



# Sustainable Transportation Energy Pathways

An Institute of Transportation Studies Program

**UC DAVIS**  
3 Revolutions  
Future Mobility  
Institute of Transportation Studies

**UC DAVIS**  
Institute of Transportation Studies  
International Centers  
China – Europe – Global South

**UC DAVIS**  
Energy Futures  
Research Program  
Institute of Transportation Studies

**UC DAVIS**  
Electric Vehicle  
Research Center  
Institute of Transportation Studies

**UC DAVIS**  
Sustainable Freight  
Research Program  
Institute of Transportation Studies

**JULY 15**

## STEPS+ 2025 ASILOMAR SYMPOSIUM

### Tuesday At-A-Glance

**6:00 a.m.** Carpool Vans depart Davis for Asilomar

**9:30 a.m.** Coffee and light refreshments available at each meeting location below

**10:00 a.m. – 4 p.m.** Deep Dive Parallel Sessions

**12:00 p.m. – 1:00 p.m.** Lunch for all Deep Dives

**4:30 p.m.** All Attendees Invited to Asilomar Welcome Reception (Asilomar Surf and Sand)

**6:00 p.m.** Carpool Vans depart for Davis

**Merrill Hall**  
800 Asilomar Ave,  
Pacific Grove, CA  
93950

### ELECTRIC VEHICLE RESEARCH CENTER

**10:00 a.m.** **Welcome and Center Update**  
Gil Tal and Dahlia Garas

**JULY 15**

# STEPS+ 2025 ASILOMAR SYMPOSIUM

**10:10 a.m.**

## **Part 1: Market and Policy**

EV markets face significant uncertainty, particularly around government policies such as subsidies, charging infrastructure, and supply-side regulations. The Electric Vehicle Research Center closely tracks buyers of new and used EVs, as well as gasoline vehicles, in California and other key markets. We'll discuss emerging trends and expectations for California, the broader U.S. market, and global developments over the next few years. We also examine public acceptance of EV-related policies. In this session, we'll present fresh evidence from vehicle buyers, including resistance to EVs as well as household responses to incentives and supply-side regulations.

### **Opening Remarks & Presentations:**

- Gil Tal - *EV market overview*
- Ken Kurani - *Who Do We Tell What? Insights into messages for EV Resistors*
- Sina Nordhoff - *What do we know about the relationship between consumer acceptance of ZEVs and support for 100% ZEV policy?*
- Aviv Steren - *EV acceptance among new and used car buyers*

### **Panel Discussion:**

Moderator: Gil Tal

Panelists:

- Kristin Gomez, Hyundai
- David Barker, Subaru

**11:00 a.m.**

## **Part 2: Electric Vehicles Infrastructure**

EV charging discussions often assume that "more chargers are needed," but the reality is more complex with there being a need for more charging and charging that better serves EV drivers needs. Researchers from the EV Center will share findings on charging behavior, public charger reliability, the business case for charging, and access issues—especially in multi-unit dwellings. These insights highlight what's needed to build a reliable, accessible network that meets driver needs. Discussants from the California Energy Commission and General Motors will offer their perspectives on these challenges.

### **Opening Remarks & Presentations: (30 mins)**

- Scott Hardman - *Charging behavior, EV Driver Activities and Expenditures at DC Fast Chargers*
- Aaron Rabinowitz - *How do Users Feel About Charging Stations in California*
- Vaishnavi Karanam - *Charger Reliability/Experiences of California Public Chargers*
- Alan Jenn - *Electrifying Multi-unit Dwellings: A Case Study Among California Stakeholders*

### **Panel Discussion: (40 mins)**

Moderator: Alan Jenn

Discussants:

- Mike Nicholas, California Energy Commission
- Candace O'Melia, General Motors

<b>JULY 15</b>	<b>STEPS+ 2025 ASILOMAR SYMPOSIUM</b>
<b>12:10 p.m.</b>	<b>Lunch Break</b>
<b>1:00 p.m.</b>	<p><b>The Role of PHEVs and Extended Range Electric Vehicles (EREVs)</b>  This session focuses on the role of PHEVs in the translation to clean transportation and the competitiveness of automakers in that context. The session will include specific considerations on Extended Range Electric Vehicles, also in light of the acceleration of their deployment, in particular in China. It is co-organized with the Center on Global Energy Policy of Columbia University and the ITS European Transport and Energy Research Centre (ETERC).</p> <p><b>Opening Remarks &amp; Presentations:</b></p> <ul style="list-style-type: none"> <li>• Gil Tal (UC Davis) – PHEV buyers in the US: Evidence and Policy Implications</li> <li>• Patrick Plötz (Fraunhofer ISI) – Lessons from Europe: Underperformance, Policy Response, and the Road Ahead</li> <li>• Yunshi Wang (UC Davis) – China Current leadership and future plans</li> <li>• Ken Laberteaux and Karim Hamza (Toyota) – An Analysis of the Real-World Performance of Toyota Vehicles</li> </ul> <p><b>Panel Discussion:</b>  Moderator: Pierpaolo Cazzola (UC Davis / CGEP)  Panelists:</p> <ul style="list-style-type: none"> <li>• Dean Taylor</li> <li>• Gil Castillo, Hyundai</li> </ul>
<b>2:30 p.m.</b>	<b>Break</b>

