October 22-24, 2006 UCLA Conference Center at Lake Arrowhead 850 Willow Creek Road Lake Arrowhead, California

### **OVERVIEW**

The links between local land use and transportation systems, and global weather systems and energy markets were cast in the sharpest possible relief when Hurricane Katrina slammed into New Orleans late last summer. Debates among scientists who study the effects of human activity on climates, and policymakers seeking both economic growth and environmental sustainability have intensified in recent months as fuel prices have climbed to unprecedented levels. How are fuel prices likely to fluctuate in the years to come? What effects will higher fuel prices have on travel and commerce? What effects do transportation systems have on global climate change? How might changes in climates affect both land development and transportation networks? What, if any, cleaner, cheaper fuels and propulsion technologies are on the horizon? And what are policymakers—local, state, national, and international—doing to cope with these issues in effective and affordable ways?

These and related questions motivate the **16th annual UCLA Lake Arrowhead Symposium on the Transportation-Land Use-Environment Connection**. Our goal is to bring together a wide variety of experts on these topics to speak on and debate, from many perspectives, what we know, what we need to learn, what others are doing, and what is not being done to address changes in global energy markets and climate patterns in the years to come.

Symposium Co-Organizers:

Catherine L. Showalter, Director, UCLA Extension Public Policy Program

*Brian D. Taylor*, Associate Professor and Vice Chair of Urban Planning, UCLA School of Public Affairs, and Director, UCLA Institute of Transportation Studies

12:30 pm	REGISTRATION CHECK-IN AND REFRESHMENTS	
1:00 pm	<b>WELCOME</b> <i>Catherine Showalter</i> , Director, UCLA Extension Public Policy Program <i>David Menninger</i> , Interim Dean, Continuing Education and UCLA Extension	
	ENERGY AND CLIMATE CHANGE: IMPLICATIONS FOR PUBLIC POLICY	
	This opening session lays the groundwork for this wide-ranging three-day sym- posium. Foundation talks will address current scientific evidence on climate change, the role of the transportation sector in energy consumption and atmos- pheric emissions, a framework for evaluating energy and climate change policies, and strategic political considerations in energy and environmental security.	
	Moderator: Catherine Showalter	
	<b>Symposium Overview</b> <i>Brian D. Taylor</i> , Associate Professor and Vice Chair of Urban Planning, UCLA School of Public Affairs; Director, UCLA Institute of Transportation Studies	
	Climate Change Science: What We Know and Don't Know	
	<i>Thomas C. Peterson</i> , Research Meteorologist, NOAA's National Climatic Data Center	
	Transportation, Energy, and Emissions: An Overview George Eads, Vice President, CRI International	
	Evaluating the Costs and Benefits of Energy and Climate Change Policies: An Overview	
	Joe Aldy, Fellow, Resources for the Future	
	Global Politics of Energy and Environmental Security: An Assessment	
	Jason Grumet, Executive Director, National Commission on Energy Policy	
3:30 pm	BREAK	
3:45 pm	LINKS BETWEEN GLOBAL CLIMATE CHANGE AND LAND USE/TRANSPORTATION	
	This second session will explore the transportation-land use connection to global climate change. The first presentation will examine how possible changes to weather patterns and sea levels may affect cities and the transportation networks that link them in the coming years. The second talk addresses whether and how land use and transportation policies may help to mitigate rates of climate change in the years and decades ahead.	
	Moderator: <b>Brian D. Taylor</b> , UCLA	
	Projected Effects of Global Climate Change on Land Development and Transportation Infrastructure	

Joanne R. Potter, Senior Associate, Cambridge Systematics

### What Contributions Can Land Use and Transportation Planning Make to Mitigating Climate Change?

John Poorman, Staff Director, Albany Metropolitan Planning, New York

5:00 pm ROOM CHECK-IN AND OPENING RECEPTION

6:30 pm DINNER

## Sunday Evening, October 22

### 7:45 pm THE BUSINESS OF UNCERTAIN ENERGY AND CLIMATE FUTURES: A ROUNDTABLE DISCUSSION

To complement the focus on science, data, and public policy evaluation in the two opening sessions, this evening panel will explore future changes in energy prices, climatic patterns, and policies that aim to address them from a private sector perspective—particularly as they relate to land development, shipping, and travel.

