

Project Information Form

Project Title:	Electric Fleet Adoption Strategies – Addressing Storage and Infrastructure Needs
University:	University of California, Riverside
Principal Investigator:	Arun Raju
PI Contact Information:	arun@enr.ucr.edu
Funding Source(s) and Amounts Provided (by each agency or organization):	California Department of Transportation (Caltrans) - \$84,857.00
Total Project Cost:	\$84,857.00
Agency ID or Contract Number:	UCR-CT-FAST-017 Caltrans 65A0686 Task Order 017
Start and End Dates:	November 20, 2018 – September 30, 2019
Brief Description of Research Project:	The goal of the project is to evaluate mid to long-term energy storage needs of the electric grid for select fleet electrification scenarios. We will compare grid-tied, behind the meter, and smart grid storage options, and will examine the feasibility of long-term storage through the ‘power to gas’ approach. The project will identify cost effective and practical solutions to manage the increasing renewables integration in the fleet electrification context. The Resolve model, an advanced power systems planning model developed for the California Public Utilities Commission will be used to conduct the core analysis. Designed to answer planning and operational questions related to renewable resource integration, resolve co-optimizes investment and dispatch over a multi-year horizon with one-hour dispatch resolution for a study area, and solves for the optimal investments in renewable resources, technologies, and energy storage options. The deliverables will include cost and electric infrastructure needs for anticipated transportation electrification trends, and energy storage and responsive demand strategy recommendations.
Describe Implementation of Research Outcomes (or why not implemented): Place any photos here	
Impacts/Benefits of Implementation (actual, not anticipated):	



National Center for Sustainable Transportation

<p>Web Links</p> <ul style="list-style-type: none">• Reports• Project website	<p>https://ncst.ucdavis.edu/project/electric-fleet-adoption-strategies-addressing-storage-and-infrastructure-needs/</p>
------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------