7th BIEE Academic Conference

in association with

UK Energy Research Centre

The New Energy Challenge: Security and Sustainability
A job for Governments, markets….or a ‘third way’?

St John’s College Oxford, England
24-25 September 2008

Main sponsors

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The New Energy Challenge: Security and Sustainability
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Provisional Programme
Wednesday 24th September

10:00  Accommodation Registration
(Main Porter’s Lodge, St John’s College, St Giles, Oxford, OX1 3JP)
10:45  Conference Registration
(Garden Quadrangle Foyer)
11.00  Opening and Session Chair
Lord Howell, President of BIEE
11:15  Key Note Speaker
Chris Allsopp, Director, Oxford Institute of Energy Studies
12.00  Security and Sustainability
Prof. Jonathan Stern, Director, Oxford Institute of Energy Studies
Dr. Atul Arora, Head of Policy and Long Term Strategy, BP
Prof. David Newbery, University of Cambridge
13:00  Lunch
14:00  First Parallel Session
Session 1 Uncertainty Risk and Investment 1
Room: Auditorium
Session Leader: Nick Hartley, Oxera
14.00-14.25 The ‘uncertain middle’: the role of public demonstration projects and trials in influencing innovation success in renewable energy systems.
Prof. Chris Hendry (CENTIVE, Cass Business School, City University)
14.25-14.50 Learning Rates and Cost Reduction in the Marine Energy Sector
Dr. Richard Powell (University of Liverpool)
14.50-15.10 Tea break
15.10-15.35 The implications of low-carbon scenarios for investment strategy
Henry Jeffrey (University of Edinburgh)
15.35-16.00 The geopolitics of energy insecurity: the challenges of Arctic hydrocarbons for UK policy
Thomas Tindall (Oxera)

Session 2 Instruments of Trading and Regulation 1
Room: Prestwich
Session Leader: Dr. Gareth Davies, Poyry
14.00-14.20 Cost-reflective pricing and the electricity distribution networks
Rita Shaw (Electricity North West / University of Surrey)
14.20-14.40 Transmission access - developing a regime to facilitate the delivery of the UK’s Renewable Targets
Philip Baker (Exeter University)

14.40-15.00 Expanding the system: Regulation and new transmission capacity for renewables connection in the UK
Dr. Bridget Woodman (University of Exeter Cornwall Campus)

15.00-15.20 Tea break

15.20-15.40 Energy security and climate change: Conflicting or complementary energy policy objectives?
Raphael Sauter (University of Sussex SPRU)

15.40-16.00 Exploring the rationales for relaxations in the UK petroleum fiscal regime 1980-2000
Dr. Hafez Abdo (Nottingham Trent University)

Session 3  **Liberalisation**
Room: Larkin
Session Leader : Prof. Paul Stevens

Dr Shane Fudge (University of Surrey)

14.25-14.50 A distinctive energy policy for Scotland?
Prof. Peter McGregor (Department of Economics, University of Strathclyde)

14.50-15.10 Tea break

15.10-15.35 Market Reforms and Energy Security for the Poor in Developing Countries
Dr. Judith Alazraque-Cherni (Imperial College, London)

15.35-16.00 The role of public policy and its relation to private sector investment in driving innovation for a low carbon and secure UK electricity system- a historical perspective
Nick Hughes (King's College London)

Session 4  **Technology Appraisal and Transfer**
Room: North Lecture
Session Leader : Dr. Jim Watson, SPRU, University of Sussex

14.00-14.20 Fostering the development and deployment of low carbon technologies: Lessons from the Carbon Trust
Florian Kern (SPRU, University of Sussex)

14.20-14.40 Low carbon technology transfer and intellectual property rights: Substantive barrier or more hot air?
Dr. David Ockwell/Rudiger Haum (Sussex Energy Group, SPRU, University of Sussex)

14.40-15.00 How environmentally sustainable are current biofuels?
Jeremie Mercier (Imperial College)

15.00-15.20 Tea break

15.20-15.40 Characterising risk and uncertainty for CCS investments in the UK
Hannah Chalmers (University of Surrey)

15.40-16.00 Technology Change and Energy Systems: Learning Pathways for Future Sources of Energy
Dr. Mark Winskel (University of Edinburgh)

16.00 Tea

16.30 **Research Roadshow**
A highly interactive parallel event in which students will set-up shop around posters, presenting their academic work in a 10 minute presentation followed by short discussions with their audience.

