

Sample Proposal

GRANT PROPOSAL

CLEAN SCHOOL BUSES, CLEAN SNOW REMOVAL TRUCKS AND CLEAN BULLDOZERS

CITY OF PLEASANTVILLE

May 1, 2008

Note: This document is intended to be an example to assist in the preparation of a grant proposal to the U.S. EPA. It is not intended to be used verbatim, but rather to serve as a sample for eligible entities (e.g. U.S. regional, state, local, tribal or port agencies or nonprofits related to transportation or air quality) as they craft their individual proposals.

Included in the Sample Proposal:

1. Sample Narrative Statement of Work
2. Standard Form 424
3. Standard Form 424A
4. Applicant Fleet Description Spreadsheet

Each organization that chooses to use this example should take care to make changes that reflect the individual organization and the specific requirements of the Request for Proposals. Please be aware that each Request for Proposals will differ slightly in its instructions and requirements. Failure to follow RFP instructions exactly may result in ineligibility.

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SECTION 1 - SUMMARY PAGE

1. Project Title: City of Pleasantville Clean School Bus, Clean Snow Removal Trucks and Clean Bulldozers Project

2. Applicant Information:

Organization:

City of Pleasantville

123 Main St.

Pleasantville, USA 45678

Contact:

Susie S. Sunshine

Manager, Environmental Affairs

phone: 123-456-7890

fax: 123-456-7891

email: susie.sunshine@ci.pleasantville.usa

3. Funding Requested: \$188,354

4. Total Project Cost: \$208,354

The State is providing \$10,000 and the City of Pleasantville is providing \$10,000.

5. Project Period:

November 1, 2008 – November 1, 2010

SECTION 2 – NARRATIVE WORK PLAN

A. PROJECT SUMMARY/APPROACH

1. Air quality description of Pleasantville

The City of Pleasantville, the largest community in Pleasant Valley County, has poor air quality, and the county has been in severe non-attainment of national ambient air quality standards for a criteria pollutant imposed by the federal Clean Air Act for the last five years. Based on data from 2002 (the most recent data available), the average ambient levels of diesel particulates and air toxics in our county are above the 95th percentile for all counties in the United States. Given the population growth in Pleasantville over the last five years, these ambient levels are expected to have increased.

In addition, Pleasantville is encircled by two interstate highways, which experience increasingly heavy traffic congestion daily. There is a large truck stop just outside of Pleasantville, which attracts traffic from both the north-south and east-west highways around our city.

Public health authorities have linked diesel exhaust to problems such as asthma, heart disease and lung cancer. Children are particularly affected as their respiratory systems are still developing and they have faster breathing rates than adults. Health statistics confirm that air quality problems have affected our local population of school-aged children. According to the state Department of Human Services, Pleasant Valley County has the highest rate of children's hospital admissions for asthma in the state.

School buses are a significant contributor of air toxics and diesel particulates, which cause or aggravate asthma. Studies have shown that students riding school buses are exposed to levels of pollutants far above the local average. In addition, children waiting near buses are directly in the exhaust zone of the idling buses. 8000 students ride our school buses for an average of an hour and a half each day. They, as well as the 7000 students who are in the schoolyard but do not ride the buses, are exposed to increased levels of diesel particles and emissions in and around our schools that far exceed the county's ambient levels.

A second source of high diesel emissions in Pleasantville is our fleet of snow removal trucks. Because we are located in a snow belt, we receive over 350 inches (almost 30 feet!) of snow annually, which means that our snow removal trucks are in near-constant use during our six month-long snow season.

Finally, our city has five small bulldozers which are used for moving salt, mulch, gravel, etc., related to city needs. These bulldozers have older engines and are high emitters of pollution.

2. Quantity of air pollution produced by the diesel fleets in Pleasantville

Current levels of air pollution produced by our school bus, snow removal truck and bulldozer

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fleets are significant contributors to our air pollution problem and are estimated by US EPA's Diesel Emissions Quantifier (DEQ) to be as follows:

Current Annual Emissions from School Buses, Snow Removal Trucks and Bulldozers

	CO (tons/yr)	NOx (tons/yr)	HC (tons/yr)	PM (tons/yr)
School Buses	1.74	11.25	0.64	0.19
Snow Removal Trucks	0.11	0.76	0.03	0.02
Bulldozers	0.73	0.72	0.14	0.13
Total	3.50	12.73	0.81	0.34

3. Project description

The City of Pleasantville has been seeking ways to reduce diesel engine emissions and alleviate health concerns for several years. We have actively sought information about alternative technologies and fuels and have met bimonthly for more than a year with the City of Neighborville to discuss their experiences with retrofits and cleaner fuels. As a result of this dialogue, the City has developed a three part solution to reduce emissions: 1) retrofitting our school buses with diesel oxidation catalysts (DOCs) and diesel particulate filters (DPFs), 2) retrofitting our snow removal trucks with diesel particulate filters (DPFs), and 3) retrofitting our bulldozers with DOCs and fuelling with ultra-low sulfur diesel fuel.

