

East Brunswick Public Schools

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New Jersey Volkswagen Environmental Mitigation Trust Program

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

Project Proposal – Electric School Bus Project

July 22, 2020

Via Email (VWComments@dep.nj.gov)

NJDEP

Division of Air Quality

Mail code 401-02E

Trenton, NJ 08625-0420

Attn: VW Settlement

To Whom It May Concern,

The East Brunswick Public School District (“the District”) appreciates this opportunity to present our proposal for grant funding under the New Jersey Volkswagen Environmental Mitigation Trust Program. The District seeks to **acquire eleven (11) Type C all-electric school buses** and **scrap (9) Type C and four (4) Type A diesel-fueled school buses** to accelerate adoption and deployment of zero-emissions vehicles in New Jersey. This **shovel-ready** project will directly improve the lives of our students, faculty, and citizens of the Township of East Brunswick, the County of Middlesex, and, overall, the State of New Jersey.

As a comprehensive, multi-cultural public school district, the District serves general education and special needs students in Preschool through twelfth grade, as well as numerous special programs. The District is comprised of eleven schools consisting of eight elementary schools, one middle school, one junior high school, and one high school serving the East Brunswick community. The District is classified by the New Jersey Department of Education as being in District Factor Group “I”, the second highest of eight groupings. The District’s motto is **Excellence in Academics, Athletics, and the Arts**, and the accomplishments of our students and staff are substantially representative of the motto’s meaning. These accomplishments were reported in the District’s recent FY2019 Comprehensive Annual Financial Report; an extract of that section accompanies this letter.

The District’s ongoing efforts at excellence are inexhaustible whether in the classroom, in the way it manages its finances, or pursuing new and promising opportunities to benefit students and the greater community. The District has a long history of implementing efficiencies and operational improvements. From being recognized in 2005 by Energy Education, Inc. “*for leading the way for other school systems in excellent stewardship of financial and natural resources*” as the top energy saver in the

northeast to the District's more recent 2019 investment of \$9.25 million toward energy savings improvements throughout each of its thirteen school and support facilities, East Brunswick Public Schools takes its efforts quite seriously in these and all areas of its stewardship.

The District is poised to implement an all-electric school bus project. In its new Support Operations Facility (SOF), the District included infrastructure to support electric school buses. The SOF is home to nearly fifty (50) school buses and is outfitted with underground conduit waiting to be wired and accept charging stations throughout the site. There is no doubt that the District is ahead of most others in that way, and we have been actively seeking opportunities to implement. That opportunity is now.

In deploying the all-electric school buses, the District intends to partner with The Lion Electric Co. (original equipment manufacturer), Clipper Creek (electric vehicle charging infrastructure vendor), and H.K. Truck Center (The Lion. Electric Co. licensed dealer) subject to N.J.S.A. 18A:18A, Public Schools Contracts Law.

To date, Lion 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. Lion has traced and documented all associated performance data. Designing, building and delivering electric heavy-duty vehicles is Lion's daily mandate; their experience and success will be reflected through measurable performance, real-life client references, 100% on-time deliveries, and substantially beyond the "early adopter" experience. And, the District expects nothing less with this project.

The District strongly supports the Volkswagen Project Solicitation and we thank the New Jersey Department of Environmental Protection for its work to date on the implementation of zero-emission vehicles. We hope that our response will successfully illustrate that the East Brunswick Public Schools is a strong partner in achieving New Jersey's goals by delivering and operating quality, zero-emission vehicles in a very short amount of time.

We look forward to being selected and working with the New Jersey Department of Environmental Protection to implement this project.

Yours truly,

A handwritten signature in blue ink, appearing to read "Bernardo Giuliani", written over a faint circular stamp.

Bernardo Giuliani, SFO, QPA
School Business Administrator

BG:Misc:FY2021:electric school bus_20200722.doc
Enclosure

C: Chron

East Brunswick Public Schools
Accomplishments and Achievements

Year ended June 30, 2019

The District is proud to report the many successes and accomplishments that our students have achieved. The 2018-2019 school year achievements are listed below:

For Excellence in Academics...

