



Carbon Capture & Storage Association

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CCSA Weekly Newsletter

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The Carbon Capture & Storage Association (CCSA) exists to represent the interests of its members in the business of capture and geological storage of carbon dioxide (known as Carbon Capture and Storage, or CCS) as a means of abating atmospheric emissions of carbon dioxide and potentially, as a means of enhancing the production of fossil hydrocarbons. From its base in London the CCSA brings together specialist companies in manufacturing & processing, power generation, engineering & contracting, oil, gas & minerals as well as a wide range of support services to the energy sector such as law, banking, consultancy and project management.

The Carbon Capture and Storage Association

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To be considered by the Board for Membership please contact:

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UK News

Campaign launched for CO₂ pipeline in Yorkshire

April 2010 - The Insider has launched a campaign calling for a CO₂ pipeline to be built in Yorkshire and describing it as “a once-in-a-generation opportunity for the region to capitalise on the growth of the carbon capture storage industry.” View the [full story](#).

IMechE launches gas CCS policy paper

18 May 2010 - The Institute of Mechanical Engineers has launched a policy statement on deploying CCS at gas-fired power stations. The paper calls for the government to:

- Develop a UK CCS demonstration programme on gas that complements the existing aspirations for coal to allow learning-by-doing.
- Plan for the longer term investments that are needed for second-generation reference projects on natural gas and for provision for strategic investment in CO₂ transport and storage infrastructure.
- Establish the legal and regulatory framework for CCS (for coal, gas and biomass) as soon as possible, including a framework for the introduction of a CO₂ emission performance standard (EPS) or equivalent measure.

View the [paper](#).

International News

American Power Act unveiled

12 May 2010 - Senators John Kerry and Joe Lieberman have introduced a new bill that aims to reform the American energy economy. The American Power Act includes a national strategy for CCS, emissions performance standards for new coal-fired power stations, proposals for annual incentives of \$2 billion for CCS R&D and further incentives for the commercial deployment of 72 GW of CCS. View the [press release](#).

Reports on CCS in Pennsylvania published

13 May 2010 - The Department of Conservation and Natural Resources has published two reports that conclude that CO₂ could be cost effectively stored in Pennsylvania, providing that appropriate changes are made to the law to cover subsurface ownership rights and long-term liability issues. The reports recommend that next steps include identifying specific geographic areas where storage could be evaluated. View the [press release](#).

Alberta begins negotiations for new refinery

18 May 2010 - Negotiations have begun for a new bitumen refinery project in Alberta, as part of the government's Bitumen royalty-in-kind (BRIK) initiative. The 150,000 barrels-per-day refinery proposed by North West Upgrading will be built in three stages and include integrated carbon capture and storage capability. View the [press release](#).

Contract signed for CCS plant at Compostilla

19 May 2010 - Endesa, Fundación Ciudad de la Energía (CIUDEN) and Foster Wheeler have signed a contract with the European Commission for the OXY-CFB-300 Project at Endesa's Compostilla II power plant in Spain. The project was awarded €180 million in funding under the European economic recovery package. The funding will support the construction of a 30 MW pilot plant as well as the identification and characterization of potential CO₂ storage sites and feasibility studies for a 300-MW plant, which is due to be operating by 2015. View the [press release](#).

University of Wyoming receives grant for clean coal laboratory

19 May 2010 - Peabody Energy has announced that it will grant the University of Wyoming \$2 million to create the Peabody Energy Clean Coal Technology Laboratory. The new laboratory will house research facilities to develop new technologies in areas including CCS and coal gasification. View the [press release](#).

Study on economic benefits of CCS updated

20 May 2010 - The American Coalition for Clean Coal Electricity (ACCCE) has released a series of state studies that estimate the employment and economic benefits in thirty states resulting from deployment of CCS at coal-fired power stations. The state studies are an update of a study released in 2008 entitled *Employment and Other Economic Benefits from Advanced Coal Electric Generation with Carbon Capture and Storage (CCS) Technologies*. As an example of the findings, three coal-fired CCS plants due to be built in Wyoming are expected to support 78,000 job-years between now and 2025. View the [studies](#).

Upcoming events

“Opportunities in Carbon Capture & Storage” Metals and Engineering Applications in Power Generation



25 May 2010, Harrogate International Centre, UK

Carbon Capture and Storage is a relatively new concept generally using existing technologies. However, many companies that could provide products and services to the CCS projects have little knowledge about the technology and the potential opportunities which arise.

