



# *ASILOMAR 2003*

## IX BIENNIAL CONFERENCE ON TRANSPORTATION AND ENERGY

# *THE HYDROGEN TRANSITION*

July 29 - August 1, 2003  
Asilomar Conference Center  
Pacific Grove, California

### *Sponsors*

U.S. Department of Energy  
Natural Resources Canada  
University of California Transportation Center  
Energy Foundation

### *Program Committee*

Barry McNutt (Chair), David Greene, Jack Johnston,  
Marianne Mintz, Peter Reilly-Roe, Phil Patterson,  
Dan Santini, Lee Schipper, and Dan Sperling

Hosted by the Institute of Transportation Studies, University of California, Davis  
under the auspices of Energy and Alternative Fuels Committees, Transportation Research Board

## CONFERENCE OVERVIEW

The focus of this year's meeting is on a possible "Hydrogen Transition" as it relates to vehicles and transportation. The goal is not to "design" a transition, but rather address key questions about what needs to happen for such a change to take place, and explore whether such a transition is likely, needed or even possible.

## PRELIMINARY AGENDA

### TUESDAY, JULY 29, 2003

3:00 P.M.	<b>REGISTRATION</b>	(Administration Building)
6:00 P.M.	<b>DINNER</b>	(Crocker Hall)
7:30 P.M.	<b>RECEPTION</b>	(Rear of Administration Building)

### WEDNESDAY, JULY 30, 2003

Welcome: Barry McNutt, U.S. Department of Energy

#### **SESSION I: Keynote Session**

#### 9:00 A.M. **UNTANGLING POLITICS, BUSINESS, AND THE PUBLIC INTEREST**

What are the business, political, and societal goals for pursuing a transportation "hydrogen transition"?  
 What are the short term opportunities and policy needs and how do they relate to long term plans and goals?  
 What roadmaps, strategies, and other organizing frameworks can be used in thinking about this transition?

*Chair: Dan Sperling, University of California, Davis*

*David Garman, Assistant Secretary, U.S. Department of Energy*

*Larry Burns, Vice President, General Motors*

*Taiyou Kawai, General Manager, Fuel Cell System Development Center, Toyota Motor Corporation*

*Roy Wilson, Vice Chair, South Coast AQMD*

#### **SESSION II**

#### **LESSONS LEARNED**

What lessons have been learned from the past 25 years of technology development, investment, regulation, and policy with respect to new fuels and vehicles? Is hydrogen different?

*Chair: Peter Reilly-Roe, Natural Resources Canada*

*Bernard Robertson, Vice President, DaimlerChrysler*

*Tom Cackette, Deputy Executive Officer, California Air Resources Board*

*Barry McNutt and Dave Rodgers, U.S. Department of Energy*

*Jonathan Rubin, University of Maine*

#### **SESSION III**

#### **HYDROGEN RESOURCE REALITIES**

Conventional natural gas supplies in OECD countries are limited and renewable sources of hydrogen are expensive. What are the best long-term resource options, and what does that imply for near term hydrogen production and distribution options? Will hydrogen come from fossil fuels into the foreseeable future? Will carbon sequestration be a requirement?

*David Scott, University of Victoria*

*Joan Ogden, Princeton University*

*Richard Doctor, Argonne National Laboratory*

*Gene Nemanich, ChevronTexaco*

6:00 P.M. **EVENING BBQ**  
 Lee Schipper Quartet

**THURSDAY, JULY 31, 2003****9:00 A.M.      SESSION IV****RETHINKING HYDROGEN INFRASTRUCTURE AND MARKETS**

Hydrogen vehicles and fuel will not compete on cost with gasoline and diesel fuels and ICEs for a very long time—unless vehicles are designed and marketed differently, and fuel distribution systems are restructured.

**A. Vehicle Markets**

*Chair: Barry McNutt, U.S. Department of Energy*

*KG Duleep, Energy and Environmental Analysis*

*Ken Kurani, University of California, Davis*

*David Hermance, Toyota*

**B. Hydrogen Infrastructure**

*Chair: Marianne Mintz, Argonne National Laboratory*

*Bob Miller, Air Products and Chemicals*

*Mark Paster, U.S. Department of Energy*

*Peter Teagen, TIAX (Invited)*

*Walter “Chip” Schroeder, CEO, Proton Energy*

**SESSION V****MAKING THE BUSINESS CASE IN AN EVOLVING TRANSITION**

How and where might automotive and energy companies invest initially? How sensitive are these investment decisions to government policy? What are the links to other sectors of the economy, and even to other energy investments?

