



**Carbon Capture & Storage Association**

Issue No. 26  
Weeks 1 to 2 August 2009

# CCSA Weekly Newsletter

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Southern California Edison considering CCS plant

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North American CCS partnership

DOE awards \$20m to CO<sub>2</sub> compression technology

## Our website

For more information about the Carbon Capture & Storage Association, our members, news highlights, events, links and much more please visit our website.

[www.ccsassociation.org](http://www.ccsassociation.org)

## Reports

EPRI updates US electricity sector analysis

UN Millennium project report

## UK News

### Research centre launched in Aberdeen

30 July 09 - The University of Aberdeen has launched the Aberdeen Centre for Research in Energy Economics and Finance (ACREEF). The new centre will be part of the University's Business School and aims to promote understanding of the economics of the energy sector. It will contribute to policy debates on oil, gas, CCS, CO<sub>2</sub> emissions and renewable energy. View the [press release](#).

### New Knowledge Transfer Network established

3 August 09 - A new Knowledge Transfer Network (KTN) has been established by the Technology Strategy Board to encourage collaboration and knowledge sharing in the Energy Generation and Supply sector. The KTN will focus on renewables, carbon abatement technologies (including CCS), hydrogen and fuel cells, maximising oil and gas resources and future emerging opportunities. View the [full story](#).

### Energy security report published

5 August 09 - A new report written by Malcom Wicks, the Prime Minister's Special Representative on International Energy, has been published. The report, entitled '*Energy Security: a national challenge in a changing world*', recommends that the UK remains at the forefront in developing and demonstrating CCS technology. View the [press release](#).

### Shell and National Grid join ScottishPower's CCS consortium

13 August 09 - Shell and National Grid have joined ScottishPower's CCS consortium, which also includes Aker Clean Carbon. The consortium has entered the UK's CCS competition with a bid based on a retro-fit project at Longannet power station. Nick Horler, Chief Executive of Scottish Power said: "I am delighted to welcome Shell and National Grid to the team. Both of these companies will bring specialist knowledge, expertise and opportunities for growth in the development of this cutting edge technology. For the consortium the two new companies represent a 'perfect fit' as it strives to reduce CO<sub>2</sub> emissions by 90% from its power plant at Longannet in Scotland." View the [press release](#).

## International News

### Pilot plant begins operation

30 July 09 - Babcock & Wilcox Power Generation Group has begun testing its post-combustion capture technology at its Regenerable Solvent Absorption Technology facility in Ohio. The \$11.8 million facility will be used to study various solvent-based absorption systems that could be used to capture CO<sub>2</sub> from coal-fired power stations. View the [press release](#).

### IGCC with CCS joint venture announced

31 July 09 - Chugoku Electric Power Co. and Electric Power Development Co. have announced a joint venture to establish a new company to build an IGCC with CCS demonstration project. The company, Osaki CoolGen Corporation, is expected to finish constructing and begin operating the 170 MW facility in March 2017. View the [full story](#).

### DOE announces \$377m of funding for research centres

6 August 09 - The U.S. Department of Energy (DOE) has awarded \$377 million in funding for 46 new Energy Frontier Research Centers. The research centres aim to enable fundamental advances in solar energy, biofuels, transportation, energy efficiency, electricity storage and transmission, nuclear energy, clean coal and CCS. View the [press release](#).

### CO2CRC receives further funding

7 August 09 - The Cooperative Research Centre for Greenhouse Gas Technologies (CO2CRC) has secured \$20 million of funding as part of the Australian Government's Cooperative Research Centres Program. The funding will allow CO2CRC to continue its research into CCS until 2015, including at three operating demonstration projects: the Otway Project, the Mulgrave Capture Project and the H3 Capture Project. View the [press release](#).

### Southern California Edison considering CCS plant

7 August 09 - Southern California Edison is considering building a 500 MW coal-fired power station with CCS in Emery County, Utah. The company will decide if it will begin a front-end engineering and design study on the project within the next six months. View the [full story](#).

