

**Participant Roster**  
**Aspen Global Change Institute**  
**“Energy Options and Paths to Climate Stabilization”**  
6-11 July 2003  
Co-Chairs: Marty Hoffert and Ken Caldeira

**Roger Anderson**

Doherty Senior Scholar  
Lamont-Doherty Earth Observatory  
Columbia University  
New York, NY

**Expertise:** Energy supply, demand: electric grid,  
natural gas, oil

**David Archer**

Professor, University of Chicago  
Chicago, IL

**Expertise:** Ocean carbon cycle

**Gregory Benford**

Professor, University of California Irvine  
Physics, University of California  
Irvine, CA

**Expertise:** Carbon sequestration

**Gene Berry**

Energy Technology and Security Program  
Lawrence Livermore National Laboratory  
Livermore, CA

**Expertise:** Hydrogen energetics and economic  
analysis

**Ken Caldeira**

Climate and Carbon Cycle Modeling Group  
Energy and Environment Directorate  
Lawrence Livermore National Laboratory  
Livermore, CA

**Expertise:** Carbon cycle, models

**Alfred Cavallo**

Environmental Measurements Laboratory  
Dept. of Homeland Security  
New York, NY

**Expertise:** Wind energy, energy storage,  
petroleum resources and economics, risk  
assessment

**Cheng-kong Chou**

Associate Director,  
Energy and Environment Directorate

Lawrence Livermore National Laboratory  
Livermore, CA

**Expertise:** Nuclear energy

**John F. Clarke**

Chief Technologist  
Joint Global Change Research Institute  
College Park, MD

**Expertise:** Energy technology development  
management, modeling and analysis

**Leon Clarke**

Decisions/Systems Analyst  
Lawrence Livermore National Laboratory  
Livermore, CA

**Expertise:** Energy technology economics and  
policy

**Patrick Collins**

Economic Environment Research Laboratory,  
Environmental Policy Department  
Azabu University  
Sagamihara City, Kanagawa Prefecture  
JAPAN

**Expertise:** Economics of energy supply from  
space

**David R. Criswell**

Director, Institute of Space Systems Operations  
(ISSO)

University of Houston  
Houston, TX

**Expertise:** Space and lunar solar power, lunar  
industrialization, power needs for sustainable  
global prosperity

**Carmen Difiglio**

Head of Energy Technology Policy Division  
International Energy Agency

75739 Paris  
FRANCE

**Expertise:** Energy technology policy

**Jae Edmonds**

Chief Scientist, Fundamental Sciences Division  
Pacific Northwest National Laboratory  
Joint Global Change Research Institute,  
University of Maryland  
College Park, MD

**Expertise:** Energy-economy-technology interactions

**Chris Edwards**

Global Climate and Energy Project  
Stanford University  
Dept. of Mechanical Engineering  
Stanford, CA

**Expertise:** Combustion engines

**S. Julio Friedmann**

Research Scientist, Department of Geology  
University of Maryland  
College Park, MD

**Expertise:** Geological carbon storage and sequestration

**Chris Green**

Professor, Department of Economics  
McGill University  
Montreal, Quebec  
CANADA

**Expertise:** Economics of climate change, energy

**Howard Gruenspecht**

Energy Information Administration  
Washington, DC

**Expertise:** Electricity policy, economy-wide energy modeling

**David Halpern**

Office of Science and Technology Policy  
Washington, DC

**Expertise:** Seasonal-to-decadal climate variability, climate change science program

**Bryan Hannegan**

Associate Director for Energy and Transportation  
Council on Environmental Quality  
Executive Office of the President  
Washington, DC

**Expertise:** Atmospheric chemistry, climate change, energy policy, technology R&D

**Danny Harvey**

Professor, Department of Geography  
University of Toronto  
Toronto, Ontario, CANADA

