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EASAC's Energy Programme

Dr John Holmes
EASAC Energy Programme Secretary

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Programme Aim

To provide independent advice from the science academies on the scientific and technical issues impacting on European energy policy making

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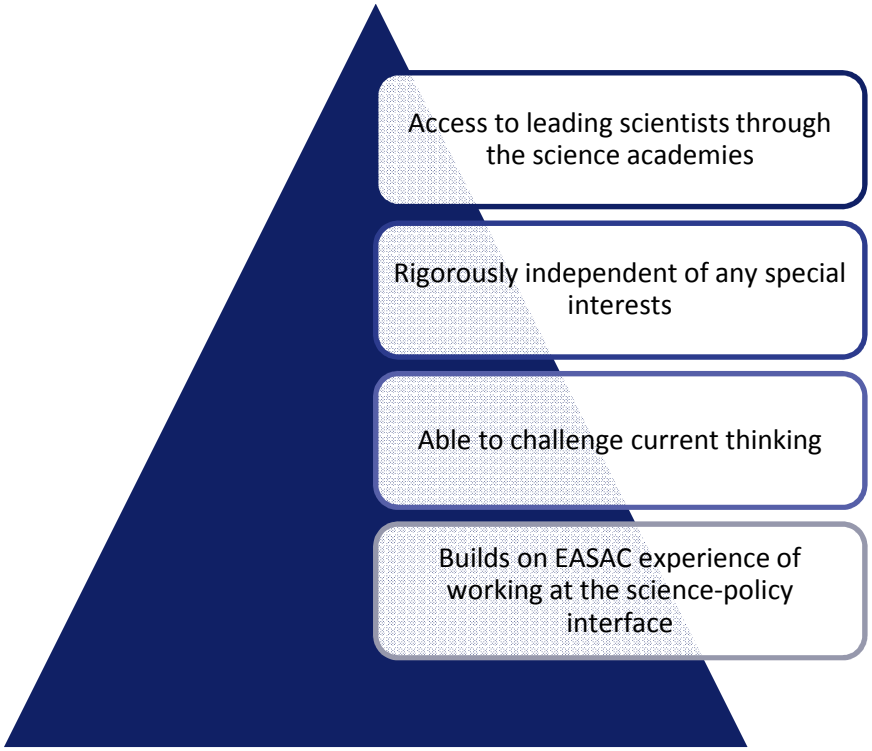
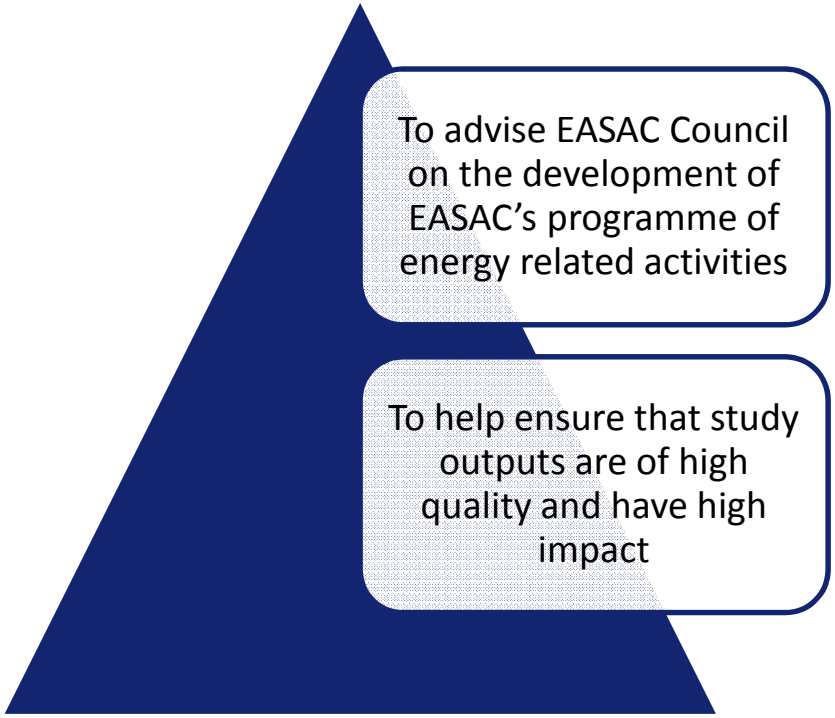
Distinguishing characteristics:



Energy Steering Panel: Role



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Energy Steering Panel: Members

- Professor Sébastien Candel, Ecole Centrale Paris, France
- Professor Petr Krenek, Academy of Sciences of Czech Republic
- Professor Sven Kullander (Chair), Uppsala University, Sweden
- Professor Peter Lund, Aalto University, Finland
- Professor Enn Lust, University of Tartu, Estonia
- Professor Mark O'Malley, University College Dublin, Ireland
- Dr Michael Ornetzeder, Institute of Technology Assessment, Austria
- Professor Alojz Poredos, University of Ljubljana, Slovenia
- Professor Wim van Sarloos, Leiden University, Netherlands
- Professor Ferdi Schuth, Bochum University, Germany
- Dr Eugenijus Uspuras, Lithuanian Energy Institute, Lithuania
- Professor Jan Vaagen, University of Bergen, Norway

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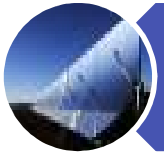
First phase: 4 elements of EU Energy Strategy:


