

# 2009 Mobile Source Emissions Reduction Grant Cover Sheet

Project Title: _____
Project Coordinator: _____
Organization/Business Name: _____
Organization Type: State Government
Mailing Address: _____
City: _____ County: _____ Zip: _____
Telephone: _____ FAX: _____
Email: _____

Alternate Contact Name: _____	
Alternate Contact Telephone: _____	Alternate Contact E-mail: _____

Amount Requested: \$ _____
Amount of Matching Funds: <i>Cash</i> \$ _____ <i>In-kind</i> \$ _____
Project Summary:

Date: _____
<b>Signature of Authorized Representative</b> (Signature certifies authority to represent this organization in this application. Unsigned applications cannot be accepted.) Attach this page to the front of your proposal.



# Sample Proposal

## 2.0 Quantifiable Reductions

	PM	HC	CO	Total
Lifetime Tons Reduced (tons)	0.5	3.8	8.7	13

\* Results are from the EPA quantifier

For a sample calculation including inputs and result table, see the appendix.

## 3.0 Unquantifiable Benefits

In the letter of support from Riverside Hospital, the writer states that a request from a school district in the proposal area needed help handling asthma attacks on school buses and the hospital provided assistance as outlined in the letter. Cleaner buses will provide a healthier environment for the children, especially asthmatics, drivers of school buses, and neighborhoods where they drive. The emphasis on idle reduction for school buses will assist schools when asking carpooling parents to reduce their idling, providing health benefits.

## 4.0 Budget

Provider	Tasks/ Equipment	DAQ Cost	Other Costs	Type
NC DAQ	Retrofits (\$1800 per bus) * 50 buses	\$90,000		Capital
Wardner	Programmatic support		\$4,000	In-kind
Total		\$90,000	\$4,000	\$94,000

Wardner will provide staff-time in order to prepare the RFP for the school bus retrofits. Wardner anticipates 20 man-days will be spent on this project 20 days \* \$200/day = \$4000.

## 5.0 Cost Effectiveness

DAQ Cost of Reduction	Total Tons Reduced	Cost Effectiveness (DAQ \$/ton reduced)
\$90,000	13	\$6,923

\*Cost Effectiveness is DAQ \$/Ton reduced

Cost effectiveness is \$6,923 /tons of air pollution reduced.

## 6.0 Permanence of Benefits

Targeted vehicles are school buses with an estimated remaining life of at least 4 years based on the retirement formula set forth by the state of 20 years or 200,000 miles. Therefore, all emission reductions will continue for a minimum of four years with additional reductions continuing until all retrofitted buses are turned over.

# Sample Proposal

## 7.0 Timetable

Timeline	Activity
September 2009 - March, 2010	Planning, Cost Analysis
March, 2010	Bidding process begins
1 month later	Bidding process completes, vendors approved through Associate Superintendent of Administrative Services
1 month later	Finalize timelines, schedules, and procurement of services
June – September 2010	Buses retrofitted
1 month later	Initial reports completed, assessments formulated, documents shared with funding agency and community Invoices and report submitted to DENR

This timeline is a conservative estimate of the time required to execute the project. Every effort will be made to accelerate this process.

## 8.0 Evaluation of Project Success

- 50 school buses in Wardner County will be retrofitted with 40% or greater particulate pollution reduction retrofits. This will be tracked by invoices and reports from the School Districts.
- Training of school bus drivers on the idle reduction policy and the importance of the policy to the children riding on their bus and themselves. This will be tracked by a written report from Wardner County.
- School bus emissions will be reduced by 0.5 tons of particulate matter (PM), 3.8 tons of hydrocarbons (HC) and 8.7 tons of carbon monoxide for the remaining life of the buses.
- The project has a cost effectiveness of \$6,923 per ton of total pollutants reduced (DAQ \$ funded/ tons reduced) based on the remaining life of the buses.
- Cleaning up the school bus fleet in the project area will assist the State in its endeavor to improve the ambient air quality in the area.

## 9.0 Appendix: Table of Contents

- Letters of support from Riverside Hospital
- Example of calculation of emissions from EPA quantifier:
  - Entry screen showing numbers used and then example of output.
  - Summary of Results from Quantifier showing inputs

# Sample Proposal



Riverside Hospital

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November 30, 2008

Anne Galamb  
North Carolina Division of Air Quality  
1641 MSC  
Raleigh, NC 27699-1641

Dear Ms. Galamb,

I am writing in support for the proposal submitted by the Wardner County. The Riverside Hospital supports this project and will work to promote awareness of this program to clean our buses!

Pediatric asthma is a very serious health issue not only in eastern North Carolina but also throughout the state. Centers for disease Control ranks asthma as the leading chronic illness among children and youth in the United States. In 2004, 5.1 million school –aged children and youth were reported to currently have asthma. On average, in a classroom of 30 children, about 3 are likely to have asthma.

Several years ago, I received a call from a local school principal who was concerned about children having asthma episodes while riding on the bus. After several meetings with school officials, we developed a plan to assist bus drivers about how to handle an asthma episode. We also addressed the issue of bus drivers in our county not having mobile [hone to sue in an emergency situation. As a group, we were able to seek funds to place a mobile phone on every bus. Our program also started providing in-services for bus drivers to increase their knowledge about this disease.

Riverside Hospital is pleased to support efforts to clean up fine particulate matter on school buses in hopes of fewer asthma episodes and recommend that you seriously consider this grant application.

Sincerely

Jan Smiley, BAS, RRG, LLP  
Pediatric Asthma Specialist

# Sample Proposal

Example Diesel Quantifier  
Inputs for Clean School Buses  
for Wardner County  
(Screen appearance will vary by  
project type) Derived from:  
<http://cfpub.epa.gov/quantifier/view/index.cfm>

## Editing Information for Vehicle Group 2 (V2)

Enter or edit information about this Vehicle Group.

Selected State: NC  
Select type: On-Highway  
Select sector: School Bus  
Vehicle or Equipment: School Bus  
Quantity: 1  
Model Year: 1997  
Retrofit Year: 2009  
Select fuel type: Regular Diesel (ULSD), 15 ppm  
Enter fuel volume: 1455 gal/yr for group  
Calculated fuel volume: 1455 diesel gal/yr for group  
Vehicle miles traveled: 9472 miles/vehicle/year  
Idling hours (including hours saved): 15 idle hours/vehicle/year

[Click here to enter funding information.](#)

## 40% Particulate Reduction Retrofit Applied

## Apply a Technology to Vehicle Group 2 (V2)

Enter or edit information about the Emissions Reduction Technology.

Select technology type: Emissions Control Devices  
Select technology: Other Emissions Control Devices

This group has 1 vehicles. Enter the number of vehicles to which you would like this technology applied.

Apply to 1 vehicles (out of 1) that do not currently have a technology.

Pollutants:	NOx	PM	HC	CO	CO2
Reduction:	0.00 %	40 %	75 %	80 %	0.00 %

Unit cost: \$ 2000

Installation cost: \$

Example input screen for a 1997 school bus that has EPA verified DOC plus CCV applied. Percentage reductions were derived from EPA verified technology website (<http://www.epa.gov/otaq/retrofit/verif-list.htm>). For other model year buses, similar inputs were used. Idling hours was assumed the same for all model year buses.

