

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: 7-11-06

Report for the **Monthly** period:

Starting Date 6-1-06 Ending Date 6-30-06

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

During June 2006, El Paso County, Ruby Mountain Inc., 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, including the steps summarized below.

- Conducted conference calls with Hydraulic Launch Assist (HLA) manufacturer Eaton Technologies to discuss the El Paso County project application. Specifically, the following issues were addressed:
 1. Making modifications to the project work scope which will allow for a bifurcated field testing process for the project vehicle.
 2. Ensuring that the HLA device can be installed with sufficient time to satisfy TCEQ desires and statutory requirements. As agreed upon, the HLA will be installed by February 28, 2007, providing for a 3-month technology assessment period with the final NTRD project report due by the time the contract expires on May 31, 2007.
- Project team members have been coordinating with Bell Powers Systems in Essex, CT to ensure the timely re-power of the project vehicle from diesel to natural gas and subsequent installation of the L/CNG fueling system.
- Continued planning for pilot test evaluation and transport of project vehicle from Essex, CT to El Paso. Team members made additional contacts regarding CNG and LNG refueling facilities to provide refueling of project vehicle during pilot test evaluation from Essex, CT to El Paso, TX. Additional steps taken this month include contacting the Department of Energy Efficiency & Renewable Energy (EERE) to research and identify available natural gas refueling sites for demonstration vehicle testing in route from Connecticut to El Paso TX. Along with EERE, the project team contacted LNG suppliers to identify other fueling facilities or options for LNG refueling.
- Researched licensing and certification requirements for providing service and warranty work on the demonstration vehicle's natural gas system.
- Discussed deployment of demonstration vehicle with area transportation directors and elected officials to help facilitate preparation of vehicle introduction and public outreach efforts.
- Helped facilitate meetings with Sun Metro regarding refueling facility options and potential expansion of LNG storage (and production) to compliment project vehicle deployment. As reported previously, discussions with Sun Metro have focused on LNG and CNG refueling facilities and the potential integration of an emerging liquefaction technology demonstration in El Paso. The project team facilitated a meeting with Sun Metro

Maintenance Director Kevin Bunce and representatives from BOC Gases and GTI on the prospect of placing a gas liquefier at one of Sun Metro’s existing fueling facilities in El Paso. The liquefier would provide LNG for the project vehicle and broaden Sun Metro’s capabilities in terms of the transit operation being able to expand their LNG fueling capabilities.

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 locater information to provide for refueling of project vehicle from Essex to El Paso. Additionally, the project team gathered estimates to flatbed the vehicle for Essex to Dallas as part of Option #2.</p>
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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: 7-11-06

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.*