



## Transportation Innovation and Policy in a Fragmenting World

### Agenda

**August 22–25, 2017**

Asilomar Conference Grounds  
Pacific Grove, California

Organized under the auspices of the  
Energy and Alternative Fuels Committees and the Climate Change Task Force  
of the U.S. Transportation Research Board

Hosted by



### Tuesday, August 22

Registration – 3 to 6 p.m.

Welcome Reception – 4:30 to 6 p.m.

Dinner – 6 to 7:30 p.m.

Post-dinner Reception – 7:30 to 8:30 p.m.

### Wednesday, August 23

Session I – 9 a.m. to 12 p.m.

#### Welcome and Motivation

Daniel Sperling, *Professor and Director, Institute of Transportation Studies, UC Davis*

#### Setting the Context

What are the major domestic and international political and societal factors affecting the ability to advance greenhouse gas mitigation policies? Speakers in this session will discuss the impact of these factors on the transportation sector. The focus will be on challenges and strategies for finding a path forward, from both business and policy perspectives.

#### **Speaker:**

David Victor, *University of California, San Diego*

#### **Panelists:**

Mary Nichols, *Chair, California Air Resources Board*

Mark McNabb, *CEO, Electrify America*

**Lunch – 12 to 1 p.m.**

**Session II – 1:30 to 3:30 p.m.**

**Is Global Oil Demand Peaking?**

Many studies and scenarios suggest that oil consumption is likely to peak in the next two decades, or even sooner, and then start a steady decline. The implications for the transportation system, which relies on petroleum for over 90% of its energy, are huge. This session will examine the key factors affecting oil supply and demand in the near and longer term, including U.S. and international commitments to GHG mitigation.

**Moderator:**

David Greene, *University of Tennessee*

**Speakers:**

Stefan Knupfer, *McKinsey*

Joel Couse, *Chief Economist, Total*

**Discussants:**

Niel Golightly, *Shell*

Amy Jaffe, *UC Davis*

**Session III – 4 to 6 p.m.**

**Vehicle Automation and Shared Mobility**

The potential of automated vehicles, coupled with shared mobility, could lead to a major restructuring of transportation in the near future. The implications for travel demand, energy use, and greenhouse gas emissions could be significant, but critically depend on technological outcomes, guiding policy, and behavioral responses. How might congestion and emissions be limited through greater ride pooling and avoiding single and zero-occupancy trips? What policy might, in the face of uncertainty, help guide shared mobility business models and automation toward affordable, widely-accessible, and sustainable low-GHG mobility?

**Moderator:**

Anthony Eggert, *ClimateWorks Foundation*

**Speakers:**

Lew Fulton, *UC Davis*

“Energy and GHG Issues Related to Shared and Automated Mobility”

Joan Walker, *UC Berkeley*

“Behavioral and Travel Demand Response – Prospects and Obstacles”

Emily Castor, *Director of Transportation Policy, Lyft*

“TNC role is supporting pooled rides, automation, and electrification”

**BBQ Dinner – 6 to 9 p.m.**

## Thursday, August 24

### Session IV – 9 a.m. to 12 p.m.

#### **Electrification of Vehicles in the U.S. and Globally**

Electric vehicle technology is improving and battery and fuel cell costs are dropping fast. Even with rapid increases in plug-in electric vehicle sales, sales are still less than 1% worldwide. In this session, car makers, electricity providers, and regulators assess progress in the context of past and future policies and regulations. How far will battery and fuel cell costs drop, when will sales reach the core market segments, and what can car and utility companies do to accelerate market growth?

#### **Moderator:**

Roland Hwang, *NRDC*

#### **Speakers:**

Tom Turrentine, *UC Davis*

“State of the World PEV Market”

Andreas Klugescheid, *BMW*

“Automaker Perspective on PEVs”

Michael Backstrom, *Southern California Edison*

“Utility Perspective on PEVs”

### Lunch – 12 to 1 p.m.

### Session V – 1:30 to 3:30 p.m.

#### **Sustainable Freight**

What changes can be made with freight logistics and technology to improve energy efficiency and reduce GHGs and criteria pollutants? How do these changes affect commercial operations? Consideration will be given to new vehicle and fuel technologies and innovations such as transparent supply chain information systems. What new policies and investments will be needed to enable these changes?

#### **Moderator:**

Genevieve Giuliano, *University of Southern California*

#### **Speakers:**

Pascal Amar, *Volvo*

“Moving to Heavy Duty ZEVs: New Vehicle and Fuel Technologies”

Matt Miyasato, *South Coast Air Quality Management District*

“Heavy Duty AFVs on the Street: Demonstrations and Early Adopters”

#### **Panelists:**

Tim Frazier, *Cummins Inc.*

Matt Barth, *UC Riverside*

Scott Cramer, *President, Certified Freight Logistics Inc.*

## Session VI – 4 to 6 p.m.

### Infrastructure Implications of Mobility and Energy System Changes

Systems for refueling and supporting future motor vehicles will need to evolve over time in tandem with new generations of plug-in electric, biofuel, and hydrogen vehicles. Along with providing the capacity to dispense new types of cleaner fuels, siting and sizing of energy infrastructure will need to consider new paradigms of vehicle ownership and evolving travel/mobility patterns in urban, suburban, and rural settings. This session will address the infrastructure implications of energy and greenhouse-gas emission challenges, progress on infrastructure development for clean fuel vehicles, and shared mobility system interactions with vehicle fueling infrastructure.

#### **Moderator:**

Timothy Lipman, *University of California, Berkeley / LBNL*

#### **Speaker:**

Joan Ogden, *UC Davis*

“Alternative Fuel Infrastructure Challenges and Opportunities”

#### **Discussants:**

Michael Berube, *Director, Vehicle Technologies Office, U.S. DOE*

“Department of Energy Perspective”

Janea Scott, *Commissioner, California Energy Commission*

“California Energy Commission Perspective”

Matthew Tipper, *Vice President, Shell International*

“Energy Industry Perspective”

Peter Kosak, *Executive Director of Urban Mobility, General Motors*

“Accelerating EV Miles, Market Impact, and Fast Charging Infrastructure through Urban Ridesharing Applications”

## Dinner – 6 to 7:30 p.m.

**Friday, August 25**

## Session VII – 9 to 11:30 a.m.

### **Policy and Regulatory Enablers**

How might vehicle policies and regulations be modified to enable change and manage environmental impacts in a future where fuels and vehicle usage are shifting? What new approaches are needed to control criteria pollutants and CO2 emissions, create incentives for new transportation technologies, and finance road and retail energy infrastructure?

#### **Moderator:**

Dan Sperling, *Professor and Director, Institute of Transportation Studies, UC Davis*

#### **Speakers:**

John Viera, *Ford* and Bill Charmley, *U.S. EPA*

“Mid-Term Review—The Elephant in the Room”

Brian Mormino, *Cummins Inc.*

“Policy for Heavy Duty Trucks (U.S., China, India, and Rest of World)”

William Todts, *Executive Director, Transport & Environment (Europe)*

“Policy and Regulatory Enablers—European Perspective”

Drew Kodjak, *ICCT*

“Policy and Regulatory Enablers—Rest of World Perspective”

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