Downwinders at risk

reducing toxic air pollution in north texas

Applicant Information Form
Sue Pope North Texas Pollution Reduction Program

Organization:	North Central Texas Council of Governments
Organization type	Non-Profit
Organization Street Address:	616 Six Flags Drive Centerpoint Two
City, State, Zip	Arlington, TX 76011

Project Officer (Title, First, MI, Last, Suffix):			Senior Transportation Planner, Amanda Brimmer		
Phone—extension	(817) 608-2354	Fax	(817) 640-3028	Email	abrimmer@nctcog.org
Project Name		Replacement of High Emitting School Buses in North Central Texas			
Location of Project		North Central Texas Ozone Nonattainment Area			
Project Start Date (MM/DD/YYYY)		07/01/2009			
Project End Date (MM/DD/YYYY)		05/31/2010			

BUDGET: Please summarize your budget request in the space provided. You should also provide a more detailed budget in your preproposal.

Line Item	**Requested Funds**	**Matching Funds**
Salaries and Benefits		Up to $5,000
Equipment	Up to approximately $1.1M (if all buses are funded at 45 percent incremental cost)	Up to approximately $1.3M (assuming 55 percent recipient cost share)
Other:		
Total:	Up to **$1.1M**	Up to approximately $1.305M

PROJECT TITLE

Replacement of High Emitting School Buses in North Central Texas

PROJECT MANAGER

Amanda Brimmer
Senior Transportation Planner
North Central Texas Council of Governments
817-608-2354
abrimmer@nctcog.org

TOTAL PROJECT COST

Up to $1.1M based upon project selection

PROJECT PERIOD

Beginning Date: July 2009
Ending Date: May 2010

SUMMARY STATEMENT

There is a strong need to reduce school bus emissions in the North Central Texas area, not only to improve air quality, but also to protect the health of school-aged children. The oldest school buses in the region have been estimated to emit as much as 60 times more pollution than buses that meet the 2007 emissions standards[1]. The North Central Texas Council of Governments (NCTCOG) opened a Call for Projects, administered through the North Central Texas (NCT) Clean School Bus Program, in February 2009 to fund school bus replacement, repower, and retrofit projects within the NCTCOG 16-county service area. This call resulted in a large demand for funding. Unfortunately, 29 excellent school bus projects are not able to be funded with the limited amount of funding currently available through this program. Therefore, due to limited resources, NCTCOG would like to submit 29 school bus projects, which were submitted through NCTCOG's Clean School Bus Program call for projects, for Sue Pope funding consideration.

PROJECT DESCRIPTION

There is a strong need to reduce school bus emissions in the NCT area not only to improve air quality, but also to protect the health and wellbeing of school-aged children. Health studies have concluded that children's health is considerably more at risk of being adversely affected by air pollution than that of adults. Numerous studies have been conducted regarding the effects of school bus exhaust pollution on children and the key findings include:

1) Pollution from the school bus exhaust system has a significant impact on the occupants inside the bus, particularly when the windows are closed.[ii]

2) Emissions from engine start-up are significantly less than the emissions produced from idling over a 10-minute period.[iii] Thus, anti-idling policies need to be strictly enforced by schools and school bus operators.

The goals of the NCT Clean School Bus Program include funding school bus replacements, repowers, and retrofits, encouraging schools and school districts to expedite the purchase of clean buses, and encouraging the adoption and enforcement of anti-idling policies for all school bus operations. This program also seeks to gather community resources to assist school districts in improving air quality and protecting children's health.

NCTCOG opened a Call for Projects, administered through the NCT Clean School Bus Program, in February 2009 to fund school bus replacement, repower, and retrofit projects within the NCTCOG 16-county service area. This call resulted in a large demand for funding that exceeded the amount of funding currently available. In an attempt to obtain additional funding for these remaining projects, U.S. Environmental Protection Agency (EPA) American Recovery and Reinvestment Act (ARRA) funding was sought. However, due to the competitive nature of that solicitation and the fact that traditionally school bus projects have a hard time competing against other types of on-road projects, the proposal submitted was not selected. As a result, 29 excellent school bus projects are not able to be funded with the limited amount of funding currently available through the NCT Clean School Bus Program. Therefore, NCTCOG would like to submit 29 school bus projects for Sue Pope Fund (Fund) consideration.

