Showcasing the opportunities and necessity for CO2 storage

Crowne Plaza, Abu Dhabi, UAE • 28-29 October 2008







Learn from leading CCS experts, including:

- ▶ Peter Verhulst, Senior Technical Manager, Shell E&P International
- ▶ Mohammed Al-Sabban, Senior Advisor to the Minister of Petroleum and Natural Resources, Kingdom of Saudi Arabia
 - ▶ **Dr Hisham Khatib**, Honorary Vice Chairman, **World Energy Council** and Chairman, **Electricity Regulatory Commission of Jordan**

Plus practical case studies, insight and analysis from:

- ▶ Ghaniya Bin-Dhaaer Al-Yafei, EOR Team Leader, Abu Dhabi Company for Onshore Oil Opportunities (ADCO)
 - Sam Draper, Engineering Technical Leader, GE Energy
 - lain W Wright, Carbon Dioxide Project Manager, BP Alternative Energy
 - Masanori Abe, General Manager, Technical Integration Group, Japan CCS
 - Lionel Kambeitz, Chairman and Chief Executive Officer, HTC Pure Energy
 - **▶ Gary Weilinger**, Vice President, **Spectra Energy Transmission**
 - Suhail Al Mazrouei, Senior Project Manager, Energy and Advisory Unit, Mubadala Development Company
 - ▶ Pierre le Thiez, Executive Vice President, Geogreen
 - ▶ Gael Forest, Partner, ERM, Middle East
 - ▶ Pietro Barbucci, Head of Research Unit, ENEL
 - Dr Jens Hetland, Senior Scientist, SINTEF Energy Research
 - ▶ Bert van der Meer, Senior Reservoir Engineer, TNO

PLUS

POST-CONGRESS WORKSHOP

Creating Incentives for CCS through Carbon Market Mechanisms

Congress Objectives

- ✓ To show the region that CCS is an opportunity and not a threat
 - ✓ To showcase global CCS projects
- ✓ To promote and help understand the available CCS technologies
- ✓ To accelerate the development of new CCS projects
 - ✓ To showcase the business case for EOR CO₂

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Carbon Capture &

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As the G8 is looking at investing more than US\$10bn a year to support new technologies to reduce CO₂ emissions, including CCS, and plan to fund research to develop CCS projects, which bury emissions from power plants, as a measure to help meet a global target to halve greenhouse gases by 2050, huge research and investment is occurring worldwide into CCS technologies. This event will showcase both international and regional case studies and provide a clear framework for what is happening in the rapidly changing world of CCS, bringing together global expertise.

Key Reasons to Attend:

- Showcasing global and regional CCS projects
- Case study led agenda
- Post-Congress Workshop on 'Creating Incentives for CCS through Carbon Market Mechanisms'
- Flexible pricing options
- ▶ Co-located exhibition area

FEEDBACK FROM ATTENDEES AT PREVIOUS GREEN POWER CONFERENCES:

Turn out was very strong and the program was great

RENEWABLE CHOICE

You covered a very dense topic in an interesting and thoughtful way

TERRA GLOBAL CAPITAL

It was a very interesting crowd and a lot of good conversations took place

CENTRE FOR CLIMATE SOLUTIONS

Who Will You Meet?

- Utilities & Power Generation Companies
- ▶ Power Plant Developers
- Petrochemicals and Refining Companies
- ▶ Pipeline Companies
- **▶** Coal Mining Companies
- Ministries & Governmental Bodies
- ► Environmental Management Firms
- ▶ Technology Solution Suppliers
- Generation Technology Vendors
- Service Providers & Engineering Companies
- ▶ Banks, Investors & Venture Capitalists
- Law Firms

Carbon Markets Series

Over 1750 sustainability professionals have participated in our global Carbon Markets events which provide first class networking platforms for project hosts, carbon credit buyers, government representatives, DNA's and carbon experts.

Our events have an excellent track record for attracting high calibre representatives from both the mandatory and voluntary carbon arena to help drive the growth of the market across the globe.