## Duke Energy and China Huaneng Group sign MOU

10 August 09 - Duke Energy and China Huaneng Group have signed a memorandum of understanding to explore a variety of clean energy technologies. Under the MOU, top executives from the companies will meet to exchange information and discuss potential long-term cooperative initiatives. CCS will be one of the key focal points for these discussions. View the [press release](#).

## North American CCS partnership

10 August 09 - At the North American Leaders Summit, the U.S., Mexico and Canada have agreed a partnership on CCS and committed to producing a North American Carbon Atlas that will result in uniform mapping methodology and data sharing on CO<sub>2</sub> sources and potential storage sites. The partnership will also explore ways to collaborate on research, development and demonstration. View the [press release](#).

## DOE awards \$20m to CO<sub>2</sub> compression technology

10 August 09 - The US Department of Energy (DOE) has awarded \$20 million to Ramgen Power Systems to scale up a device (known as the Rampressor) that uses supersonic shockwaves to compress CO<sub>2</sub> for storage. The funding comes from the American Recovery and Reinvestment Act. View the [press release](#).

## Reports

### EPRI updates US electricity sector analysis

3 August 09 - The Electric Power Research Institute (EPRI) has released an updated version of its 'Prism and Merge' analysis, which shows how a portfolio of technologies can achieve significant reductions in emissions from the U.S. electricity sector. The report estimates that the sector could reduce emissions by 41% (from 2005 levels) by 2030, with CCS contributing to 11% of these reductions. View the [press release](#) and the [report](#).

### UN Millennium project report

4 August 09 - The United Nations Millennium Project has released a major new report, entitled '2009 State of the Future'. It notes that world energy demand could nearly double by 2030, with fossil fuels potentially meeting 80% of primary energy demand. The report recommends that CCS should therefore "become a top priority to reduce global climate change". View the [full story](#) and the [report](#).

## Contact Us

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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For more information about the CCSA please visit our website: [www.ccsassociation.org](http://www.ccsassociation.org)

To be considered by the Board for Membership please contact:

Pamela Rudolph  
[pamela.rudolph@ccsassociation.org](mailto:pamela.rudolph@ccsassociation.org)

## Upcoming events

### COAL-GEN Europe conference and exhibition

Conference & Exhibition

**1-4 September 2009**

Expo Silesia, Katowice, Poland



**COAL-GEN  
EUROPE**

1st - 4th September 2009, Expo Silesia, Katowice, Poland

#### Turning Black Technology Green

With the current boom in demand for coal, providing Europe with reliable and affordable power, great investment is being made in its production.

Carbon dioxide management from coal is becoming increasingly important. Carbon capture and storage (CCS) and clean coal technology developments are critical to help reduce CO2 emissions significantly while also allowing coal to meet the world's pressing energy needs.

COAL-GEN Europe is the premier pan-European conference and exhibition dedicated to the resurging coal-based power generation industry and the revolutionary technology that will help Europe meet its environmental challenges.

#### Conference Keynote Speakers:

- Jacek Piekacz, Chairman, The Polish Clean Coal Technologies Platform
- Dr. Thorsten Diercks, Secretary General, European Association for Coal & Lignite (Euracoal)
- A representative of Poland's Ministry of Economy, Energy Department
- A representative of the Polish Chamber of Mining & Commerce

CCSA members are entitled to a 20% discount

For full information or to register, please visit [www.coal-gen-europe.com](http://www.coal-gen-europe.com) or email [attendingcge@pennwell.com](mailto:attendingcge@pennwell.com). Alternatively please contact Neil Walker on +44 (0) 1992 656 600

### Offshore Europe Oil and Gas Conference and Exhibition



**8th-11th Sept 2009  
AEEC Aberdeen**

8 - 11 September 2009, Aberdeen, UK

The SPE Offshore Europe Conference & Exhibition attracts a global audience of engineers, technical specialists, industry leaders and experts, to share ideas, debate the issues of the moment and to create common agendas for the future of the upstream industry. SPE Offshore Europe is where the E&P community meets to find the solutions required to keep up with an accelerating technology race, and understand the demands of a changing industry committed to ensuring security of supply in an increasingly complex world.

