



Downwinders

reducing toxic air pollution in north texas *at risk*

Program Solicitation Sue Pope North Texas Pollution Reduction Program

INTRODUCTION

The Sue Pope North Texas Pollution Reduction Program seeks to achieve significant reductions in the level of NO_x—a category of nitrogen and oxygen compounds produced by the burning of fossil fuels. Elevated levels of NO_x contribute to the formation of smog, impair visibility, and have significant health consequences. Due to the impact that NO_x has on air quality, it has been identified as a target pollutant for pollution reduction efforts nationwide.

Blue Skies Alliance Trust (BSA Trust) and Downwinders at Risk Education Fund (DAREF) have received \$2.25 million dollars in a settlement agreement, with these funds dedicated to achieving significant public reductions in NO_x in the North Central Texas Council of Government region's four core counties (Collin, Dallas, Denton, and Tarrant) and affected surrounding counties (Ellis, Erath, Hood, Hunt, Johnson, Kaufman, Navarro, Palo Pinto, Rockwall, Somervell, and Wise). Funds are to be disbursed to projects within these 16 counties by BSA Trust and DAREF through agencies including NCTCOG, DFW nonattainment area city or county governments, or Habitat for Humanity.

PROGRAM DESCRIPTION

The Sue Pope North Texas Pollution Reduction Program provides grants to third parties who agree to carry out activities that have a likelihood of achieving NO_x reductions. Funded projects may include school bus/fleet emission retrofits or reductions, low-income household weatherization, truck stop electrification, car replacement programs, or energy efficient building projects.

Each project will be reviewed on the basis of two review criteria:

- **Achieving Key Reductions.**
Applicants will be asked to provide evidence that their project achieves key reductions in NO_x as well as other major pollutants that impact human health. Preference will be given to projects that address multiple pollutants, achieve the highest ratio of reductions to project cost, and with the greatest overall longevity of NO_x reductions. Projects that address populations downwind of major point sources are strongly encouraged.
- **Public Impact.**
Applications will be reviewed based on whether the project serves as an important public exemplar of the application of air quality reductions. The public impact criterion may be satisfied by including an educational component on the importance of NO_x reductions and air quality, targeting sensitive groups (people with lung or heart disease, children and the elderly), or historically disadvantaged groups. Organizations may also satisfy the public impact criterion by

acquiring matching funds for their project from government or local agencies; however, matching funds are not required.

Projects should explicitly address the two review criteria, with approximately 4/5 of project budget and time dedicated to achieving key reductions, with 1/5 of the project addressing the public impact goal.

APPLICATION GUIDELINES

Application for the Sue Pope North Texas Pollution Reduction Program requires the submission of a proposal by a potential grantee demonstrating interest and general outline of the project. Proposals will be reviewed and select organizations will be invited to submit a final full proposal.

Preproposals are currently being accepted:

Preproposals shall be no longer than five pages, and should include a description of the activities for which the applicant requests funding, the deliverables and environmental results, a detailed budget, and project timeline. Applicants should specifically address the two review criteria and identify the project activities that will address each of these criteria. All preproposals should also include the applicant information form (attached to this program announcement).

Final Proposal upon invitation:

The Sue Pope Fund will notify selected applicants that they may formally submit a full proposal. The complete application package will require additional project descriptions, detailed information on the environmental results, and letters of support from participating organizations. Applicants invited to submit a full proposal will be guided in the proposal completion process by a member of the organization to help craft a proposal that meets the objectives of the program.

BSA Trust and DAREF will make a formal announcement of funded projects to coordinate with the beginning of ozone season. Upon announcement of the grantees, arrangement will be made for transfer of project funds to recipient organizations within thirty (30) days.

MAILING ADDRESSES AND INFORMATION

Applicants who need clarification about specific requirements of the Sue Pope North Texas Pollution Reduction Program, or who would like to submit a preproposal may contact The Sue Pope Fund – North Texas Pollution Reduction Program.

THE SUE POPE FUND NORTH TEXAS POLLUTION REDUCTION PROGRAM

Office 972.296.9400

Fax 972.296.9492

Email: info@suepopfund.org



Downwinders

reducing toxic air pollution in north texas *at risk*

Applicant Information Form Sue Pope North Texas Pollution Reduction Program

Organization:	Core Energy Group
Organization type	Private
Organization Street Address:	5950 Berkshire Ln, Suite 800
City, State, Zip	Dallas, TX 75225

Project Officer (Title, First, MI, Last, Suffix):				CEO Kyle Ford	
Phone— extension	214-533-3431	Fax	214-252-7051	Email	kford@core-energy- group.com
Project Name		ScooterED			
Location of Project		Texas Christian University and Southern Methodist University			
Project Start Date (MM/DD/YYYY)		August 24, 2009			
Project End Date (MM/DD/YYYY)		December 13, 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	0	0
Equipment	284,300	0
Other:	0	0
Total:	284,300	0

Use this Page to Provide Us With Additional Information:

Preproposals shall be no longer than five pages, and should include a description of the activities for which the applicant requests funding, the deliverables and environmental results, a detailed budget, and project timeline. Applicants should specifically address the two review criteria and identify the project activities that will address each of these criteria. All preproposals should also include the applicant information form (attached to this program announcement).