Day One: 28 October 2008

09.00 Chair's Opening Remarks

09.15 **Keynote Session: Paving the Way for International CCS Deployment**

- ▶ What is CCS and why and when do we need it?
- ► What level of investment is required?
- What is the CCS value chain?
- ► What is the potential of CCS?

CO₂ Capture and Storage: The Road Ahead

Dave Binnie

General Manager

Hydrogen Energy

Status and Challenges within CCS from an Oil and Gas Major's Perspective

Henrik Solgaard Andersen

Project Director, CO2 Value Chain

StatoilHydro

- 10.30 Interactive discussion session with speakers
- 10.45 Networking refreshment break & exhibition visit

11.25 Carbon Capture and Storage: Challenges and Opportunities in the Middle East

Peter Verhulst,

Senior Technical Manager,

Shell E&P International

Developing CCS and CDM Projects

Mohammed Al-Sabban,

Senior Advisor to the Minister of Petroleum and Natural Resources, **Kingdom of Saudi Arabia**

- 12.15 Interactive discussion session with speakers
- 12.30 Networking lunch break & exhibition visit

13.45 CCS Economics – Costs, Regulation, Competition and Investment

- ▶ What is the cost of CCS and how can costs be reduced?
- Incentivising CCS through emissions trading
- ► What does the price of carbon need to be?
- How can CCS projects be financed?
- What is the potential opportunity for investors as CCS passes through the development phase?
- What is a full life cycle analysis of CCS?
- How can regulatory developments affect the industry going forward?
- Can the private sector deliver on CCS with the right policy support?
- Establishing legal and regulatory frameworks (property rights, long-term liability, storage and monitoring, IP)
- ► Will CCS be applicable for CDM status?
- Funding options, risk management, partnerships

Each speaker will give a 15 minute introductory presentation followed by an interactive discussion session.

Speakers:

Sam Draper,

Engineering Technical Leader,

GE Energy

Suhail Al Mazrouei,

Senior Project Manager, Energy and Advisory Unit,

Mubadala Development Company

Pierre le Thiez

Executive Vice President

Geogreen

Dr Hisham Khatib.

Honarary Vice Chairman,

World Energy Council and

Chairman,

Electricity Regulatory Commission of Jordan

Gael Forest,

Partner

ERM, Middle East

15.15 Networking refreshment break & exhibition visit

15.55 CCS Global and Regional Projects – Moving from the Drawing Board to Demonstrating CCS Technology and Applications

A series of global and regional case studies which will address:

- ▶ Where are the current projects?
- ► What key challenges need to be overcome?
- What key lessons and best practice can be shared?
- Current uses of CCS
- The business case for CCS for EOR challenges and opportunities
- Commercial aspects and opportunities of carbon dioxide in oil and gas reserves

In Salah Gasfield Project

lain W Wright,

Carbon Dioxide Project Manager,

BP Alternative Energy

International and Regional Case Studies

Speakers:

Masanori Abe,

General Manager, Technical Integration Group,

Japan CCS

Pietro Barbucci,

Head of Research Unit,

ENEI

Ghaniya Bin-Dhaaer Al-Yafei,

EOR Team Leader.

Abu Dhabi Company for Onshore Oil Opportunities (ADCO)

- 17.35 Interactive discussion session with speakers
- 17.50 Close of Day One & Networking Drinks

| 09.30 | Developing and Implementing CCS | | | | | |
|-------|--|--|--|--|--|--|
| | Capture Technology | | | | | |

Welcome coffee & exhibition visit

- ► How can CCS be captured from gas and coal power plants?
- ► What different approaches can be used?