- East Brunswick is the only district in the state to have 11 Blue Ribbon Schools. The schools are: Bowne-Munro, Central, Chittick, Frost, Irwin, Lawrence Brook, Memorial and Warnsdorfer Elementary Schools, Hammarskjold Middle School, Churchill Junior High School and East Brunswick High School.
- Over 95% of graduates going on to college.
- East Brunswick High School was recognized by NJ.com as one of the Top 50 New Jersey High Schools with the best SAT Scores.
- East Brunswick School District has earned a position on the 9th Annual AP District Honor Roll. The annual AP District Honor Roll recognizes districts for increasing access to Advanced Placement course work while maintaining or increasing the percentage of students earning scores of 3 or higher on AP Exams.
- EBHS/MCC Pathways Program - 944 College Level Courses amassing 2838 College Credits
- Ten EBHS students were *National Merit Scholarship Finalists*
- Fifteen EBHS seniors graduated with *Highest Honors*
- Fifty-Three *National Merit Scholarship* commended students
- East Brunswick High School welcomed 139 new members into the *National Honor Society*.
- 346 *Presidential Awards for Academic Excellence*
- One EBHS senior was selected as an Academic All Star by MyCentralJersey.com
- One EBHS senior was selected to the Naval Reserves Officer Training Corps Marine Corps Scholarship
- Two CJHS students placed 1st in the NJ Literacy Association Writing Contest
- World Language Honor Societies Inductees:
 - French Honor Society – 36 students
 - Spanish Honor Society – 49 students
 - Italian Honor Society – 35 students
 - German Honor Society – 22 students

For Excellence in Academics - continued

- One hundred and sixty-nine EBHS students earned the distinction of the *New Jersey State Seal of Biliteracy*.
 - Qualifiers NJ Seal of Biliteracy:
 - Arabic – 11 students
 - Chinese – 3 students
 - French – 48 students
 - German – 6 students
 - Italian – 6 students
 - Korean – 2 students
 - Russian – 3 students
 - Spanish – 90 students
 - Four of the above students also earned a second NJ Seal of Biliteracy in an additional language
 - One student - Arabic and Spanish
 - One student - Hebrew and Spanish
 - One student - Polish and German
 - One student - French and Spanish
- Two EBHS juniors were selected to attend the *2019 NJ Governor School of Engineering & Technology*
- Two EBHS juniors were selected to attend the *2019 New Jersey Governor's School in the Sciences at Drew University*
- Twenty-six East Brunswick High School students participated in the nationally recognized *Rutgers Waksman Scholars Program* and have had their research published on the *National Center for Biotechnology Information (NCBI) database*
- In the FBLA State Leadership Competition:
 - One EBHS student placed first in *Impromptu Speaking*
 - One EBHS student placed first in *Coding and Programming*
 - Three EBHS students placed first in *Broadcast Journalist*
 - One EBHS student placed second in *Future Business Leader*
 - Two EBHS students placed second in *Hospitality Management*
 - Three EBHS students placed second in *Banking and Financial Systems*
 - Three EBHS students placed second in *Public Service Announcement*
 - Thirteen additional EBHS students placed in the top 5 in their categories.
- The EBHS Math Honor Society Mu Alpha Theta inducted 66 members.
- The EBHS IPLE team, also known as the Institute for Political and Legal Education, placed 1st in the state again for the 32nd time in 33 years in the *We the People: The Citizen and the Constitution Competition*. Thirty-five EBHS seniors were a part of the IPLE team.

For Excellence in Athletics . . .

- One EBHS wrestler was awarded Most Outstanding Wrestler at the District 20 Wrestling Tournament
- One CJHS Athlete placed 2nd in the GMC All Around Gymnastics

For Excellence in Athletics - continued

- One CJHS Athlete won the 2018 Title of Vault for the GMC Division
- One CJHS Athlete won the Greater Middlesex County Championship as an individual
- One EBHS Athlete achieved 100 career points in Girls Lacrosse
- One EBHS Athlete achieved 200 career saves in Girls Lacrosse
- One EBHS Athlete was selected NJ Sportszone Player of the week
- One EBHS Athlete was honored as the East Brunswick Representative for The National Women's Day in sports
- One EBHS Athlete achieved 1000th career point in basketball
- One EBHS Athlete was the GMC champion in the Pole Vault.
- JV and Varsity Cheerleading placed first in a Competition at Woodbridge High School.
- Red Division Championships
 - Girls Soccer
 - Boys Tennis
- GMC Championships
 - Girls Soccer
 - Boys Soccer
 - Boys Winter Track-Relays
 - Boys Golf
- Sectional Champions
 - Girls Bowling
 - Pole Vault Relay Team
 - Boys Soccer
 - 32 Student Athletes committed to playing their sport in college

For Excellence in the Arts...