For more information please visit [www.offshore-europe.co.uk](http://www.offshore-europe.co.uk)

### The 3rd annual ACI Carbon Capture and Sequestration Summit



14 - 15 September 2009, Washington, United States

The 3rd annual ACI Carbon Capture and Sequestration Summit provides a senior-level forum in which the unexplored nature of the interface between power generators and the oil industry, and their disparate CCS business models and approaches to risk will be addressed. The goal of the event is to encourage those focused on capture, and those focused on storage, to come together and develop a greater understanding of current and future needs, and an integrated approach for commercializing CCS.

Key topic areas to be explored include:

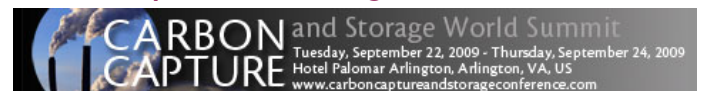
- The changing market conditions for CCS technologies
- The current and evolving Federal and State legislative/regulatory environment
  - The impact of expected national cap and trade legislation
  - Regulatory structure for carbon storage
  - Regulatory framework for Enhanced Oil Recovery (EOR) as a driver for commercial CCS projects
- Funding, project economics and business models
- Accelerating pipeline infrastructure development
- Risk assessment, monitoring and long term liability for storage
- Using CCS to realize the economic benefits of Enhanced Oil Recovery (CO2-EOR)
- Public acceptance for CCS

CCSA members are entitled to a \$200 discount - quote 'TBD'

For more information, please visit:

[www.americanconference.com/CCS](http://www.americanconference.com/CCS)

### Carbon Capture and Storage World Summit



Set to take place on September 22-24th in Arlington, Virginia the Carbon Capture World Summit 2009 will provide an opportunity for international political figures and regulatory bodies, financial institutions and energy corporations to discuss the obstacles and viability of carbon capture and storage, both on a large and small scale. The event will look at funding, international policy and technology in the months leading up to the Copenhagen Climate Conference. Through commercial case studies, this event will also address technical and commercial hurdles, the cost of implementing carbon sequestration and energy consumer acceptance issues.

Featuring a presentation from Dr. Victor Der, Acting Assistant Secretary for Fossil Energy of the US Department of Energy and organizations such as Air Liquide, the Bellona Foundation, the Ontario Ministry of Natural Resources and Ernst & Young participating as speakers, this event promises to provide a well-rounded approach to the most pressing issues facing CCS.

A high level of international participation expected and with numerous networking breaks and interactive panels, attendees will have an opportunity to interact with representatives of other countries also involved in CCS discussions and demonstration projects.

Members of the Carbon Capture and Storage Association are eligible to attend the event at a 25% discount. To receive this discount, please contact delegate sales manager John Buss at +1 207 202 309 7296 and mention the CCSA or use discount code CCSA when registering online at [www.carboncaptureandstorageconference.com](http://www.carboncaptureandstorageconference.com).

## South African Carbon Capture & Storage Conference



South African

## carbon capture & storage conference

29-30 September 2009, Sandton Sun, Johannesburg, South Africa

South Africa is a developing country with a coal based energy economy and has committed internationally to stabilising emissions by 2025. CCS provides one option to stabilise greenhouse gas emissions and the South African government has declared CCS a national research priority.

The conference is designed as an entry level introduction to CCS. It is therefore aimed at executives, geologists, engineers, scientists, policy and regulation developers, researchers, students, NGO's, analysts, risk managers and all interested and affected stakeholders.

The conference aims to develop a basic understanding of the various technical, economic, policy and regulatory aspects of CCS. In addition, the results and experiences of a number of existing CCS facilities will be presented.

