

STATE of DELAWARE
 SINGLE POINT OF CONTACT - SPOC
 INTERGOVERNMENTAL REVIEW OF FEDERAL PROGRAMS
 Office of Management and Budget
 Haslet Building, 3rd Floor, Dover, Delaware 19901
 (302) 739-4206

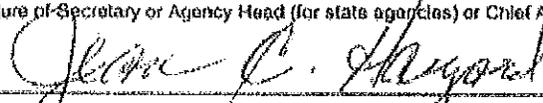
1. STATE APPLICATION IDENTIFIER: 09 03 18 02	SPOC use ONLY	Month	Reviewer	CC's
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2. Applicant Project Title: **State Clean Diesel Grant**

3. Applicant Department: Delaware Department of Natural Resources and Environmental Control	4. Applicant Division / APU: Division of Air & Waste Management
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5. Applicant Address: **158 South State St, Kent County, Dover, DE 19901**

6. Contact Person: Phillip Wheeler	7. Contact Person's Phone Number: 739-9402
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8. Signature of Secretary or Agency Head (for state agencies) or Chief Administrator (for all other applicants)


9. Federal Grant Department: U. S. EPA Region III	10. Federal Sub-Agency:
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11. Federal Contact Person: Paula Krall	12. Phone Number: (215) 814-200
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13. Address: **1650 Arch Street, Philadelphia, PA 19103-2029**

14. Federal Program Title: Recovery Act Funding for State Clean Diesel Grant Program	15. FEDERAL CATALOG NO: 68.040 (CFDA)
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16. Project Description:
Retrofit School Buses with Clean Air Technology (Diesel Particulate Filters)
Construct Truck Stop Electrification facility at the Smyrna Rest Area

17. Will funds be utilized for any technology initiatives? Yes No If so, Business Case Number and brief project summary:

18. Measurable Objectives:

a. What were last year's objectives?
 n/a

b. Were these objectives met? (If not, please explain why)
 n/a

c. What are this year's objectives?

Reduce diesel soot emissions by 90% on 58 School buses
Reduce diesel soot and nitrogen oxide emissions on trucks using Smyrna Rest Area

(If more space is needed, please attach a separate sheet of paper)

19. Grant Period:	20. How many years has this project been funded?:	21. If this project was funded last year, how much federal money was awarded?:
Fro 4/20/2009	n/a	
To. 9/30/2010		

22. Source of funding for this application:	Dollars
a. Federal grant	1,730,000
b. Other federal funds (Specify source of funding)	
c. Required state contribution (Specify source of funding)	
d. Discretionary state contribution (Specify source of funding)	
e. Required local contribution (Specify source of funding)	
f. Other non-federal funds (Specify source of funding)	
TOTAL	1,730,000

23. Budget by cost category and source:	Federal Funds	State Funds	Other Funds	Total Funds
Salaries & Fringe Benefits	81,775			81,775
Personal or Contractual Services	167,870			167,870
Travel	956			956
Supplies & Materials	4,950			4,950
Capital Expenditures	1,450,280			1,450,280
Audit Fees	5,190			5,190
Indirect Costs	18,979			18,979
Other				0
TOTAL	1,730,000	0	0	1,730,000

24. How many positions are required for the project? (Exclude casual/seasonal employees)			
Breakdown of positions(s)	Authorized in State Budget	New Positions Required	Total
Paid for out of federal funds	0	0	
Paid for out of General Funds	0	0	
Paid for out of state special funds	0	0	
Paid for out of bond/local/other funds	0	0	
TOTAL	0	0	0

25. PLEASE NOTE: On a separate piece of paper, please give position number, grade, yearly salary and percent of funding (federal, state, local, other) and the full-time equivalent for positions required. Please identify the new positions by placing an asterisk before the position title. If this grant funds positions within other departments, divisions and/or offices, please list them. If a position has been reallocated to or from another grant please indicate the grant source.