- Congratulations to student musicians selected for *Honors, Regional and All State Ensembles*:
 - 2019 CJMEA Intermediate Region Choir (13)
 - 2019 CJMEA Intermediate Chamber Orchestra (1)
 - 2019 CJMEA Intermediate String Orchestra (3)
 - 2019 CJMEA Intermediate Band (2)
 - 2019 CJMEA Intermediate Orchestra (12)
 - 2019 CJMEA High School Region II Honor Choir (12)
 - 2019 CJMEA High School Region II Symphonic Band (1)
 - 2019 CJMEA High School Region II Orchestra (15)
 - 2019 CJMEA High School Wind Ensemble (1)
 - 2019 CJMEA High School Symphonic Band (1)
 - 2019 CJMEA High School Orchestra (4)
 - 2019 NJMEA All-State Symphonic Band (1)
 - 2019 NJMEA All-State Wind Ensemble (3)
 - 2019 NJMEA All-State Orchestra (8)
- EBHS welcomed 49 new members to the *Tri-M National Music Honor Society*. There are currently 73 students at EBHS with this recognition.

For Excellence in the Arts - continued

- One EBHS student placed first in the *New Jersey Music Educators Association Young Composer Composition Contest*
- The EBHS Drama Club's *Music Man* and *Tempest* performed to a packed house and were met with rave reviews
- 2019 – Best Community for Music Education (4th consecutive year)
- HMS Artwork displayed at the Rutgers University Art Library
- One HMS Student was awarded the Art Educator of New Jersey Student Artist Award
- CJHS Advanced Orchestra performed at the NJMEA All-State Convention in February
- EBHS Jazz Band placed in the top 10 in the state at the NJ All State Jazz Festival

Staff Accomplishments...

- Information Technology Secretary Florence Taliercio, was named Middlesex County ESP (Educational Support Professional) of the Year by the MCEA (Middlesex County Educations Association) and New Jersey ESP by the NJEA
- One EBHS Biology Teacher had an article published in the National Science Teacher's Association monthly journal, *Learning Molecular Biology Through Storytelling*.
- *The Certificate of Excellence in Financial Reporting* was awarded by the *Association of School Business Officials (ASBO) International* to the East Brunswick Public Schools for the sixth consecutive year.
- *The Certificate of Achievement for Excellence in Financial Reporting* was awarded by the *Government Finance Officers Association of the United States and Canada (GFAO)* to the East Brunswick Public Schools for the fourth consecutive year.

For Excellence in Service to the Community...

- District Staff collected \$2,935 for Breast Cancer Research and Pediatric Cancer Research for the *Rutgers University Foundation*
- District Staff collected \$2,295 for Families Against Addiction Inc.
- District Staff collected \$2,806 for Autism Awareness
- District Staff celebrated National Go Red Day. The American Heart Association sponsors this event in an effort to raise awareness for women's heart health. A district wide denim day raised \$3,210 to benefit cancer research.
- In honor of Veterans Day, and to support Wreaths Across America, the Churchill Junior High School students, parents, and staff raised almost \$4,000. This generous donation resulted in the placement of more than 400 wreaths!
- East Brunswick Public Schools collected 12,050 lbs. of donations for the Middlesex County Food Organization and Outreach Distribution Services also known as M.C. FOODS for the 2018-2019 school year.



