

VIII.A.5 Hydrogen and Natural Gas Blends: Converting Light- and Heavy-Duty Vehicles

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Start Date: July 2005

Projected End Date: June 30, 2009

Objectives

- Develop conversion kits for 9 light-duty vehicles for operation on 30% hydrogen/compressed natural gas (HCNG) blend fuels
- Maintain drivability while reducing tailpipe emissions
- Demonstrate durability of conversion and use of HCNG fuels

Technical Barriers

This project addresses the following technical barriers from the Technology Validation section of the Hydrogen, Fuel Cells and Infrastructure Technologies Program Multi-Year Research, Development and Demonstration Plan:

- Vehicles

Contribution to Achievement of DOE Technology Validation Milestones

This project will contribute to achievement of the following DOE Technology Validation milestones from the Technology Validation section of the Hydrogen, Fuel Cells and Infrastructure Technologies Program Multi-Year Research, Development and Demonstration Plan:

- *Milestone 1: Collect vehicle-operating experience, including fuel economy, range, cost, drivability, cold-start, emissions, and durability. Data will be used for modeling, and composite results will be disseminated.*

We are demonstrating 10 light-duty 30% HCNG vehicles. Fuel economy testing, maintenance and emissions will be collected on each vehicle before and after conversion.

Approach

Dedicated natural gas vehicles will be converted for operation on 30% HCNG. This low cost conversion approach will help current fleet users of natural gas to understand the basics of hydrogen operation, safety and dispensing while reducing tailpipe emissions.