

## **NTRD Program Disclaimers**

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

Contract Number: \_\_582-5-70807-0011 \_\_\_\_

Grantee: \_\_Rolling Frito Lay Sales, LP\_\_\_\_\_

Date Submitted: \_\_November 4, 2005\_\_\_\_\_

Report for the **Monthly** period:

Starting Date \_\_October 1, 2005\_\_\_\_\_

Ending Date \_\_October 31, 2005\_\_\_\_

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

- **Updated Integrated Project Timeline** – The projected timeline has been continuously updated to reflect progress against objectives. All portions of the project are moving ahead according to the schedule at this point, for an April 2006 vehicle delivery.
- **Vehicle Construction** –
  - **Azure Dynamics** –All long lead items have been ordered from sub-suppliers. The base vehicle has been delivered to Azure’s facility, and engineering for integration of the hybrid drive components is underway. A detailed timeline with all phases of development and major milestones is being finalized; a project review is planned at Azure Dynamics’ facility in December to review the design and installation approach.
  - **Eaton/International** - A document has been drafted requesting a change to the contract scope of work to reflect International being the vehicle integrator versus Eaton. Submission of the formal request is pending receipt of a revised proposal from International Corp. It is expected that the cost will be the same as originally proposed by Eaton Corp. The project continues to move ahead at International for a truck delivery in April 2006.
  - The base chassis has been delivered to International's research facility in Ft. Wayne, IN. The hybrid drive unit is on schedule to be delivered by Eaton in late November, and the battery box and controls in December. 3-D modeling of the chassis and drive train fit is ongoing.
- **Testing/Data Acquisition**
  - **LopezGarcia Group** - LG Group has investigated the real-time vehicle emissions testing equipment, and had identified a vendor who will lease at a lower total project cost versus purchasing the instruments. A demonstration of the instruments is planned for November to further understand how they work, and installation requirements, and confirm a path forward for ordering. It was discovered that the on-board emissions monitoring equipment has GPS capability built-in for data acquisition and transfer.

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

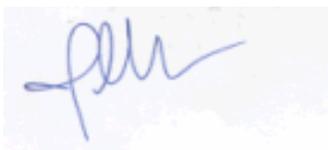
The above activities are directly related to Article 2, Scope of Work, Task 1: Development and Delivery of Hybrid Vehicles, specifically sections 2.1.1, 2.1.2, and 2.1.3.

Section II: Problems/Solutions

<b>Problem(s) Identified</b>  <i>(Please report anticipated or unanticipated problem(s) encountered and its effect on the progress of the project)</i>	<i>International proposes to integrate the hybrid drive components rather than Eaton. This will result in learnings for future production of larger number of vehicles with International and would shorten development time and cost required for any potential future orders for wider implementation of hybrid trucks.</i>
<b>Proposed Solution(s)</b>  <i>(Please report any possible solution(s) to the problem(s) that were considered/encountered)</i>	<i>Investigate with TCEQ what is required to amend the contract to reflect a different supplier of the comparable equipment and/or services as what was originally proposed. This step has been done. Send proposed changes to contract scope of work description and budget to TCEQ for consideration and approval. Completion of this step is pending receipt of a revised proposal from International.</i>
<b>Action(s) Conducted and Results</b>  <i>(Please describe the action(s) taken to resolve the problem(s) and its effect)</i>	<i>Proposed modification of contract Scope of Work and budget has been drafted, but not sent to TCEQ pending receipt of formal proposal from International.</i>

**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)*

1. *Continue vehicle fabrication Activities with each supplier. Ensure each supplier is staying on task with project scope and timeline.*
2. *A formal Purchase Order needs to be issued to International once the purchasing agreement paperwork is in place (terms and conditions, final contract, etc.)*
3. *Market survey, specification, and recommendation of GPS and emissions monitoring equipment. LG Group has identified the sensors and a lease option. LG and Frito-Lay desire to see a demonstration of the equipment prior to executing a lease agreement, so that will be scheduled for November.*
4. *Data analysis on current vehicle drive cycles - using GPS units to analyze current drive cycle for input into testing plans (ongoing activity). Pilot program independent of the hybrid project has activated GPS on a number of vehicles currently in use, and the data is now becoming available for analysis after lengthy effort by Frito-Lay to set up the data bases and reporting protocol. The drive cycles seen in day-to-day delivery activity at Frito-Lay need to be characterized and a determination of what is representative needs to be made for inclusion into the road testing. This activity is expected to be complete in December.*



Date: Novemberr 04, 2005

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**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.*