WCI Submission
CCS as CDM Activities – May 07

Introduction

This paper is submitted by the World Coal Institute (WCI) to provide, in accordance with decision 1/CMP.2, information on carbon dioxide capture and storage in geological formations (hereafter referred to as CCS) as Clean Development Mechanism (CDM) project activities. The WCI membership comprises coal companies and stakeholders from both the developed and developing world and is the only international body working, on a worldwide basis, on behalf of the coal industry. The coal industry has an important role in the development, financing and operation of CCS projects and the WCI welcomes the opportunity to provide input on this matter.

CCS as CDM Activities

World energy demand is rising steadily driven primarily by high demand in developing countries for rural electrification, poverty eradication, and enhanced energy security. Coal is an essential resource in meeting the world's energy requirements, supplying around 25% of primary energy demand and 40% of electricity generation. Increased use of fossil fuels is forecast to meet the vast majority of this extra demand but will also result in higher CO_2 emissions. Addressing the challenge of climate change, while meeting countries' development goals, requires the access to and deployment of the full range of energy efficient and low carbon technologies.

CCS is an important greenhouse gas mitigation technology and is recognised as such under the Kyoto Protocol in Article 2.1(a)(iv). The IPCC Special Report on CCS found that geological storage sites for CCS are numerous, widely distributed and of great capacity enabling CCS to play a significant role, in a portfolio of mitigation options, for the stabilisation of atmospheric greenhouse gas concentrations.

CCS technologies add to the cost of supplying energy services. Incentives and policies are needed that address these additional costs thereby enabling CCS to be deployed. Allowing CCS activities to be eligible to receive revenues generated by the CDM is an important step for the worldwide deployment of this vital mitigation technology, permitting developing countries to meet their development goals in an environmentally sustainable manner.

The expected number of CERs generated from CCS CDM projects will be limited in the Kyoto Protocol's first commitment period equivalent to only a small fraction of the total CERs, as the revenues generated at the

current CER price will only be sufficient to fund a limited number of projects where costs are modest. It is crucial that CCS be eligible now in order to avoid emissions that would otherwise be vented to the atmosphere and to support the transfer of this environmentally safe and sound technology to developing countries as emphasised under decision 17/CP.7.

Input on *Further Guidance relating to the clean development mechanism*

Decision 1/CMP.2 requests intergovernmental and non-governmental organisations to provide further information on technical and policy issues related to the storage of CO_2 in geological formations.

The WCI believes that the requested information is already available to allow CCS activities to be included in the CDM. This belief is based upon the wide body of expertise developed through operational experience from; industrial-scale CCS projects, underground injection of CO_2 for enhanced oil recovery, and the use of analogous technologies such as acid gas injection and natural gas storage. These practical experiences are complemented by numerous research-scale CCS projects, research programmes, stakeholder networks and partnerships.

The WCI recommends that a process be established to satisfactorily resolve the issues detailed in decision 1/CMP.2 so enabling a decision to be made at COP/MOP4 to include CCS as CDM activities. This process should draw upon all available expert analysis and information relevant to its mandate and may choose to consider *inter alia* the following;

- **American Petroleum Institute (API), "***Carbon Dioxide Enhanced Oil Recovery***", Forthcoming**[1] – Survey of CO_2 Enhanced Oil Recovery practices analogous to the technologies used for CCS.
- **American Petroleum Institute (API) and International Petroleum Institute Environmental Conservation Association (IPIECA), "***Petroleum Industry Guidelines for Emission Reductions from Carbon Capture and Geological Storage***", May 2007** – Guidelines for the accounting and reporting of greenhouse gas emission reductions from CCS projects (http://www.ipieca.org/activities/climate_change/climate_publications.php#1).
- **IEA Greenhouse Gas R&D Programme (IEA GHG), "***ERM - Carbon Dioxide Capture and Storage in the clean development mechanism***", 2007/TR2, April 2007** – Report addressing the critical issues related to CCS when preparing CDM submissions (http://www.co2captureandstorage.info/techworkshops/2007%20TR2CCS%20CDM%20methodology%20.pdf).

[1] Completion expected 2Q – 3Q 2007. Copies can be requested from: Meadows@api.org

- **IEA Greenhouse Gas R&D Programme (IEA GHG) Networks** – International networks coordinated by the IEA GHG which bring together experts on specific CCS topics. Includes Monitoring, Risk Assessment and Well Bore Integrity Networks (http://co2captureandstorage.info/networks/networks.htm).
- **CO_2 Capture Project (CCP)** – Government industry partnership supporting studies on the scientific and technical basis for CCS (www.co2captureproject.org).
- **CO_2GeoNet** – Partnership of 13 European research centres working in the field of CCS. Research activities include monitoring techniques and increasing understanding of risks and uncertainty (http://www.co2geonet.com/home.aspx).
- **CO_2ReMoVe** - Consortium of industrial, research and service organisations developing guidelines and methods for CO_2 storage (http://www.co2remove.eu/Home.aspx).
- **Cooperative Research Centre for Greenhouse Gas Technologies (CO2CRC)** – Collaborative research body supported by industry, government organisations and research institutions working on CCS research programmes and demonstration projects (http://www.co2crc.com.au/).