Although NCTCOG is not able to fund these additional school bus replacement projects, any amount of additional funding from the Fund would be an added benefit to the region in ensuring that these older, high emitting buses are retired and replaced with cleaner, safer school buses as well as helping further promote the goals of the NCT Clean School Bus Program to reduce emissions from school bus fleets and protect the health of school-aged children.

The large number of older buses still in service in the region, the status of the Dallas-Fort Worth (DFW) areas as nonattainment for ozone, and the fact that NCTCOG has conducted a competitive call for projects and scored projects based upon cost-effectiveness and emissions reduced will help ensure that any clean school bus projects that receive funding are "shovel-ready" and can be implemented in an expeditious manner. Table 1 shows the list of school bus projects that were not able to be funded by NCTCOG. The projects have been prioritized based on nitrogen oxides (NO_X) and particulate matter (PM) cost-effectiveness. NCTCOG's solicitation required a 55 percent minimum local match for replacement projects, thus the requested grant amount is approximately 45 percent of the total cost of the replacement vehicles. Further details on each proposed project can be provided to the Fund upon request.

Table 1 - School Buses That Have Not Yet Received Funded

Entity	County	Bus Model Year	NOX Reduction (Tons)	PM Reduction (Tons)	Total Project Cost	Grant Amount Requested	NOx Cost-Effectiveness ($/ton)
Crandall ISD	Kaufman	1996	1.05	0.03	$88,909	$40,009	$38,220
Crandall ISD	Kaufman	1996	0.91	0.02	$88,909	$40,009	$44,005
Crandall ISD	Kaufman	1996	0.88	0.02	$88,909	$40,009	$45,298
Azle ISD	Tarrant/Parker	1993	0.70	0.05	$76,123	$36,683	$49,202
Birdville ISD	Tarrant	1992	0.68	0.06	$76,413	$35,736	$50,882
Birdville ISD	Tarrant	1996	0.72	0.02	$81,928	$38,218	$51,421
Birdville ISD	Tarrant	1996	0.71	0.02	$81,928	$38,218	$51,833
Birdville ISD	Tarrant	1994	0.66	0.06	$76,413	$35,736	$51,912
Mabank ISD	Kaufman	2002	0.71	0.03	$84,970	$38,237	$53,685
Azle ISD	Tarrant/Parker	1993	0.62	0.04	$76,123	$36,683	$55,352
Birdville ISD	Tarrant	1994	0.66	0.06	$81,928	$38,218	$56,162
Birdville ISD	Tarrant	1996	0.65	0.02	$81,928	$38,218	$56,451
Blue Ridge ISD	Collin	1991	0.63	0.04	$81,196	$36,538	$58,111
Mabank ISD	Kaufman	1996	0.59	0.02	$84,970	$38,237	$64,996
Ennis ISD	Ellis	1993	0.50	0.03	$82,034	$41,217	$73,113
Azle ISD	Tarrant/Parker	1993	0.46	0.03	$76,123	$36,683	$73,803
Glen Rose ISD	Hood	1991	0.56	0.05	$91,316	$41,542	$73,919
Crandall ISD	Kaufman	1997	0.51	0.01	$88,909	$40,009	$78,396
Birdville ISD	Tarrant	1995	0.47	0.04	$81,928	$38,218	$79,240
Celeste ISD	Hunt	1989	0.46	0.03	$81,624	$36,950	$80,201
Dallas Lutheran	Dallas	1991	0.28	0.02	$95,000	$42,750	$152,219
Celeste ISD	Hunt	1994	0.21	0.01	$81,624	$36,950	$177,165
Kennedale ISD	Tarrant	1991	0.19	0.01	$87,480	$39,600	$208,694
Birdville ISD	Tarrant	1996	0.17	0.01	$81,928	$38,218	$215,758
Crandall ISD	Kaufman	1990	0.18	0.02	$88,909	$40,009	$225,459
Celeste ISD	Hunt	1992	0.17	0.01	$84,530	$38,250	$230,464
John Paul II HS	Dallas	1996	0.12	0.00	$101,818	$47,000	$383,907
Crandall ISD	Kaufman	1990	0.10	0.01	$88,909	$40,009	$395,283
Crandall ISD	Kaufman	1986	0.08	0.01	$88,909	$40,009	$532,263
TOTAL – 12 Entities, 29 Buses			14.60	0.81	$2,451,688	$1,128,162	

TARGET DATES AND MILESTONES

February-April 2009: Administer call for projects for clean school bus projects.

April-July 2009: Score projects and announce awards based on funding currently available.

July 2009 – May 2010 Assist Sue Pope Fund in facilitating coordination between schools and school districts for school bus replacement project funding.

