



Hydrogen Pathways Research Program

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The Institute of Transportation Studies at UC Davis (ITS-Davis) has launched a four-year Hydrogen Pathways Research Program to address the transition to a hydrogen economy.

Under the co-direction of Joan Ogden, a professor of Environmental Science and Policy, and ITS-Davis Director Dan Sperling, the program identifies strategies for the introduction and adoption of hydrogen use in the transportation sector. It evaluates the technical, economic, business and policy implications of a hydrogen transportation future, and engages energy, automotive, investment, and government stakeholders.

One of the Institute's primary roles is to develop future engineers, scientists, business and policy leaders who need in-depth knowledge of hydrogen as a transportation fuel. This program, which supports a range of research and outreach initiatives, offers a critically important interdisciplinary perspective.

The Hydrogen Pathways Research Program has five concurrent tracks:

- Scenarios, Pathways and Energy Systems Modeling — will provide the overarching framework for the program.
- Demonstration and Early Market Identification — will focus on the initial deployment of vehicles and fuel stations.
- Fuel Cell Vehicle and Hydrogen Market Analysis — will explore a variety of markets and focus on consumers, including market demand and response to infrastructure strategies.
- Design of Hydrogen Fuel Station and Distribution Infrastructure — will focus on technology, cost and operational issues of hydrogen infrastructure.
- Environmental, Energy and Cost Analysis — will analyze the air pollutant and greenhouse gas emissions, lifecycle costs, and energy use of hydrogen, and compare them with other transportation energies and technologies.

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