Chair's Opening Remarks

- ▶ Update on capture technologies: where are we?
- Analysis and comparison of IGCC pre-combustion, postcombustion, oxyfuel capture: feasibility, integration and cost
- ▶ What technologies and membranes can be used?
- Deploying new technologies for CCS

Speakers:

08.45

09.15

Dr Jens Hetland

Senior Scientist

SINTEF Energy Research

Raman Narayanan,

Manager, GHG and Carbon Dioxide,

Shell Canada Oil Science and

Member,

ICON

Commercialising Carbon Dioxide Capture Systems for Enhanced Oil Recovery and Storage

Lionel Kambeitz,

Chairman and Chief Executive Officer,

HTC Pure Energy

- 10.45 Interactive discussion session with speakers
- 11.00 Networking refreshment break & exhibition visit

11.40 CCS Storage Technology – Challenges & Technology Solutions

- Comparison of storage technologies
- How can carbon dioxide be effectively sequestered?
- Issues of site selection
- ► What options are there for carbon dioxide storage: deep saline aquifiers, subsea storage, mature oil and gas reservoirs?
- Which type of location would provide the lowest cost storage?
- Leakage issues
- ► Methodology issues: analysis of various tools of measurement and monitoring and verification of carbon benefits

Speakers:

Gary Weilinger,

Vice President,

Spectra Energy Transmission

Additional speakers to be announced

- 12.30 Interactive discussion session with speakers
- 12.45 Networking lunch break & exhibition visit

14.00 Geological Storage of Carbon Dioxide

Pierre le Thiez

Executive Vice President

Geogreen

Calculating the Subsurface Carbon Dioxide Storage Capacity

Bert van der Meer,

Senior Reservoir Engineer,

TNC

- 14.50 Interactive discussion session with speakers
- 15.05 Networking refreshment break & exhibition visit

15.35 **CCS Systems and Future Vision**

- How can carbon dioxide be transported to storage?
- What are the easiest systems to link capture to storage?
- How can carbon dioxide pressurised pipelines be used?
- How does the CCS industry build momentum?
- How can key technological challenges be overcome? How to accelerate the development of CCS technology
- ► What is required?

Speakers to be announced

- 16.25 Interactive discussion session with speakers
- 16.40 Chair's Closing Remarks
- 16.55 Close of Conference

UPCOMING EVENTS

Carbon Markets India

Migrating business to a low carbon economy for sustainable economic growth

Taj President Hotel, Mumbai, India • 29-30 September 2008

Sustainable Cities & Communities

Creating greener living for a sustainable future

President Wilson Hotel, Geneva, Switzerland • 30 September - 01 October 2008

Voluntary Carbon Markets

Understanding the business opportunities in the voluntary carbon markets

America Square, London, UK • 14-15 October 2008

Carbon Markets Africa

CDM business opportunities in Africa

Table Bay Hotel, Cape Town, South Africa • 18 – 19 November 2008

Creating Incentives for CCS through Carbon Market Mechanisms

This practical and interactive workshop will look at ways of developing the CCS market.

Registration 08.45

Start 09.15

Close 14.30

Run by:

Environmental Resources Management (ERM) is one of the world's leading providers of environmental consulting services, with over 135 offices in more than 40 countries and over 3000 staff.

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This gathering of normally elusive and difficult to reach executives provides an excellent platform for your company to reach them with your brand identity & organisational goals and also secure your market position.

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- Increase visibility
- ▶ Test new markets

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Contact Yahya Al Barrishi for further details

Tel: +971 507 755 427 or +44 20 7099 0600 Email: Yahya.b@greenpowerconferences.com









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Green Power Conferences was established in 2003 by a team of professional, environmentally aware event experts and were the first to offer professionally organised events focusing on the sustainability sector. Over the last five years, we have welcomed over 6000 delegates from 76 countries and built a global database of 140,000+ contacts. Our expertise lies in producing high quality, interactive conferences that provide ample networking opportunities for delegates and partners alike. Green Power Conferences offsets the impacts of its commercial activities towards renewable energy projects.

Crowne Plaza, Abu Dhabi, UAE

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| Post-congress workshop only (30 October) | JS\$899 | Post-congress workshop only US\$719.20 (30 October) | | | | | |
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