Promote projects through various outreach opportunities including NCTCOG newsletters and publications.

CRITERIA

1) Achieving Key Reductions

The DFW nine-county nonattainment area is downwind of major point sources in Texas and replacing older, high emitting school buses in this region will positively benefit the youngest members of the population. The quantitative outcomes of replacing these buses include netting significant nitrogen oxides (NOx) emission reductions in addition to achieving emission reductions of particulate matter (PM), volatile organic compound (VOC), carbon monoxide (CO), and potentially carbon dioxide (CO_2), depending on the fuel economy attained by the replacement bus. Because of the longevity of school buses, which typically remain in a fleet for 10- to 20-years, long term emissions reductions associated with the replacement of older school buses, many of which pre-date emissions control requirements, have the potential to be significant. Total emissions reductions achieved from each project are based on the age and activity of the bus and are shown in columns 4 and 5 of Table 1.

2) Public Impact

The desired public impact of this project includes a greater awareness by school district officials and staff on the importance of diesel emissions reductions in terms of the effects of school bus exhaust on children's health. NCTCOG will provide assistance, as requested, to promote the retirement and replacement of school buses funded by the Fund. This may include a press release and media event to highlight the school/school district(s) that receive funding. These projects may also be promoted in various NCTCOG publications including the bi-annual *Clean School Buzz*, the DFW Clean Cities Technical Coalition newsletter, and NCTCOG's *It's Your Region.*

In the Clean School Bus Program 2009 call for projects, all public entities had to have adopted the Regional Transportation Council (RTC) Clean Fleet Vehicle Policy to be eligible for funding. This comprehensive policy addresses how fleets can have a positive impact on air quality through clean vehicle acquisition, maintenance, and operation. In addition, this policy also incorporates an idle reduction component requiring that idling be restricted to only safety, emergency response, vehicle maintenance, equipment activity, warm-up/operations in cold temperature, and manufacturer recommended minimum idle/warm-up times. All public entitles listed in Table 1 have adopted, and are in compliance with, the policy. In addition, John Paul II High School, a private entity, has also adopted this policy, bringing the total number of entities in North Texas that have adopted the policy to 96.

COLLABORATIONS OR PARTNERSHIPS

Strong and long-standing relationships between the NCTCOG and many local school districts currently exist. The main intent of NCTCOG is to act as a facilitator between the Fund and schools/school districts to get school bus replacement projects funded without receiving funds directly, as well as assisting in the promotion of the projects, the grant recipients, and the Fund. By the Sue Pope Fund providing funding to one or more of the above listed projects, it would provide the opportunity for more schools and school districts, that historically have not been involved in, or educated about, region-wide efforts, to reduce emissions from school bus fleets and participate in air quality initiatives.

The DFW Clean Cities Coalition (CCC) Coordinator may also be involved as a partner in this project. The DFW CCC is administered by the NCTCOG staff. One of the goals of the Clean Cities Coalition is to encourage the use of alternative fuels, idle reduction techniques and technologies, and increase the use of advanced technologies. The Clean Cities Coordinator can provide outreach about the replacement project to stakeholders, who include school districts.

COST-SHARING OR MATCHING

As necessary to fulfill project coordination and facilitation, NCTCOG staff time may be provided as matching funds. School bus funding and cost overrun will be agreed upon between the Sue Pope Fund and the respective schools/school districts chosen to receive funding. Schools/school districts will be the direct recipient of funding, not NCTCOG.

NCTCOG Estimated Administration and Staff Time	**Up to $5,000**

DETAILED BUDGET

Upon one or more school bus replacement projects being selected by the Fund, up to $1.1 million in potential school bus projects is included in this proposal. However, NCTCOG is not requesting funding directly. Funding would be awarded to schools and school districts at the discretion of the Sue Pope Fund.

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[i] EPA's Clean School Bus USA, http://www.epa.gov/cleanschoolbus/replacement.htm

[ii] California Environmental Protection Agency, Air Resources Board, *Staff Report: Proposed 2005-2006 Lower-Emissions School Bus Program Guidelines and Funding Allocation.* 01/24/06. www.arb.ca.gov/msprog/schoolbus/2006/stfrpt.pdf. 04/02/07.

[iii] School Transportation News Media, *EPA Study Supports Anti-Idling Health Benefit for Students,* 03/20/07. www.stnonline.com/stn/top_stories/epa_idling_study032007.htm. 03/20/07.