Please provide us with additional information regarding the project

Proposal for the Sue Pope North Texas Pollution Reduction Program:

Core Energy Group, Dallas, TX, proposes to decrease harmful emissions on university campuses across the United States, initiating a pilot project at Southern Methodist University and Texas Christian University. A fleet of electric scooters will be purchased and leased to university students replacing the use of 200 cars on University campuses. This project will reduce the use of cars, ease traffic congestion, reduce idling on and around university campuses, increase parking spaces, and offer a clean alternative mode of transportation.

Students will be allowed to lease a scooter each semester, and in return will receive preferential parking spaces at dorms and campus buildings. The scooters are electric and will be charged at stations set up on campus. The charging stations can be powered by solar electricity or on-the-grid power, depending on each location. The charging stations can accommodate 3 scooters in a single parking space. This is a parking area increase of 66% efficiency.

A third party will manage and administer the program, and the university will receive a portion of the proceeds each semester for the use of their parking spaces and promotion of the project. The university will be asked to offer an incentive for students who utilize this program, such as discounts on student parking or collegiate sports tickets.

Acclimating students to a more environmentally friendly lifestyle in college will carry over to their life beyond the campus. Each generation that is a part of this movement will be endowed with the ability to make a difference in the world. The university will have an incentive to grow the project as they will offer a cleaner campus with less traffic congestion, and will generate a revenue stream.

Universities for Pilot Program:

Southern Methodist University gained recognition in 2007 when it's green efforts received a \$1000 prize from MTV, SMU has housed a hybrid car show, joined the Clean Cities Coalition, and created Students for Sustainable Future.

Texas Christian University has established several environmental initiatives including downsizing from full-sized trucks to compact vehicles and electric golf carts to reduce emissions and a "Purple Bike" program. This program supplies bicycles to students, faculty and staff to reduce the number of cars on campus.

Organization:

Kyle Ford, Michael Riccubuo and Brenda Gray founded Core Energy Group in Dallas, Texas in 2006. Core Energy has been involved in the alternative fuel market providing solutions to businesses that are interested in reducing their emissions. Our current product line includes electric golf carts, electric 4x4 hunting vehicles, electric ATVs, electric scooters and bicycles that support "green" personal transportation and recreation.

Kyle Ford of EF Properties and Michael Riccubuo of Riccubuo Auto Sales previously worked together to import and sell Mercedes Smart Cars™ in America. They are currently in talks to convert the vehicles to an all-electric model.

Problem Statement:

Most university campuses are overcrowded with vehicles. Lack of parking spaces and traffic congestion makes engine idling for 20 minutes in a parking lot a real problem. To eliminate cars on and near campuses, universities can offer alternate forms of personal transportation. Buses quickly become overcrowded and are expensive to operate and maintain. Students tend to dislike dependence on buses due to limiting time schedules and routes and overcrowding in inclement weather. Bicycles are a good alternative, however, many students are reluctant to over-exert themselves going to class on a hot day or in the rain. An electric scooter is an excellent solution.

A scooter feels and sits the same as a bicycle. Its speed is governed at 19 miles per hour, well within the speed of a bicycle, and it does not require a license to drive or need to be registered. It is classified as a bicycle and can be taken on any road that bicycles are allowed by law and by university authorities.

Core Energy Group will initiate a pilot program of 100 scooters at both Texas Christian University and Southern Methodist University, with charging stations on campus to accommodate the scooters. The project will be offered to other universities around the Dallas / Ft. Worth area, and will be implemented with the data collected through this pilot program. The project will double in size by Fall of 2010, bringing the number of scooters to 200 per campus. The nation-wide rollout is planned for Fall 2010, and will include the opportunity for faculty and staff to utilize the scooters as well as the students.

Project Objectives:

The goals of this project are to decrease overall campus air pollution by decreasing the use of cars on and around campus, decrease engine idling caused by traffic congestion and limited availability of parking spaces.

<u>Environmental Impact</u>	
Pilot Project Size	200 scooters total
Average Car CO2 Emissions	20.4 lbs per gallon
CO2 Savings per 200 gallons	4,080 lbs
Average drive plus idling fuel consumption per day	.6 gallons
Project CO2 Savings over first 30 days	73,440 lbs not released into the atmosphere
Average Car NOx Emissions	71 lbs per gallon
NOx Savings per 200 gallons	14,200 lbs
Average drive plus idling fuel consumption per day	.6 gallons
Project NOx Savings over first 30 days	255,600 lbs not released into the atmosphere

These objectives are directly influenced by the size and scope of the project. The more scooters in service, the larger the decrease in pollution and congestion, and an increase in the number of available parking spaces reducing parking lot idling for spaces.