**JULY 15**

# STEPS+ 2025 ASILOMAR SYMPOSIUM

**2:45 p.m.**

## **EV Critical Minerals and Battery Supply Chains Deep Dive (Joint session of all STEPS)**

Location: Merrill Hall

This session will focus on understanding EV and EV supply chains globally, with regional deep dives on North America, EU and China. The analysis will provide a unique first-of-its-kind assessment of EVs and batteries, focusing on market analysis by OEM, by vehicle segment and the interdependency with Chinese supply chains. It will discuss the challenges to creating a secure and sustainable supply chain including critical minerals and circularity.

### **Overview of ITS International Centers**

- Aditya Ramji, Director, Global South Center for Clean Transportation
- Pierpaolo Cazzola, Director, European Transport and Research Centre
- Gil Tal, Director, EV Research Centre and STEPS

### **Presentations:**

- *Global EV and EV Battery Flows with a focus on North America, EU and China* - Aditya Ramji, Director, Global South Center for Clean Transportation
- *Securing Critical Minerals for Battery Supply Chains and Strategies to Manage Risks* - Alissa Kendall, Associate Director, ITS Davis
- *Second-Hand flow of EVs and Opportunities for EV Industrial hubs between California and Mexico* - Francisco Pares, Deputy Director, Global South Center for Clean Transportation

### **Panel Discussion:**

Moderator: Roland Hwang, Policy Director, ITS Davis

- Thomas Becker, Vice President Sustainability and Mobility Strategy BMW Group
- Leslie Hayward, Senior Vice President, Public Affairs, SAFE
- Chris Nevers, Senior Director, Public Policy, Rivian
- Daniel Witt, Director Public Policy, Lucid Motors

**4:15 p.m.**

Conclude (Welcome Reception in the Surf and Sand Building)

**Kiln Room**  
800 Asilomar Ave,  
Pacific Grove, CA  
93950

## **3 REVOLUTIONS FUTURE MOBILITY PROGRAM DEEP DIVE**

**10:00 a.m.**

### **Welcome and Center Update**

Giovanni Circella, Yongsung Lee, and Grant Matson

<b>JULY 15</b>	<h1>STEPS+ 2025 ASILOMAR SYMPOSIUM</h1>
<b>10:10 a.m.</b>	<p><b>Part 1: Urban Logistics and Cargo Bikes</b>  This session focuses on the role of cargo e-bikes in reshaping urban freight delivery, with insights from city leaders, industry innovators, and freight operators. Panelists will share lessons from pilot programs and discuss what it takes to scale this sustainable logistics mode.</p> <p><b>Panelists</b>  Siddhartha Gulhare – University of California, Davis  Michael Replogle – Former Deputy Commissioner for Policy, NYC DOT  Jack Symington – Los Angeles Cleantech Incubator  Shayda Rager – San Francisco Municipal Transportation Agency  Jamie Davies – American Honda Motor Company Inc.  Franklin Jones – B-Line Urban Delivery</p>
<b>11:55 a.m.</b>	<p><b>Lunch</b></p>
<b>1:00 p.m.</b>	<p><b>Part 2: Electrification of Transportation Network Companies (TNCs)</b>  This session focuses on discussing barriers to the electrification of the TNC fleet in California, which is a major component of addressing the environmental impacts of ridehailing services. Experts from TNCs, government agencies, non-profit organizations, utility providers, and academia will share their perspectives on barriers to the electrification of the TNC fleet and ongoing efforts to help TNC drivers overcome these barriers.</p> <p><b>Panelists</b>  Samantha Serafica – California Public Utilities Commission  Patrick Loa – University of California, Davis  Eric Cahill – Sacramento Municipal Utility District  Janeé Weaver – Lyft  Rainer Lempert – Uber  Shelly Francis – EVNoire</p>

