

Weekly Briefing

Ellen Hughes-Cromwick
October 3, 2017



TE³ Conference Preview

- Companies from GM, Ford, and VW to Waymo, Uber, and Lyft are teeing up the pathway to electric and autonomous vehicles (EVs and AVs).
- The Transportation, Economics, Energy and the Environment Conference on October 20 will offer great insights on emerging mobility and the environment.
- This conference is free and open for all to attend.

The TE³ gathering at the University of Michigan on October 20 is extremely timely and important. Free and open to all — be sure to register [here](#) — this conference addresses several topics relevant to the mobility, energy and environment landscape, with talks on trends in vehicle market regulation as it relates to these topics. There has been a spate of news about how companies and countries are driving toward EVs and AVs, the conference organizers have put together an excellent slate of experts. The entire conference agenda is attached.

EVs to AVs: What, When and How?

The policy panel on the economic and social futuring of emerging mobility systems includes top experts and practitioners.

- Nearly all of the auto and tech companies have a hand in how this future will unfold. The panel will address the key factors shaping the near-term and long-term outlook for EVs and AVs. Several analysts suggest that AVs will be EVs, not conventional gasoline powered vehicles.
- This assessment is pinned on economic drivers, such as the reduction in the unit cost of EV production. Without a reduction in the cost, companies will not be able to turn a profit and stay in business producing these vehicles.
- Second, and related to the unit cost is the economics of the battery and the range. With Tesla (Model 3) and GM (Bolt) now proving out that an EV range of around 200 miles can defray consumer anxiety — and at a price around \$30,000 to \$40,000 — EV possibility turns closer to EV probability.
- The EV platform, the logic goes, gives way to AV applications. One of our panelists, Rod Lache, issued a report on GM's AV plans on October 1st. In it, he argues that GM's AV's will be ready to roll out in "quarters, not years." What does this really mean? GM will be "safely driving passengers in complex urban environments with a human backup driver with the next few quarters."
- Along with these plans, China recently announced it will mandate elimination of gasoline powered vehicle sales by 2030. European countries are crafting similar policies.

GM just announced that they will produce 20 electric vehicles globally in the next 6 years, with 2 new EVs coming in the next 18 months in the U.S. Ford also announced this week that they will make cuts to make way for expanded investment in EVs and AVs.

4th Annual TE³ Conference

University of Michigan
Rackham Auditorium
915 E. Washington St., Ann Arbor, MI

Key Panel Speakers on Emerging Mobility

Forecasting the future at 11:20 am ET

Alex Keros, Director of Policy for GM's Mobility and Maven car sharing unit

Rod Lache, Managing Director, Deutsche Bank Securities
Just issued reports assessing GM and Ford's efforts to ramp up EVs and AVs

Neil Schloss, Chief Financial Officer of Ford's Mobility LLC

Richard Wallace, Director, Center for Automotive Research and expert on emerging mobility

Infrastructure Finance at 3:40 pm ET

Asha Weinstein Agrawal, Director, MTI National Transportation Finance Center

Mary Zimmerman, Director, Office of Transportation Policy Studies, U.S. DOT Federal Highway Administration

Jim Tymon, Chief Operating Officer/ Director of Policy and Management, AASHTO

The Conference organizers received several papers from researchers on many TE³ topics and accepted six papers to be presented at the conference.

Key Academic Papers:

What vehicle attributes are people willing to pay for?

How do fuel economy standards affect vehicle weight dispersion and accident fatalities?

Electric vehicle incentives — do they have network effects?

How much do consumers value fuel economy of vehicles?

Do electric vehicles need government subsidies to induce demand?

Evidence from renewable fuel standards on fuel subsidy pass-through and market structure.



8:00 — 8:45

BREAKFAST, REGISTRATION

8:45 — 9:00

WELCOME, **ELLEN HUGHES-CROMWICK**, UNIVERSITY OF MICHIGAN
ENERGY INSTITUTE

9:00 — 10:30

PAPER SESSION #1:

TRADE-OFFS AMONG VEHICLE ATTRIBUTES

SESSION CHAIR: WILLIAM CHERNICOFF, TOYOTA MOBILITY
FOUNDATION

*“The Effect of Fuel Economy Standards on Vehicle Weight Dispersion and
Accident Fatalities”*

Antonio Bento (University of Southern California), **Kenneth Gillingham** (Yale
University), **Kevin Roth** (University of California, Irvine)

Presenting Author: **Kenneth Gillingham**

“Consumer Willingness to Pay for Vehicle Attributes: What Do We Know?”

