

# Utilizing Clean Development Mechanism (CDM) to Enhance the Economics of CO<sub>2</sub> Capture and Storage (CCS) Projects

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Many climate change experts agree that anthropogenic CCS could become one of the most important tools in mitigating climate change. However, in the absence of significant incentive mechanisms, barriers to CCS project implementation will severely restrict the dispersion of this technology in non-annex 1 countries. Only those CCS projects which have access to very cheap sources of CO<sub>2</sub> and obtain a high amount of income from enhanced fossil fuel recovery, could be viable. CCS projects which capture CO<sub>2</sub> from fossil fuel powered power plants (or other source where CO<sub>2</sub> separation equipment will need to be installed), are only likely to be implemented if an alternative source of income becomes available. Such an income source could potentially be derived in the future by (anthropogenic) CCS project developers making use of the CDM in non-annex 1 countries.

The CDM can be utilized for eligible projects which reduce greenhouse gas (GHG) emissions and are located in a Kyoto Protocol (KP) ratified non-annex 1 countries. In order for a potential CDM project to pass validation, a Project Design Document (PDD) must be prepared based on an accepted methodology applicable to the project type. If there is no accepted methodology for a particular project type, a new application must be proposed. This will be accessed by the CDM Methodology Panel who will recommend to the CDM EB whether it should be accepted, considered again after making appropriate changes, or rejected.

In October 2005, Mitsubishi UFJ Securities produced and submitted the first new CDM methodology application for a CCS project. This stimulated debate at COP/MOP 1 in regards to the eligibility of CCS project activities. Although COP/MOP 1 directed the CDM EB to access new CCS methodology submissions, the eligibility issue is only likely to be decided upon at COP/MOP 2. Discussion among the Parties is ongoing on the permanence of CO<sub>2</sub> storage, project boundary and leakage.

A CCS project which is registered by the CDM Executive Board (EB) will be eligible to receive a type of carbon credit called Certified Emission Reductions (CERs) in return for emission reductions achieved, which can be sold on the international market. This can become a significant source of income which boosts the future profitability of the project and helps attract investors. Large CCS projects may generate millions of CERs per year. Once CERs are generated and can be traded on the spot market (sometime after 2007 when the International Transaction log is operating), it is expected that they will demand a similar price to EU Emission Trading System (ETS) Allocation Units – EUAs (currently traded at over 26 Euros/EUA).