POSITIONS ARE CURRENT POSITIONS THAT WILL BE REALLOCATED BY TIME WORK SEE ATTACHED PERSONNEL SALARIES

Continuing Grants
 NOTICE OF PLAN TO FILE GRANT APPLICATION
 (Cover sheet to be provided with each proposed grant.)

Date sent to GWPRC _____ Due to Federal Agency: 3/20/2009 Draft _____ Final: 3/20/2009

Grant Project: Beginning date 4/20/2009 Ending date: 9/30/2010

Current Request	\$ 1,730,000	Prior Year			
SAI#	09 03 18 02	DIV:	09 (AWM)	SEC:	02(AQM) IBU: 02
Grant Title: Recovery Act Funding for State Clean Diesel Grant Program (Stimulus)					
Compare Grant Objectives to Department Priorities.					
USE OF ADDITIONAL/EXISTING DISCRETIONARY FEDERAL FUNDS Salaries & OEC's - Estimate Additional/Existing <u>Equipment, Supplies, Contractual, Other - Estimate</u> <u>Additional/Existing</u>					
POSITION RELATED REQUESTS: YES _____ NO <input checked="" type="checkbox"/>					
New/Delete - Position(s) Requested - Complement changes %					
STATE MATCH REQUIRED %		0	GF\$:	ASF\$:	
		<u>Includ Eligible</u>	Yes	No	
		<u>State Match Available</u>	Yes	No	
MAJOR PURCHASES: (Required over \$10,000) (Equipment, land, computers, software, server capacity, etc.):					
SUPPORT NEEDS:		Additional	Existing		
Office Space:					
IRM Support Required:					
I/E Support:					
Other:					

09-03-18-02



**AMERICAN RECOVERY AND
REINVESTMENT ACT of 2009**

National Clean Diesel Campaign

FUNDING FOR STATE CLEAN DIESEL GRANT PROGRAM

WORK PLAN NARRATIVE AND BUDGET NARRATIVE TEMPLATE

State of Delaware

March 18, 2009

Project Title: Smyrna Truck Stop Electrification

And School Bus and City of Wilmington Heavy Duty Diesel Retrofit

Organization name	Delaware Department of Natural Resources and Environmental Control
Project manager	Philip Wheeler
Address	156 South State Street, Dover, Delaware 19901
Phone	302/ 739-9402
Fax	302/ 739-3106
Email	Philip.Wheeler@state.de.us

Project Budget

EPA allocation	\$1,730,000.00
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Project Period

All work plans for the Recovery Act Funding for the State Clean Diesel Grant Program will run from the date of award through September 30, 2010. All activities in this work plan will focus on stimulating the American economy, preserving and/or creating jobs, and reducing diesel emissions.

Summary Statement

There will be three projects for the grant which will consist of the installation of diesel particulate filters or other after treatment control devices on 27 heavy duty trucks operated by the City of Wilmington and 50 school buses operated in Kent and Sussex Counties. The second project will be the installation of a truck stop electrification facility at the Smyrna Rest Area located in southern New Castle County. The third project will be the replacement of a two diesel generators at the Fort Delaware State Park

The City of Wilmington's refuse and dump trucks will be retrofitted with particulate filters or other after treatment control devices such as a diesel oxidation catalyst. Two school districts, a charter school and a school bus contractor will have their school buses retrofitted with particulate filters or other after treatment control devices such as a diesel oxidation catalyst or closed crank-case ventilation system.

The Smyrna Rest Area will have approximately 20 tractor trailer spaces outfitted with heating and cooling units that will provide the necessary comfort to the truck cabs allowing engines to be turned off while resting.

Fort Delaware is a state park on an island on the Delaware River in New Castle County. The fort is a historic tourist attraction that has no electrical service provided by the electric utility because of its location. The current operating diesel generators will be replaced by a cleaner micro turbine diesel electrical generation units.

