

Project Information Form

Project Title:	Program for vehicle regulatory reform: Assessing life cycle-based greenhouse gas standards (Year 2)
University:	University of California, Davis
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Funding Source(s) and Amounts Provided (by each agency or organization):	US DOT - \$98,615.87
Total Project Cost:	\$98,615.87
Agency ID or Contract Number:	DTRT13-G-UTC29 UCD-DOT-213
Start and End Dates:	October 1, 2015 – September 30, 2017
Brief Description of Research Project:	<p>Greenhouse gas emissions standards and energy economy standards for passenger vehicles only address vehicle operation, omitting vehicle production emissions and other life cycle emissions. Non-operation emissions are more dominant in electric drive vehicles, a technology seen as critical to achieving significant GHG reductions from the light-duty vehicle (LDV) sector. This research examines the need, effectiveness, and policy strategies for capturing life cycle vehicle emissions in LDV GHG emissions standards.</p> <p>This proposal is for the second year of a 3-year research proposal. The first year of funding, which began Oct. 1, 2014, is focused on developing the life cycle light-duty fleet model that forms the basis of this research. This model is time-based, reflecting changes in vehicle production, operation, and disposal emissions by capturing changing technology, resource use for primary materials, changing fuel and electricity GHG intensity over time, and changes to recycling infrastructure and rates. The life cycle model will be coupled with a system dynamics model by the end of year-one research. The coupled model will be refined and then used during year 2 to examine net changes to GHG emissions from the LDV sector under different GHG emissions policies (operation-only versus life cycle-based), and will be used to compare implementation strategies for life cycle-based policies, such as product-oriented GHG standards for vehicles when coupled with other regional, national, or international policies for managing industrial sector emissions.</p>
Describe Implementation of Research Outcomes (or why not implemented): Place any photos here	

Impacts/Benefits of Implementation (actual, not anticipated):	
Web Links <ul style="list-style-type: none">• Reports• Project website	https://ncst.ucdavis.edu/project/program-for-vehicle-regulatory-reform-year-2/