David Greene (University of Tennessee, Knoxville), **Anushah Hossain** (University
of California, Berkeley), **Julia Hofmann** (RTI International), **Gloria Helfand** (U.S.
Environmental Protection Agency), **Robert Beach** (RTI International)

Presenting Author: **David Greene**

*“How Much Do Consumers Value Fuel Economy and Performance? Evidence
from Technology Adoption”*

Benjamin Leard (Resources for the Future), **Joshua Linn** (Resources for the
Future), **Yichen Christy Zhou** (Resources for the Future and Clemson University)

Presenting Author: **Benjamin Leard**

10:30 — 10:50

Break

10:50 — 11:20

DISCUSSION OF PAPER SESSION #1

Discussants:

James Sallee, Assistant Professor, Department of Agricultural and Resource Economics, UC Berkeley

Shannon Baker-Branstetter, Energy and Environment Policy Counsel for Consumers Union

11:20 — 12:10

PANEL DISCUSSION A:

ECONOMICS AND SOCIAL DIMENSIONS OF EMERGING MOBILITY SYSTEMS

MODERATOR: ELLEN HUGHES-CROMWICK, UNIVERSITY OF MICHIGAN ENERGY INSTITUTE

Panel Discussion Members

Fellipe Balieiro, Senior Consultant, Oil Markets, Midstream & Downstream, IHS Markit

Alexander Keros, Director, GM Urban Mobility and Maven Public Policy, General Motors

Rod Lache, Managing Director, Deutsche Bank Securities

Neil Schloss, Vice President and Chief Financial Officer, Ford Mobility LLC

Richard Wallace, Director, Transportation Systems Analysis, Center for Automotive Research

12:10 — 1:25

Lunch

1:25 — 2:40

PAPER SESSION #2: ELECTRIC VEHICLES

SESSION CHAIR: RYAN KELLOGG, UNIVERSITY OF CHICAGO

“Network Externality and Subsidy Structure in Two-Sided Markets: Evidence from EV Incentives”

Katalin Springel (University of California, Berkeley)

Presenting Author: **Katalin Springel**

“Do Electric Vehicles Need Subsidies? A Comparison of Ownership Costs for C/H/EVs”

Hanna Breetz (Arizona State University), **Deborah Salon** (Arizona State University)

Presenting Authors: **Hanna Breetz** and **Deborah Salon**

Discussants:

Joshua Cregger, Technology Policy Analyst, U.S. Department of Transportation Volpe Center

Stephen Holland, Associate Professor, Department of Economics, Bryan School of Business and Economics, University of North Carolina at Greensboro

2:40 — 3:00

Break

3:00 — 3:40

**PAPER SESSION #3: THE STRUCTURE OF FUEL MARKETS
SESSION CHAIR: SAM STOLPER, UNIVERSITY OF MICHIGAN**

“Fuel Subsidy Pass-Through and Market Structure: Evidence from the Renewable Fuel Standard”

Gabriel Lade (Iowa State University), **James Bushnell** (University of California, Davis)

Presenting Author: **Gabriel Lade**

Discussant:

Dan Short, Fuels Technology Advisor, Marathon Petroleum Company

3:40 — 4:30

**PANEL DISCUSSION B:
INFRASTRUCTURE FINANCE FOR EXISTING AND EMERGING MOBILITY
SYSTEMS
MODERATOR: JOHN DECICCO, UNIVERSITY OF MICHIGAN
ENERGY INSTITUTE**

Panel Discussion Members

Asha Weinstein Agrawal, Director, MTI National Transportation Finance Center and Professor, Department of Urban and Regional Planning, San Jose State University

Mary Zimmerman, Director, Office of Transportation Policy Studies, U.S. DOT Federal Highway Administration

Jim Tymon, Chief Operating Officer / Director of Policy and Management, AASHTO

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