SCOPE OF WORK

Project Description

The following technology options will implemented in this work plan:

Retrofit Technologies:

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- **Exhaust Controls:**

Exhaust Controls include pollution control devices installed in the exhaust system (such as oxidation catalysts and particulate matter filters), or systems that include crankcase emission control (like a closed crankcase filtration system). Diesel particulate filters (DPF) will be installed on the City of Wilmington vehicles, while DPF and/or closed crankcase ventilation filters with diesel oxidation catalysts will be installed on 75 school buses.

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- **Idle Reduction Technologies:**

The idle reduction project at the Smyrna rest area is designed to provide services (such as heat, air conditioning, and/or electricity) to vehicles and equipment that would otherwise require the operation of the main drive engine while the vehicle

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is temporarily parked or remains stationary,.. EPA has verified this technology which is categorized as electrified parking spaces (truck stop electrification)

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• ***Certified Vehicle and Equipment Replacements:***

The State of Delaware Parks Division operates the Fort Delaware Park on Pea Patch Island. Currently, Pea Patch Island relies upon diesel-fired generators to provide all electricity. Two stationary generators are currently located on the island to supply electricity; however, one of them is currently non-operational. The non-operational generator is a 20 kW diesel-fired generator, and the operational generator is a 25 kW diesel-fired generator. A rented, mobile generator has been temporarily sited on the island to provide electricity until the existing generators are operational again, new generators are installed. Diesel fuel is supplied to the island by shipping it with some risk across the Delaware River on a boat in 55 gallon drums. Currently, the generated electricity is routed through only a few parts of Fort Delaware, to provide electricity for: ceiling fans and lighting in rooms for public access, power for a small food & drink concession stand, and outlets for necessary power equipment for the repair and maintenance of the fort. The two generators will be replaced with a 65 kW micro turbine generator.

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Fleets that will be impacted with the technologies (check all that apply):

- | | |
|--------------------------|--------------------------|
| X | School Buses |
| <input type="checkbox"/> | Transit Buses |
| <input type="checkbox"/> | Medium Duty Truck |
| X | Heavy Duty Truck |
| <input type="checkbox"/> | Marine Engine |
| <input type="checkbox"/> | Locomotive |
| <input type="checkbox"/> | Construction |
| <input type="checkbox"/> | Cargo Handling |
| <input type="checkbox"/> | Agriculture |
| <input type="checkbox"/> | Mining |
| X | Energy production |
| <input type="checkbox"/> | other: (please describe) |

Administrative Activities

Below is a summary of the administrative activities that are funded under this work plan. Delaware is anticipating to spend 5% on administrative activities.

A portion of the grant will be allocated to administer the projects. A total of three full time equivalent positions will be needed to manage the purchase, installation, and maintenance of the retrofit equipment, TSE facility and microturbines.

This will include the development of the purchase orders, management of the competitive bid and contract process, development of the installation and maintenance schedule, oversight of the performance of the vendors and contractors and performance of evaluation reports to EPA on the overall projects.

Travel expenses are anticipated. Visit to existing sites where a vendor truck stop electrification project is located or other site visits needed during the installation phase of the projects. Supplies will include outreach and training materials as well as specially designed decals that will be prominently displayed on each vehicle retrofitted.

Time Line for the Diesel Retrofit Project – Project One of Grant

2009

April – Data logging performed by vendor who has an existing contract with the Department to ascertain applicability of diesel particulate filters to the City of Wilmington and school bus fleet.

May – Purchase order sent to vendor for 42 diesel particulate filters and 50 closed crankcase filters.

May – Request for proposals prepared and sent out for maintenance service of the diesel particulate filters

June – Vendor orders filters and auxiliary equipment from manufacturer. Lead time could be up to 10 weeks before delivery.

June - Contractor is selected to perform annual maintenance on diesel particulate filters

September – Vendor works with fleet manager for installation time of filters with a down time of 8 hours for each heavy duty vehicle.