Retrofit equipment will be purchased and installed under contract with a qualified vendor using only EPA-verified diesel retrofit technologies. The contract will contain specific language requiring that the contractor provide evidence of verification.

If we are awarded this grant, our project schedule will be as follows:

- November 1, 2008 - Order 45 DOCs, 29 DPFs and 2 spare filter sections (allowing for 60 day delivery). We have already established exhaust temperature profiles on our all of our snow removal trucks and school buses to ensure their exhaust temperatures are hot enough to prevent clogging of the DPFs.
- January 1, 2009 – August 15, 2009 - Install DOCs and DPFs on school buses, followed by installation of DPFs on snow removal trucks and DOCs on bulldozers. This allows us to complete the retrofits over the summer, a down time for both our school buses and snow removal trucks.
- January 1, 2009 – Bulldozers begin using ultra-low sulfur diesel.
- September 1, 2009 – All vehicles are retrofitted.
- October 1, 2010 – Write final report for EPA and close out grant paperwork.

4. Evaluation of the quantifiable and unquantifiable emissions reduction benefits from the proposed project

DOCs can reduce particulate emissions by 20 percent, carbon monoxide emissions by 40 percent and hydrocarbon emissions by 50 percent. DPFs have demonstrated reductions in

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excess of 90 percent for HC and CO, with reductions of 85 percent for PM. With the early use of ultra-low sulfur diesel fuel for the nonroad equipment (something not mandated until 2010), even greater reductions are expected.

DOC and DPF technology significantly reduce particulate and other emissions at a reasonable cost, making it desirable for large fleets such as our school buses. This investment has a potentially large payoff for the public good, particularly for our children, and we expect to see a reduction in children's hospital admissions for asthma, as well as fewer missed school days. Using US EPA's Diesel Emissions Quantifier (DEQ), estimated annual emissions reductions are as follows:

Estimated Annual Emissions Reductions from Retrofits and Cleaner Fuel

	CO (tons/yr)	NOx (tons/yr) *	HC (tons/yr)	PM (tons/yr)
School Buses	0.86	0	0.40	0.08
Snow Removal Trucks	0.10	0	0.02	0.01
Bulldozers	0.26	0	0.04	0.03
Total	1.22 (35%)	0	0.46 (57%)	0.12 (35%)

* In this example, no NOx were reduced.

5. Estimate of proposed project costs and the cost-effectiveness of emission reductions

This year, we have the opportunity to use funds from a state Department of Environmental Quality Clean Air grant as seed money to begin cleaning up our heavy-duty fleets. In addition to \$10,000 in state funds, the City of Pleasantville has provided \$10,000 in funds. We are asking for \$184,354 in federal funds so that we can complete our proposed upgrades.

The proposed budget for the DOC and DPF retrofits is \$207,250 and the estimated premium for using ultra-low sulfur diesel fuel for the five bulldozers for 1 year is \$1104. The total cost for these projects is \$208,354. A more detailed breakdown appears below.

Proposed Budget for Retrofits and ULSD (ULSD for bulldozers only)

Retrofit Equipment	Quantity	Parts Cost	Labor Cost	Total Costs
DOC	40 school buses	\$ 700 each	\$ 50 each	\$ 30,000
DPF	20 school buses	\$5000 each	donated	\$100,000
DPF	9 snow removal trucks	\$7000 each	\$1000 total	\$ 64,000
DOC	5 bulldozers	\$1000 each	\$ 50 each	\$ 5,250
Spare DPF filters	2 filter sections	\$4000	-	\$ 8,000
ULSD	1,472 gals/year/vehicle	\$.15/gal premium	-	\$ 1,104
TOTAL				\$208,354

Cost Effectiveness

Cost effectiveness of emissions reductions over the life time of these projects, as estimated by

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US EPA's Diesel Emissions Quantifier (DEQ), are as follows:

Cost Effectiveness of Retrofits and ULSD

CO	NOx	HC	PM
\$13,575/ton	\$0/ton*	\$35,593/ton	\$130,156/ton

* In this example, no NOx were reduced.

