Invitation

ENERGY 200

TECHNOLOGICAL PATHWAYS OF THE FU

Danish Academy of Technical Sciences
Annual Conference 2008

Technical University of Denmark
October 27th 2008

Sustainable energy solutions for the future require a common understanding of the challenges and technical possibilities

Global climate changes, an accelerating human population growth, an increased urbanisation, and a subsequent growing demand for energy in the decades to come put an enormous pressure on the World's political and economical stability. Sustainable delivery of energy is a prerequisite for growth, welfare and peace worldwide.

Many conflicts will continue to arise from disputes over natural resources, notable energy resources. Population growth and changes in climatic conditions will most probably worsen the potential scenarios.

As a result, we need a common understanding, and a broad range of new energy technologies tailor-made to the specific needs and conditions of different economies, political and ecological systems of the World. The focus of the Danish Academy's Annual Conference 2008 is technological energy pathways for the future in the light of the Danish technological strongholds.

We want to discuss openly

- what are the technological, structural and political realities of global energy supply of today?
- what are the technological possibilities and main technological problems to be overcome within the next decades?
- what are our dreams for the new technologies in the light of the challenges the World is facing up to 2100 and beyond?
- what does it take to move ahead fast, in terms of strategies, partnerships and economic inputs?

The conference will create an important platform for discussions on how technological energy solutions may be developed from idea to commercial scale over time.

To move forward faster we need a common mind-set and a common long-term goal. We need a new global "Manhattan Project" to succeed.

DONG energy SIEMENS HALDOR TOPSØE CATALYSING YOUR BUSINESS Technical University of Denmark DTU

Mediapartner: Ingeniøren

Conference Programme

8:30	Registration and morning coffee		
9:15	Welcome Address by Professor Klaus Bock, Chairman of the Danish Academy of Technical Sciences		
9:30	**"Energy Technologies at the Cutting Edge",** talk by Director for R&D, Mr. Neil Hirst, International Energy Agency		
10:00	**"The Need for Innovate Energy Solutions"** talk by Danish Minister for Climate and Energy, Ms. Connie Hedegaard		
	New Technologies – What can they offer us in the Future?		
	Session "Mid-term" Moderator: Professor Erling H. Stenby, DTU	**Session 2 "Long-term"** Moderator: Director Charles Nielsen, DONG Energy	**Session 3 "Beyond"** Moderator: Professor Flemming Besenbacher, AU
10:30	**"Fuel Cells for The Future"** by Director for Innovation Niels Christiansen, Topsøe Fuel Cells	**"Upscaling the Li-ion Battery for Sustainable Energy Storage Applications"** by Professor Josh Thomas, Uppsala University, Sweden	**"Natural Photosynthesis - a Roadmap for Artificial Photosynthesis"** by Associate Professor Poul Erik Jensen, KU
11:00	Coffee/tea break		
11:30	**"Intelligent Electric Grids and Wind"** by Associate Professor Arne Hejde Nielsen	**"3rd Generation Biofuels"** by invited speaker	**"Fusion Power, Status, Challenges and Perspectives"** by Director Henrik Bindslev, Risø DTU
12:00	**"Cleaner Coal Technology and CCS"** by Dr. Rudolph Blum, DONG Energy	**"Photovoltaics – Energy from the Sun"** by Dr. Peter Sommer-Larsen, Risø DTU	**"New Infrastructure: Hydrogen Society"** by Director Jørgen Kjems, DTU
12:30	**"Nuclear energy - Opportunities and Challenges"** by Director Nils-Olov Jonsson, KTH and Vattenfall, Sweden	**"Long-term Role of Oil & Gas Companies"** by Vice President Morten Kelstrup, Mærsk Oil and Gas	**"High-Temperature Superconductors - Contributions to Future Energy Technology"** by Dr. Tabea Arndt, Siemens AG, Germany
13:00	Lunch and Networking		

Conference Programme

14:00	**New Perspectives on Technological Scenarios** 1. Professor Jens Kehlet Nørskov, DTU 2. Professor Claus Felby, KU-LIFE
14.40	**"Policy Instruments in Energy Policy Making"** by Director Lars Haagen Pedersen, Secretariat of the Danish Environmental Economic Council
15:10	Coffee/tea break
15.40	**III. "Hard-talk" between Researchers and Audience** facilitated by Mr. Tor Nørretranders
16:40	**IV. Challenges and Perspectives** by Chairman of the board Dr. phil. et techn. Haldor Topsøe, Haldor Topsøe A/S
17:00	Closing Remarks by Professor Dorte Hammershøi, Chairman of the Academy Council, followed by tapas bar/buffet and networking

Organising Committee

- Director Jens Rostrup-Nielsen, Haldor Topsøe A/S
- Director Henrik Bindslev, Risø National Laboratory for Sustainable Energy, Technical University of Denmark (DTU)
- Professor Claus Felby, Faculty of Life Sciences, University of Copenhagen
- Vice President Knud Pedersen, DONG Energy A/S
- Deputy State Secretary Hans Jørgen Koch, The Danish Energy Authority
- Director Leif Getreuer, Siemens Danmark
- Vice-rector professor Knut Conradsen, Technical University of Denmark
- Managing director Lasse Skovby Rasmusson, ATV
- Project Manager Jens Christian Riise, ATV

Participation fee

Includes coffee/tea breaks, lunch, tapas bar and conference notes.

Ordinary participants: DKK 2,900
ATV members: DKK 1,500
Graduate students: DKK 500
All prices are excluding 25% VAT

Conference Secretariat

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Venue

Building 306, Danish Technical University, 2800 Kongens Lyngby.

Registration

Written registration is necessary. Please use the registration form on www.atv.dk

Deadline for binding registration: October 20th 2008

Accommodation

Arranged individually by the participants. Please contact the secretariat for help.

Conference objective

The overall objective of the conference is to help policy makers in Denmark and abroad in their decision making processes. The conference will provide qualified input from a range of foreign and Danish energy technology experts to the process of identifying energy pathways of the future. The need for a common mind-set and a global vision for energy production and distribution will be discussed.

The conference will present how new technologies best serve the purpose of securing a sustainable energy supply. New energy technologies will be assessed by three thematic pathways: Technology, Biology, and Energy Infrastructure. The technological challenges will be assessed in three parallel sessions representing the medium and long-term perspectives and beyond.

In between the cutting-edge presentations, the audience will have amble time to network with top scientists, policy makers, and businessmen from a range of companies and research institutions.

Participants

The conference will bring together a broad panel of Danish and international scientists, directors, policy makers and decision makers from private enterprises, organisations and institutions involved in setting the national and international agenda on energy research and development. Invited speakers will present state-of-art knowledge on different energy technologies, and their visions for the future.