The initial phase of the project will encompass the introduction of 200 scooters on two campuses. This is an attainable and realistic number and will yield valuable data regarding the desire of students to utilize an opportunity to reduce their carbon footprint,

Project Methods and Milestones:

August 2009

- Conduct interest survey at dorms, sororities, and fraternities. These locations will be selected so as to consolidate the charging stations. The interest forms will cover the following:

- General Interest

- Amount student is willing to pay for the lease (\$500 per semester projection)

- Location of classes and utilization of scooters on campus

Locating students that travel the same paths to and from class will help define the initial phase of 100 scooters and charging stations to be located in relatively similar areas.

- Work with TCU and SMU engineering departments to design the solar power into the charging stations.

- Develop the ability for the solar power, when not charging scooters, to supply power back to the power grid.

- When the sun is down, the charging stations will pull from the grid at off-peak hours to decrease energy generation emissions.

September 2009

- Selected students will be required to pass a written, internet-based safety course, ensuring knowledge of proper scooter use.

- Once the students have passed the on-line test, they will be given a driving test on a coned obstacle course.

October 16-18, 2009

- Set up charging stations on campus

- Allow students to receive their scooters

November 2, 2009

- Begin taking requests for spring semester

- Increase scooter population in Spring if demand exceeds quantity

December 18-23, 2009

- Collect data from students on overall experience

- Return scooters for observation and maintenance

January 2010

- Deliver scooters

- Set up additional charging stations if necessary

- Begin promoting scooters for summer semesters

June –August 2010

- Promote the scooter program and take orders at First Year Orientation

Administration:

A third party will administer the project. They will manage scooter promotion in conjunction with the university, maintenance on scooter population, delivery and collection of all scooters, and administration of the 2-year warranty. The university's role will be in promotion and cooperation on the project. They will be asked to offer an incentive(s) to students for using the program; free parking pass, free student athletics tickets, decreased cost of meal plan are a few of the options that may be available. The incentives will be left to the university's discretion.

Pilot Market Statistics:

Texas Christian University

Total Enrollment	2898 Men	4151 Women
------------------	----------	------------

First Year Class Enrollment	1644
Average Tuition	\$24,868
Room & Board	\$8,200
Student Housing	3400 Students live on campus
Campus Size	300 Acres

Southern Methodist University

Advantages for Students	Enrollment	2699 Men	3152 Women
	First Year Class Enrollment	1309	
	Average Tuition	\$30,880	
	Room & Board	\$10,825	
	Student Housing	2525 Students live on campus	
	Campus Size	210 Acres	

- Preferential parking spaces
- Ease of mobility around campus
- University offered incentives
- Decreased cost of use [see below]

Annual costs of car ownership in the U.S. is over **\$7000:**

Principal on car loan	\$3,579
Finance charges on car loan	359
Gas & Oil	1279
Insurance	819
Maintenance & Repair	662
Licenses, Parking, & Misc.	534
Total Yearly Costs	\$7,232

The cost per semester for the scooter would be \$500. Annually this would be \$1,500, making a difference of \$5,732. Over the course of a 4-year degree, a student would save **\$22,928**, almost a full year's tuition.

Advantages for Universities

- Good Public Relations Media
- Added value amenities for students
- Seen as a campus innovator in the academic community
- Added revenue stream from scooter rentals
- Decreased traffic congestion
- Increased parking spaces without having to add parking or build parking garages

Capital Requirement

Cost of Scooter	\$850
Cost of Charging Station without Solar (can fit 6 scooters)	\$2100
Charging Station without Solar per Scooter Cost	\$350
Cost of Charging Station with Solar	\$6600
Charging Station with Solar per Scooter	\$1,100

Total Cost Per Scooter and Charging Station without Solar:	\$1200
Total Cost Per Scooter and Charging Station with solar	\$1,950

Total cost of project including 200 scooters, 10 solar charging stations and 23 non-solar charging stations:

200 Scooters	\$170,000
10 Solar Charging Stations	\$66,000
23 Non-Solar Charging Stations	\$48,300
Total Cost	\$284,300

Total Pilot Revenue Generated for Perpetuation

200 Scooters	
October-December (prorated at \$100)	\$20,000
December-May (\$500 Lease)	\$100,000
May-August (\$400 Lease)	\$80,000
August-December	\$100,000
Y1+2 Months	\$300,000

Conclusion and Request

This project has realistic goals that are easily met. The amount of cars displaced shows an obvious reduction in emissions and greatly enhances the efficiency of the campuses. The revenue generation tool for the universities will ensure perpetuation and growth of the project. Core Energy respectfully requests funds of \$284,300 to enact this program.