6. Description of the age and expected lifetime of the equipment used or funded by the eligible entity

According to US EPA's Diesel Emissions Quantifier (DEQ), on average the remaining useful life of our school bus fleet is 12.75 years, on average the remaining useful life of our snow removal truck fleet is 15.13 years, and on average the remaining useful life of our bulldozer fleet is 19.58 years. Below is a breakdown of our fleets by model year and manufacturer.

Our School Bus, Snow Removal Truck and Bulldozer Fleets

Year	# Vehicles	Vehicle Manufacturer
1998	40 school buses	Big Yellow
2000	20 school buses	Matchbox
2003	9 snow removal trucks	Tonka
2000	5 bulldozers	Big Wheels

7. Description of diesel fuel available in the area, including sulfur content.

Ultra low sulfur diesel (ULSD) is widely available for highway vehicles throughout the area. Sulfur content is 15ppm.

Highway vehicles have been using ULSD since it became mandatory nationwide. However, the bulldozers have been using regular diesel fuel.

8. Provisions for the monitoring and verification of the project

The City of Pleasantville has experienced grant managers and other resources necessary to successfully manage this grant. Susie Sunshine, who has had experience with state and federal grants, will provide fiscal management for this project and will submit all required reports. She is our official representative registered with Grants.gov and is authorized to sign applications for federal assistance.

We are aware of several qualified contractors in our area, and will use a competitive bid process to award the contract. These contractors will work directly with the City's fleet manager to identify vehicles for retrofitting and review the installation process and schedule. Prior to paying

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any invoices, the City's fleet manager and his head mechanic will audit the contractor's work.

9. Information on project partners and their various roles and leveraged resources

The City of Pleasantville has been able to leverage seed money from the State to obtain matching funds from the City. As part of the State grant, we will participate with state agencies in statewide educational and promotional efforts about this project. In addition, as mentioned above, Neighborville has mentored us in this effort.

10. Information on the sustainability of the project beyond the assistance agreement period

While incentives are critical in initiating the move towards new technologies and alternative fuels, once the benefits have been demonstrated, it is easier to institutionalize these changes. We have learned a lot from Neighborville's experiences with DOCs and DPFs retrofits and we look forward to trouble-free equipment and long-lasting emissions reductions.

The City of Pleasantville has begun partnering with two state agencies - Department of Human Health and Department of Environmental Quality - to educate other areas in our state about the health effects of exposure to diesel exhaust and the options for reducing these impacts. We are an active participant in "green" events to publicize the benefits of using retrofit technology and alternative fuels, and consider it part of our mission to promote an understanding of ways to reduce diesel emissions among the public. Outreach materials will also be developed by the City to make our citizens aware of our progressive stance towards retrofitting and re-fueling our fleets. We would expect this to result in public demand for the continued use cleaner fuels and higher standards for all city vehicles.

B. PROGRAMATIC PRIORITIES

The City of Pleasantville, the largest community in Pleasant Valley County, has poor air quality, and the county has been in severe non-attainment of national ambient air quality standards for criteria pollutant imposed by the federal Clean Air Act (CAA) for the last five years. Based on data from 2002 (the most recent data available), the average ambient levels of diesel particulates and air toxics in our county are above the 95th percentile for all counties in the United States. Given the population growth in Pleasantville over the last five years, these ambient levels are expected to have increased.

In addition, Pleasantville is encircled by two interstate highways, which experience increasingly heavy traffic congestion daily. There is a large truck stop just outside of Pleasantville, which attracts traffic from both the north-south and east-west highways around our city.

The proposed retrofits are cost effective, long lasting, verified technologies that will have a direct and immediate impact on public health. DOC and DPF technology significantly reduce particulate and other emissions at a reasonable cost, making it desirable for large fleets such as

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our school buses. This investment has a potentially large payoff for the public good, particularly for our children, and we expect to see a reduction in children's hospital admissions for asthma, as well as fewer missed school days.

C. PAST PERFORMANCE

1. Programmatic Capability

Susie Sunshine has successfully handled several recent CMAQ grants for the City. The City of Pleasantville received a 2006 CMAQ grant for \$200,000 to develop an infrastructure for biofuels in our county. Susie wrote and submitted the winning proposal. She monitored the contractor's progress and expenses during construction, and met all of the reporting requirements for the grant. The project was successfully completed on schedule and within budget.