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 owned</i> property. Up to 80% to purchase, install and maintain infrastructure if available to public at <i>non-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 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	East Brunswick Public Schools
Applicant Address	760 NJ-18
City, State, Zip Code	East Brunswick, New Jersey, 08816
Contact Person	Bernardo Giuliana
Title/Position	School Business Administrator
Phone	(732) 613-6723
E-mail	BGIULIANA@ebnet.org
Owner Name	East Brunswick Public Schools
Owner Address	760 NJ-18
City, State, Zip Code	East Brunswick, New Jersey, 08816
Contact Person	Bernardo Giuliana
Title/Position	School Business Administrator
Phone	(732) 613-6723
E-mail	BGIULIANA@ebnet.org

PROJECT NAME	East Brunswick Public Schools - Electric Bus Project							
PROJECT CATEGORY OR CATEGORIES (choose from 1-9 in “Eligible Projects” section above)								
1 <input type="checkbox"/>	2 <input checked="" type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9 <input type="checkbox"/>

PROJECT PRIORITY	Priority # <input type="text" value="1"/> of <input type="text" value="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 total estimated project budget (attached) is \$4,722,322.00, for the purchase of eleven (11) all-electric school buses, eleven (11) charging stations, and the cost of the charging infrastructure installation based on costs from The Lion Electric Co. Since the school buses are government owned, the District requests 100% funding for this project.

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

The East Brunswick Public Schools Electric School Bus Project will see thirteen (13) diesel school buses, from our current fleet, scrapped and rendered inoperable. These school buses will then be replaced with eleven (11) all-electric, zero-emission, Type C school buses. The specific vehicles to planned for scrapping are listed below.

Geographic area where emissions reductions will occur? **Middlesex County**

Estimated size of population benefitting from the emission reductions? **825,062 per 2019**

Census Bureau

Estimated useful life of the project? **Minimum of 15 years**

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

Eleven (11) all-electric school buses.

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

Type C Electric School Bus No. 1 will result in the scrapping of the following diesel school bus:	
Manufacturer	IC
Model	Type C (54 passenger)
Year	2007
Horsepower	260 HP
Annual hours of use	1,620 estimated
Annual amount of fuel used	1,979.2 estimated
Fuel cost	\$4,057.00 estimated

Type C Electric School Bus No. 2 will result in the scrapping of the following diesel school bus:	
Manufacturer	Thomas
Model	Type C (54 passenger)
Year	2008
Horsepower	260 HP
Annual hours of use	1,620 estimated
Annual amount of fuel used	1,979.2 estimated
Fuel cost	\$4,057.00 estimated

Type C Electric School Bus No. 3 will result in the scrapping of the following diesel school bus:	
Manufacturer	Thomas
Model	Type C (54 passenger)
Year	2008
Horsepower	260 HP
Annual hours of use	1,620 estimated
Annual amount of fuel used	1,979.2 estimated
Fuel cost	\$4,057.00 estimated

Type C Electric School Bus No. 4 will result in the scrapping of the following diesel school bus:	
Manufacturer	Thomas
Model	Type C (54 passenger)
Year	2008
Horsepower	260 HP
Annual hours of use	1,620 estimated
Annual amount of fuel used	1,979.2 estimated
Fuel cost	\$4,057.00 estimated

Type C Electric School Bus No. 5 will result in the scrapping of the following diesel school bus:	
Manufacturer	Thomas
Model	Type C (54 passenger)
Year	2008
Horsepower	260 HP
Annual hours of use	1,620 estimated
Annual amount of fuel used	1,979.2 estimated
Fuel cost	\$4,057.00 estimated

Type C Electric School Bus No. 6 will result in the scrapping of the following diesel school bus:	
Manufacturer	Thomas
Model	Type C (54 passenger)
Year	2008
Horsepower	260 HP
Annual hours of use	1,620 estimated
Annual amount of fuel used	1,979.2 estimated
Fuel cost	\$4,057.00 estimated

Type C Electric School Bus No. 7 will result in the scrapping of the following diesel school bus:	
Manufacturer	Thomas
Model	Type C (54 passenger)
Year	2008
Horsepower	260 HP
Annual hours of use	1,620 estimated
Annual amount of fuel used	1,979.2 estimated
Fuel cost	\$4,057.00 estimated

Type C Electric School Bus No. 8 will result in the scrapping of the following diesel school bus:	
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Manufacturer	Thomas
Model	Type C (54 passenger)
Year	2008
Horsepower	260 HP
Annual hours of use	1,620 estimated
Annual amount of fuel used	1,979.2 estimated
Fuel cost	\$4,057.00 estimated

Type C Electric School Bus No. 9 will result in the scrapping of the following diesel school bus:

Manufacturer	Thomas
Model	Type C (54 passenger)
Year	2008
Horsepower	260 HP
Annual hours of use	1,620 estimated
Annual amount of fuel used	1,979.2 estimated
Fuel cost	\$4,057.00 estimated

