

NTRD Program Disclaimers

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**Texas Commission on Environmental Quality
New Technology Research & Development (NTRD) Program
Monthly Project Status Report**

Contract Number: _582-5-70807-0002_____

Grantee: _County of El Paso_____

Date Submitted: _6-16-06_____

Report for the **Monthly** period:

Starting Date _5-1-06_____ Ending Date _5-31-06_____

Section I. Accomplishments *(Please provide a bulleted list of project accomplishments as well as a description of their importance to the project.)*

To date, El Paso County, Ruby Mountain Inc., the Idaho National Lab (INL), and Border Quality Campaign of El Paso del Norte (BQC) have been coordinating with industry and local service providers in El Paso on the development of the natural gas shuttle bus for El Paso County. This has included the following:

- Coordination with ARBOC regarding final inspection of the project vehicle prior to transport to Essex, Connecticut for engine re-power (diesel to natural gas) and installation of natural gas refueling system (LNG and CNG).
- Conducted a meeting and several conference calls with Hydraulic Launch Assist (HLA) manufacturer Eaton Technologies to discuss project applications.
- Held additional meetings with Sun Metro to discuss LNG and CNG refueling facilities and potential integration of an emerging small-scale liquefaction technology demonstration in El Paso. Specifically, the project team is seeking to work with BOC Gases and GTI on the prospect of placing a small-scale gas liquefier at one of Sun Metro's existing fueling facilities in El Paso. The small-scale liquefier would provide LNG for the project vehicle.
- Held additional meetings with Cummins Rocky Mountain in El Paso to discuss capabilities and capacity to provide timely warranty and maintenance service to project vehicle.
- Continued working to make modifications to the project work scope which will allow for a bifurcated field testing process for the project vehicle.
- Provided planning for pilot test evaluation and transport of project vehicle from Essex, CT to El Paso, TX. Contacted Natural Gas Vehicle Coalition and other industry resources for CNG and LNG refueling facilities locator information to provide refueling of project vehicle during pilot test evaluation from Essex, CT to El Paso, TX. Developed evaluation matrix to log test data of project vehicle during testing.

Indicate which part of the Grant Activities as defined in the grant agreement, the above accomplishments are related to:

Task 2: Installation and Fabrication

2.2 Task Statement: The performing party will install and fabricate the necessary components to construct the transit bus with ADA capabilities with the HLA and the LNG engine.

Task 4: Reporting

2.4 Task Statement: Prepare and submit monthly detailed project reports and a comprehensive final report while ensuring compliance with all TCEQ program requirements.

Section II: Problems/Solutions

<p>Problem(s) Identified</p> <p><i>(Please report anticipated or unanticipated problem(s) encountered and its effect on the progress of the project)</i></p>	<p>Project partners have identified the need to identify natural gas (CNG and LNG) refueling infrastructure to meet fuel needs for project vehicle transport and pilot test evaluation from Essex, CT to El Paso, TX following the completion of the natural gas engine re-power.</p>
<p>Proposed Solution(s)</p> <p><i>(Please report any possible solution(s) to the problem(s) that were considered/encountered)</i></p>	<p>The following options are being explored by the project team:</p> <p>Option #1: Map out CNG refueling sites sufficient to get the vehicle from Essex to Dallas, TX and then refuel the vehicle with both CNG and LNG which will give it the necessary range to get to El Paso.</p> <p>Option #2: As another option, the project partners are attempting to get additional estimates to flatbed the vehicle from Essex to Dallas (which is the closest accessible LNG fuel supply) and then drive the vehicle to El Paso.</p>
<p>Action(s) Conducted and Results</p> <p><i>(Please describe the action(s) taken to resolve the problem(s) and its effect)</i></p>	<p>The BQC has contacted the Natural Gas Vehicle Coalition and other industry resources for CNG and LNG refueling facilities locator information to provide for refueling of project vehicle from Essex to El Paso. Additionally, the project team is gathering estimates to flatbed the vehicle for Essex to Dallas.</p>

Section III. Goals and Issues for Succeeding Period: *(Please provide a brief description of the goal(s) you hope to realize in the coming period and identify any notable challenges that can be foreseen)*

Work in the next month of the project period will focus on the following contract tasks:

Task 2: Installation and Fabrication of bus.

2.2 Task Statement: The performing party will install and fabricate the necessary components to construct the transit bus with the L/CNG engine and tank systems.

2.2.1 Install and fabricate the necessary components to construct the transit bus with L/CNG engine

- a. Install CNG fuel system
- b. Fabricate and install LNG system
- c. Fabricate and install economizer valve
- d. Design interface software to integrate CNG and LNG system
- e. Integrate L/CNG system with engine



Date: 6-16-06

Authorized Project Representative's Signature

NOTE: *Please attach any additional information that you feel should be a part of your report or that may be required to meet the deliverable requirements for tasks completed during this reporting period.*