October– December - Retrofits are completed

Time Line for the Truck Stop Electrification Project – Project Two of Grant

2009	<u>Preliminary Project Tasks</u>	Formatted: Font: Bold, Underline Formatted: Font: Bold, Underline
April -- Request for Proposals prepared and sent out		
May – Vendor selected and contract signed.		
	<u>Construction Preparation</u>	Formatted: Font: Bold, Underline Formatted: Centered
September– Surveying of Smyrna Rest Area site and preparation of site plan design.		
October – Vendor selection of construction and electrical contractor		
November– Securing permits for construction		
	<u>Construction</u>	Formatted: Font: Bold, Underline Formatted: Font: Bold, Underline
December – Preparing and installing power transformer		
2010		
January– Site construction including -- surface preparation, trenching, laying of power and communication conduit and cable, excavation for vehicle barriers and other site preparation work.		
February – Electrical installation		
March – Barrier installation		
April – Equipment installation - this will also include system evaluation, software and electrical system testing.		
May – Training for Smyrna Rest Area employees for their part in the 24 hour operation of the TSE.		
May – Facility opens to trucking public.		

**Time Line for the Fort Delaware Diesel Generator Replacement Project –
Project Three of Grant**

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2009

April — Requests for bids prepared and sent out for purchase and installation of diesel micro turbine generators

May - Vendor and contractor is selected for purchasing and installing diesel micro turbine generator.

May - Generators that are being replaced are decommissioned.

May – Microturbine generator becomes operational

Program Priorities

Health

In one year Delaware intends to retrofit twenty-seven heavy duty trucks that operate for the City of Wilmington and 50 school buses in Kent and Sussex County. The major benefit achieved from these retrofits will be the reduction of fine particulate matter, although there will be additional reductions in volatile organics and carbon monoxide. Estimates in emission reductions of these pollutants from baseline levels are expected to be 0.2 tons per year of fine particulate matter, 0.7 tons per year of hydrocarbons and 2 tons per year of carbon monoxide. Health benefits to the school children and the communities in Wilmington may be realized in combination with other diesel emission reduction technology found in new truck and bus models. The incremental benefits of this project may be seen in fewer lung diseases such as asthma and emphysema as well as fewer emergency room visits during poor air quality days.

The health benefits achieved by the second grant project, Smyrna Truck Stop Electrification will be monitoring and tracked by the Department. A truck that would idle at the Smyrna facility for four hours, once a week for 52 weeks in a calendar year is anticipated to save nearly \$150.00 a year in fuel cost if the electrified space was utilized. In addition, engine life is increased when idle time is reduced. Reduced engine idle time decreases maintenance costs, and longer engine life which results in cost savings to the truck owner. Engine rebuilds normally are determined by the number of operation hours, including engine at idle. Decreasing the number of engine operation hours increases the number of useful hours of the vehicle before a costly rebuild of its engine is necessary. All these factors mentioned above favors the use of the electrified space, engines being shutoff and the economic viability of the project. Some of the investment costs made by

the state may even be recouped from the usage fees. This will insure that the facility would enjoy a significantly lengthy useful life.

The primary reason for funding the Smyrna Rest Area electrification project with DERA grant money is to reduce stack and engine gas emissions associated with idling diesel trucks. The following are important air quality benefits associated the operation of a diesel vehicle including long duration truck idling:

- Reductions in the emissions of fine and coarse particulate matter,
- Reductions in the emissions of toxic air pollutants such as formaldehyde, and trace metals such as nickel,
- Reductions in the emissions of pollutants that contribute to the formation of ground level ozone, and
- Reductions in emissions of carbon dioxide, a major greenhouse gas.

Assuming 7 trucks (28% of spaces filled) use of the electrified spaces for 10 hours per day, 25,550 gallons of diesel fuel could be saved each year. Based on EPA SmartWay's Emissions Calculator these numbers equate to annual reductions of 14.87 tons of NOx, 0.30 tons of PM, 0.60 tons of HC, and 3.22 tons of CO.

The third project, the diesel generator replacements at Fort Delaware, will significantly reduce the NOx and particulate matter pollution. The current generators consists of one 20 kW and one 25 kW power generating unit. The proposal is to replace these old uncontrolled units with two 30 kW micro turbine power generators. The additional wattage will be needed for HVAC and climate control systems being installed at the Fort. The generator would run 7 days a week from April to September and 5 days a week during the off season. Daily usage is 10 hours.