Therefore this one day Conference will provide an overview of the CCS technologies that are under development, the implications for existing power plant, and highlight the impact of these technologies on the development of distribution and injection technologies.

The presentations will highlight the key material and engineering challenges, and provide an insight into the opportunities presented to the Metals and Engineering Supply Chain by the emergence of CCS technologies.

The Hatfield project is the first in the UK and has EU funding of £160m. Site work has commenced and the power station will be operational with natural gas in 2012, with coal gasification being operational by 2013. This will be the world's first large scale integrated gasification combined cycle (IGCC) power station.

Four plants are planned to be built in the UK with UK government support. Five projects across Europe are being funded by the European commission.

The delegate cost is £250 plus vat which includes complimentary car parking and lunch. SMF/TIG Members are £75 plus vat and students are £150 plus vat. **CCSA members are entitled to a 10% discount.**

Places are likely to be in demand for this event.

Book now at: www.namtec.co.uk

Sponsorship packages, which include exhibition space, are available from £500 plus vat. Email david.stafford@namtec.co.uk for details.

Agenda:

Opportunities and material challenges - Dr. Jeff Chapman. CCSA

Overview of Technologies for Pulverised Coal - Oxyfuel and PCC - Dr. Mike Farley, Doosan Babcock

Pre-combustion Technology and Carbon Capture - A Key Technology for a Low Carbon Economy - Terry Raddings, GE Energy

Impact of oxyfuel operation on materials corrosion - Colin Davis, E.on

Amine scrubbing: Implications for materials and coatings - Jeremy Mansfield, Doosan Babcock

Overview of materials Issues in CCS - Dr. Kumar Patchigolla, Cranfield University

CO2 pipeline materials issues - Dr. Julia Race, Newcastle University

CO₂ Transportation Infrastructure - the key to establishing a region wide CCS cluster - Dr. Stephen Brown, CO₂sense

Geological Storage of CO₂: Principles and Options - David Hughes, Senergy
Hatfield: a case study - Grant Budge, Powerfuel

New Build Europe 2010



New Build Europe 2010, 26-27 May, Düsseldorf, will provide a platform for you to discover upcoming technologies and effectively shape your project development/management strategies.

This conference will encompass power plant efficiency, profitability and the challenges of effective operation and show you how they affect your business strategy. It will also focus on clarifying investment and lifespan issues, particularly with coal plants and show how to integrate fossil and renewable energy in the long-term.

Key speakers include:

- Thomas Dalsgaard, Vice President Power, **DONG ENERGY**
- Grant Budge, Director, **POWERFUEL POWER**
- Francisco García Peña, Engineering R&D Manager, **ELCOGAS**
- Bruno Kuckartz, Director, **TÜV RHEINLAND INDUSTRY SERVICES**
- Andrew Neville, Head of Conventional Thermal, **ALPIQ SUISSE**
- John Topper, Managing Director, **IEA CLEAN COAL CENTRE**

Uncover the following key topics during the event:

- Optimising fossil power plant flexibility: what utilities expect and what engineering companies develop to meet the market's needs
- Increasing profitability of a new build project
- Learning from projects on ultra-critical, biomass, CHP and CCPP power plants
- Leveraging experiences on quality and supplier management
- Assessing the future of fossil power plants in interaction with renewable energy

See the full programme - Network with the key industry Project Directors and uncover the lessons of 11 industry case studies of Europe's turnkey thermal power plant developments

CCSA members are entitled to a 10% discount please quote CCSA10% when registering

Register now at:

www.arena-international.com/newbuild/register.asp

Climate change: Impacts and Opportunities



British Geological Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL

celebrating
175
years

British Geological Survey, Keyworth, Nottingham

16-17 June 2010

£55 (inc. VAT. This fee covers refreshments, lunches and evening buffet reception)

Some amount of climate change is now inevitable. Governments at all levels and environmental industries recognise that increasing investment in resources will be required to adapt to climate change i.e. sustainable and economically efficient adaptation.

However, adaptation requires that we properly understand the scope of climate change impact – it goes beyond a rise in temperature or a change in precipitation – and that we understand the potentially non-linear sensitivity of both urban and natural environments to climate change.

Climate change also brings challenges and opportunities in the energy sector, all of which are inextricably tied to environmental impact and legislated mitigation efforts.

