

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: _11-15-06_____

Report for the **Monthly** period:

Starting Date _10-1-06_____ Ending Date _10-31-06_____

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

In October, El Paso County, Ruby Mountain Inc. (RMI), the Idaho National Laboratory (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 activities summarized below:

- Conducted conference calls with Hydraulic Launch Assist (HLA) manufacturer Eaton Technologies to discuss the El Paso County project. Specifically, the following issues were addressed:
 1. Arranging for timely installation of the HLA device, including determination of final costs and logistics;
 2. Determining the best location for the HLA installation; and,
 3. A meeting is currently being scheduled for December in Detroit, MI between Eaton, RMI and BQC to discuss final logistics prior to installation of the HLA device on the El Paso County vehicle in early 2007.

- Project team members have been coordinating with Bell Power Systems in Essex, CT to ensure the re-power of the project vehicle from diesel to natural gas and subsequent installation of the L/CNG fueling system. Specifically, the primary issue has been installation of the CNG tanks. As Bell Power was installing the CNG tanks, there was a stabilizing cross member section of the frame preventing installation. After discussions with the manufacturer, it was concluded that the cross member could be cut from the main chassis beam and moved a few inches and re-welded. This would allow the necessary space and not affect the structure or performance of the chassis. In the latest discussions, Bell Power was in the process of making these changes.

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 natural gas 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>Issue #1 – Fuel Receptacles</p> <p>Bell Power identified that there is not sufficient space to accommodate both the fill line for the LNG and CNG in the same fill location that the diesel receptacle was in. They had identified an enclosure that would fit below the drivers' side steps that the CNG receptacle could be mounted. This would require two different locations for fueling but did not pose a problem since at a fueling station the pumps are at differing locations anyway.</p> <p>Issue #2 – CNG Tank Installation</p> <p>Because of the limited space for the tanks, Bell Power was looking into tank mounts that would get the tanks closer together. They are checking with a manufacturer on availability.</p> <p>International claimed they had found a dual fuel fill box for both LNG & CNG, and had designed the rear section of the bus to accommodate this enclosure. Additional investigation was going to be taken to see if the structure to support such an enclosure is in place.</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>Issue #1 – Fuel Receptacles</p> <p>The solutions being investigated for the fill receptacles include: 1) if available and the structure is there, installing a dual fuel fill receptacle, or if this is not available, 2) install a CNG fill box under the stair on the drivers' side of the vehicle. Each solution is being investigated.</p> <p>Issue #2 – CNG Tank Installation</p> <p>The solutions associated with the CNG tanks not fitting are being addressed in two areas: 1) moving a cross member a few inches and re-installing to create the space; and, 2) using different tank mounts to allow the tanks to fit closer together.</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 project team has implemented weekly (or more frequently if needed) conference calls between technical members of the project team. In addition, RMI and BQC have brought the INL in to play a more active role with regard to technical oversight.</p> <p>Specific solutions to both technical issues will be in next month's report.</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)*

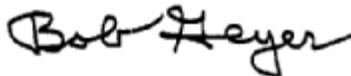
Work in the next month of the project period will focus on the following contract tasks:

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: 11-15-06

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.*