Session Two: Advanced Rail and Truck Technology Development and Deployment

11:30am-1:00pm  
Friday April 26th, 2013

Partners: UC Davis Institute of Transportation Studies (ITS), Union of Concerned Scientists (UCS), and the UC Center Sacramento (UCCS)

Key Questions: This policy forum will explore these questions, focused on land-side freight movement, namely trucks and trains, to help bound the discussion.

- What technologies show the most promise for achieving the deep emission reductions needed from trucks and trains?
- What are the barriers to development and deployment, and what policies can move zero and near zero emission freight technologies from demonstration to widespread adoption?

Speaker Bios:

Don Anair (Moderator) is research director in the California office of the Union of Concerned Scientists' (UCS) Clean Vehicles Program working on state and national transportation, air quality, and global warming policy. As part of his work on heavy-duty vehicle issues, Mr. Anair analyzes the impact of diesel pollution on public health and air quality. He is the author of three reports, "Sick of Soot," "Digging Up Trouble," and "Delivering the Green," which focus on the impacts and solutions to reduce diesel emissions. Mr. Anair also evaluates hybrid and advanced vehicle technologies and is co-author of “State of Charge”, a report which evaluates the global warming emissions and fuel cost savings of electric vehicles throughout the United States. Mr. Anair holds a bachelor's and master's degrees in electrical engineering from Cornell University.

Ben Sharpe is a researcher in the ICCT’s Heavy-Duty Vehicle Program. He is currently doing technical analyses to support ongoing policy development for controlling criteria pollutant and greenhouse gas emissions from on-road commercial trucks and buses. Prior to joining the ICCT, Ben worked as a field engineer for an Schlumberger, and oilfield services company, in Indonesia and Texas. He has also worked for the California Air Resources Board in the Emissions Inventory Group. In 2006, he began his doctorate work at the Institute of Transportation Studies at the University of California in Davis, where his research has primarily focused on life-cycle assessments of advanced vehicles and emission-control technologies for the on-road heavy-duty
vehicle sector. He holds a BS and MS in Civil Engineering from Stanford University, and he will complete his PhD at UC Davis in the Spring of 2013.

Fred Silver provides executive oversight on the Low Carbon Bus and Hydrogen Vehicle Programs as Vice President at CALSTART. He has worked with the Federal Transit Agency for more than twelve years focusing on the commercialization of new bus technologies including Zero Emission Fuel Cell and Battery Buses, Hybrid Vehicles and Advanced Bus Rapid Transit Vehicles. Fred also acts as the Director of the California Hybrid and Efficient Advanced Truck Research Center administered by CALSTART. The CalHEAT Truck Research Center has developed a Technology and Market Transformation Roadmap which results in California meeting the emissions and environmental policies as they relate to medium and heavy duty trucks. Fred has a background in power electronics including a Bachelor of Science Degree in Electrical Engineering from Fairleigh Dickinson University. He also holds a Master’s Degree in Business Administration from Pepperdine University.

Henry Hogo is the Assistant Deputy Executive Officer for the Mobile Source Division in the Office of Science and Technology Advancement at the South Coast Air Quality Management District (SCAQMD). Mr. Hogo received a Bachelor’s of Science degree in Chemistry from the University of California, Berkeley and has been working in the air pollution field for over 35 years. As Assistant Deputy Executive Officer in the Mobile Source Division, Mr. Hogo is responsible for the implementation of the District’s Clean Fleet Vehicle Rules, development of the mobile source strategies for the SCAQMD’s air quality management plans, analysis of mobile source emissions impacts on air quality, and providing input on state and federal mobile source regulations.

Chris Shimoda (Discussant) is currently the Manager of Environmental Policy for the California Trucking Association (CTA). He has been with the CTA since 2007 and was previously responsible for the development of its safety policy. Chris has worked with the Air Resources Board on the development and implementation of several major regulations, including the Statewide Truck and Bus Rule, the Greenhouse Gas Tractor-Trailer Rule, the Port Truck Drayage Rule, the Transport Refrigeration Unit Air Toxic Control Measure and Cap and Trade. He is an alumni of the University of California at Davis.