



## TERMS OF REFERENCE

The assessment of the implications of the possible inclusion of carbon dioxide capture and storage in geological formations as clean development mechanism project activities, taking into account technical, methodological and legal issues

### I. MANDATE AND BACKGROUND

1. At its fourth session the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP) requested the CDM Executive Board to assess the implications of the possible inclusion of carbon dioxide capture and storage in geological formations (CCS) as clean development mechanism project activities (CDM), taking into account technical, methodological and legal issues, and report back to the CMP at its fifth session<sup>1</sup>.
2. The following terms of reference (TOR)<sup>2</sup> outlines the work required in responding to the request by the CMP, for the timely provision of a recommendation on the subject for inclusion in the Board's report to the CMP at its fifth session.

### II. APPROACH

3. The work will be coordinated by Board members and will make use of all material currently available<sup>3</sup>. It will be supported by the secretariat and external expertise as required. These external experts (which may also include current<sup>4</sup> or ex-panel and working group members) will be regionally balanced and possess suitable knowledge on the subject matter.
4. The output will be a report, to be considered by the Board at its meeting in September (EB49) thereafter for comment and final recommendation to the CMP at its fifth session, by the Board at its subsequent meeting in October (EB50).

### III. TASK

5. Under the guidance of Board members and supported by the UNFCCC secretariat, the experts will conduct an assessment of the implications of the possible inclusion of CCS in geological formations as CDM project activities, taking into account technical (feasibility of capture, transport and final storage, uptake of CCS), methodological (monitoring and verification arrangements, regulatory requirements), legal issues (risks and liabilities) and environmental and market implications and will provide recommendations for the CMP to consider on these possible implications and on the issues already identified by Board members coordinating and supporting the work.
6. They will, in doing so report on those (i) elements that require no further guidance by the Board (i.e. are considered potentially viable /acceptable under the current CDM modalities and procedures and decisions of the Board); (ii) those that may require further clarification, procedural or methodological guidance by the Board, and describe the means and expected time needed for

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<sup>1</sup> Decision 2/CMP.4 "Further guidance relating to the clean development mechanism" paragraph 41.

<sup>2</sup> As agreed by the CDM-EB at its 45<sup>th</sup> meeting.

<sup>3</sup> Including submissions by Parties and organizations [http://unfccc.int/parties\\_observers/ngo/submissions/items/3689.php](http://unfccc.int/parties_observers/ngo/submissions/items/3689.php), FCCC/SBSTA/2008/INF.1, FCCC/SBSTA/2008/INF.3, Annex 13, 26<sup>th</sup> meeting of the CDM-EB.

<sup>4</sup> Please note that panel of working group members cannot be contracted under UNFCCC consultancy arrangements during their tenure as members of a panel or working group (*note by secretariat*).



this; and (iii) those that may require further clarification by the CMP (e.g. amendments to decisions or the Kyoto Protocol), further describing the means and expected timelines for this.

7. The assessment report shall include, but not be limited to recommendations on the issues identified by the group of Board members coordinating and supporting the work, assessing the potential environmental benefits, risks and ways to deal with them; potential market supply implications, any possible monitoring and verification arrangements as well as regulatory requirements, project boundary issues, likely logistical steps and any necessary extra legal frameworks (e.g. dealing with short- and long term liability issues) needed for the possible inclusion of CCS as CDM project activities. It shall also include a detailed account of the implications of the inclusion of CCS on the CDM regulatory, legislative, executive and support frameworks. The report should also assess other potential funding and technology transfer alternatives that may be vehicles for the promotion of wide spread deployment of full scale CCS projects.

#### IV. COMPETENCIES AND QUALIFICATIONS OF EXPERTS

8. The team of consultants shall have the following competencies and qualifications:

##### **CCS related technical competencies**

- Work experience relating to CCS in geological formations and/or Engineering and scientific knowledge of diverse geological formations including seismology, and the geochemistry of carbon dioxide;
- Expertise in monitoring and verification techniques for CO<sub>2</sub> migration in diverse geological formations.

##### **CCS related policy and legal competencies**

- Familiarity with legislation and international policy pertaining to trans-boundary impacts and the sharing of common reservoirs;
- Expertise in the establishment of international regimes to handle long term liability issues with project periods significantly longer than the 21 year CDM crediting period.

##### **CCS related carbon market competencies**

- Work experience related to financial mechanism that promote sustainable development through technology transfer;
- Capability to assess the potential Market supply and implication of the introduction of CCS as mitigation technology.

##### **CDM related competencies**

- Familiar with the CDM modalities and procedures and relevant decisions of the CMP and EB, in particular those relevant to the implications of the possible inclusion of carbon dioxide capture and storage in geological formations as clean development mechanism project activities;
- Technical/scientific expertise related to baseline and/or monitoring methodologies for CDM project activity.

**General competencies**

- Relevant experience in risk assessment, particularly Climate Change risks related to the use of CCS as mitigation technology in particular the potential for leakage and seepage from storage reservoir;
- Good analytical and English drafting skills.

**V. DELIVERABLES AND SCHEDULE**

9. A written report on the analysis in electronic form.
10. Power Point presentation of main findings and recommendations in electronic form.
11. Conference calls with support members as required.

**Contract commences: 15 June 2009**

**Due date of first order draft: 30 June 2009**

**Consideration at EB48 of the First Order Draft (deadline 1 July)**

**Due date of second order drafts: 31 July 2009**

**Due date for inclusion of peer review comments: 1 August 2009**

**Final recommendation to be consideration at EB49 (deadline 26 August)**

**Contract ends: 31 December 2009 (submission to CMP)**

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