The European electricity grid


Concentrating solar power


Carbon capture and storage


Sustainable bio-fuels

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Transforming Europe's Electricity Supply – An Infrastructure Strategy for a Reliable, Renewable and Secure Power System

EASAC policy report 11

May 2009

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The study examined the developments of the European electricity grid required to:

Create a pan-European competitive electricity market

Enable the integration of much more renewable energy

Maintain very high levels of reliability

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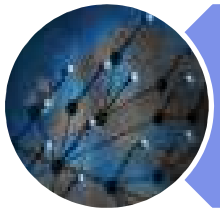
Key issues:



Planning and development of a powerful European grid

Physical and market aspects of grid operation

Current and future technology choices

Concentrating solar power

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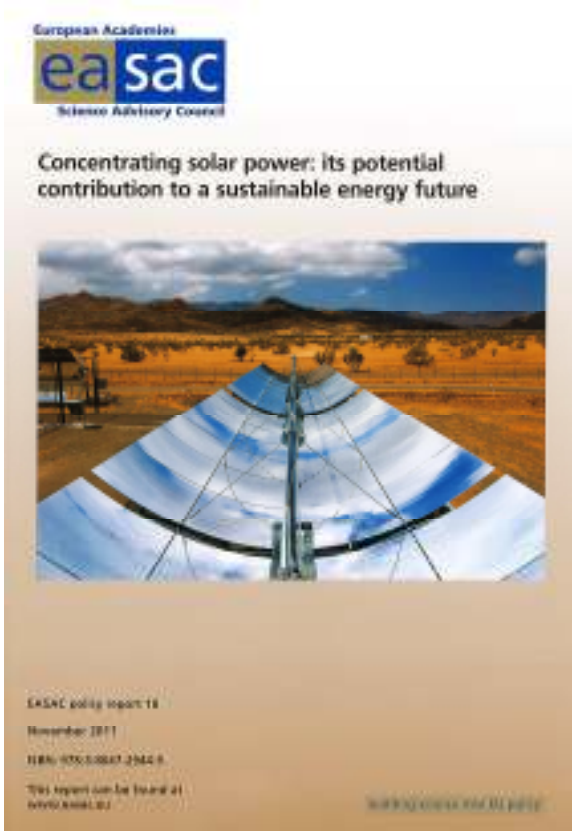

With academies in Egypt and Israel

Robert Pitz-Paal's presentation to follow

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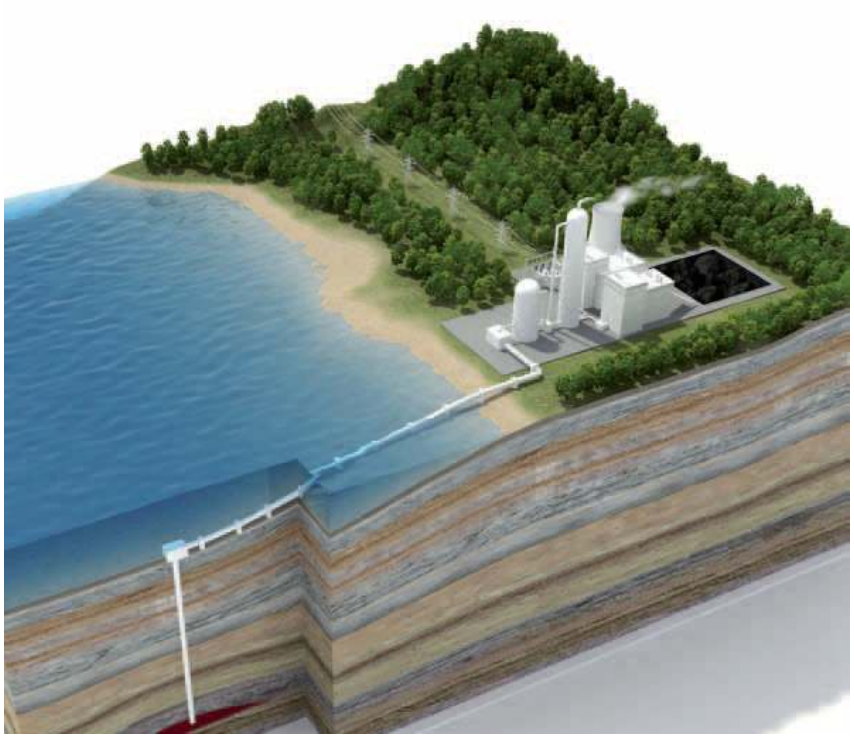
Carbon capture & storage



Key questions addressed:

1. How can the cost and efficiency penalties of CO_2 capture be substantially reduced?
2. What levels of confidence in the long-term storage of CO_2 can be achieved, and how can they be demonstrated to the satisfaction of regulators and the public?
3. What are the relative roles of proposed alternative approaches to carbon sequestration such as 'biochar'?
4. How realistic are current European planning assumptions on the contribution of CCS to 2050?

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Sustainable bio-fuels

- Joint initiative of the energy and environment programmes
- Develop a framework for the evaluation of the sustainability of bio-fuels initiatives, particularly in respect of biodiversity
- First workshop on 9-10 November

New initiatives in 2012:

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Village-level energy in developing countries

Breakthroughs in low carbon energy

Systems approaches in energy

Nuclear fuel cycle

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