and reliability of our buses, drivers and maintenance staff.

We also strive to always be aware of social and environmental needs. The use of electric buses would help us to better our company, which we believe would be appreciated by our customers and staff on a daily basis and move towards the future of a greener planet and more socially conscience experience.

For the deployment of our all-electric school buses, Seman – Tov Bus Company will be partnering with The Lion Electric Co. (Lion), Lion's authorized dealer and Clipper Creek – charging infrastructure vendor, to supply our region with all our fleet electrification needs.

To date, our equipment manufacturing partner, The Lion Electric Co. has over 300 electric school buses deployed in North America, with 6,000,000 proven and driven miles on its current batteries, electric components and heavy-duty chassis. All associated performance data has been traced and documented. Designing, building and delivering electric heavy-duty vehicles is Lion's daily mandate; their experience and success will reflect on Seman – Tov Bus Company, through measurable performance, real-life client references, 100% on-time deliveries and way beyond the "early adopter" experience.

Seman – Tov Bus Company strongly supports the Volkswagen Project Solicitation and thanks the New Jersey Department of Environmental Projection for its work to date on zero-emission vehicle implementation. We hope that our response will successfully demonstrate that Seman – Tov Bus Company can fulfill New Jersey's goals by delivering and operating quality, zero-emission vehicles in a short amount of time.

We look forward to working with the New Jersey Department of Environmental Projection to implement this project.

Sincerely,

Yitzy Nagar
Vice President
Seman Tov – Inc.

State of New Jersey
Department of Environmental Protection

PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

CATHERINE R. McCABE
Commissioner

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 *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 25% for lower volume.

PROJECT PROPOSALS (Open with Adobe Reader)

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

Applicant Name	Seman - Tov Bus Company
Applicant Address	505 Memorial Drive
City, State, Zip Code	Neptune, New Jersey, 07753
Contact Person	Yitzy Nagar
Title/Position	Vice President
Phone	(732) 236-1641
E-mail	yitzy.semantov@gmail.com
Owner Name	Seman – Tov Bus Company
Owner Address	505 Memorial Drive
City, State, Zip Code	Neptune, New Jersey, 07753
Contact Person	Yitzy Nagar
Title/Position	Vice President
Phone	(732) 236-1641
E-mail	yitzy.semantov@gmail.com

PROJECT NAME	Seman – Tov Bus Company - Electric School Bus Project

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?

NOTE FOR CATEGORY 9 PROPOSALS

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

Electric Vehicle stations: Do not complete this form. Instead, go to *It Pay$ to Plug In* – NJDEP's Electric Vehicle Charging Grants Program, 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:

The amount of grant request is 100%.
The total estimated project budget will be $11,850,240.00, for the purchase of thirty (30) all-electric school buses and thirty (30) charging stations, and the cost of the charging infrastructure installation.

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

The Seman – Tov Bus Company Electric School Bus Project will see thirteen (13) Type A diesel school buses and seventeen (17) Type C diesel school buses, from our current fleet, scrapped and rendered inoperable. These school buses will then be replaced with thirteen (13) all-electric Type A school buses, and seventeen (17) all-electric Type C school buses from The Lion Electric Co. For the purposes of this application we have included the necessary information for each vehicle that we will be scrapping on a separate PDF page further down in our application. Below you will find the information for 1/30 buses that we will be scrapping.

Geographic area where emissions reductions will occur? Ocean and Monmouth County

Estimated size of population benefitting from the emission reductions? 1,225,981

Estimated useful life of the project? Minimum of 15 years

Number of engines/vehicles/vessels/equipment included in the project? Thirty (30) all-electric school buses

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

Model Year 2002

Horsepower 250

Annual hours of use 2,000

Annual amount of fuel used 1,750

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

The project will benefit the following communities: Asbury Park, Colts Neck, Freehold, Howell, Jackson, Lakewood, Little Silver, Longbranch, Malborough, Manalapan, Middletown, Neptune, Redbank, Rumson, Tinton Falls and Tom's River. Although the air quality in the State of New Jersey has improved, it still ranks among the worst in the nation because of high concentrations of ground-level ozone pollution, according to the American Lung Association. In 2017 Monmouth County was ranked number eight out of 11 counties in New Jersey that had the worst air pollution in the State, and Ocean County was ranked number five out of 11 counties. Both counties were given an "F" grade, Monmouth County had 11 unhealthy "orange alert" days and Ocean County had 16. "Orange Alert" days are those in which the air quality is considered unhealthy for children, active adults, and anyone with asthma or other respiratory ailments. Monmouth county has since progressed to a "C" grade, with a total of four "orange alert" days in 2019 and Ocean County has remained an "F" grade region, with a total of 17 "orange alert" days. Looking at the report card that the American Lung Association published for both counties one of the groups most at risk are our 275,970 children under the age of 18, of which 19,998 suffer from pediatric asthma.

