

## Media Release

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### GREENHOUSE MITIGATION TECHNOLOGY DUE WITHIN 20 YEARS: SAYS AN AUSTRALIAN-BASED AUTHOR OF IPCC REPORT

CO<sub>2</sub> geosequestration will be widely applied within 20 years, according to the Chief Executive of the Cooperative Research Centre for Greenhouse Gas Technologies (CO<sub>2</sub>CRC), Peter Cook.

Geosequestration, which is also known as carbon capture and storage (CCS) is the safe capture, transport, injection and geological storage of carbon dioxide (CO<sub>2</sub>), the world's most abundant greenhouse gas.

Along with Dr Sally Benson from the Lawrence Berkeley National Laboratories, in California, and a number of other world-leaders in CCS research, Dr Cook was a coordinating lead author of the Intergovernmental Panel on Climate Change Special (IPCC) Report on Carbon Capture and Storage. Dr Cook and Dr Benson led a team of 21 authors to develop the Report's chapter on Underground Geological Storage.

Speaking today from London, shortly following the IPCC approval of the report, Dr Cook said the IPCC report was now the definitive report on carbon dioxide capture and storage.

"The approval of the report by the IPCC amounts to a very significant international endorsement of carbon dioxide capture and storage technologies," Dr Cook said.

In brief, the section on geological storage within the IPCC report has found that:

- the equipment and technologies required for storage are already widely used in the energy industries, so that costs can be estimated with confidence;
- a large number of geological formations containing salt water overlain by fine-grained impermeable rock exist around the world that are able to confine CO<sub>2</sub> for millions of years and longer; and
- there were no adverse environmental effects from current CO<sub>2</sub> storage projects.

The Report found that for large-scale operational CO<sub>2</sub> storage projects, assuming that sites are well selected, designed, operated, and appropriately monitored, the balance of available evidence suggests that it is likely the fraction of stored CO<sub>2</sub> retained is more than 99 per cent over the first 1000 years.

Dr Cook said CO<sub>2</sub> geosequestration used safe, proven technology that the oil and gas industry had used for the past 50 years.

"CO<sub>2</sub> has been injected into deep geological formations [between 800m and 1000m] since the late 1980s as part of storage projects.

"The technology is available now and is being applied on a commercial scale at Sleipner, Norway; where 1 million tonnes of CO<sub>2</sub> is injected a year; and at Weyburn, Canada; where two million tonnes of CO<sub>2</sub> is injected annually as part of an enhanced oil recovery process."

The technology is also used at:

- In Salah in Algeria;
- Saskatchewan and Alberta, Canada; and
- Texas, in the United States.

Proposed projects in Australia include:

- the Gorgon Project on the North-West Shelf of Western Australia, which is due to begin in 2009 - 2010 subject to it meeting all the necessary approvals; and
- a geosequestration pilot project is planned to begin in Australia within the next two years.

"The proposed pilot project will demonstrate how geosequestration technologies can operate in Australia," Dr Cook said.

"The lessons learned from the proposed pilot project will help industry make informed investment and operating decisions in relation to the development and deployment of geosequestration technologies.

"Reducing greenhouse gases requires a portfolio of responses including energy efficiency; using less carbon-intensive fuels; enhancing natural carbon sinks (vegetation); and harnessing renewable energy from the wind, sun and tides.

"As a transitional technology, geosequestration can play a major part in achieving deep cuts greenhouse gas emissions, Dr Cook said.

The CO2CRC collaborates with leading international and national carbon capture and storage experts to conduct world-class research into CO<sub>2</sub> geosequestration.

**Note to reporters and editors:**

- Other Australian-based IPCC authors include Dr Kelly Thambimuthu from the Centre for Low Emission Technology; and Dr John Bradshaw from Geoscience Australia.
- More information on the IPCC Report on Carbon Dioxide Capture and Storage is available at: <http://www.ipcc.ch/press/IPCC-SPM-2005.pdf>
- The Intergovernmental Panel on Climate Change (IPCC) was established in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) to assess scientific, technical and socio-economic information relevant for the understanding of climate change, its potential impacts and options for adaptation and mitigation. It is open to all Members of the UN and of WMO. The IPCC does not carry out research nor does it monitor climate related data or other relevant parameters. It bases its assessment mainly on peer-reviewed and published scientific/technical literature. Its role, organisation, participation and general procedures are laid down in the "Principles Governing IPCC Work" )

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