*Moderator:* Norm King, Director, Leonard University Transportation Center, CSUSB

Moderated Discussion

### Development Interests

Dan Cashdan, Senior Managing Director, HFF Securities

### General Business Interests

Gerald Secundy, Vice Chair, State Water Resources Control Board

### Petroleum Interests

James Randolf (Randy) Armstrong Jr., Manager Compliance Assurance, Shell Oil

### Goods Movement

T.L. Garrett, Vice President, Pacific Merchant Shipping Association

*Eugene Pentimonti*, Senior Vice President, Government Relations, Maersk Line Limited

### International Business Interests

Nancy Kete, Director, EMBARQ World Resources Institute

9:30 pm

INFORMAL RECEPTION AND CONTINUED DISCUSSION

7:30 am	BREAKFAST
8:30 am	GLOBAL ENERGY: RESERVES, USAGE, AND PROSPECTS
	Rising energy prices, particularly for transportation, have garnered a lot of atten- tion in recent years. Are these changes part of normal cycles and fluctuations, or do they portend an era of rising energy prices? If the latter, how are energy markets expected to change in the coming years? This session examines these questions by first reviewing projections on reserves and prices of conventional energy sources, the market potential for future energy sources in the coming years, and the implications of rising and/or volatile energy prices on the econ- omy and travel in the future.
	<i>Moderator: Donald Shoup</i> , Professor of Urban Planning, UCLA School of Public Affairs
	Understanding Energy Markets I: Future Reserves, Production, and Prices for Conventional Energy Sources
	John Kilduff, Senior Vice President, Energy Management Group, Fimat USA, Inc.
	Understanding Energy Markets II: Future Reserves, Production, and Prices for Alternative Energy Sources
	<i>Heather MacLean</i> , Associate Professor, Department of Civil Engineering, University of Toronto
	How Have and How Will Changes in Transportation Energy Prices Affect the Economy and Travel Behaviour?
	Kurt Van Dender, Assistant Professor of Economics, UC Irvine
10:15 am	BREAK
10:30 am	NEW VEHICLES, NEW FUELS I: THE LONG VIEW
	How and when do new fuels and/or engines become cost-competitive? By what standards should we make such judgements? How much transition should be handled by private markets, and what roles should public policy play? What are likely to be the relative roles of new engines, new fuels, and behavioural changes in regards to future rates of fuel consumption and emissions? These questions and more will be addressed in a plenary presentation, commentaries, and ensu- ing discussion.
	<i>Moderator: Michael Shelby</i> , Chief Economist, Transportation and Climate Division in the Office of Transportation and Air Quality, U.S. EPA
	Future Fuels and Vehicles: What Are the Near and Long Term Possibilities?
	<i>Daniel Sperling</i> , Director, Institute of Transportation Studies, and Professor, Civil & Environmental Engineering, UC Davis
	■ Commentary
	Roland Hwang, Senior Policy Analyst, Natural Resources Defense Council
	<i>Margaret Bruce</i> , Director of Environmental Programs, Silicon Valley Leadership Group
12:00 pm	LUNCH

### 1:15 pm NEW VEHICLES, NEW FUELS II: EXPLORING THE ALTERNATIVES

The commercial success of hybrid-electric vehicles has raised awareness among public officials and the public about the possibilities for introducing substantially cleaner and more efficient vehicles in the coming years. Accordingly, this session will examine many of the most important alternatives to conventional fuels and propulsion. What are the pros and cons of each, and what is the prognosis for wide-spread implementation in the coming years?

