



## **POLICY GROUP**

### **Recent CCS Analysis and Collaboration Activity by the International Energy Agency**

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## RECENT CCS ANALYSIS AND COLLABORATION ACTIVITY BY THE INTERNATIONAL ENERGY AGENCY

*Note by the Secretariat*

### Background

This paper is a brief overview of recent CCS-related activities by the International Energy Agency (IEA). Topics described are strategy and policy issues, legal and regulatory analysis, technical and economic analysis, and cooperation with IEA non-members.

### Action Requested

The Policy Group is requested to review the overview of IEA's CCS-related activities.



## Recent CCS Analysis and Collaboration Activity by the International Energy Agency

### Strategy and Policy Issues

- The IEA and UNIDO, with the generous financial support by the Norwegian government and GCCSI, are launching a new Roadmap on CCS in Industrial Applications. The Roadmap charts a pathway and vision for the uptake of CCS in five industry sectors: high-purity CO<sub>2</sub>, iron and steel, cement, refineries and biomass transformation. The Roadmap also provides policy recommendations and milestones.
- The IEA is conducting a study on incentive policy mechanisms and pathways to support deployment of CCS. The study (being finalised while the CSLF meetings take place) evaluates various incentive policy mechanisms and proposes a concept of “policy pathways” for the design of long-term policy for CCS.
- A key area for future development is CCS linked with biomass (“BECCS”), as it has the potential to actually remove CO<sub>2</sub> from the atmosphere. More analysis in the area is needed. The IEA is launching work on analysing the potential of BECCS and looking at incentive policy requirements.
- The Agency supports the various technology activities of the Clean Energy Ministerial (CEM) process. A Clean Energy Progress Report was submitted to April CEM. We also contribute to the work of the CCUS action group.
- The IEA is engaged in the UNFCCC process and provides input to the negotiations on inclusion of CCS in the CDM through targeted analysis, presentation of the IEA’s findings, official submissions to the UNFCCC, and discussions with negotiators.
- The Agency is also planning to update the 2009 CCS Roadmap, with a new refreshed edition planned for release in October-November 2012, based on forthcoming ETP-2012 analysis.

### Legal and Regulatory Analysis

- In November 2010 the IEA published its Model Regulatory Framework for CCS, a document compiling current best practice in CCS legislation. The document outlines 29 areas that legislators will have to consider when setting frameworks for CCS.
- In May 2011 the Agency published the second edition of the CCS Legal and Regulatory Review, which summarises current status of CCS regulation in 28 countries and jurisdictions. The document highlights the progress made in setting regulatory frameworks.
- The IEA’s International CCS Regulatory Network met in March 2011 in Paris. The meeting discussed regulatory developments in OECD and non-OECD countries, as well as across key themes such as long-term liability.
- The IEA is currently undertaking or planning work to support governments that are in the process of setting regulatory frameworks for CCS.

## Technical and Economic Analysis

- A working paper was published in March on capture costs from power generation. The paper analyses techno-economic data from various global-level studies and draws the conclusion that no single capture route currently outperforms alternative technologies. The Agency also hosted an expert workshop on CCS cost 22-23 March in Paris.
- The IEA is also planning further analysis on the global potential for CCS retrofitting, and the role and flexibility requirements for CCS-equipped plant in power markets.
- The Agency has initiated dialogue among national geological surveys on CO<sub>2</sub> storage capacity assessment methodologies. The work intends to improve understanding of the differences and help to bring the differing assessment methodologies closer together.
- The Agency also continues its wider energy scenario analysis (such as WEO and ETP), and the CCS team contributes to the CCS elements. Recent WEO special analysis on “golden age of gas” also included a sensitivity analysis of delayed CCS deployment. The scenario suggests that in such a scenario energy-related CO<sub>2</sub> emissions actually increase. The 2011 WEO will have a special focus on coal.

## Cooperation with IEA non-members

- The IEA Working Party on Fossil Fuels provides an important forum for international CCS dialogue. Representatives from China, appointed by Ministry of Science and Technology (MOST), regularly attend the WP meetings. The WP has engaged in cooperation with MOST, on three topics: 1) knowledge-sharing on early demonstration projects in China, Europe and the US, 2) Financing of CCS in China and 3) Early opportunities for CCS in China. A workshop is held in Beijing in September to advance discussion and analysis on these subjects.
- The IEA is developing a working paper on CCS in China, with input from China Coal Information Institute and the Climate Group. The paper looks at the role that CCS could play in China’s energy future, the current status of technology and challenges ahead. A workshop and focused meetings have been held with various stakeholders.
- The IEA is also engaging with different countries in various CCS-related collaboration and analysis: first stakeholder discussions on CCS have been held with Russia and Ukraine, with the view of engaging both countries in dialogue on the role of CCS. Legal and regulatory frameworks are being discussed with South-Africa and Indonesia and a comprehensive CCS workshop is planned with Mexico.

The above list is a selection of main activities, not an exhaustive list. The Agency coordinates its work with other organisations active in the field of CCS, including the IEA’s own implementing agreements (GHG IA and IEA CCC) and CSLF. The Agency is grateful for the Global CCS Institute for financial support.

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