

Global Energy Systems - June 26-28 2013

Posted by Rembrandt on May 20, 2013 - 10:05am

Our energy system is evolving due to depletion of <u>cheap</u> fossil fuels and the need for carbon emission <u>constraints</u>. Government and business are under pressure to tackle the energy challenges of rising energy costs, energy security, and reducing greenhouse gas emissions. We witness rapid changes across countries as this evolution takes place, steered both by markets (investment decisions) and government (policy decisions).

It is essential for energy professionals to stay well informed with the latest insights in this evolving world. For this reason, Euan Mearns of The Oil Drum, myself and several others, are organizing the first three-day **Global Energy Systems conference**, which will take place in Edinburgh, United Kingdom from June 26 - 28 2013. The conference is meant to



deliver key updates on the most pressing energy issues and challenges facing our energy system, as well as providing a forum for exchange of substantially different viewpoints. It is supported by several universities and research institutes including University of Aberdeen, University of Edinburgh, Oxford Research Group, Chatham House and others.

The scope is deliberately very broad, covering most primary energy sources, so that a global view of the current energy system can be presented. Session topics include "the limits to easily accessible fossil fuels", "frontier fossil fuel technologies and basins", "the viability of nuclear power", "the costs and benefits of fossil versus renewable electricity", and "the economics and policy of energy systems". A few of our confirmed speakers include Michael Kumhof (IMF), Sir David King (former Head Smith School Oxford University), Friedrich Schulte (Head of Technologies RWE), Dr. William Blyth (Director Oxford Energy Associates), Peter Jackson (IHS CERA), Lord Ron Oxburgh (House of Lords UK Parliament), Richard Stainsby (Chief Technologiest UK National Nuclear Laboratories), Alexander Naumov (Group Economics BP), Guy de Kort (Shell Vice President GTL), and Tatiana Mitrova (Head Oil & Gas Energy Research Institute Russian Academy of Sciences).

Read below the fold for an overview of the conference programme and confirmed speakers to date.

Conference Sponsors:







General information

1st Global Energy Systems Conference

Our Dynamic Earth, Edinburgh, United Kingdom

Wednesday June 26 to Friday June 28, 2013

Registration open - early bird deadline passed

Conference partners:















General interest, media and sponsorship enquiries

The conference is organized on a non-profit basis by a group of energy professionals concerned about the challenges that we face. Any expressions of interest, suggestions for content and analysis, and contributions of sponsorship, are most welcome. Your content, media, and sponsorship related communication can be directed to: alexr at scenetwork.co.uk

Conference Programme

<u>Day 1 | Wednesday 26 June | Fossil Fuels: Can we turn Unconventional into Conventional?</u>

<u>Day 2 | Thursday 27 June | The Future of the Electricity</u>
<u>System</u>

Day 3 | Friday 28 June | The Economics and Policy of Energy Systems

Day 1 - Fossil Fuels: Can we turn Unconventional into Conventional?

Conference Opening

08:00

- Registration | Coffee & tea
09:00
09:00 Welcome and Sponsor address
- 09:40 Programme Committee and Sponsors
09:40 - Keynote Address on the Global Energy Challenges
10:25 Lord Ron Oxburgh, House of Lords UK Parliament
10:25 10:50 Coffee & tea

The Limits to Easily Accessible Fossil Fuels

- Fossil Fuel Production forecasts: analysis of resource and reserve 10:50 assumptions and model mechanics 11:15 Joint Paper convened by <u>Dr. Roger Bentley</u>
- 11:15 Perspectives on China's Coal Industry and Future
- Kevin Jianjun Tu, Senior Associate Carnegie
- 11:40 The Architecture and Drivers of Future Oil Supply
- Dr. Peter Jackson, Head of Research IHS CERA 12:05
- Russia's Natural Gas Production & Export Policy 12:05 -
- Dr. Tatiana Mitrova, Head Oil & Gas, Energy Research Institute Russian Academy of 12:30 **Sciences**
- 12:30 -**Lunch Break**
- 13:30

Frontier Fossil Fuel Technologies and Basins

- 13:30 The future of US shale/tight oil
- Dr. Kenneth Chew 13:55
- Oil and gas recovery from continuous (unconventional) resources: 13:55 -
- Technology innovation options for improving the economic baseline 14:20 Dr. Ruud Weijermars, Director TU/Delft Unconventional Gas Research Initiative
- Key developments and challenges of Enhanced Oil Recovery techniques
- 14:20 and CO₂ Solutions
- 14:55 Prof. Mehran Sohrabi, Institute of Petroleum Engineering, Heriot-Watt University
- 14:55 -**Refreshment Break** 15:10
- The current status of Underground Coal Gasification as a Commercial 15:10 -**Technology**
- 15:35 Dr. Peter Dryburgh, Wardell Armstrong
- Gas to Liquids an opportunity to convert natural gas for use in the 15:35 transport sector
- 16:00 Guy de Kort, Shell Vice President GTL
- 16:00 -Coffee & tea 16:30

Debate: Energy Scarcity, Threat or Fiction?

