

International Energy Forum - Global CCS Institute

Symposium on Carbon Capture and Storage

hosted by the NDRC-ERI (China).
27-28 September 2009, China World Hotel, Beijing, China

Challenges and the way forward in accelerating CCS development and deployment, particularly in oil and gas producing countries

1 – Context

Given the projected long-term demand and dominance of fossil fuels in the future energy mix, there is an urgent need to improve the sustainability of their production and consumption, especially with regard to the associated environmental footprint. Carbon capture and storage (CCS) development and deployment offer a solution that can contribute, along with energy efficiency, to delivering a sustainable energy future.

The 11th IEF Ministerial (Rome, April 2008) concluded that “a sustainable energy future implies efficiency improvements, technological advances in both production and consumption of fossil fuels, and development of alternative low-carbon energy sources”. Ministers noted that carbon capture and storage is an important option to reduce greenhouse gas emissions from fossil fuels.

The IEF-IFP Symposium on technology (Riyadh, December 2008) acknowledged the crucial role of CCS in delivering a sustainable energy future and concluded that “CCS in conjunction with CO₂-EOR is a “double-win” option as it reduces greenhouse gas emissions while at the same time increasing recoverable reserves in mature fields and hence contributing to global energy security”.

However, CCS technology has some way to go before it makes a significant impact on greenhouse gas emissions. The cost of implementation and the need to increase efficiencies in the capture, transportation and storage of CO₂ are among obstacles still to be overcome before CCS technology attains commercial viability.

Building on the findings of the IEF-IFP symposium, the first IEF symposium on CCS technology to be held in Beijing, 27-28 September 2009, in cooperation with the Global CCS Institute and hosted by the National Development and Reform Commission (NDRC-ERI, China), will focus on ways to accelerate the deployment of CCS especially in oil and gas producing countries.

2 – Objective

The main objective of the symposium is to assess the current state of CCS development, with a particular focus on CO₂-EOR and its potential to enhance global energy security.

The symposium will gather representatives of governments, from producing and consuming countries, from industry, research centres and financial institutions. The audience will review critical issues related to CCS, examine impediments to large-scale CCS implementation and investigate ways and means of accelerating CCS deployment, particularly through enhanced cooperation and partnership. The symposium will also discuss the role of all stakeholders, industry, governments and financial institutions in facilitating CCS deployment and will try to achieve concrete recommendations on actions for governments and industry in consuming as well as producing countries.

Agenda (as of 19.09.09)

Sunday 27 September 2009

08.30 - 09.15: Registration

09.15 - 09.45: Welcome Address and Opening Statements

- Representative of Chinese Government
- Bob Pegler, Deputy CEO, Global CCS Institute
- Noe van Hulst, Secretary General, IEF

09.45 - 10.00: Keynote Speaker: Xiaohua Zhang, Programme Officer, Adaptation Technology and Science Programme, UNFCCC

10.00 – 10.30: Coffee & networking break

10.30 – 12.30: Session One: CCS related issues: where we are and current challenges

Moderator: Bob Pegler, Deputy CEO, Global CCS Institute

Panelists:

- Francois Kalaydjian, Director, Sustainable Development Technologies, IFP
 - Larry Hegan, Senior Policy Advisor on CCS, Natural Resources Canada
 - Tim Bertels, Shell Business Development Manager for CO₂ solutions
 - Heleen de Coninck, Manager, Energy Centre of the Netherlands
 - Tim Dixon, IEA, GHG R&D Programme
 - Fumihiro Ito, Associate Executive Officer, Senior Manager Oil and Gas Project Division, JGC Corporation
 - Peta Ashworth, Team Leader, CSIRO, Australia
 - Tony Wood, Director, Clean Energy Programme, Clinton Foundation
 - Longchao Zhou, Deputy Director, Division of European Affairs, Ministry of Science and Technology, Beijing (*)
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- Overview of achievements and lessons learned to date
 - Progress and developments on technology, policy and regulations
 - Costs challenges (costs of CO₂ capture, transportation and storage)
 - The impact of the global financial crisis on CCS projects and future funding challenges
 - Examples and developments in government - industry collaboration
 - Progress in public awareness on CCS and its contribution to mitigating climate change
 - Risks associated with CCS, reality and perception
 - The geological potential for CO₂ storage in oil and gas producing countries

Roundtable discussion

12.30 – 14.00: Lunch break

14.00 – 16.00: Session Two: CO₂ – EOR: Opportunities and Challenges

Moderator: Said Nachet, Director, Energy Division, IEF

Panelists:

- Deborah Petterson, Assistant Director, Global Oil Markets & Middle East, Department of Energy and Climate Change, UK (representative of the “Four-Kingdom Initiative”)
 - Guosheng Ding, Research Institute of Petroleum Exploration and Development, Petrochina
 - Putu Suarsana, EOR Project, E&P Pertamina
 - Younes Jalali, Scientific Advisor, Beijing Geosciences Center, Schlumberger
 - Bo Peng, Professor, EOR Research Centre, Chinese University of Petroleum
 - Adrian Barrera-Roldan, Exploration & Production, Pemex (*)
 - Saudi Aramco (*)
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- The potential for CCS in enhanced oil recovery from mature oil and gas fields
 - Technology, funding and regulatory challenges in CO₂-EOR
 - The cost-benefit analysis of CO₂-EOR
 - The impact of oil price volatility on CO₂-EOR
 - How to incentivize CO₂-EOR? What role for the different players?
 - What ‘price of oil’ is needed to promote CO₂-EOR?
 - International cooperation and the role of NOC-IOC collaboration and partnership

Roundtable discussion

20.00: Dinner

Monday 28 September 2009

09.00 – 11.00: Session Three: The way forward: from pilot project to commercial scale

Moderator: John Panek, Deputy Director, CSLF, Deputy Director, Office of Clean Energy Collaboration
U.S. Department of Energy

Panelists:

- Fuad Siala, Head Energy Studies Department, Opec
 - Ton Wildenborg, TNO, Delft, Netherlands
 - Ashok Bhargava, Principal Energy Specialist, Energy Division, Asian Development Bank
 - Theodore Roosevelt IV, Managing Director Investment Banking, Barclays Capital Council on Climate Change, New York
 - Song Zheng, Vice President Greengene, China
 - Lorraine Yin, Programme Development Manager, The Climate Group, China
 - Tsuneo Kusuda, Chief Researcher, CO₂ Sequestration Research Group, RITE, Tokyo, Japan (*)
 - Clinton Foster, Chief Petroleum and Marine Division, Geosciences, Australia (*)
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- The outlook for large scale industrial initiatives
 - Obstacles and incentives to commercial deployment and the role of governments, industry and financial institutions

- Potential for cost reduction and economic improvement in CCS projects
- Enhancing the global producer-consumer dialogue to promote CCS deployment
- The potential impact on CO₂-EOR projects assuming inclusion of CCS within CDM
- Specific incentives needed to accelerate CCS deployment in oil and gas producing countries
- Improving public perceptions of CCS projects

Roundtable discussion

11.00 – 11.30: Coffee & networking break

11.30 – 12.30: Session Four: Wrap up session: Conclusions and Recommendations
Publication of Concluding Statement by IEF and Global CCS Institute

12.30 – 14.00: Lunch

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