*Chair: Jack Johnston, ExxonMobil*

*Mike Jones, BP*

*Scott Miller, Synovate*

*Tom White, U.S. Department of Energy*

*Jeffrey Cooke, ConocoPhillips*

**6:00 P.M.      DINNER****7:30 P.M.      SESSION VI****BROADER PERSPECTIVES**

Should the policy focus extend beyond narrow hydrogen and fuel cell issues to address broader goals of reducing GHG emissions and oil use? What can we learn from public policies and initiatives that changed automobile characteristics, other than alternative fuels? Are ongoing activities and experiences outside the U.S. relevant to North American debates about hydrogen and fuel cell policies?

*Chair: Jason Mark, Union of Concerned Scientists*

*John DeCicco, Environmental Defense*

*Drew Kojak, National Commission on Energy Policy*

*Lee Schipper, EMBARQ, World Resources Institute*

**FRIDAY, AUGUST 1, 2003****9:00 A.M. SESSION VII****POLICY OPTIONS AND INSTRUMENTS**

What is the role of different levels and branches of government (research, demonstrations, incentives, regulations, other policy)? When uncertainty dominates, what policies make sense? Are there models for successful policy intervention of this magnitude and duration? Timing issues– what to do now and what to do later?

*Chair: David Greene, Oak Ridge National Laboratory*

*George Anderson, Deputy Minister, Natural Resources Canada*

*James Boyd, Commissioner, California Energy Commission*

*Phil Sharp, Former Congressman, National Commission on Energy Policy*

*David Hawkins, Natural Resources Defense Council*

*Steve Chalk, U.S. Department of Energy*

**12:00 P.M. ADJOURN****LUNCH**

(Available as box lunch with request to Shirley Long before 07-14-03)

**IMPORTANT CONFERENCE INFORMATION****TRANSPORTATION**

The Asilomar Conference Center is served by three airports.

The Monterey Airport is 1/2 hour from Asilomar. The San Jose Airport

is 1.5 hours from Asilomar, and the San Francisco Airport is 2.5 hours away.

Individual shuttle services are available from the Monterey and San Jose Airports.

**LODGING**

Lodging cost must be prepaid with the registration fee and include meals and use of grounds. Rooms are assigned on a first come, first serve basis.

Check-in time is 3:00 p.m. on July 29. Room assignments will be made by the ITS-Davis conference coordinator. Some off-site lodging is available through the ITS-Davis conference coordinator.

**PHONES, MESSAGES, FAX**

THERE ARE NO ROOM PHONES at Asilomar, but there are several public phones located near each residential complex.

Messages for attendees may be left at (831) 372-8016. Asilomar offers fax services for a small fee. Fax number (831)372-7227.

## ASILOMAR 2003 REGISTRATION FORM

**Note:** Registration is limited to invited guests only. To nominate an additional attendee, contact Dan Sperling at dsperling@ucdavis.edu. Guest space is capped to 130 attendees only.

Name: \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State/Country: \_\_\_\_\_ Zip/Postal Code: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

### REGISTRATION FEES:

Early Registration on or before May 27, 2003:	<input type="checkbox"/> <del>\$230.00</del>	<b>\$300.00</b>	
Registration after May 27, 2003:	<input checked="" type="checkbox"/> \$300.00		
<b><input type="checkbox"/> I would like lodging at Asilomar (includes meals and entertainment):</b>			
<input type="checkbox"/> 7/29 <input type="checkbox"/> 7/30 <input type="checkbox"/> 7/31 <input type="checkbox"/> 8/1			
Single Occupancy, or	<input type="checkbox"/> \$185.00/night		
★ Double Occupancy (fee per person in double accommodation)	<input type="checkbox"/> \$135.00/night		
Youth 3-17 years accompanying me (per person additional fee)	<input type="checkbox"/> \$65.00/night		
<b><input type="checkbox"/> I will attend Asilomar without lodging on the following dates</b>			
<input type="checkbox"/> 7/28 <input type="checkbox"/> 7/29 <input type="checkbox"/> 7/30 <input type="checkbox"/> 7/31 <input type="checkbox"/> 8/1	\$32.00/day		

Optional \_\_\_\_\_

I would like accommodations on 7/28 for the H2 Pathways mtg on 7/29  \$165.00

TOTAL AMOUNT ENCLOSED

Physically challenged needs required: \_\_\_\_\_

★I would like to room with: \_\_\_\_\_

Please assign a roommate for me:  YES  NO

Vegetarian:  YES  NO

### METHOD OF PAYMENT

Check or Charge. No cash accepted. Card # \_\_\_\_\_ Expiration Date \_\_\_\_\_

Check payable to: "Regents of the University of California" Name on credit card \_\_\_\_\_

Charge to my  VISA  MasterCard Signature \_\_\_\_\_ Date \_\_\_\_\_

### MAIL OR FAX REGISTRATION TO:



Shirley Long, Conference Coordinator  
 Institute of Transportation Studies  
 One Shields Avenue  
 University of California, Davis  
 Davis, CA 95616-8762  
 Phone: (530) 752-4909 Fax: (530) 752-6572  
 Email: itsconference@ucdavis.edu