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

The following project partners will be involved in this project: Seman – Tov Bus Company, The Lion Electric Co. – original equipment manufacturer, Clipper Creek – electric vehicle charging infrastructure vendor, and The Lion. Electric Co. licensed dealer – H.K. Truck Center.

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

Project Period // We will take possession of our vehicles six to nine months after a purchase order has been emitted to The Lion Electric Co. licensed dealer for the purchase of thirteen (13) Lion A all-electric school buses, and seventeen (17) Lion C all-electric school buses. Lion is committed to deliver quality products as quickly as possible based on the grant response.

Demonstrated success in implementing similar projects?

As these will be our first zero-emission vehicles we are very confident in our equipment manufacturer, The Lion Electric Co., capabilities and proven success in implementing and demonstrating success with similar projects.

Lion has deployed over 300 electric school buses, with more than six million miles of service and counting, including leading the world's largest deployment of zero-emission school buses in the US. They are global leaders in commercializing zero-emission heavy-duty vehicles and the only manufacturer to have proven capable of Vehicle-to-Grid. Lion is in a unique position to have operating data and a history of advancing technology as other OEM's are just beginning their zero-emission journey. Students across America ride Lion buses safely to-and-from school when it is in session. Lion is the most experienced in the deployment of heavy-duty electric vehicles field starting with on-time delivery, to customer service, and infrastructure support.

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

Our current school bus fleet consists of gasoline and diesel-powered units, so these vehicles will be the first zero-emission buses added to our fleet. We do not have adequate charging infrastructure to power our new all-electric refuse buses and will therefore request funding support from the Department of Environmental Protection to purchase and install these units. As per the project requirement, we are prepared to scrap thirty (30) diesel school buses and replace them with all-electric school buses, we also have plans to install the same number of charging infrastructure stations so that each bus has the required access to the electricity it needs. As our fleet is currently parked at one location, we can assure the New Jersey Department of Environmental Protection that our school bus yard can take on the addition of these charging station units, and changes to our set up.

To note, the project budget presented in this proposal includes the following estimated costs: charging station units, as well as the costs to install the charging station infrastructure. With the assistance of our project partners, they have provided us with these estimations for the purposes of this application. However, we are aware that based on our utility and the site we would choose for the placement of the charging station, these numbers could vary. Should the New Jersey Department of Environmental Protection award a grant to us for this project we would like to include all costs in the funds allocated to us.

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

We will solely apply for this funding opportunity to replace our diesel vehicles with all-electric school buses.

Please provide any additional information that supports this project.

Seman Tov – Bus Company provides busing services for public and private school districts in Monmouth and Ocean Counties. Our buses are used for daily pick up and drop offs, as well as athletic teams and summer camps.

These zero-emission school buses will fit perfectly into our daily routes because they will mimic what our scrapped diesel buses would have accomplished but without the extra fumes and incurred costs. The buses will charge overnight during non-peak hours and may be charged mid-day if needed, therefore reducing our operational costs.

The utilization of these new school buses will also reduce our maintenance costs by about 60% and energy costs up to 80% based on our preliminary evaluation. This is since the buses have no fuel, no transmission and very few moving parts. With the help of the New Jersey Department of Environmental Protection, our return on investment will occur in a minimal time frame while allowing us to significantly reduce greenhouse gas emissions while providing economic and environmental benefits to our community. In fact, one bus will reduce the amount of CO2 in the air by approximately 25 tons per year and will also reduce the noise pollution in the area. As our school bus yard is in close proximity to a residential area, noise pollution is something that we are very cautious of, and one of the major perks of replacing our diesel school buses with all-electric buses.

Since these all-electric buses will be new to our fleet, we for see these vehicles being used primarily for local school pickups and drop offs, until our drivers become more familiar with the technology. With many uncertainties surrounding the 2020-2021 school year, and social distancing being top of mind, our clients may need to adjust their service plans and request additional transportation support from us. Knowing this, it brings us great pride to have the opportunity to scrap and remove this large amount of diesel buses from our fleet, and the unhealthy greenhouse gas emissions they emit. As well, we are certain that our clients will appreciate this change and our commitment to the health and safety of their students. We are more than confident that switching to an all-electric fleet is taking a step in the right direction, and that the Lion buses we would like to purchase will go above and beyond our needs.