The following table presents the emission reductions of NOx and PM that would be achieved when the replacement occurs.

Estimated Emission Reductions - Generator vs Microturbine		
	NOx	PM
Percent Reduction in Emissions:	99.7%	99.2%
Ton Per Day	0.155	0.001
Ton Per Year:	44.5	0.2

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Preserve and/or create jobs and promote economic recovery.

The three projects described will assist with preserving current employment for a wide variety of positions such as truck mechanics, electricians, construction contractors, equipment manufacturer employees as well as Delaware State employees.

Air Pollution Produced By the Diesel Engines

The State of Delaware has been designated as non-attainment for the 8 hour ozone standard in all three counties. New Castle County is in non-attainment for the annual National Ambient Air Quality Standards for fine particulate matter and monitoring non-attainment for the daily standard for fine particulate matter. On-road diesel emissions contribute significantly to two major pollutants impacting air quality. A diesel truck engine's emissions consist mostly of particulate matter and nitrogen oxides, along with other toxic gases in smaller amounts.

The last inventory of air pollutants performed by the State of Delaware was completed for the calendar year of 2005. The tables below compare diesel emissions (NOx and PM 2.5) of class 8 vehicles (trucks that will likely use the TSE facility) with total emissions from all on-road diesel vehicles.

**New Castle County Emission Inventory (2005)
NOx and PM 2.5 On-road Source Emissions
(Tons per Year)**

Air Pollutant	New Castle County		
	Class 8	All Diesel Vehicles	Percent of Total
NOx	1,108	1,380	80%
PM 2.5	12	19	63%

**Kent County Emission Inventory (2005)
NOx and PM 2.5 On-road Source Emissions
(Tons per Year)**

Air Pollutant	Kent County		
	Class 8	All Diesel Vehicles	Percent of Total
NOx	735	834	88%
PM 2.5	12	18	67%

**Sussex County Emission Inventory (2005)
NOx and PM 2.5 On-road Source Emissions
(Tons per Year)**

Air Pollutant	Sussex County		
	Class 8	All Diesel Vehicles	Percent of Total
NOx	637	715	89%
PM 2.5	23	26	88%

**State Wide Emission Inventory (2005)
NOx and PM 2.5 On-road Source Emissions
(Tons per Year)**

Air Pollutant	State Wide On-road Diesel Emissions		
	Class 8	All Diesel Vehicles	Percent of Total
NOx	2,480	2,929	85%
PM 2.5	47	63	75%

The class 8 diesel truck produces a significant majority of the NOx and PM 2.5 pollution in the state and consistently have longer idle times than other vehicles especially at truck stops, loading areas and truck depots. At idle, a class 8 truck produces approximately 85 grams per hour of NOx. The on-road emissions presented above do not include long duration truck idle situations. However it is estimated that excessive idling of heavy duty vehicles produces approximately 85 tons per year of NOx and 2 tons per year of PM 2.5 emissions in the State.

In addition, class 8 trucks in New Castle County produced 11,700 tons annually of CO₂ emissions, a known greenhouse gas. Restricting idling at the Smyrna Rest area would reduce CO₂ emissions by xx tons per year.

Data Collection

The proposed project does not involve environmentally related measurements or data generations that would need quality assurance and quality control plans and procedures as pursuant to 40 CFR 31.45.

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Reporting

The State Program understands that reporting will at least be quarterly and additional reporting may be required for these special Recovery Act grants. Reporting requirements will be detailed in the grant Terms and Conditions.