Type C Electric School Bus No. 10 will result in the scrapping of the following two diesel school buses:

Manufacturer	IC	Thomas
Model	Type A (24 passenger)	Type A (22 passenger)
Year	2009	2010
Horsepower	260 HP	260 HP
Annual hours of use	1,620 estimated	1,620 estimated
Annual amount of fuel used	1,979.2 estimated	1,979.2 estimated
Fuel cost	\$4,057.00 estimated	\$4,057.00 estimated

Type C Electric School Bus No. 11 will result in the scrapping of the following two diesel school buses:

Manufacturer	IC	Thomas
Model	Type A (24 passenger)	Type A (22 passenger)
Year	2009	2012
Horsepower	260 HP	260 HP
Annual hours of use	1,620 estimated	1,620 estimated
Annual amount of fuel used	1,979.2 estimated	1,979.2 estimated
Fuel cost	\$4,057.00 estimated	\$4,057.00 estimated

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

The project will benefit Middlesex County as a whole. Although New Jersey's air quality 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, Middlesex County was ranked sixth out of 11 counties in New Jersey having the worst smog levels in the State, and it's air quality received a grade of "F." Additionally, Middlesex County experienced 14 unhealthy "orange alert" days, those in which the air quality is considered unhealthy for children, active adults, and anyone with asthma or other respiratory ailments. In 2019, Middlesex County experienced 23 "orange alert" days, and, as of 2020, Middlesex County's "F" grade has not improved. According to the report card published by the American Lung Association, Middlesex County has 180,190 children under the 18 years of age with 13,057 of these children 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: East Brunswick Public Schools, The Lion Electric Co. (original equipment manufacturer), Clipper Creek (electric vehicle charging infrastructure vendor), and H.K. Truck Center (The Lion. Electric Co. licensed dealer) as permitted pursuant to N.J.S.A. 18A:18A.

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

The District will make all efforts to minimize the estimated timelines below and to expeditiously implement this project.

Up to 60 calendar days: Issuance of a purchase order for the acquisition of eleven (11) all-electric school buses. The purchase shall comply with the requirements of N.J.S.A. 18A:18A, Public School Contracts Law.

Up to 180 calendar days: Delivery of eleven (11) all-electric school buses and installation of eleven (11) charging stations. The charging stations should be fully installed and operational prior to vehicle delivery.

Up to five (5) business days: The vehicles will be insured, registered, and subject to the required NJMVC inspection.

Up to 10 business days: Train staff in the operational nuances of the vehicles.

Thereafter, the vehicles will be immediately assigned to duty.

Demonstrated success in implementing similar projects?

While the electric buses will be the District's first zero-emission vehicles, the District is very confident in the equipment manufacturer's, 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 original equipment manufacturers are just beginning their zero-emission journey. When it is in session, students across America ride Lion buses safely to-and-from school. Lion is the most experienced in the deployment of heavy-duty electric vehicles field from on-time delivery, to customer service, to infrastructure support.

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

The District currently operates diesel and gasoline school buses. When approved, the all-electric school buses will be the first zero-emission options.

A few years ago, the District acquired property to establish its Support Operations Facility, which provided a "home" to several departments including a site for its entire vehicle fleet. Through the property's development, the District had the foresight to include the fundamental infrastructure ready to accept charging stations at each of the nearly 50 bus bays on the property. Thus, the District stands ready, willing, and eager to implement this project, which will not require funds beyond vehicle acquisition, and charging station acquisition, wiring, and installation.

In accordance with the project requirements, the District has selected thirteen (13) diesel school buses to scrap and replace them with eleven (11) 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.

To note, the project budget presented in this proposal includes the following estimated costs: all-electric Type C school buses, and charging station unit, installation. The project partners named above have provided the cost estimates for the purposes of this application.

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

The District has neither received nor does it plan to expend any other grant funds related to this project. This application is the sole funding source to replace its diesel vehicles with all-electric school buses.

Please provide any additional information that supports this project.

When planning for this Electric School Bus Pilot Project, we would like to see the buses used for daily route service, athletics, and field trips. Until our drivers are familiar with driving the buses, we will also ensure that the buses are driven only within Middlesex County.

