

# Carbon Capture and Storage for the Clean Development Mechanism

# History and forthcoming processes

Submission of new methodology for EOR project (Sep. 2005)

CDM Executive Board (EB) put on hold methodologies for CCS projects, and subsequently referred them to COP/MOP (Sep. 2005)

COP/MOP identified the three issues to be address and set the process toward its final decision (Dec. 2005)

Submission of new methodology for aquifer storage project (Jan. 2006)

Government submissions to UNFCCC (Feb. 2006)

EB decided to commence consideration of new methodologies (Feb. 2006)

METI-hosted workshop (Apr. 2006)

Input outcome

UNFCCC Workshop on CCS CDM at SBSTA 24 (May. 2006)

Discussions at CDM Executive Board on methodological issues (2006)

COP/MOP 2 to make final decision on CCS as CDM projects (Nov. 2006)

## Decision of COP/MOP 1 (1)

In response to the request from the CDM Executive Board for the guidance concerning how to treat CCS under the CDM, the COP/MOP, at its first session, decided as follows:

### COP/MOP

5. *Requests* the secretariat to organize, in conjunction with the twenty-fourth session of the Subsidiary Body for Scientific and Technological Advice (May 2006), a workshop on considering carbon dioxide capture and storage as clean development mechanism project activities, taking into account issues relating to project boundary, leakage and permanence;

6. *Invites* Parties to provide to the secretariat, by 13 February 2006, submissions on the consideration of carbon dioxide capture and storage as clean development mechanism project activities, taking into account issues relating to project boundary, leakage and permanence, and on issues to be considered at the workshop referred to in paragraph 5;

(underline added)

## Decision of COP/MOP 1 (2)

### COP/MOP

7. *Requests* the Executive Board to consider proposals for new methodologies for carbon dioxide capture and storage as clean development mechanism project activities with a view to making recommendations to the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, at its second session, on methodological issues, in particular with regard to project boundary, leakage and permanence;

8. *Decides* to consider, at its second session, submissions by Parties, the report of the workshop and the recommendations by the Executive Board as referred to in paragraphs 5, 6 and 7 with a view to adopting a decision on guidance to the Executive Board of the clean development mechanism on how to consider carbon dioxide capture and storage as clean development mechanism project activities, taking into account issues relating to project boundary, leakage and permanence;

(underline added)

## 3 key issues (1)

The COP/MOP 1 identified the three key issues that should be addressed for implementing CCS projects as CDM. That is, project boundary, leakage and permanence. They all relate to methodological matters, and therefore should be addressed by technical and practical approaches in the context of CDM methodologies.

### Issue 1: project boundary

- How to treat the cases that involve two or more countries in project boundary
- How far extend project boundary given that facilities influenced by CCS projects are often scattered in a long distance

### Possible solutions

- Temporarily and provisionally, exclude the case (in the applicability conditions of methodologies) where project boundary involves more than one host country in the process of CCS projects
- Cover the whole project cycle of CCS projects, including capture, transport, injection and storage, in the project boundary (in other words, place the whole project cycle under the control and the responsibility of project proponents)

## 3 key issues (2)

### Issues 2 & 3: leakage and permanence

- How to select and establish storage sites
- How to detect and measure possible leakage from storage sites
- How to account for detected leakage for calculating emissions reductions
- How to manage storage site for a long time
- How to treat leakage after the crediting period

### Possible solutions

- Select geological reservoirs for CO<sub>2</sub> storage in a site where sudden and large release of injected CO<sub>2</sub> as a result of unlikely events, e.g., earthquake and other crustal disturbance, is reasonably unforeseen
- Identify and estimate expected path, timing and amounts of leakage through adopting appropriate model related to leakage, such as forward model and reservoir simulations
- Apply appropriate monitoring technologies, such as 3D seismic surveys, to track migration of injected CO<sub>2</sub>, to verify the amount of injected CO<sub>2</sub> being stored, and to detect leakage, as happen
- Plan a measure to prevent and address future leakage, including establishment of proper remediation, to be taken after the crediting period

## METI-hosted workshop on CCS methodologies

Date and venue: 20– 21 April, Paris

Participants: Governmental representatives from investor and host countries  
Industry involved in CCS projects  
Experts of CCS technologies and CDM methodologies

Purpose: Develop and deepen mutual understandings among both sides of CCS and CDM  
Discuss the possibilities of implementing CCS projects as CDM through examining the two proposed CDM methodologies as applied to potential actual CCS projects, focusing on the three key issues

Organization: Presentations of general issues relating to CCS, obtained experiences through on-going CCS projects and proposed new methodologies, followed by panel discussions established for each of the three key methodological issues

Follow up: The result will be made publicly available and submitted to the UNFCCC in order to be taken up at the workshop at SBSTA 24 and at subsequent discussions of the CDM-EB

(Refer to the program for more information.)

Thank you !