The conference will include presentations by world renowned experts in the field of CCS, including:

- Stefan Bachu (Alberta Research Council)
- John Gale (IEA GHG R&D Programme)
- John Bradshaw (Greenhouse Gas Storage Solutions)
- Nick Otter (Global CCS Institute) representation from CO2CRC, Schlumberger, UK Department of Energy and Climate Change and the TNO

The conference will be followed by a number of workshops and short training courses and will include the gala launch of the newly formed South African Centre for Carbon Capture and Storage.

For more information or to register, please visit

[www.ccsconference.co.za](http://www.ccsconference.co.za)

or email [ccsconference@africanearthevents.co.za](mailto:ccsconference@africanearthevents.co.za)

## The Carbon Show

## The Carbon Show

The exhibition for trading, reducing and managing carbon.

ExCel London, 29-30 September 2009



The Carbon Show is the international exhibition for trading, reducing and managing carbon. Launching on 29 and 30 September at ExCel, London, The Carbon Show offers the opportunity to network, meet new potential clients and contacts and discuss the new climate deal with industry leaders. For further details and to pre-register for free entry to the exhibition, please visit <http://www.thecarbonshow.com>

## Brussels Carbon Capture and Storage Summit 2009: Getting it right for Copenhagen



Event title: Brussels Carbon Capture and Storage Summit 2009: Getting it right for Copenhagen

Date: 6th October 2009

Venue: Sofitel Europe Brussels Hotel, European District, Brussels

Contact person: James Wilmott / [james.wilmott@forum-europe.com](mailto:james.wilmott@forum-europe.com) / +44 (0) 2920 783 028

Event website: <http://www.ccsconference.eu>

The major meeting point prior to Copenhagen for stakeholders involved in CCS is organised by Forum Europe and Bellona Europa. Limited places are available.

### CONFIRMED SPEAKERS INCLUDE:

- Andris Piebalgs, Commissioner for Energy, European Commission
- Chris Davies, Member, European Parliament
- Frederic Hauge, President, Bellona Foundation
- Piotr Tulej, Head of Unit, DG Environment, European Commission
- Lena Sandberg-Morch, Senior Officer, State Aid and Competition Department, EFTA
- Lars Stromberg, Vice President R&D, Vattenfall
- Ruth Hampton, Head of International CCS, Department of Energy and Climate Change (DECC)
- Stefano Puppini, Unit K2 - Energy Conversion and Distribution Systems, DG Research, European Commission
- Luc de Marliave, Climate Change Coordinator, Total
- Claude Roulet, Senior Advisor, Schlumberger
- Sanjeev Kumar, ETS Coordinator, WWF
- Petre Petrov, Research Programme Officer, European Commission
- Alain F. Berger, VP European Affairs and Head of the Brussels Office, Alstom
- Scott Brockett, Policy Officer, DG Environment, European Commission
- Jesse Scott, Brussels Programme Leader, E3G

Join more than 200 of your peers for the EU CCS conference prior to Copenhagen. Online registration is available at <http://www.ccsconference.eu> where you will find full registration costs. CCSA members can enjoy the early bird rates right up until the event day saving you €100. After the 25th August 2009 simply use discount code CCSA100 when registering online at <http://www.ccsconference.eu>. Book early to secure a place!

## Power Generation Middle East



**11-13 October 2009**  
**Abu Dhabi National Exhibition Centre**

11 - 13 October 2009, Abu Dhabi National Exhibition Centre

The region's premier exhibition for the power industry

Main areas of interest include:

- Power Generation
- Transmission & Distribution
- Automation & Controls
- Research & Technology

Exhibitor Testimonials

"The show has been really busy... We've met a large number of potential new customers..." N. Selvukumar, Mohamed Abdulrahman Al-Bahar (Caterpillar) [Read More](#)

"We've had plenty of visitors and lots of good business leads - up to 100 serious ones." Sandra Hackmann, Envision [Read More](#)

For more information please view the [website](#)

## Experts 2009



13 - 14 October 2009, Berlin, Germany

Modern Power Systems invites you to attend the Second Annual Experts conference which will bring together key authorities to provide answers to these and all the other topical questions. From clarifying the latest European Directives and implementing biomass co-firing to achieving a more efficient power plant, this conference will provide in depth analysis into solving the critical issues facing the industry today.

