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Media Backgrounder

## The CO<sub>2</sub> Capture Project (CCP) August 2009

The CO<sub>2</sub> Capture Project (CCP) is a collaboration of eight of the world's leading energy companies and three government organisations. The initiative undertakes research and develops technologies to make CO<sub>2</sub> capture and geological storage (CCS) a technically and economically feasible option for reducing global CO<sub>2</sub> emissions.

Since 2000, CCP has been at the very forefront of developing CCS technology; a process that involves capturing the CO<sub>2</sub> emitted from major single sources such as power stations and heavy industrial plants - and then securely storing the  $CO_2$  deep underground in geological formations.

With fossil fuels predicted to be a continuing source of the world's energy and emissions in the shortto medium-term, CCS is increasingly seen as an essential 'bridging' technology to help address the challenge of reducing overall CO<sub>2</sub> emissions while the world continues to develop renewable energy sources.

The Intergovernmental Panel on Climate Change (IPCC) believes CCS could contribute 15-55% of the cumulative mitigation effort until 2100, while the International Energy Authority (IEA) found that the cost of containing climate change would be 70% higher without CCS.

## The work of the CCP

The industry and government organisations in the CCP jointly fund and actively participate in the program; sharing and contributing their own internal technical resources, as well as engaging the world's premier technologists, scientists, economists, policy makers and academics from universities, technology companies and research institutions across the globe to investigate and develop realistic and cost-effective technical CCS solutions.

Much of the CCP's work involves the sharing of knowledge and experience from the decades of subsurface storage experience of the oil and gas industry. The CCP has also undertaken more than 150 projects to increase understanding of the science, engineering, application and economics of CCS.

Phase One of CCP (2000-2004) involved pioneering research to identify technologies that have the potential to deliver a significant reduction in the cost of CO<sub>2</sub> capture while qualifying and reducing risk associated with CO<sub>2</sub> storage. This first phase of research also led to the development of a robust riskbased approach for geological site selection, operation and closure and new CO<sub>2</sub> monitoring tools.

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CO2 Capture Project participant organisations





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Phase 2 (2004-2009) continued the development of the most promising capture and storage technologies for CCS identified in Phase 1. It has focused on the advancement of cost-effective, next-generation capture technologies and on ensuring the framework for the CO<sub>2</sub> Geological Storage, monitoring and long-term verification tools and processes. It has also confirmed that the major cost and barrier to deployment of CCS continues to be the capture process. Of the three major technologies, only post-combustion decarbonisation is commercially available.

Building on CCP Phase 1 and 2 R&D and the collective experience of the eight member companies, a new report - 'A *Technical Basis for Carbon Dioxide Storage*' details technologies and protocols applied for decades in oil and gas exploration and production and comprises the basis for efficient and secure CO<sub>2</sub> storage now.

The CCP facilitates the sharing of expertise to advance the development of next-generation capture technologies, transport and the development of a certification framework for geological storage.

For more information on the CCP go to: http://www.co2captureproject.org/aboutus.html

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