<b>JULY 15</b>	<b>STEPS+ 2025 ASILOMAR SYMPOSIUM</b>
<b>2:45 p.m.</b>	<p><b>Part 3: The Future of Mobility</b>  This session explores how rapidly advancing technologies—such as autonomous vehicles and urban air mobility—are poised to transform passenger mobility, shape infrastructure investments and regulatory frameworks, and support California’s goals for reducing emissions and vehicle miles traveled.</p> <p><b>Panelists</b>  Yongsung Lee – University of California, Davis  Susan Shaheen – University of California, Berkeley  Ashlyn Kong – California Public Utilities Commission  Joshua Cunningham – California Air Resources Board  Alyssa Begley – California Department of Transportation  Julia Friedlander – San Francisco Municipal Transportation Agency</p> <p>Paul Escobar – Zoox  Adam Gromis</p>
<b>4:30 p.m.</b>	<b>Welcome Reception</b>
<b>Fred Farr Room</b> 800 Asilomar Ave, Pacific Grove, CA 93950	<b>ENERGY FUTURES &amp; SUSTAINABLE FREIGHT DEEP DIVE</b>
<b>10:00 a.m.</b>	<p><b>Part 1: Transportation and Energy Transitions</b></p> <p>California LDV, HDV and fuels scenario updates: ZEV transitions in a new environment, considerations for US and global transitions, market, costs and policy trends, and policy needs going forward.</p> <p><b>CARB’s Scoping Plan and the Future of Fuels</b>  Sydney Vergis, Assistant Division Chief, California Air Resources Board</p> <p><b>UC Davis Scenarios for California</b>  Marshall Miller, Sustainable Freight Co-Director, UC Davis STEPS+</p> <p>Discussion</p>
<b>10:50 a.m.</b>	<b>Break</b>

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**11:00 a.m.**

## **Part 2: Hydrogen Policies, Planning, and Execution in an Uncertain Environment**

The state of California hydrogen policy, planning, costs, and investment. ARCHES Activities and role going forward. US and state-level support.

### **California Hydrogen Market Development Strategy**

Gia Brazil Vacin, Deputy Director, ZEV Market Development Office, GoBiz

Lillian Lui, Program Manager, Hydrogen and Fuel Cell Market Development, GoBiz

### **Hydrogen System and Fuel Cell truck Research Updates**

Lew Fulton, Energy Futures Director, UC Davis STEPS+

Discussion

**11:50 a.m.**

**Get Box Lunches and bring back to room (with more discussion)**

**12:35 p.m.**

## **Part 3: Low Carbon Fuels in the Transition to Carbon-Neutral Transportation**

Discuss recent changes to California's transportation fuel system, including the approval and adoption of recent amendments to the LCFS and efforts to secure access to low-cost gasoline in light of recent refinery closures. California is struggling to maintain progress towards carbon neutrality given interference from a hostile Federal administration, and a renewed focus on affordability in the Legislature. In addition, we will briefly discuss the findings of two research projects that are being submitted for publication, regarding LCA methodology in the LCFS and bio-refinery decision making.

### **Update on Alternative Fuel and LCFS Research**

Colin Murphy, Energy Futures Associate Director, UC Davis STEPS+

### **Staying the Climate Course with In-State Refining**

Stephanie Williams, Director of External & Government Affairs, MN8 Energy

Discussion

**1:25 p.m.**

**Break**

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1:35 p.m.	<p><b>Part 4: Sustainable Freight: Zero-Emission Truck Transitions Without Key Supporting Policies</b></p> <p>ZEV truck technology and logistics: review of UCD recent analysis, and presentations and policy discussion related to: California ACT, infrastructure, incentive policy and other relevant policy aspects. Discussion on California and possibly US and international aspects.</p> <p><b>Questions in Medium- and Heavy-Duty Infrastructure Modeling</b>  Michael Nicholas, Program and Project Supervisor, Fuels and Transportation Division, California Energy Commission</p> <p><b>Barriers to MDHD ZEV Trucking</b>  Marshall Miller, Sustainable Freight Co-Director, UC Davis STEPS+</p> <p><b>Depot and Corridor Charging: A Complementary Infrastructure for Truck Electrification</b>  Miguel Jaller, Sustainable Freight Co-Director, UC Davis STEPS+</p> <p><b>Discussion</b></p>
2:25 p.m.	<b>Adjourn EF-SF session</b>
2:30 p.m.	<b>Break</b>



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**2:45 p.m.**

**EV Critical Minerals and Battery Supply Chains Deep Dive**  
**(Joint session of The International Centers with all STEPS)**  
Location: Merrill Hall

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**Panel Discussion:**

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