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BUDGET NARRATIVE (1-2 pages)

Project Budget

Budget Category	EPA Allocation
1. Personnel	58,413
2. Fringe Benefits	23,362
3. Travel	956
4. Supplies	4,950
5. Equipment	1,450,280
6. Contractual	167,870
7. Other (Audit)	5,190
Total Direct Charges	\$1,711,021
8. Indirect Charges	18,979
Grand Total	\$1,730,000

Explanation of Budget Framework

Administrative Costs

Personnel	58,413
Fringe	23,362
Travel	956
Supplies	4,950
Total	\$87,681
% of Total Grant	5%

1. Personnel

Category	EPA
Project Manager (Retrofits) @ \$25.19 /hr x 956 hours	\$ 26,463
Project Manager (TSE) @ \$27.14 x 975 hours	\$ 24,087
Project Manager (Generator Replacement) @\$40.32 / hr x 195 hours	\$ 7,863

2. Fringe Benefits

Fringe benefit costs are those costs for personnel employment other than the employees' direct income (i.e., employer's portion of FICA insurance, retirement, sick leave, holiday pay, and vacation cost) that will be paid by the grantee. Provide the total cost of fringe benefits unless treated as part of an approved indirect cost rate. Provide break-down of amounts and percentages that comprised fringe benefit costs, such as health insurance, FICA, retirement insurance, etc. Indicate all mandated and voluntary benefits to be supplemented with these funds. For example:

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Category	EPA
Health Insurance – 3 FTE @ \$716/mo x 12 mos	\$ 8,592
Other fringes* 3- FTE @ \$1,231 x12 mos	\$14,770

*includes Unemployment Ins, Pension, Workers Comp, FICA and Medicare

3. Travel

Travel and per diem costs are those costs for travel and subsistence which are directly related to the grant. Identify the number of trips planned, the purpose of each trip, the destination for each trip, the number of travelers, and the estimated cost of each trip. For example:

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Category	EPA
<i>Site visit</i>	
Local Travel State Vehicle Rental – 15 days x \$34/day	\$510
<i>Meeting</i>	
Local Travel State Vehicle Rental – 14 days x \$34/day	\$455

4. Supplies

Equipment (less than \$5,000), material, and supply costs are those costs directly related to the grant. Identify all supplies purchased and its cost. The budget detail should be as descriptive as possible. Categories of supplies to be procured; e.g., laboratory supplies or office supplies, are acceptable if items cannot be reasonably separated. Provide the individual and total cost of supplies. For example:

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Category	EPA
1000 pamphlets for school children and parents @ \$2 each	\$2,000
725 pamphlets for truckers using Smyrna TSE @ \$2 each	\$1450
100 - 11x17 clean air decals for school buses and city vehicles @ \$10 each	\$1000
Copying and postage costs	\$500

5. Equipment

Project 1 of the Grant: The details of the budget for the City of Wilmington and public school buses.

Vehicle/Equipment Description	Diesel Vehicle Retrofit Emission Control Device	Quantity	Unit Price	Extended
City of Wilmington	Continuous Catalytic Regeneration Technology	12	\$10,000	\$120,000
Sterling Refuse Trucks with Heil engines				
City of Wilmington	Continuous Catalytic Regeneration Technology	15	\$10,000	\$150,000
Ford and Chevrolet dump trucks				
Capitol School District	Continuous Catalytic Regeneration Technology	5	\$10,000	50,000
	Closed Crankcase Ventilation Filters (w/DOC)	5	\$1,200	6,000
Cape Henlopen School District	Continuous Catalytic Regeneration Technology	11	\$10,000	110,000
	Closed Crankcase Ventilation Filters (w/DOC)	13	\$1,200	15,600
Providence Creek Charter School	Continuous Catalytic Regeneration Technology	12	\$10,000	120,000
	Closed Crankcase Ventilation Filters (w/DOC)	12	\$1,200	14,400
Mathew Smith Bus Company	Continuous Catalytic Regeneration Technology	14	\$10,000	140,000
	Closed Crankcase Ventilation Filters (w/DOC) Installation	20	\$1,200	24,000
				77,280
	Particulate Filter Cleaning Machine	2	\$12,000	\$24,000
	Lifetime Replacement Crankcase filter elements	400	\$40	\$16,000
Total Vehicles	77 Total Units	119	Total Budget	\$867,280

Part Two of the Grant: The details of the budget for the TSE project are described below.