**Expertise:** Efficiency and renewables

**\*Hal Harvey**

The William and Flora Hewlett Foundation  
Menlo Park, CA

**Expertise:** Efficiency, renewables, policy

**David Hawkins**

Climate Center Director  
Natural Resources Defense Council  
Washington, DC

**Expertise:** Coal sequestration

**Howard Hayden**

Prof. Emeritus of Physics UConn  
The Energy Advocate  
Pueblo West, CO

**Expertise:** Solar energy applications

**Eric Hoffert**

CEO  
Versatility Energy Inc.  
South Orange, NJ

**Expertise:** Space solar power, wireless power transmission, hybrid power transmission, information technology for energy and power applications

**Martin I. Hoffert**

Professor of Physics  
Andre & Bella Meyer Hall of Physics  
New York University  
New York, NY

**Expertise:** Climate change, alternative energy technologies

**Kenneth K. Humphreys**

Battelle,  
Pacific Northwest National Lab  
Richland, WA

**Expertise:** Energy systems

**Muriel Ishikawa**

Lawrence Livermore National Laboratory  
Livermore, CA

**Expertise:** Applied physics

**Atul K. Jain**

Professor, Dept. of Atmospheric Sciences  
University of Illinois  
Urbana, IL

**Expertise:** Integrated assessment, global climate and carbon cycle

**Andrew Kaldor**

Manager, Research and Development  
ExxonMobil Research & Engineering Co.  
Annandale, NJ

**Expertise:** Breakthrough research

**\*Daniel M. Kammen**

Professor of Energy and Society  
University of California  
Berkeley, CA

**Expertise:** Climate change, renewables, and energy efficiency

**\*David Keith**

Dept. of Engineering and Public Policy  
Carnegie Mellon University  
Pittsburgh, PA

**Expertise:** Climate and energy policy, experimental atmospheric science, quantification of uncertainty

**Haroon Kheshgi**

ExxonMobil Research & Engineering Co.  
Annandale, NJ

**Expertise:** Climate science, biofuels, carbon sequestration, chemical engineering

**Thomas G. Kreutz**

Senior Technical Staff Member  
Princeton Environmental Institute  
Princeton, NJ

**Expertise:** Hydrogen and energy technology

**H. Douglas Lightfoot**

Mechanical Engineer  
McGill Centre for Climate and Global Change Research  
Baie d'Urfe, Quebec  
CANADA

**Expertise:** Energy

**\*John Mankins**

Office of Space Flight  
NASA Headquarters  
Washington, DC

**Expertise:** Space-based solar/ system integration

**Cesare Marchetti**

Institute Scholar  
International Institute for Applied Systems Analysis  
Laxenburg, AUSTRIA

**Expertise:** Systems analysis

**Gregg Marland**

Staff Scientist  
Environmental Sciences Division  
Oak Ridge National Laboratory  
Oak Ridge, TN

**Expertise:** Carbon sequestration in terrestrial biosphere, biofuels, CO2 emissions

**Robert Marlay**

Director, Office of Science and Technology Policy  
Deputy Director, Climate Change Technology Program  
Office of Policy and International Affairs  
US Department of Energy  
Washington, DC

**Expertise:** Energy policy, energy technology

**Michael Mauel**

Professor: Dept. of Applied Physics and Applied Mathematics  
Columbia University  
New York, NY

**Expertise:** Plasma physics and fusion energy

**F. Blaine Metting**

Biological & Environmental Sciences Program Manager; Fundamental Sciences Division  
Pacific Northwest National Laboratory  
Richland, WA

**Expertise:** Microbial biotechnology

**David Montgomery**

Vice President  
Charles River Associates, Inc.  
Washington, DC

**Expertise:** Economics, cost mitigation strategies, international trade, emission trading

**Nebojsa Nakicenovic**  
Professor of Energy Economics, Vienna  
University of Technology  
Transitions to New Technologies Project,  
International Institute for Applied Systems  
Analysis  
Laxenburg, AUSTRIA  
**Expertise:** Energy scenarios

**Takashi Ohsumi**  
CO2 Sequestration Research Group  
Research Institute of Innovative Technology for  
the Earth (RITE)  
Kyoto, JAPAN  
**Expertise:** Geochemistry

**William O'Keefe**  
President  
The George C. Marshall Institute  
Washington, DC  
**Expertise:** Public policy and strategic planning