### Moderator: Daniel Sperling, UC Davis

### After Diesel: Options for Cleaner Trucks, Trains, and Ships

Magdi Khair, Institute Engineer, Southwest Research Institute

### Electricity

*David Modisette*, Executive Director, California Electric Transportation Coalition

### Bio-Fuels

*Steve Shaffer*, Director, Office of Agriculture and Environmental Stewardship, California Department of Food and Agriculture

### Hydrogen

*Gene Berry*, Engineer, Energy Storage and Conversion Group, Lawrence Livermore National Laboratory

### Natural Gas

Mostafa Kamel, Director, Alternative Fuels Product Development, Cummins

3:15 pm	FREE TIME
5:15 pm	RECEPTION
6:00 pm	DINNER

## Monday Evening, October 23

# 7:30 pm WHAT IN THE WORLD? TRANSPORTATION ENERGY AND GREENHOUSE GAS EMISSION PLANNING OUTSIDE OF THE U.S.

Global energy and climate changes issues are just that: global. This second evening session will explore policy and planning efforts to increase energy efficiency and reduce greenhouse gas emissions in some developing and other developed countries.

Moderator: Dave Calkins, Partner, Sierra Nevada Air Quality Group

### Moderated Panel

### Europe

*Axel Friedrich*, Head of Environment and Transport Division, Umweltbundesant, Germany

### China and Mexico

*Lee Schipper*, Director of Research, EMBARQ the WRI Center for Sustainable Transport

### Canada

*Michal C. Moore*, Senior Fellow, Institute for Sustainable Energy, Environment, and Economy, University of Calgary

### Argentina

*Lucila Serra*, Coordinator, Center for Global Change Studies, Torcuato Di Tella Fundacion, Buenos Aires

### What Can California Learn from These International Examples?

Fran Pavley, Assemblymember, 41st District, California State Assembly

9:15 pm INFORMAL RECEPTION/DISCUSSION

## Tuesday Morning, October 24

### 7:30 am BREAKFAST

# 8:30 am RESPONSES TO GLOBAL ENERGY AND CLIMATE ISSUES IN SACRAMENTO AND WASHINGTON

This penultimate session examines policy efforts to address energy and climate change by the federal government here in the U.S. as well in California and other states—particularly as they relate to transportation.

*Moderator: Elizabeth Deakin*, Associate Professor of City and Regional Planning; Director of UCTC, UC Berkeley

### Federal Efforts to Reduce Oil Imports and Greenhouse Gas Emissions from Transportation

*Greg Dotson*, Minority Counsel, Office of Representative Henry A. Waxman, House Government Reform Committee, Minority Staff, U.S. House of Representatives

### Assessing the Impact of the Federal Energy Bill's Renewable Fuels Standard (and Other Alternative Fuels) on CHG Emissions

*Larisa Dobriansky*, Deputy Assistant Secretary for National Energy Policy, U.S. Department of Energy

# Assessing Efforts to Regulate Greenhouse Gas Emissions in California

*Ann Carlson*, Associate Dean and Professor, UCLA School of Law, and Co-Director, Frank G. Wells Environmental Law Clinic

### California's Climate Action Plan

Linda Adams, Secretary for Environmental Protection, California EPA

10:15 am

BREAK

## 10:30 am LINKING DECISION-MAKING TO GLOBAL ENERGY AND CLIMATE ISSUES-OPPORTUNITIES AND UNCERTAINTIES

This closing session goes both global and local by examining local and regional efforts to address energy and climate change issues here in the U.S. and abroad—again with a focus on transportation and land development policies. What are some local actors doing to address these issues, and can acting locally make a difference? The session concludes by examining the question of what policymakers ought to do about these complex global issues, and when they should do it? How can we make wise decisions in times of uncertainty? When is it best to act, and when is it best to wait?

Moderator: Brian D. Taylor, UCLA

Efforts by Local and Regional Governments in the U.S. to Link Transportation and Land Use Planning to Global Energy and Climate Change Issues

Debbie Cook, Council Member, Huntington Beach City Council

Local Efforts Outside the U.S. to Increase Energy Access and Reduce Greenhouse Gas Emissions

Timothy Burroughs, Program Officer, ICLEI's Cities for Climate Protection

Making Wise Policy Under Uncertain Conditions: Energy Futures, Climate Change, and Transportation

Robert J. Lempert, Senior Scientist, RAND

12:15 pm

LUNCH AND ADJOURNMENT