

Project Information Form

Project Title	Development of Key-Enabling Technologies for a Variable-Blend Natural Gas Vehicle
University	University of California, Riverside
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Funding Source(s) and Amounts Provided (by each agency or organization)	USDOT - \$75,871.09
Total Project Cost	\$ 75,871.09
Agency ID or Contract Number	DTRT13-G-UTC29 UCR-DOT-306
Start and End Dates	July 1, 2016 through June 30, 2017
Brief Description of Research Project	<p>Renewable Natural Gas (RNG), i.e., natural gas produced from renewable feedstocks (e.g., Landfill gas, biomass, etc.) is an important alternative fuel that can contribute to achieving a number of goals set by the local and federal governments related to fossil fuel replacement and greenhouse gas (GHG) emissions reduction in the transportation sector. Natural Gas Vehicles (NGVs) have achieved reasonable market penetration over the past decade. However, a significant increase in the number of NGVs running on RNG is needed in order to make an impact on net GHG and criteria pollutant emissions reduction. Most RNG production projects are small to medium scale by nature and comprehensive gas cleanup/upgrading to meet NGV fuel specifications is often not feasible from a project economic perspective. This results in most RNG resources being wasted (e.g., flaring) or being left unused. Developing NGVs that can accept a broader range of RNG fuel properties is critical to achieve widespread RNG usage in transportation. This study aims to develop key technologies that are necessary to advance the Variable Natural Gas Vehicle (VNGV) concept to commercialization. The VNGV would run on conventional natural gas, but could also operate on any arbitrary mixture of natural gas and RNG contained in its on board compressed gas storage tank.</p>



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Describe Implementation of Research Outcomes (or why not implemented) (Attach Any Photos)	
Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links <ul style="list-style-type: none">• Reports• Project website	https://ncst.ucdavis.edu/project/development-of-key-enabling-technologies-for-a-variable-blend-natural-gas-vehicle/