Chaired By - Paul McConnell, Wood MacKenzie Consulting

Viewpoint A: "Upcoming technologies will unlock the unconventional resource base"

- Panelist to be announced
- Dr. Roberto F. Aguilera, Research Fellow Curtin University, Australia.
- 17:30 Viewpoint B: "We can't afford the energy, labour and capital cost to prolong the fossil fuel era"
 - Dr. Michael Kumhof, Deputy division chief, Modeling Unit International Monetary Fund (IMF)

16:30 -

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• Kjell Aleklett, Professor, Global Energy Systems Group, Uppsala University

Day Summary

17:30 - **Closing of Day 1** 18:00 Program Committee 18:00 – Drinks & Networking Event 21:00 Separate tickets available

Day 2 - The Future of the Electricity System

Conference Opening

08:00 09:00	Registration Coffee & tea
09:00 09:40	Welcome and Sponsor addressProgram Committee and Sponsors
09:40 10:25	 Keynote Address Dr. Jeremy Leggett, non-Executive chairman Solarcentury, Chairman Solaraid
10:25 10:50	Coffee & tea

The viability of Nuclear Power

10:50	– Should the UK nuclear programme be a model for the rest of Europe?
11:15	<u>Prof. Steve Thomas, Greenwich University</u>
11:15 11:40	The costs and economic viability of nuclear energy David Shropshire, Head Planning and Economic Studies, International Atomic Energy Agency
11:40 12:05	_ Trends towards Sustainability in the nuclear fuel cycle _ Dr. Ron Cameron, Head Nuclear Development Division, OECD Nuclear Energy _ Agency
12:05	– Generation IV fast reactors and the re-use of long-lived nuclear waste
12:30	Dr. Richard Stainsby, Chief Technologist, UK National Nuclear Laboratories
12:30	_ Lunch Break
13:10	Lunch Dicar

The challenges of a renewables based electricity grid

13:10	The Renewables Policy Challenge: Scottish context
13:30	Dr. Nicola McEwen, Director of Public Policy, Academy of Government, University
13.30	<u>of Edinburgh</u>
13:30	– The Benefits and Costs of Renewable Energy deployment
13:55	Dr. Ulrike Lehr, Institute of Economic Structures Research GWS
13:55	- Grid balancing and development in an era of renewable energies

The Oil Drui	m Global Energy Systems - June 26-28 2013	http://www.theoildrum.com/node/9990
14:20	Andrew Hiorns, Network Strategy Manager, National	<u>Grid UK</u>
14:20	 Demand side electricity grid management 	
14:55	Alastair Martin, Founder, Flexitricity	
14:55	Refreshment Break	
15:10	Refreshment break	
15:10	- The potential and costs of electricity storage	
15:35	Friedrich Schulte, Head of Technologies, RWE AG	
15:35	- Electrochemistry and the energy storage gap	
16:00	Dr. David Fermin, University of Bristol	
16:00	Coffee & tea	
16:30	conce a tea	

Debate: Where to invest in for the electricity system of the future? A choice between Shale Gas, Nuclear, Renewables, and Coal with CCS?

Chair to be announcedPanelists:

- <u>Dr. Jerome Guillet, Managing Director Green Giraffe Energy Bankers</u>
- 16:30 17:30 - Prof. Stuart Haszeldine, Professor in Carbon Capture and Storage, University of Edinburgh
 - Prof. Alex Kemp, Chair in Political Economy, University of Aberdeen

Day Summary

17:30	– Closing of Day 2
18:00	Programme Committee
18:00 19:30	Policy Workshop: the information, data, and policy gaps on meeting the Energy Challenges Breakout group of speakers plus invited delegates

Day 3 - The Economics & Policy of Energy Systems

Conference Opening

08:30 09:00	Coffee & tea
09:00	- Welcome and Sponsor address
09:15	Programme Committee and Sponsors
09:15	- Keynote Address
10:00	Professor Sir David King, Former Director Smith School Oxford University

Understanding Energy Supply, Demand, Price, and the role of policies

10:00	- The energy outlook to 2030: Global Trends in energy-economic relations
10:25	Dr. Alexander Naumov, Group Economics, BP plc
10:25	– The influence of price risks on policy design and investment
10:50	Dr. William Blyth, Director Oxford Energy Associates
10:50	Coffee & tea
11:15	Conee & tea
11:15	- The capital cost requirements of energy transitions
11:40	<u>Dr. Michael Dale, Stanford University</u>
11:40	- The demand side: energy intensity of the economy
12:00	<u>Dr. Sgouridis, Masdar Institute</u>

Panel Discussion on Key Knowledge, Data & Policy Gaps in the Energy sphere

Honorary Panel Leader - Professor Charles Hendry MP

- Professor Michael Jefferson, University of Buckingham
- 12:00 12:45 Professor Zoe Shipton, University of Strathclyde
 - Professor (Emeritus) Stephen Salter, University of Edinburgh
- 12:45 Conference Summary13:00 Final Sponsor Thanks

Energy Modelling workshop

14:00 14:15	- Introduction
14:15 14:45	Selected Individual Presentation rounds
	Discussion

- Dr. M. Kumhof, IMF Modeling Group
- Dr. N. Goddard, University of Edinburgh, Arup 4-see model
- J. Glynn, University College, Cork, Irish-TIMES model
- 14:45 <u>S. Lochran, UCL Energy Institute, TIAM-UCL model</u> 16:00
 - <u>Dr. J-F. Mercure, Cambridge University Centre for Climate Change Mitigation Research, 4CMR modelling</u>
 - <u>Simon Davidsson, Dept. of Earth Sciences, Uppsala University, limits to rate of energy change</u>
 - <u>Dr. Mikel Gonzalez, BC3 Basque Centre for Climate Change, BC3-GCAM model</u>

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