

Network of Experts in Energy Technologies (NEET)

INTEGRATED APPROACHES TO ENERGY TECHNOLOGIES



WORKSHOP

27 November 2012

Hosted by the Ministry of Science and Technology (MOST)
Ruby Room, Tangla Hotel, 19, Fuxingmenwai Street, Chang'an Avenue
Beijing, PR China

International Energy Agency

The International Energy Agency (IEA), an autonomous agency, was established in November 1974. Its mandate is two-fold: to promote energy security amongst its member countries through collective response to physical disruptions in oil supply and to advise member countries on sound energy policy. The IEA carries out a comprehensive programme of energy co-operation among 28 advanced economies¹, each of which is obliged to hold oil stocks equivalent to 90 days of its net imports. The Agency aims to:

- Secure member countries' access to reliable and ample supplies of all forms of energy; in particular, through maintaining effective emergency response capabilities in case of oil supply disruptions.
- Promote sustainable energy policies that spur economic growth and environmental protection in a global context – particularly in terms of reducing greenhouse-gas emissions that contribute to climate change.
- Improve transparency of international markets through collection and analysis of energy data.
- Support global collaboration on energy technology to secure future energy supplies and mitigate their environmental impact, including through improved energy efficiency and development and deployment of low-carbon technologies.
- Find solutions to global energy challenges through engagement and dialogue with non-member countries, industry, international organisations, and other stakeholders.

Energy Technology Network

The IEA Energy Technology Network (Technology Network) is an ever-expanding, co-operative group of more than 6000 experts that support and encourage global technology collaboration. At the head of the Technology Network is the Committee on Energy Research and Technology (CERT). Made up of senior experts from IEA member countries, the CERT provides leadership and policy guidance based on expertise provided by four sectoral working parties and two cross-cutting experts' groups.

Multilateral Technology Initiatives

At the core of the Technology Network are more than 40 independent, multilateral technology initiatives – the Implementing Agreements (IAs). The IAs encourage technology-related activities that support energy security, economic growth, environmental protection and engagement worldwide. Through a flexible and effective framework, the IA mechanism enables IEA member and non-member countries, businesses, industries, international organisations and non-government organisations to share research and best practice on existing and breakthrough technologies, to fill existing research gaps, to build pilot plants and to carry out deployment or demonstration programmes. To date, more than 1 200 projects have been completed.

Network of Expertise in Energy Technology

This workshop is organised under the auspices of the Network of Expertise in Energy Technology (NEET). The NEET initiative builds on the expertise of the multilateral technology initiatives supported by the IEA (formally called Implementing Agreements), and links with the key partner countries, the international business community, policy makers, researchers and other stakeholders. It works to raise awareness of these international research groups and to facilitate broader participation. As part of the dialogue, the NEET initiative works with key partner countries and regions interested in order to address their energy technology needs, to identify areas of mutual interest and potential future collaboration.

¹ Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Korea (Republic of), Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States; The European Commission also participates in the work of the IEA.

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OPENING REMARKS

9:00	1	<i>DDG-level Host Country Counterpart (MOST to nominate)</i> <i>Ulrich Benterbusch, Director, Global Energy Policy, International Energy Agency</i> <i>Peter Cunz, Chair, Committee on Energy Research and Technology (Switzerland)</i>
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ENERGY SECURITY, ECONOMIC GROWTH AND ENVIRONMENTAL PROTECTION

Session Moderator: Ulrich Benterbusch

9:30	2	How Can Efficiency Improvement Contribute to CO₂ Emissions Reduction in Coal-fired Power Plants?	<i>Dr. Nigel Dong, Power Generation Specialist, IEA Environmental Services, Ltd. (Clean Coal Centre IA)</i>
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10:00 Break

10:30	3	Carbon Capture, Monitoring and Risk Assessment	<i>Dr. John Gale, IEA Environmental Services, Ltd. (Manager, Greenhouse Gas IA)</i>
11:00	4	Socio-economic Drivers to Biomass Markets and Trade	<i>Dr. Jonathan Male, Pacific Northwest Laboratory (Executive Committee Member, Bioenergy IA)</i>
11:30	5	Sustainable, Available Electricity Generation	<i>Dr. Chris Bromley, GNS Science Wairakei Research Centre (Chair, Chair, Geothermal IA)</i>
12:00	6	Discussion	Moderator

13:00 Lunch on 2nd floor at Café D'or

CREATING THE RIGHT NATIONAL POLICY FRAMEWORKS

Session Moderator: Peter Cunz

14:00	7	Reducing Particulate Emissions: the Growing Demand for Alternative Fuels	<i>Dr. Nils-Olof Nyland, VTT Technical Research Centre (Vice-Chair, Advanced Motor Fuels IA)</i>
14:30	8	Mapping and Benchmarking Energy Product Performance	<i>Mr. Stuart Jeffcott, Operations Manager, Lites Asia (Operating Agent, 4E IA)</i>

15:00 Break

15:30	9	Energy Efficient Communities: Strategic Guidance for Urban Decision-Makers	<i>Yi Jiang, Building Energy Research Centre, Tsinghua University (Operating Agent, Buildings and Community Systems IA)</i>
16:00	10	Policy Analyses Tools for Global Sustainability	<i>Dr. Brian O'Gallachoir, Energy Policy and Modelling, University College Cork (Executive Committee Member, Energy Technology Systems Analysis Programme IA)</i>
16:30	11	Discussion	Moderator
17:30	12	Closing remarks	<i>DDG-level Host Country Counterpart (MOST to nominate)</i>

18:00 Workshop close

18:30 Banquet Hosted by the Ministry of Science and Technology of the People's Republic of China

Participating Organisations

International Energy Agency (IEA) www.iea.org

Government Agencies

P.R. China: Ministry of Science and Technology www.most.gov.cn/eng/

Ireland: Sustainable Energy Authority www.seai.ie/

Switzerland: Swiss Federal Office of Energy www.bfe.admin.ch

Private Sector

ExtraEnergy e.V

IEA Environmental Services, Ltd.

Research and Academia

GNS Science Wairakei Research Centre www.gns.cri.nz/

Pacific Northwest Laboratory www.pnl.gov

Tsinghua University www.tsinghua.edu.cn/

University College Cork www.ucc.ie/

VTT Technical Research Centre www.vtt.fi/?lang=en

Multilateral Technology Initiatives (Implementing Agreements) supported by the IEA

www.iea.org/topics/cleanenergytechnologies/multilateraltechnologyinitiatives/

4E IA www.iea-4E.org

Advanced Motor Fuels IA www.iea-ia-amt.org/

Bioenergy IA www.ieabioenergy.com/

Buildings and Community Systems IA www.ecbcs.org/

Clean Coal IA www.iea-coal.org.uk

Energy Technology Systems Analysis IA www.iea-etsap.org

Geothermal IA www.iea-gia.org

Greenhouse Gas IA www.ieaghg.org

For further information

IEA *Multilateral Technology Initiatives* publication

www.iea.org/publications/freepublications/publication/technology_initiatives-1.pdf

IEA *OPEN Bulletin* newsletter

www.iea.org/topics/cleanenergytechnologies/openenergytechnologybulletin/#d.en.8362

IEA Clean Energy Technologies www.iea.org/topics/cleanenergytechnologies/

IEA *Energy Technology Perspectives* www.iea.org/etp/

IEA *Technology Roadmaps* www.iea.org/roadmaps/

Presentations from this workshop for which waivers have been received will be posted on the IEA website <http://www.iea.org/newsroomandevents/workshops/>.