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

Supplemental Page 1

We have chosen to partner with The Lion Electric Co. licensed dealer in the State of New Jersey, to bring thirty (30) purpose built all-electric Lion school buses to our community, thus ensuring zero emissions throughout the state. Lion builds their own chassis, body, battery packs and design their own proprietary operating software. The buses are not retrofitted diesel vehicles, they are born to be electric.

Investing in a Lion vehicle will allow us to track our progress by calculating our average consumption through the smart charging system, and collect data through the onboard telematic touchscreen, which is unique to Lion vehicles. The operator will simply select their charging preferences through the screen to maximize charging efficiency. The onboard touch screen will serve many purposes to our operators: it registers power usage, driving efficiency through the driving interface, maintenance interface, battery state, charging interface, parameters, smart charge, and preheat. All information on the onboard touchscreen is recorded and can be extracted as a report on a regular basis to perform multiple analyses and to understand the efficiency and cost of each electric bus.

The vehicles are also equipped with electronic modules that monitor and record data from various systems, including the motor, batteries, braking, and electrical systems. The electronic modules record information about various driving and vehicle conditions, including braking, acceleration, trip distance and other related information regarding the vehicle. These modules record information about the vehicle's features such as charging events and status, the enabling/disabling of various systems, diagnostic trouble codes, VIN, speed, direction, and location.

The success of the project will be enhanced by the number of miles driven per year on the all-electric buses. The more we will use the buses, the more we will save and the better it will be for our environment and community. We will be the grantee of this grant and will operate the buses daily while analyzing the reports generated by the vehicles.

In our case, electric school buses are new to us and we will require the necessary training to help bridge our knowledge gap from diesel to electric. To ensure that our operators are comfortable using the new all-electric school buses, they will take part in the Lion Academy Training Program. The training program will be available to a wide range of stakeholders, and most importantly our transportation professionals. The training curriculum will be extremely detailed and can last up to six hours to ensure that all parties are comfortable working on the buses once they are delivered and operational. The interactive classes cover various topics such as safety, troubleshooting, electric chargers, EV components, maintenance, repairs, warranty work, driver tips, accessories, etc.

Conclusion//

As leaders in manufacturing and deploying zero-emission school buses and charging infrastructure equipment, The Lion Electric Co., their licensed dealer, and Clipper Creek are poised to immediately support Seman Tov – Bus Company. It is our strong desire to scrap thirty high pollutant diesel buses and replace them with zero-emission vehicles and the necessary charging infrastructure.

Having a shared goal of improving air quality and the health of children in all communities is what best aligns us and our project partners. Not only do our partners value focus on safety and reliability, but also the health of the communities we serve. They have invested early and deeply to develop a zero-emission technology that supports the communities in which we serve and live.

With help from the Department of Environmental Protection this program will help us to permanently remove the previously mentioned high pollutant diesel vehicles that are currently operating in our fleet, which our students, faculty and community are presently exposed to. Additionally, it will give us the opportunity to pave the way for other private contractors to join the electrification movement.

Understanding that we have many vehicles that meet the scrappage eligibility requirements, we know that requesting such a large sum of funds could hinder us from receiving an award. That said, we are committed to the electrification of our fleet and would be grateful to be awarded as many school buses and charging station units that the Department of Environmental Protection can allow.

We would like to thank the Department of Environmental Protection in the State of New Jersey for allowing us to submit a project proposal for the Volkswagen settlement funds. We look forward to working with this Department so that we may be able to provide a healthy breathing environment to students, faculty and the communities we serve.