In 2005, The City of Pleasantville used a CMAQ grant to fund the start-up of a program that provided unlimited bus passes (Eco Pass) to all downtown employees free of charge to address air quality, parking, and traffic congestion problems in the downtown area. During the two-year pilot, a total of 11,300 passes were distributed to over 400 downtown businesses, and according to a study conducted in 2006, 35% of the employees with passes indicated they had increased their bus usage because of the passes. Susie successfully handled all aspects of this grant request, including administration and reporting.

2. Reporting on Environmental Results

The city's Eco Pass program (see above) was a great success, and exceeded all of the goals set for the program. During the two-year pilot, a total of 11,300 passes were distributed to over 400 downtown businesses. According to a survey administered by the City in 2006, 35% of the employees with passes indicated they had increased their bus usage an average of one day a week because of the passes. The BWC emissions calculator estimated that this shift resulted in the savings of almost 16,000 metric tons of CO₂, 37 tons of VOC, 61 tons of NO_x, and 289 tons of CO.

D. ENVIRONMENTAL RESULTS

DOCs can reduce particulate emissions by 20 percent, carbon monoxide emissions by 40 percent and hydrocarbon emissions by 50 percent. DPFs have demonstrated reductions in excess of 90 percent for HC and CO, with reductions of 85 percent for PM. With the use of ULSD, even greater reductions are expected.

DOC and DPF technology significantly reduce particulate and other emissions at a reasonable cost, making it desirable for large fleets such as our school buses. This investment has a potentially large payoff for the public good, particularly for our children, and we expect to see a reduction in children's hospital admissions for asthma, as well as fewer missed school days. Using US EPA's Diesel Emissions Quantifier (DEQ), estimated annual emissions reductions are

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as follows:

Estimated Annual Emissions Reductions from Retrofits and ULSD

	CO	NO _x *	HC	PM
Bus DOC	0.35 (30%)	0	0.21 (50%)	0.03 (20%)
Bus DPF	0.51 (90%)	0	0.19 (90%)	0.05 (85%)
Snow Removal DPF	0.10 (90%)	0	0.02 (90%)	0.01 (85%)
Bulldozer DOC + ULSD	0.26 (35%)	0	0.04 (30%)	0.03 (25%)
Tons/Year (%)	1.22 (35%)	0	0.46 (57%)	0.12 (35%)

* In this example, no NO_x were reduced.

SECTION III – BUDGET DETAIL AND NARRATIVE

The proposed budget for these retrofits is \$207,250 and the estimated premium for using ULSD for 1 year (5 bulldozers) is \$1104, making the total costs for these projects is \$208,354. A more detailed breakdown appears below.

Proposed Budget for Retrofits and ULSD

Retrofit Equipment	Quantity	Parts Cost	Total Parts Cost	Total Labor Cost	Total Costs
DOC	40 school buses	\$700 each	\$ 28,000	\$2000	\$ 30,000
DPF	20 school buses	\$5000 each	\$100,000	donated	\$100,000
DPF	9 snow removal trucks	\$7000 each	\$ 63,000	\$1000	\$ 64,000
Spare DPF filters	2 filter sections	\$4000	\$ 8,000	-	\$ 8,000
DOC	5 bulldozers	\$1000 each	\$ 5,000	\$ 250	\$ 5,250
ULSD	1472 gal/vehicle	\$.15/gal premium	\$ 1,104	-	\$ 1,104
TOTAL			\$205,104	\$3250	\$208,354

This year, we have the opportunity to use funds from a state Department of Environmental Quality Clean Air grant as seed money to begin cleaning up our heavy-duty fleets. In addition to \$10,000 in state funds, The City of Pleasantville has provided \$10,000 in funds. We are asking for \$188,354 in federal funds so that we can complete our proposed upgrades.

Application for Federal Assistance SF-424

Version 02

* 1. Type of Submission:

- Preapplication
- Application
- Changed/Corrected Application

* 2. Type of Application:

- New
- Continuation
- Revision

* If Revision, select appropriate letter(s):

* Other (Specify)

* 3. Date Received:

Completed by Grants.gov upon submission.

