

# 3 CCS and the CDM

The inclusion of Carbon Capture and Geological Storage (CCS) as Clean Development Mechanism (CDM) Project Activities would strengthen the CDM and represent an important step towards accelerating the wide scale deployment of CCS and achieving the ultimate objective of the climate change treaties – the UNFCCC and the Kyoto Protocol – the reduction of global CO<sub>2</sub> emissions. The World Coal Institute (WCI) supports the inclusion of CCS in the CDM and in any successor mechanism after the Kyoto Protocol's first commitment period ends in 2012 and urges countries to:

#### KEY POINTS

- >> Include CCS in the CDM at the next Meeting of the Parties to the Kyoto Protocol (CMP) in Copenhagen, December 2009
- >> Develop modalities and procedures for CCS CDM project activities

## CCS and the CDM

### CCS Technology Safely Storing 1 Million tCO<sub>2</sub> Every Year Since 1996 (Sleipner Field, Norway)



#### CCS is an essential technology to enable fossil fuel use to be compatible with climate change goals

Rising energy demand – particularly in developing countries seeking to meet valid development goals – is being met by increased fossil fuel use which results in rising global CO<sub>2</sub> emissions. CCS is the only currently available technology that can align this increased use of fossil fuels with climate change goals (Figure 1).

#### CCS meets the objectives and criteria of the CDM and should be eligible to receive credits under that mechanism

The CDM helps non-Annex I Parties (developing countries) to achieve sustainable development while contributing to the ultimate objective of the Convention<sup>1</sup>. The emissions reductions from CDM projects are credited on the basis of: voluntary participation approved by each Party involved; real, measurable, and long-term benefits related to the mitigation of climate change; and reductions in emissions that are additional to any that would occur in the absence of the project activity<sup>2</sup>.

<sup>1</sup> Kyoto Protocol, Article 12.2

<sup>2</sup> Kyoto Protocol, Article 12.5

The Marrakech Accords note that it is “the host Party’s prerogative to confirm whether a CDM project activity assists it in achieving sustainable development”<sup>3</sup>. Therefore, only Parties deciding that CCS meets their sustainable development goals would volunteer to host these projects. Emissions reductions from CCS projects would be verified on a case-by-case basis ensuring that projects provide real and measurable benefits. Finally, emission reductions from CCS are additional as in the absence of CDM there is no incentive to deploy CCS and the CO<sub>2</sub> is simply vented to atmosphere.

**Excluding CCS from the CDM denies developing countries the opportunity to deploy this critical technology, limits their capacity to contribute to emissions reductions, and undermines the global effort to reduce emissions**

The CDM is the only market based mechanism available under the Kyoto Protocol to finance CCS projects in developing countries and would play an important role in incentivising the development of early opportunity, low-cost CCS projects. The opposition to the inclusion of CCS from a limited number of countries is a significant barrier to the global deployment of CCS, inhibits the transfer of this environmentally safe and sound technology to developing countries and denies developing countries access to the suite of mitigation technologies available to developed countries.

**Including CCS in the CDM will help strengthen developed countries’ ambition on post-2012 emission reduction commitments and to a future central role for the CDM**

The CDM assists Annex I Parties to comply with their emission reduction commitments<sup>4</sup>. Including CCS in the CDM could result in 6 - 9% of total CDM credits being supplied from CCS projects by 2020, reducing the cost of these credits by between 47 - 60% under a high demand scenario<sup>5</sup>. Access to plentiful, cost effective CDM credits is an important consideration if developed countries are to accept ambitious targets in the next commitment period underpinned by the widespread use of international offsets.

**Industrial experience ensures that CCS can be practised with environmental integrity and that the information is available now to include CCS in the CDM**

There are decades of operational experience from industrial-scale CCS projects, underground injection of CO<sub>2</sub> for enhanced oil recovery, and the use of technologies analogous to CCS such as acid gas injection and natural gas storage. These industrial level experiences are complemented by numerous research-scale CCS projects, intergovernmental and industry partnerships, research programmes and stakeholder networks.