Smyrna Rest Area Truck Electrification 25 Spaces				
Item	Model#	Quantity	Unit Price	Extended
Dual Service Tower (22 spaces)	DST-004	11	\$16,000.00	\$176,000
Dual Shower Power Unit (2 spaces)	HVAC-004	1	\$10,000.00	\$10,000
Dual Refrigeration Power Unit (1 space)	DSP-001	1	\$12,000.00	\$12,000
Vehicle Detection Module	VDM-001	25	\$600.00	\$15,000
Anti-Idling Module	AIM-001	25	\$500.00	\$12,500
Electrical Distribution Cabinet	EDC-001	1	\$24,000.00	\$24,000
Electrical Distribution Cable	EDW-001	13	\$2,000.00	\$26,000
Communication Distribution Cabinet	CDC-001	1	\$12,000.00	\$12,000
Communication Cable	CDW-001	13	\$800.00	\$10,400
Point of Sale Terminal	POS-001	1	\$3,200.00	\$3,200
Driver Information Kiosk	DIK-001	1	\$4,800.00	\$4,800
Management Utilization Reports	MUR-001		\$7,000.00	\$7,000
Security Camera & Enclosure	WBC-001	3	\$900.00	\$2,700
Security Camera Controller	SCC-001	1	\$4,400.00	\$4,400
Total Hardware				\$320,000
INSTALLATION				
Item			Unit Price	
Installation				
Professional Services		1	\$49,150	\$49,150
Dual Service Towers		11	\$1,500	\$16,500
Dual Shore Power Unit		1	\$1,500	\$1,500
Dual Refrigeration Power Unit		1	\$1,500	\$1,500
Vehicle Detection		25	\$125	\$3,125
Anti-Idling		25	\$125	\$3,125
Electrical Distribution Cabinet		1	\$6,000	\$6,000
Electrical Cable		25	\$2,000	\$50,000
Communication Cabinet		1	\$4,000	\$4,000
Communication Cable		25	\$1,100	\$1,100
Point of Sale Terminal		1	\$1,000	\$1,000
Driver Self Service Kiosk		1	\$1,000	\$1,000
Total Installation				\$138,000
Total Hardware				\$320,000
Total System and Installation				\$458,000

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Part Three of the Grant: The details of the budget for the Generator replacements project are described below.

Generator	Capacity	Unit Cost	Extended
2 Microturbine Diesel Generator Units	29 (+1/-1) kW net 3 Phase 400/480 Volts AC 46 A per phase max continuous, 50/60 Hz	\$50,000	\$100,000
Installation			\$25,000
		Total	\$125,000

6. Contractual

Category	EPA
Contractor : Long term DPF maintenance service for 42 school buses	\$167,870

All solicitation notices are published in the Delaware Capital Review, as required by law. Bidders are given 30 days to submit their proposals from the time the solicitation is published. A pre-bid meeting is required to clarify any questions about the solicitation for the bidders prior to the opening of the bids.

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All Bids and Proposals shall be delivered in sealed envelopes and shall bear the name and address of the bidder, as well as the designation of the contract, on the outside envelope. Proposals forwarded by U.S. Mail shall be sent first class. All documents forwarded by U.S. Mail, delivery service, or hand delivered must be delivered to the address listed in the bid documents.

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All bids and proposals will be accepted on or before the time and place set in the specifications. Bidder bears the risk of delays in delivery. Proposals received after the time set for public opening will be returned unopened.

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7. Other

Category	EPA
Audit of Grant	\$5,190

8. Direct Charges: Categories 1-7: **\$1,703,431**

9. Indirect Charges (32.49% of Grant): **\$18,979**

Indirect costs result from allocation of a grouping of administrative costs which are not easily identified as a direct cost.

SIGNATURES

Required signatures by the Department's fiscal officer are found on the documents accompanied by this work plan.