

PROGRAMME

OECD Global Science Forum

**Conference on
Scientific Challenges
for Energy Research**

17-18 May 2006, Paris



OECD



Day 1 -- Wednesday, 17 May 2006 -- morning

9:00	<p>WELCOME SESSION Chair: Alain Bugat Chairman and CEO, Atomic Energy Commission (CEA), France</p> <p>Jean-Jacques Gagnepain Director of Technology, Ministry of Higher Education and Research and Chairman of the Board of Directors of the National Research Agency (ANR)</p> <p>William C. Ramsay Deputy Executive Director, International Energy Agency (IEA) Science For Energy</p> <p>Donald J. Johnston Secretary-General, Organisation for Economic Co-operation and Development (OECD)</p>
9:45	<p>KEYNOTE SPEECH Arden L. Bement, Jr. Director, National Science Foundation, USA Energy, the Essential Resource: Crafting Its Benign Future The text of Dr. Bement's speech is available on the NSF website: http://www.nsf.gov/news/speeches/bement/06/alb060517_energy.jsp</p>
10:45	<p>ENERGY CHALLENGES Chair: Nobuo Tanaka Director, Directorate for Science, Technology and Industry, OECD</p> <p>Vaclav Smil Distinguished Professor, Department of Geography, University of Manitoba, Canada Energy at the Crossroads</p> <p>Aristides Patrinos President, Synthetic Genomics Inc, USA Biotechnology for Energy Needs</p> <p>Ken Caldeira Professor, Department of Global Ecology, Carnegie Institution of Washington (Stanford), USA The Challenge of Carbon Management</p> <p>Open discussion (45min) Discussion Leader: Bernard Frois Director, New Energy Technologies (NTE) delegation of the National Research Agency (ANR) at the Atomic Energy Commission (CEA), France</p>

Day 1 -- Wednesday, 17 May 2006 -- afternoon

14:30	<p>LIQUID FOSSIL FUELS and BIOFUELS <i>Chair: Graham R. Campbell</i> Director General, Office of Energy R&D, Natural Resources Canada and Chair, IEA Committee on Energy Research and Technology (CERT)</p>
	<p>Christian Besson Director of Research, Schlumberger, France <i>Scientific Challenges in Oil and Gas Exploration and Production</i></p>
	<p>Kai Sipilä Professor and Vice President, Strategic Research - Energy, VTT - Technical Research Centre of Finland, Finland <i>Biofuels in Europe – Visions for Transport</i></p>
	<p>Open discussion (50min) <i>Discussion Leader: Howard J. Herzog</i> Principal Research Engineer, Laboratory for Energy and the Environment, Massachusetts Institute of Technology (MIT), USA</p>

16:30	<p>COAL POWER and CARBON CAPTURE & STORAGE <i>Chair: Neil Hirst</i> Director, Office of Energy Technology and R&D, IEA</p>
	<p>Nick Otter Director of Technology and External Affairs, ALSTOM Power Ltd, UK <i>Key Challenges in the Transition towards Zero Emission Fossil Fuel Power Generation</i></p>
	<p>Lars Strömberg Director, Group Function Strategies, Vattenfall AB and Adjunct Professor, Chalmers University, Sweden <i>CO2 free Power Plant: Discussion on the Development Process of Carbon Capture and Storage</i></p>
	<p>Open discussion (50min) <i>Discussion Leader: Howard J. Herzog</i> Principal Research Engineer, Laboratory for Energy and the Environment, Massachusetts Institute of Technology (MIT), USA</p>

Day 2 -- Thursday, 18 May 2006 -- morning

9:00	<p>NUCLEAR ENERGY <i>Chair: Thierry Dujardin</i> Deputy Director, Science and Development, Nuclear Energy Agency (NEA)</p> <p>Jacques Bouchard Special Advisor to the Chairman and CEO, Atomic Energy Commission (CEA), France Future Developments for Nuclear Fission</p> <p>Kiyoto Aizawa Senior Executive Advisor to the President, Japan Atomic Energy Agency (JAEA), Japan Development of Innovative and Evolutional Technologies for Commercialization of Sustainable Nuclear Fission Energy Supply Systems in Japan</p> <p>Kaname Ikeda Director General, ITER - International Thermonuclear Experimental Reactor Fusion Energy and ITER</p> <p>Open discussion (30min) <i>Discussion Leader: Hermann-Friedrich Wagner</i> Chairman, OECD Global Science Forum</p>
11:00	<p>SOLAR POWER and ELECTRICITY NETWORKS & STORAGE <i>Chair: Alicia Mignone</i> Senior Scientist, International Relations, National Agency for New Technologies, Energy and the Environment (ENEA), Italy and Vice Chair, IEA Committee on Energy Research and Technology (CERT)</p> <p>Joachim Luther Director, Fraunhofer Institute for Solar Energy Systems (FhG-ISE) and Professor, Solid State Physics and Solar Energy, University of Freiburg, Germany Solar Energy Conversion – Solar Electricity Generation, Photovoltaic Energy Conversion</p> <p>Takashi Tomita Corporate Executive Director and Group General Manager of Solar Systems Group, Sharp Corporation, Japan Photovoltaics as a New Energy Source</p> <p>Yves Bamberger Executive VP, Head of Research & Development, EDF Group and Member of the French Academy of Technologies, France Electricity Networks and Electricity Storage</p> <p>Open discussion (45min) <i>Discussion Leader: Jacques Amouroux</i> Professor and Director, Plasma Process Engineering and Surface Treatment Laboratory (LGPPTS), Ecole Nationale Supérieure de Chimie de Paris (ENSCP), Université Pierre et Marie Curie (UPMC), France</p>

Day 2 -- Thursday, 18 May 2006 -- afternoon

14:15	HYDROGEN and FUEL CELLS <i>Chair: Robert K. Dixon</i> Head, Energy Technology Policy Division, Office of Energy Technology and R&D, IEA
	Ken-ichiro Ota Professor, Chemical Energy Laboratory, Graduate School of Engineering, Yokohama National University, Japan <u>Towards a Hydrogen Economy</u>
	Thorsteinn I. Sigfusson Professor of Physics, Science Department, University of Iceland, Iceland <u>Iceland: the Hydrogen Island</u>
	David Wilkinson Professor and Canada Research Chair in Clean Energy and Fuel Cells, Department of Chemical and Biological Engineering, University of British Columbia, Canada <u>Fuel Cells in a Sustainable Energy Economy</u>
	Open discussion (35min) <i>Discussion Leader: Bernard Bigot</i> High Commissioner of Atomic Energy, Atomic Energy Commission (CEA), France

16:30	ENERGY and RESEARCH POLICY <i>Chair: Michael J. Osborne</i> Director, Advisory Unit on Multi-disciplinary Issues, General Secretariat, OECD
	<i>Discussion Leader: Pablo Fernandez Ruiz</i> Director, Energy Research, Directorate-General for Research, European Commission
	<i>Discussants:</i> David G. Victor Director, Program on Energy and Sustainable Development and Associate Professor, Political Science, Stanford University, USA
	Ged Davis Managing Director, Centre for Strategic Insight, World Economic Forum
	Bernard Frois Director, New Energy Technologies (NTE) delegation of the National Research Agency (ANR) at the Atomic Energy Commission (CEA), France