With CO<sub>2</sub> concerns so dominant in the public and political arena as well as the conventional pollutants of NO<sub>x</sub> and SO<sub>x</sub>, reducing emissions is an enormous task for power plant operators. Furthermore this responsibility provides colossal challenges which must be overcome.

The advent of stringent European Directives must be adhered with otherwise power plants face the possibility of being shut down. How will the changing regulations affect power plants and what technologies can help meet these challenges?

CCS members receive a 10% discount contact [adriangray@vibeevents.com](mailto:adriangray@vibeevents.com) to receive your reference code

For more information please email [adriangray@vibeevents.com](mailto:adriangray@vibeevents.com) or go to [www.modernpowersystems.com/experts](http://www.modernpowersystems.com/experts)

## Developing Carbon Capture and Storage on a Commercial Scale: Overcoming the Barriers to Implementation



Developing Carbon Capture and Storage on a Commercial Scale: Overcoming the Barriers to Implementation

23rd October 2009, Eversheds, London

New coal-fired power stations are needed in order to meet the energy gap and ensure a diverse energy mix. With coal-fired power stations being built globally at a rapid pace, making coal clean is an imperative without which climate change goals will not be met. Carbon Capture and Storage has the potential to reduce CO<sub>2</sub> emitted from fossil fuel plants by up to 90%.

With the Government currently consulting on the conditions to be placed on future coal power stations this conference focuses on the commercial viability of the technology and looks at the role of carbon trading in improving the economics of carbon capture projects.

How feasible is it for all coal power stations to operate carbon capture and storage and what are the implications for the industry and for the consumer?

Issues to be discussed include:

- Why we need clean coal and the Government's proposals for CCS demonstration and deployment
- European policy towards carbon capture and storage and the impact of the EU ETS
- The scale of the challenge
- The impact of the carbon markets on the economics of carbon capture and storage
- The implications for investors and for consumers
- Investing in and developing the infrastructure for capturing, transporting and storing carbon

For further information and to register please visit: <http://www.eventsforce.net/carboncapture>

For CCSA members there is a discount available when registering online. Please enter CCSA into the field marked 'discount code' to obtain the discounted rate of £199 + VAT.

## Carbon Capture and Storage - Making it happen



28-29 October 2009, Institution of Mechanical Engineers, London

Book now or view the full programme: [www.imeche.org/events/s1439](http://www.imeche.org/events/s1439)

Event overview

Carbon Capture and Storage is one of the most exciting opportunities for reducing carbon emissions, securing affordable low-carbon energy supplies and diversity of energy sources. The technology for achieving substantial reductions in carbon emissions exists, but the regulatory and economic frameworks do not allow us to take full advantage of it. This seminar will describe and challenge the current position and provide an essential update on both the legislative and technical barriers to this technology.

Attending this event will help you:

- Understand the policy and regulatory issues surrounding Carbon Capture and Storage (CCS)
- Appreciate the importance of CCS to achieving carbon emission reductions
- Discover the latest technological developments in CCS, both in the UK and internationally
- Identify the options and health and safety issues for transportation and storage
- Learn how CCS can help to achieve the level of carbon emission reductions required by 2050
- Gain a deeper understanding of the financial realities of delivering zero-carbon energy
- Question whether coal really is a 21st-century fuel
- Learn how to make this exciting technology a commercial reality
- Explore options for the transportation and storage of carbon dioxide
- Understand the health and safety issues surrounding the transmission of carbon dioxide

This event is an ideal opportunity for plant owners, operators, investors, financial advisers, insurers and policymakers to gain an understanding of the range of issues involved in developing, owning and operating power/process plants with carbon capture.