4. Applicant Identifier:

5a. Federal Entity Identifier:

* 5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name:

* b. Employer/Taxpayer Identification Number (EIN/TIN):

* c. Organizational DUNS:

d. Address:

* Street1:

Street2:

* City:

County:

* State:

Province:

* Country:

* Zip / Postal Code:

e. Organizational Unit:

Department Name:

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

* First Name:

Middle Name:

* Last Name:

Suffix:

Title:

Organizational Affiliation:

* Telephone Number:

Fax Number:

* Email:

Application for Federal Assistance SF-424

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9. Type of Applicant 1: Select Applicant Type:

[Redacted]

Type of Applicant 2: Select Applicant Type:

[Redacted]

Type of Applicant 3: Select Applicant Type:

[Redacted]

* Other (specify):

[Redacted]

*** 10. Name of Federal Agency:**

[Redacted]

11. Catalog of Federal Domestic Assistance Number:

[Redacted]

CFDA Title:

[Redacted]

*** 12. Funding Opportunity Number:**

[Redacted]

* Title:

[Redacted]

13. Competition Identification Number:

[Redacted]

Title:

[Redacted]

14. Areas Affected by Project (Cities, Counties, States, etc.):

[Redacted]

*** 15. Descriptive Title of Applicant's Project:**

[Redacted]

Attach supporting documents as specified in agency instructions.

Application for Federal Assistance SF-424

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16. Congressional Districts Of:

* a. Applicant

* b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

Buttons: Add Attachment, Delete Attachment, View Attachment

17. Proposed Project:

* a. Start Date:

* b. End Date:

18. Estimated Funding (\$):

Funding breakdown table with rows for Federal, Applicant, State, Local, Other, Program Income, and TOTAL.

* 19. Is Application Subject to Review By State Under Executive Order 12372 Process?

Radio button options for E.O. 12372 review status.

* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.)

Yes/No radio buttons and an Explanation text box.

21. *By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge...

** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Form fields for Authorized Representative: Prefix, First Name, Middle Name, Last Name, Suffix, Title, Telephone Number, Fax Number, Email, Signature, Date Signed.

*** Applicant Federal Debt Delinquency Explanation**

The following field should contain an explanation if the Applicant organization is delinquent on any Federal Debt. Maximum number of characters that can be entered is 4,000. Try and avoid extra spaces and carriage returns to maximize the availability of space.

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OMB Approval No. 0348-0044

BUDGET INFORMATION - Non-Construction Programs

SECTION A - BUDGET SUMMARY						
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Clean School Bus	66.039	\$	\$	\$124,000	\$10,000	\$134,000
2. Clean Snow Plow	66.039			\$ 58,000	\$10,000	\$ 68,000
3. Clean Bulldozer	66.039			\$ 6354	\$ 0	\$ 6,354
4.						
5. Totals		\$	\$	\$188,354	\$20,000	\$208,354
SECTION B - BUDGET CATEGORIES						
6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)	
	(1) Clean School Bus	(2) Clean Snow Plow	(3) Clean Bulldozers	(4)		
a. Personnel						
b. Fringe Benefits						
c. Travel						
d. Equipment (DPFs)	\$104,000	\$67,000			\$171,000	
e. Supplies (DOCs/ULSD)	\$ 28,000		\$6,104		\$ 34,104	
f. Contractual	\$ 2,000	\$ 1,000	\$ 250		\$ 3,250	
g. Construction						
h. Other						
i. Total Direct Charges (sum of 6a-6h)	\$134,000	\$68,000	\$6,354		\$208,354	
j. Indirect Charges						
k. TOTALS (sum of 6i and 6j)	\$134,000	\$68,000	\$6,354	\$	\$208,354	
7. Program Income	\$	\$	\$	\$	\$0	

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SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS	
8. Clean School Bus	\$5000	\$5000		\$10,000	
9. Clean Snow Plows	\$5000	\$5000		\$10,000	
10. Clean Bulldozers	\$0	\$0		\$0	
11.					
12. Total (SUM OF LINES 8-11)	\$10,000	\$10,000		\$20,000	
SECTION D - FORECASTED CASH NEEDS					
13. Federal	Total for 1 st Year	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
	\$188,354	\$0	\$128,354	\$60,000	\$0
14. Non-Federal	\$ 20,000	\$0	\$ 20,000	\$0	\$0
15. TOTAL (sum of lines 13 and 14)	\$208,354	\$0	\$148,354	\$60,000	\$0
SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program	FUTURE FUNDING PERIODS (years)				
	(b) First	(c) Second	(d) Third	(e) Fourth	
16. Clean School Bus	\$0	\$0	\$0	\$0	
17. Clean Snow Plow	\$0	\$0	\$0	\$0	
18. Clean Bulldozers					
19.					
20. TOTAL (sum of lines 16-19)	\$0	\$0	\$0	\$0	
SECTION F - OTHER BUDGET INFORMATION					
21. Direct Charges:			22. Indirect Charges:		
23. Remarks:					

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