Sustainability challenges in regulating electricity distribution networks
Rita Shaw (Electricity North West / University of Surrey)
Technical and regulatory developments needed to foster grid-connected photovoltaic within the UK electricity sector
Chiara Candelise (Imperial College London)

Analysing Carbon Markets as Instituted Processes of Exchange
John Broderick, (Tyndall Centre)

Risk and Uncertainty in Wave Energy Projects
Mark Evans (University of Exeter)

Domestic microgeneration – The first two years of the Lower Carbon Building Programme
Noam Bergman (Environmental Change Institute, University of Oxford)

Modelling Generation Capacity margin as a dynamic control problem
Dan Eager (University of Edinburgh)

Deep carbon emission reductions in existing UK social housing: are they achievable, and how can they be funded?
Andrew Reeves (De Montfort University)

18:00 Drinks
19:00 Conference dinner

After Dinner Speaker: Professor Colin Robinson, Emeritus Professor, SEEC, University of Surrey “Climate change action and the conventional wisdom”

Thursday 25th September

09.00 Second Plenary Session
Session chair: Professor Gordon Mackerron, Conference Chair
Alistair Buchanan, Chief Executive, OFGEM

09.45 Scenarios
Dr. Peter Snowdon, Senior Energy Advisor, Shell
Shell Energy Scenarios to 2050, An Era of Revolutionary Change

Ebba John, Senior economist, BERR
BERR Energy Group’s Long Term Scenarios

Prof Lester Hunt, Lead Expert for the FORESIGHT Sustainable Energy Management in the Built Environment (SEME) and SEEC
Foresight sembe

11.15 Coffee
11.30 Biofuels Panel
Ann Cormack, Chief Executive, D1BP Fuellcrops
Prof. Peter Pearson, Imperial College
Dr Gareth Davies, Poyry
12:30 Lunch

13:30 Second Parallel Session

Session 1 Uncertainty Risk and Investment 2
Room: Auditorium
Session leader: Nick Hartley, Oxera

13.30-13.50 Energy-capital substitution and the rebound effect
Steve Sorrell (Sussex Energy Group, SPRU, University of Sussex)

13.50-14.10 Incorporating wave and tidal energy technologies in a mean-variance portfolio theory application to electricity generation in the UK
Grant Allan (Fraser of Allander Institute, University of Strathclyde)

14.10-14.30 Financial Options to Promote Large-scale Investment in Low-carbon Electricity
Stephen Stretton (Cambridge Centre for Climate Change Mitigation Research)

14.30-14.50 Tea break

14.50-15.10 Sensitivity Analyses on Power Sector Investment and Generation in a Low Carbon UK Energy System
Ramachandran Kannan (Kings College London)

15.10-15.30 Going Smart: Innovation, Investment and Competition in the UK Energy Retail Metering Market
John Dimitropoulos (Mott Macdonald)

Session 2 Instruments of Trading and Regulation 2
Room: Prestwich
Session Leader: Prof. Catherine Mitchell, University of Exeter, Cornwall Campus

13.30-13.50 Government - user - supplier inter-relations and their effect on carbon emissions reduction from household energy use
Dr Yael Parag (ECI, Oxford University)

13.50-14.10 Regulating energy suppliers to deliver energy demand reduction
Dr Nick Eyre (ECI, University of Oxford)

14.10-14.30 The importance of revenue sharing for local economic impacts from a renewable energy project
Prof. Kim Swales (Fraser of Allander Institute, University of Strathclyde)

14.30-14.50 Tea break

14.50-15.10 Effectiveness and economic efficiency of support mechanisms for private sector investment in renewable generation technologies
Jostein Kristensen (Oxera)

15.10-15.30 Building Market Transformation: transforming markets from the inside
Mark Hinnells (ECI, University of Oxford)

Session 3 Is Small Beautiful?
Room: Larkin
Session leader: Prof. Matthew Leach, University of Surrey

Adam Hawkes (Imperial College London)

13.55-14.20 Transition pathways for a low carbon energy system in the UK: assessing the compatibility of large-scale and small-scale options
Dr Tim Foxon (University of Leeds)

14.20-14.40 Tea break
14.40-15.05  Analysis of hydrogen infrastructure development in the UK: How does the scale vary across different infrastructure options?  
Dr. Nazmiye Balta-Ozkan (Policy Studies Institute)

15.05-15.30  UK Renewable Heat Policy: Lessons from Renewable Electricity Policy  
Dr. Peter Connor (University of Exeter)

Session 4  Modelling and Scenarios  
Room North Lecture

Session leader: Prof. Lester Hunt, Surrey Energy Economics Centre

13.30-13.50  To what extent can non-price/income instruments influence the demand for energy?: A longitudinal analysis of the UEDT from a panel of 17 OECD countries.  
David Broadstock (Halcrow and the Surrey Energy Economics Centre)

13.50-14.10  Shell’s World Energy Model  
Martin Haigh (Shell)

14.30-14.50  Tea break

14.50-15.10  Energy and carbon scenarios of China for the 21st Century  
Dr Tao Wang (Sussex Energy Group and Tyndall Centre)

15.10-15.30  BERR Economic Analysis underpinning the 2008 Nuclear White Paper  
Stephen Green, Senior Economist, BERR

15.30  Tea

15.45  Wrap Up Panel

16.00  Finish