This conference will tackle these issues, highlighting both the scope of climate change impact, strategies for adaptation, as well as opportunities available to environmental industries and regional governments. The conference will also giving participants a voice through extended Q&A sessions and panel-led discussions.

Speakers include:

- Professor Anne Glover – Chief Scientific Adviser for Scotland
- Dr Chris West – Director, UK Climate Impacts Programme
- Professor Andrew Gouldson – Director, ESRC Centre for Climate Change Economics & Policy
- Mr Chris Murray – Director, UK Transmission, National Grid
- Dr Stephen Brown – Director, Carbon Capture and Storage C02 Sense Yorkshire
- Professor Mercedes Maroto-Valer – Director of the Centre for Innovation in Carbon Capture and Storage, Nottingham University
- Professor Dermot Roddy – Science City Professor of Energy, University of Newcastle
- Mr Rowan Douglas – Chairman, Willis Research Network, Willis Group Limited
- BGS experts on climate change, carbon capture and storage, groundwater flooding, land use and development, ground conditions, ground stability, health and ground source heat pumps

Details of the provisional programme and registration form can be viewed and downloaded from

<http://www.bgs.ac.uk/climateconference/home.html>

Sustainable Ocean Summit



Name: Sustainable Ocean Summit (SOS)

Dates 15-17 June 2010

Location: Holiday Inn, Belfast, UK

Contact Telephone, +1 808 277-9008

Email : paul.holthus@oceancouncil.org

URL: www.oceancouncil.org

The SOS is the first international, cross-sectoral ocean sustainability conference for the "ocean business community" to catalyze the growing interest for more effective industry leadership and collaboration in addressing ocean environmental challenges.

With the theme of "Reducing Risk, Increasing Sustainability: Solutions through Collaboration", the SOS will bring together the wide range of industries that use marine space and resources, including: marine technology, shipping, oil and gas, CO2 storage, fisheries, aquaculture, ports, mining, insurance, finance, renewable offshore energy, tourism, shipbuilding, dredging, and others.

Theme sessions will address cross-cutting ocean industry challenges: decommissioning ships and structures; the Arctic Ocean; climate change and ocean science; marine invasive species; sound and ship strike impacts on marine mammals; risk and ocean operations, marine debris. The conference includes the inaugural "Roundtable of Ocean Industry Association Leaders" (ROIAL) and a half-day seminar on "Marine Spatial Planning: What industry needs to know".

Speakers and panelists include senior environment and sustainability personnel from a range of industries and experts in the theme issues and marine spatial planning.

PLUS: CCSA members can save £100 off the conference registration fee. For more information please contact Paul Holthus

Cleaner Coal: Dispelling the Myths



The Crowne Plaza City, London.

21-22 June 2010

The **Cleaner Coal: Dispelling the Myths** conference will focus on the potential for commercialising cleaner coal technologies and how this will assist in maintaining coal's role within the global energy mix of the future.

Hear from over 30 industry leaders including:

Michael Morris, CEO, American Electric Power

Lindene Patton, Chief Climate Product Officer, Zurich Financial Services

Mark Dominik, Vice President, Office of Vice Chairman, Deutsche Bank Group

Juho Lipponen, Head of CCS Unit, International Energy Agency

Michael Wheeler, Director of Engineering, Parsons Brinckerhoff

Conference highlights will include:

Pioneers of the complete carbon capture and storage sequence

Potential of global Government initiatives

New financing techniques

New developments in technology

Solutions to CO2 storage

Future potential for coal

Join us now to explore the extensive networking opportunities this conference will offer as well as the innovative technologies that can benefit you and the coal industry.

Claim your **30% discount** by quoting "CCSA".

Email: mackroyd@euromoneyplc.com

Call: + 44 20 7779 8999

Visit: www.coaltrans.com/cleanercoal

Carbon Capture & Storage World Australia 2010



21 - 23 June 2010, Crown Conference Centre, Melbourne, Australia

Policy, investment, projects and partnerships for government and primary industries

Carbon Capture and Storage World Australia 2010 is a strategic forum for generators, coal and gas executives addressing the roadmap for the commercialization of CCS. Its focus is on deploying CCS within a wider portfolio of carbon reduction strategies.

You will hear global case studies from Canada, Japan, Italy, India and the US. Covering the key topics and the tough questions, these studies will explore commercialisation, policy settings, leadership and the financing models set up to make carbon capture and storage a reality.