**\*Brian O'Neill**  
Research Scholar  
International Institute for Applied Systems  
Analysis  
Laxenburg, AUSTRIA  
**Expertise:** Greenhouse gas cycle modeling,  
emissions scenarios, population and energy

**Franklin M. Orr, Jr.**  
Director  
Global Climate and Energy Project,  
Stanford University  
Stanford, CA  
**Expertise:** High-pressure equilibrium of CO2-  
hydrocarbon systems, fluid flow in porous media,  
oil recovery by gas injection, CO2 sequestration  
in subsurface geologic systems and in the oceans

**John Perkins**  
Physicist, X-Division  
Lawrence Livermore National Laboratory  
Livermore, CA  
**Expertise:** Nuclear fusion and fission

**Cedric Philibert**  
Energy and Environment Division  
International Energy Agency  
Paris, FRANCE  
**Expertise:** Emissions trading, solar power

**Greg H. Rau**  
Senior Researcher  
Institute of Marine Sciences  
University of California  
Castro Valley, CA  
**Expertise:** Carbon cycle, sequestration

**William C. Sailor**  
Technical Staff Member  
Nonproliferation and International Security  
Los Alamos National Laboratory  
Los Alamos, NM  
**Expertise:** Nuclear energy and non-proliferation

**John Schmidt**  
Head of Advanced Projects  
Princeton Plasma Physics Laboratory  
Princeton, NJ  
**Expertise:** Fusion

**Erich Schneider**  
Technical Staff Member  
Los Alamos National Laboratory  
Los Alamos, NM  
**Expertise:** Nuclear systems engineering

**Stephen Schneider**  
Professor, Dept. of Biological Sciences  
Stanford University  
Stanford, CA  
**Expertise:** Climate, geoengineering, uncertainty

**David Shepard**  
President  
Sky WindPower Corporation  
San Diego, CA  
**Expertise:** High altitude wind power

**Dale Simbeck**  
SFA Pacific, Inc.  
Mountain View, CA  
**Expertise:** Near-term emissions reductions

**Richard Smalley**  
University Professor  
Carbon Nanotechnology Project  
Rice University  
Houston, TX  
**Expertise:** Chemistry, physics, nanotechnology

**Vaclav Smil**  
Professor, Faculty of Environment  
University of Manitoba  
Winnipeg, Manitoba, CANADA  
**Expertise:** Energy and the environment

**James Ray Smith**  
Energy & Environment Directorate  
Lawrence Livermore National Laboratory  
Livermore, CA  
**Expertise:** Fossil combustion, applied energy technologies

**Dwain Spencer**  
President, SIMTECHE  
Redding, CA  
**Expertise:** Advanced coal power systems, coal conversion processes, CO<sub>2</sub> separation and control processes

**Tyler Volk**  
Associate Professor, Department of Biology  
New York University  
New York, NY  
**Expertise:** Global carbon cycle, biosphere science, renewable energy

**Harlan L. Watson**  
Senior Climate Negotiator and Special Representative  
Bureau of Oceans and International Environmental and Scientific Affairs  
U.S. Department of State  
Washington, DC  
**Expertise:** Climate change policy

**Robert G. Watts**  
Cornelia and Arthur Jung Chair  
Mechanical Engineering Dept.  
Tulane University  
New Orleans, LA  
**Expertise:** Thermal science

**Paul Werbos**  
CNCI Program Director  
Electrical and Communications Systems  
National Science Foundation  
Arlington, VA  
**Expertise:** Cross disciplinary-engineering, energy economics, intelligent systems

**John P. Weyant**  
Professor  
Dept. of Management Science and Engineering  
Stanford University  
Stanford, CA  
**Expertise:** Energy modeling, integrated assessment, and technology assessment

**Tom M. L. Wigley**  
National Center for Atmospheric Research (NCAR)  
Boulder, CO  
**Expertise:** Climate

**Lowell Wood**  
Physicist, University of California  
Lawrence Livermore National Laboratory  
Livermore, CA  
**Expertise:** Applied physics

**\*Unable to attend, but have submitted materials for the conference.**