Notwithstanding the current pandemic issues impacting the 2020-2021 school year, we are confident that the community will welcome these all-electric buses with great enthusiasm. In fact, the East Brunswick community is highly interested in taking giant steps toward environmental improvements. To that end, the District is confident that the all-electric buses will achieve this end while supporting the basic need to safely and efficiently transport students.

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 operational costs.

Since the all-electric buses do not consume fuel, do not have a transmission, and have very few moving parts, the utilization of these new school buses will reduce the District's maintenance costs by an estimated 60% and will reduce energy costs up to 80% based on a preliminary evaluation. In partnering with the New Jersey Department of Environmental Protection, the District's return on investment will occur in a minimal time frame while significantly reducing greenhouse gas emissions and 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 while concurrently reducing noise pollution in the area.

The District operates its school buses throughout the year. Thus, the diesel school buses currently in use contribute to the air pollution in our community, and to the number of "orange alert" days in the County, which typically occur in June and September. Thus, the District's objective is to contribute substantially to reducing pollution through a commitment to the electrification of our fleet. Our hope is that with the purchase of these buses, we will one day have little to no unhealthy air days.

The all-electric buses are authentic, born-to-be electric vehicles. They are not retrofitted diesel vehicles.

Investing in a all-electric vehicles will enable the District to track efficiency and operational progress by calculating average consumption through a smart charging system, and collect data through an onboard telematic touchscreen, which is unique to Lion vehicles. The vehicle 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.

The East Brunswick Public School District will be the grantee under this grant and will operate the buses daily while analyzing the reports generated by the vehicles.

To ensure that our bus drivers are properly trained in using the all-electric school buses, the District plans to 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

The East Brunswick Public Schools Electric Bus Project is as much a “shovel ready” project as any. In fact, we would challenge similar applicants on their readiness and steadfast approach to implementing new initiatives. We are prepared to be THE model for New Jersey.

Having a shared goal of improving air quality and the health of children in all communities is what best aligns this project. 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 educational institutions to join the electrification movement.

The District extends its thanks to the New Jersey Department of Environmental Protection for this opportunity to submit a project proposal under the

Volkswagen settlement funds program. We look forward to having the opportunity to work with the Department in providing a healthy breathing environment to students, faculty, and the communities we serve.

The East Brunswick Public Schools stand ready, willing, and eager to begin. It is now up to you to enable the successful outcomes.

East Brunswick Public Schools
 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 Infrastructure	Funding Request
1	Thomas C2	2007	260	1,620	1,979	2021	All-electric	\$ 419,302.00	\$ 10,000.00	\$ 429,302.00
2	Thomas C2	2008	260	1,620	1,979	2021	All-electric	\$ 419,302.00	\$ 10,000.00	\$ 429,302.00
3	Thomas C2	2008	260	1,620	1,979	2021	All-electric	\$ 419,302.00	\$ 10,000.00	\$ 429,302.00
4	Thomas C2	2008	260	1,620	1,979	2021	All-electric	\$ 419,302.00	\$ 10,000.00	\$ 429,302.00
5	Thomas C2	2008	260	1,620	1,979	2021	All-electric	\$ 419,302.00	\$ 10,000.00	\$ 429,302.00
6	Thomas C2	2008	260	1,620	1,979	2021	All-electric	\$ 419,302.00	\$ 10,000.00	\$ 429,302.00
7	Thomas C2	2008	260	1,620	1,979	2021	All-electric	\$ 419,302.00	\$ 10,000.00	\$ 429,302.00
8	Thomas C2	2008	260	1,620	1,979	2021	All-electric	\$ 419,302.00	\$ 10,000.00	\$ 429,302.00
9	Thomas C2	2008	260	1,620	1,979	2021	All-electric	\$ 419,302.00	\$ 10,000.00	\$ 429,302.00
10	IC	2009	260	1,620	1,979					
	Thomas	2010	260	1,620	1,979	2021	All-electric	\$ 419,302.00	\$ 10,000.00	\$ 429,302.00
11	Thomas	2012	260	1,620	1,979					
	IC	2009	260	1,620	1,979	2021	All-electric	\$ 419,302.00	\$ 10,000.00	\$ 429,302.00
Totals:								\$ 4,612,322.00	\$ 110,000.00	\$ 4,722,322.00