Media Release: Plan for an emission-free Australia

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CO2CRC MEDIA RELEASE

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PLANS FOR AN EMISSION-FREE AUSTRALIA

A vital step towards Australia becoming a hydrogen economy and eliminating greenhouse emissions will be taken in Canberra tomorrow (7.10.03).

The Minister for Science, Mr Peter McGauran, will launch a national effort to find the best ways to capture and lock up greenhouse emissions, through the Co-operative Research Centre for Greenhouse Gas Technologies (CO2CRC).

More than 100 of the nation's top earth scientists and chemical engineers are joining forces in the new CRC to find the most effective and economic ways to extract CO_2 from industry and power generation and store it securely, deep underground.

Research by the CRC's predecessor, the Australian Petroleum CRC, has shown Australia to have a very high potential for underground storage of CO_2 - or geosequestration - says CO2CRC Chief Executive Dr Peter Cook.

"Australia is a major emitter of greenhouse gases, both per head and per GDP - and over the coming seven years we will be investing around $120 million in solving that problem," he says.

"Making it all the more urgent is the fact that, if we wish to maintain current rates of economic growth, by 2025 Australia will be consuming 50 per cent more energy than it does today, the vast majority of that derived from fossil fuels"

Dr Cook explains that geosequestration involves compressing CO_2 until it becomes a liquid and then injecting it underground at depths of about a kilometre or more.

"The CO_2 is then trapped in the subsurface for thousands of years and longer. Australia has natural accumulations of CO_2 that have been safely stored below the surface for millennia, which proves this is feasible."

"We're trying to emulate nature - and put the carbon back where it originally came from."

The CO2CRC is working closely with ChevronTexaco and Shell in the world's largest commercial geosequestration trial: the $11 billion Gorgon project off Western Australia , which is intended to lock up 3-4 million tonnes of CO_2 a year by 2008.

"Gorgon will be one of Australia's largest-ever commercial projects and CO2CRC will be working closely with the partners to ensure the highest standards of research are applied to fully understanding the potential of geosequestration at Barrow Island."

Geosequestration is an essential first step on the road to a hydrogen economy - one which burns hydrogen as its main energy source for making electricity and for transport, Dr Cook says.

"It will enable us to transform our rich reserves of coal and gas to a clean form of energy, while avoiding greenhouse emissions or other forms of pollution.

"While there will be growth in renewable energy and energy conservation, these are unlikely to keep up with the demand for new energy, so we will be reliant on our carbon-based fossil reserves for many years to come."

One of the big scientific challenges is to develop a cost-effective filter system for extracting CO_2 from power station exhaust gases. "At the moment this is very expensive - but we're exploring the use of membrane and other filters with the aim of coming up with an economical method."

The CO2CRC brings together scientists from leading research agencies and private companies across Australia. These include: CSIRO, Geoscience Australia, the universities of Adelaide, Melbourne and NSW, Curtin and Monash universities, Australian Coal Research, BHP Billiton, BP, ChevronTexaco, Rio Tinto, Schlumberger, Shell, Stanwell and Woodside.

The CO2CRC is chaired by Mr Tim Besley AC FTSE, currently Chair of the Australian Research Council and former Chairman of the Commonwealth Bank.

Its Chief Executive, Dr Peter Cook CBE FTSE, launched the first research program into the potential for geosequestration in Australia, and has headed a number of scientific organisations here and overseas.

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