The BIG hitters addressing the conference include:

- Sandra Locke, Executive Director CCS Policy Development, Alberta Energy
- Vanessa Guthrie, Vice President - Sustainable Development, Woodside
- Pietro Barbucci, Manager of Fossil Fuels - Research and Development, ENEL SpA
- Chris Raine, President and Managing Director, Alstom Australia & NZ
- Graeme York, CEO, International Power Hazelwood
- Dr Peter Cook, CEO, Otway Project
- Donald Woodrow, Carbon Strategy Manager, CS Energy
- Ralph Hillman, Executive Director, Australian Coal Association
- Richard Aldous, Deputy Secretary Energy and Earth Resources, Victorian Government
- Crispin Walker, CCS Projects Manager, Global CCS Institute
- S. K. Saini, Head of RM & A, North Delhi Power Limited
- Geoff Gay, Senior Manager Corporate Strategy & Development, TRUenergy

Key topics to be explored:

- Supporting a future for fossil fuelled generation through retrofitting technology
- Global and Australian case studies demonstrating CCS pilot and commercial projects, including ZeroGen, Otway, Longannet, Porto Tolle
- Expertise in storage site exploration and management
- Government funding and PPP's to advance CCS innovation and deployment
- Carbon pricing mechanisms and impacts
- Setting a precedent now for future relationships, projects and funding

The need to develop a viable plan for the up take of carbon capture and storage is a truly global initiative. Therefore a cooperative approach between nations is crucial to making this a reality as quickly as possible. Carbon Capture and Storage World Australia 2010 brings the world to you!

Workshops: The Pre-Conference Workshops on Monday 21 June, will cover the important issues of carbon capture and storage site selection and detailing the economics of carbon capture and storage technology, these workshops are an ideal way to arm yourself with the tools needed to make significant operational changes in your organisation.

Special Discount for CCSA Members

Register <https://secure.terrapinn.com.au/V5/rCalc.aspx?E=3407> online and quote voucher code CCSA or Email cs.au@terrapinn.com and quote ccsa

For more information go to <http://www.terrapinn.com/2010/ccs>

4th Annual Carbon Capture & Sequestration: The Business Summit

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July 13-15, 2010
Almas Temple Club
Washington, DC

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July 13-15, 2010 | Almas Temple Club | Washington, DC

Meet all the players you will need to get a commercial scale demonstration project off the ground:

• CCS Developers • EPCs • Pipeline Companies • EOR & Other Sequestration Providers • Financiers

• Status and update on major CCS commercialization projects—

Mountaineer Project and Texas Clean Energy Project

• Emitter perspectives on implementing carbon capture and storage—what capture technologies and storage strategies will they adopt?

• Prospects for federal and state incentives for project development

• Siting and financing CO₂ pipelines and the agreements transporters are looking to make with emitters and CO₂ providers

• Business case and cost of geologic storage and EOR sequestration

PLUS: Receive a special 10% discount through membership of the CCSA!!! Just register at www.infocastinc.com/carbon10 using discount code: 105410

The 2010 National CCS Conference



Park Hyatt Melbourne, Victoria, Australia | 28th - 30th November 2010

Australia's CCS leaders invite you to the inaugural National CCS Conference, a major opportunity to be informed, to debate and to connect with others involved in the multi-faceted field of carbon capture and storage.

The conference will go beyond the technical challenges, bringing together stakeholders from all areas of CCS development to tackle the barriers to deployment of this critical low emission technology.

The 2010 National CCS Conference will feature a program of high profile speakers in fields including economics and finance, stakeholder engagement, technology and engineering and the latest developments in policy, legislation and regulation.

The conference will provide updates on major Australian and international CCS projects and unparalleled opportunities to network with leaders in the global CCS arena.

The National CCS Conference is designed for:

- Energy industry leaders
- Banking and finance industry
- Federal, state and local government
- Community leaders
- Economists
- Technology providers
- Policy advisors
- Project developers
- International investors
- Stakeholder engagement advisors
- Engineers
- NGOs
- Researchers
- Students

The Conference is the central event of **National CCS Week**, a program of CCS-based events around Australia held from 28 November to 3 December 2010.

For more information about the conference, including pre-registration, sponsorship and exhibition opportunities, visit <http://www.NationalCCS.com.au>