**Reduced Member Rate for the following supporting organisations:** ICE, IChemE, EI, CCSA, OES, OCA, EEMUA, EIC. Day 1: £240 + VAT, Day 2: £240 + VAT, Day 1 & 2: £360 + VAT (full details on event website).

Event Enquiries: Taz Khatun, Events Executive, T: 020 7973 1306 or E: [T\\_Khatun@imeche.org](mailto:T_Khatun@imeche.org)

## The 3rd Annual European Carbon Capture & Storage Summit



18-19 November 2009, London

Earlier this year the UK government unveiled a new strategy of pursuing coal power, pledging that no new coal plants will be developed unless they were able to store some of their carbon emissions underground. With many challenges and opportunities facing carbon capture & storage at the moment, City & Financial holds this timely summit, the third in the successful series, to discuss and debate some of these key issues by bringing together a speaker panel of exceptional quality.

Keynote address

Charles Hendry, Shadow Minister for Energy

Among other expert speakers are:

- Stephen Adamson, Commercial Manager CCS, Scottish Power
- Andrew Austin, Senior Associate, Freshfields Bruckhaus Deringer LLP
- John Best, Chief Executive, East of England Energy Group (EEEG)
- Dr Tony Booer, Schlumberger Oilfield
- Paul Bowden, Partner, Freshfields Bruckhaus Deringer LLP
- Simon Brooks, Vice President, European Investment Bank
- Keith Burnard, Senior Energy Technology Specialist, International Energy Agency
- Milton Catelin, Chief Executive, World Coal Institute
- Jeff Chapman, Chief Executive, Carbon Capture and Storage Association
- Jon Gibbins, Senior Lecturer, Imperial College London
- Klaus Hammer, Managing Director - Generation, Eon UK
- Nick Horler, CEO, Scottish Power
- Bronwen Northmore, Head of CCS Policy, Department for Energy and Climate Change
- Jan Panek, Head of Unit, Coal and Oil, European Commission
- Ian Phillips, Director CO2 Infrastructure, CO2 Deepstore Ltd
- Dr Nicholas Riley, Head of Science Policy Europe, Coordinator of CO2, Geonet
- Emily Rochon, CCS Policy Coordinator, Greenpeace
- Stanley Santos, Project Manager Capture and Integrated Systems, IEA Greenhouse Gas R&D Programme
- Ian Temperton, Managing Director, Advisory, Climate Change Capital

- Chris Train, Director of Network Operations, National Grid
- Richard Vernon, Principal-Energy, SLR Consulting

Attendance at this summit will be invaluable for all those involved in the development of CCS, including generating and utility companies, technology suppliers, oil and gas companies, energy ministries, energy regulators, project financiers, lawyers, technical consultants and academics.

**CCSA members DISCOUNTS:**

20% discount off the standard private sector fee

10% discount off the standard public sector/academic fee

To receive this discount, please quote CCSA and contact Martina Hayter ([mhayter@cityandfinancial.com](mailto:mhayter@cityandfinancial.com))

Organised by:

City & Financial Conferences

Tel: +44 (0)1483 720707

For more information about this event, please visit

[www.cityandfinancial.com/eucc3](http://www.cityandfinancial.com/eucc3)

## Middle East Electricity 2010



Tuesday 9 - Thursday 11 February 2010

Dubai International Exhibition Centre

Exhibition space at Middle East Electricity 2009 sold out well in advance of the show.

Secure your place at Middle East Electricity 2010 today

Contact us on +97143365161 or email [meelectricity@iirme.com](mailto:meelectricity@iirme.com)

"This is our second time at Middle East Electricity - there's been good visitor traffic, and we've met visitors from across the GCC and North Africa. We're very satisfied with the show, and will return in 2010." Harris Juhn, Marketing Manager, Hyosung Corporation.