Fleet Spreadsheet

See attached

Seman - Tov Bus Company
New Jersey Department of Environmental Protection - Volkswagen Mitigation Application
Fleet Spreadsheet

Existing Vehicle						Replacement Vehicle				
Vehicle Number	Make/Model	Model Year	Horsepower	Annual Hours	Annual Fuel	Replacement Model Year	Replacement Fuel Type	Replacement Cost	Charging Infrastrucutre	Funding Request
1	Blue Bird	2002	250	appx 2,000	1,750	2021	All-electric	$ 419,302.00	$ 10,000.00	$ 429,302.00
2	International Amtran	2004	200	appx 2,000	2,123	2021	All-electric	$ 419,302.00	$ 10,000.00	$ 429,302.00
3	Thomas Freightliner	2006	210	appx 2,000	1,675	2021	All-electric	$ 419,302.00	$ 10,000.00	$ 429,302.00
4	Bluebird	2006	220	appx 2,000	1,250	2021	All-electric	$ 419,302.00	$ 10,000.00	$ 429,302.00
5	International Amtran	2008	200	appx 2,000	1,950	2021	All-electric	$ 419,302.00	$ 10,000.00	$ 429,302.00
6	Chevy E450	2008	365	appx 2,000	1,250	2021	All-electric	$ 340,162.00	$ 10,000.00	$ 350,162.00
7	Chevy E450	2008	365	appx 2,000	1,250	2021	All-electric	$ 340,162.00	$ 10,000.00	$ 350,162.00
8	International Amtran	2009	200	appx 2,000	1,010	2021	All-electric	$ 419,302.00	$ 10,000.00	$ 429,302.00
9	GMC 3500	2009	365	appx 2,000	850	2021	All-electric	$ 340,162.00	$ 10,000.00	$ 350,162.00
10	GMC 3500	2009	365	appx 2,000	825	2021	All-electric	$ 340,162.00	$ 10,000.00	$ 350,162.00
11	Chevy E240	2009	365	appx 2,000	1,690	2021	All-electric	$ 340,162.00	$ 10,000.00	$ 350,162.00
12	Chevy E250	2009	365	appx 2,000	3,250	2021	All-electric	$ 340,162.00	$ 10,000.00	$ 350,162.00
13	Chevy E250	2009	365	appx 2,000	3,200	2021	All-electric	$ 340,162.00	$ 10,000.00	$ 350,162.00
14	Chevy 3500	2011	397	appx 2,000	2,325	2021	All-electric	$ 340,162.00	$ 10,000.00	$ 350,162.00
15	Chevy E-240	2011	397	appx 2,000	1,460	2021	All-electric	$ 340,162.00	$ 10,000.00	$ 350,162.00
16	Ford E450	2011	397	appx 2,000	975	2021	All-electric	$ 340,162.00	$ 10,000.00	$ 350,162.00
17	International Amtran	2011	220	appx 2,000	1,900	2021	All-electric	$ 419,302.00	$ 10,000.00	$ 429,302.00
18	Internationqal Amtran	2011	220	appx 2,000	1,960	2021	All-electric	$ 419,302.00	$ 10,000.00	$ 429,302.00
19	GMC 4500	2011	397	appx 2,000	750	2021	All-electric	$ 340,162.00	$ 10,000.00	$ 350,162.00
20	Chevy E-250	2011	397	appx 2,000	2,000	2021	All-electric	$ 340,162.00	$ 10,000.00	$ 350,162.00
21	Blue Bird	2012	220	appx 2,000	3,490	2021	All-electric	$ 419,302.00	$ 10,000.00	$ 429,302.00
22	Blue Bird	2012	220	appx 2,000	4,260	2021	All-electric	$ 419,302.00	$ 10,000.00	$ 429,302.00
23	Blue Bird	2012	220	appx 2,000	5,200	2021	All-electric	$ 419,302.00	$ 10,000.00	$ 429,302.00
24	Blue Bird	2012	220	appx 2,000	4,055	2021	All-electric	$ 419,302.00	$ 10,000.00	$ 429,302.00
25	Blue Bird	2012	220	appx 2,000	3,900	2021	All-electric	$ 419,302.00	$ 10,000.00	$ 429,302.00
26	Blue Bird	2012	220	appx 2,000	3,865	2021	All-electric	$ 419,302.00	$ 10,000.00	$ 429,302.00
27	Blue Bird	2012	220	appx 2,000	4,200	2021	All-electric	$ 419,302.00	$ 10,000.00	$ 429,302.00
28	Blue Bird	2012	220	appx 2,000	3,850	2021	All-electric	$ 419,302.00	$ 10,000.00	$ 429,302.00
29	Blue Bird	2012	220	appx 2,000	3,750	2021	All-electric	$ 419,302.00	$ 10,000.00	$ 429,302.00
30	GMC Starcraft	2012	397	appx 2,000	4,150	2021	All-electric	$ 340,162.00	$ 10,000.00	$ 350,162.00
							Totals:	**$ 11,550,240.00**	**$ 300,000.00**	**$ 11,850,240.00**