



**Carbon Capture &
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Carbon Capture and Storage Association Submission on Market Based Mechanisms

Introduction to CCSA

The Carbon Capture and Storage Association (CCSA) welcomes the opportunity to submit its views on Decision -/CP.17, on a new market-based mechanism operating under the guidance and authority of the Conference of the Parties.

The CCSA brings together a wide range of specialist companies across the spectrum of CCS technology, as well as a variety of support services to the energy sector. The Association exists to represent the interests of its members in promoting the business of Carbon Capture and Storage (CCS) and to assist policy developments towards a long term regulatory framework for CCS, as a means of abating carbon dioxide emissions.

Role of CCS in addressing climate change

CCS is an essential technology to deliver deep emission reductions to fossil fuel based power generation and CO₂ intensive industries such as iron and steel, cement, refining and chemicals. There is also increasing interest in combining CCS with renewable biomass in order to create 'negative emissions' which would actually remove CO₂ that has already been released into the atmosphere and permanently storing it in deep geological formations. The importance of CCS to addressing climate change is highlighted by the IEA's Energy Technology Perspectives 2010 which shows the technology deployment needed to cut CO₂ emissions by 50% by 2050. This work indicates that CCS is expected to contribute to 19% of the total emissions reduction in 2050, resulting in annual emissions reductions from CCS of over 8 GtCO₂ in 2050. The inclusion of CCS in a portfolio of emissions reductions is also the lowest cost approach to delivering emission reduction goals. The IEA found that attempting to reduce emissions without CCS drove up the costs of cutting CO₂ by over 70%¹.

¹ Energy Technology Perspective 2010, International Energy Agency

CCS and the new-Market based mechanism

The new market-based mechanism must support CCS as a key technology for delivering global greenhouse gas (GHG) reductions, particularly in order to incentivise deployment in developing countries. Considering the important role that CCS will play in delivering deep, cost effective emissions reductions the CCSA believes that its inclusion is consistent with the objectives of the new market-based mechanism “to enhance the cost-effectiveness of, and to promote mitigation actions”. The inclusion of CCS projects into the new mechanism is crucial to the long-term future of CCS as an abatement option and will assist in building up confidence in the CCS market.

The costs of CCS projects comprise two distinct elements which must be supported. Firstly, CCS projects have large up-front capital costs (Capex) required for the construction of the capture plant, transportation pipelines and storage site as well as the ongoing operation costs (Opex) due to the energy required to capture CO₂ and the costs of transport and storage of captured CO₂.

In the near-term the new mechanism alone is unlikely to be sufficient to finance early CCS projects in CO₂-emitting sectors such as the power sector which have relatively high costs of applying CCS. However, it will be an important revenue stream that provides ongoing support to meet the Opex costs of these projects. The new mechanism could help incentivise lower cost, industrial CCS opportunities where CO₂ has to be separated as part of the industrial process. The recognition of CCS under the new mechanism could incentivise the development of these CCS projects and result in the permanent storage of CO₂ that would otherwise be vented to the atmosphere.

The early implementation of CCS in higher cost sectors will require capital financing over and above that provided by the new market-base mechanism. The new market-based mechanism should therefore have the flexibility to combine different sources of finance from market-based and non market-based financing mechanisms. As CCS costs fall with increasing deployment and if, as anticipated, the market value of CO₂ increases then at some point in the future the CO₂ price alone will justify construction of economic CCS plants.

Experiences from existing mechanisms

The key relevant features of the current market-based approach, the Clean Development Mechanism (CDM), should be retained by the new mechanism where practicable. However, in order to be able to meet global climate change goals the new mechanism must be capable of delivering emission reductions at a significantly greater scale than the CDM has done to date. Firstly, this requires that measures are taken to significantly increase demand for the credits, or equivalent units, that the new mechanism will generate. Secondly, steps must be taken to ensure that issues that have impacted on the performance of the CDM are not repeated under the new mechanism. For example, avoiding project-by-project approvals, addressing concerns over the current additionality arrangements, eligibility for all GHG emission reduction technologies and reducing the bureaucracy associated with the CDM process would help to ensure that the new mechanism can deliver emission reductions at the required scale.

A number of the CCS specific CDM provisions should be retained by the new mechanism. In particular the CCSA highlights the decision by Parties at CMP7 Parties to adopt Modalities and Procedures for CCS as CDM project activities. The adopted Modalities and Procedures are the culmination of many years of negotiations and represent a consensus by Parties on how CCS should be managed under a UNFCCC market-based mechanism.

The CCS Modalities and Procedures contain additions to the broader CDM Modalities and Procedures in order to enable specific characteristics of CCS projects to be addressed within the CDM framework. In addition, a substantial body of work has been developed to ensure that CCS projects deliver measurable, permanent and verifiable emissions reductions under the CDM, including detailed technical criteria related to, inter alia; site selection, risk assessment and monitoring plans.

The CCSA believes the decision to include CCS as eligible CDM project activities represents an important step forward in the global effort to deploy CCS as a means of enabling significant CO₂ emission reductions. The CCSA urges Parties to, as appropriate, adopt and utilise the existing CCS CDM modalities and procedures as it develops the modalities and procedures for the new mechanism. Utilising the existing arrangements to the greatest extent possible will enable the timely adoption of the new mechanism and ensure the maximum degree of consistency between the UNFCCC mechanisms.

The view expressed in this paper cannot be taken to represent the views of all members of the CCSA. However, they do reflect a general consensus within the Association.