Parties have requested information on a variety of issues relating to the inclusion of CCS under the CDM. The WCI has compiled a table listing sources of information that pertain to all of these issues ([www.worldcoal.org](http://www.worldcoal.org)) and believes that this should give confidence that CCS can be practiced safely and with environmental integrity. The information is available now to permit CCS to be included under the CDM to enable the long-term storage of CO<sub>2</sub> that would otherwise be vented to the atmosphere.

<sup>3</sup> UNFCCC Decision 17/CP.7

<sup>4</sup> Kyoto Protocol, Article 12.2

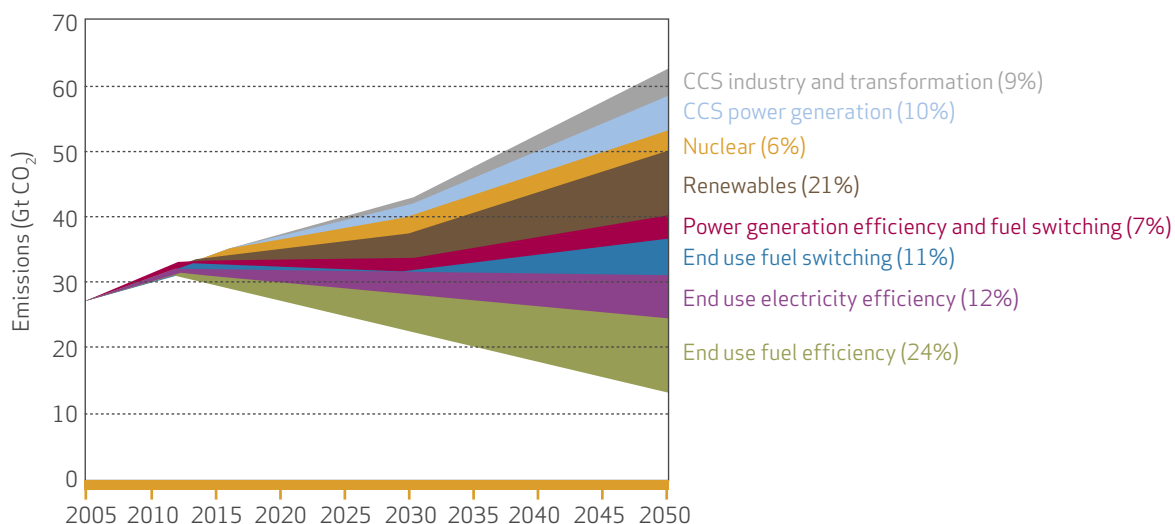
<sup>5</sup> IEA GHG Programme “Carbon Dioxide Capture and Storage in the Clean Development Mechanism: Assessing Market Effects of Inclusion” (2008)

## CCS and the CDM

**Countries should agree to the inclusion of CCS in the CDM as a matter of priority and establish a process to resolve outstanding issues**

The WCI recommends that the CMP approves the inclusion of CCS as CDM project activities in Copenhagen in December 2009. Any outstanding technological, methodological, legal, policy and financial issues raised should be addressed during the project validation phase as is standard with other CDM projects. Those CCS projects that have additional complexities, such as the injection from multiple sources into one reservoir or the use of CCS for Enhanced Oil Recovery (EOR), should not distract from the critical objective of including CCS in the CDM.

**Figure 1. The Contribution of Technologies to Achieve a Global Reduction in Emissions of 50% by 2050**



- >> It is “not possible” to halve CO<sub>2</sub> emissions by 2050 without CCS  
“This indicates the importance of CCS for climate policies”
- >> Climate mitigation costs are 71% greater without CCS  
i.e. US\$1.28 trillion more annually in 2050

Source: IEA “Energy Technology Perspectives” (2008)