



Project Information Form

Project Title	Development of Integrated Vehicle and Fuel Scenarios for Low Carbon US Transportation Futures
University	University of California, Davis
Principal Investigator	Christopher Yang
PI Contact Information	Email: ccyang@ucdavis.edu
Funding Source(s) and Amounts Provided (by each agency or organization)	US DOT - \$117,459.00
Total Project Cost	\$117,459.00
Agency ID or Contract Number	DTRT13-G-UTC29 UCD-DOT-304
Start and End Dates	October 1, 2016 through December 31, 2017
Brief Description of Research Project	The objective of this project is to better understand the greenhouse gas emissions (GHG) reduction potential in the U.S. transportation sector, with a focus on advanced vehicle technologies including zero emission vehicles and low-carbon, alternative fuels. The researchers will analyze a range of potential transition scenarios toward low-carbon transportation futures in the United States exploring how policies and technology assumptions impact vehicle, fuel infrastructure and resource requirements and costs. The analysis will be carried out through development of a national level U.S. energy economic optimization model (US-TIMES), employing the widely-used MARKAL/TIMES framework). They will address critical “gaps” in existing transportation energy models by (1) providing detailed representation of all major transportation subsectors at a disaggregated level (light-duty, medium and heavy-duty, rail, marine, aviation and off-road); (2) focusing model development on investments in both vehicles and fuel infrastructure; (3) assessing capital and operating costs of vehicle technologies and fuel infrastructure; and (4) using an integrated model to understand important linkages/synergies between the transport and other energy sectors. The proposed work will enable the development of robust, full US transport sector scenarios for 2030 and 2050, and estimates of GHG reductions, costs, and policy pathways to achieving them.
Describe Implementation of Research Outcomes (or why not implemented) (Attach Any Photos)	



National Center for Sustainable Transportation

Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links <ul style="list-style-type: none">• Reports• Project website	http://ncst.ucdavis.edu/project/development-of-integrated-vehicle-and-fuel-scenarios-for-low-carbon-us-transportation-futures/