

2004

IEA Asia Pacific Conference on Zero Emissions Technologies

February 17-19 2004 Conrad Jupiters Convention Centre, Gold Coast, Queensland, Australia

February 18, 2004

Media Release

Technology needs testing for public acceptance – Australian researchers

Technology to capture and store greenhouse gas emissions needs small scale testing in Australia to prove its effectiveness and gain public support, Australian researchers told an international conference on the Gold Coast today.

The conference is considering the next steps in development of what are known as zero emission technologies, or ZETs. It is proposed that the technology be used to capture and store carbon dioxide (CO₂) emissions from large scale emission sources such as fossil fuel fired power generation. The emissions are considered a major contributor to global climate change.

The Chief Executive of Australia's Co-operative Research Centre for Greenhouse Gas Technologies (CO₂CRC), Dr Peter Cook said the technologies needed for carbon dioxide capture and separation had been used in the Australia gas and petrochemical industry for many years. While many successful carbon dioxide storage programs were underway overseas – some of which Australia would be involved in – a local demonstration project was needed.

The Federal Minister for Industry and Resources, Mr. Ian Macfarlane launched a roadmap for the CRC's work at the conference today.

CO₂ capture and storage technology for use in new generation fossil fueled plants is one of the priorities to combat greenhouse gas emissions. It is based on the forecast that a mix of energy sources will be necessary to meet the expected growth in demand for power. More than 100 of Australia's top earth scientists and chemical engineers are involved through the CO₂CRC in the search to find the most effective and economic ways to extract CO₂ from industry and power generation and store it securely, deep underground. Dr. Cook said research has already shown Australia has a very high potential for underground storage of CO₂.

"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 developing ways to solve that problem. 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".

The technology involves compressing CO₂ until it becomes a liquid and then injecting it underground at depths of about a kilometre or more. "The CO₂ is then trapped in the subsurface for thousands of years and longer. Australia has natural accumulations of CO₂ 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."

Geosequestration is an essential first step on the road to a hydrogen economy - one which uses 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 hydrogen, while avoiding greenhouse emissions or other forms of emissions. While there will be growth in renewable energy and energy conservation - and we must encourage them – 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 system for extracting CO₂ from power station exhaust gases.

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

The Zero Emissions Technologies (ZETs) conference brings together international and Australian experts to discuss the crucial next step in the global debate towards achieving zero greenhouse gas emissions. It is organised by the International Energy Agency (IEA) Working Party on Fossil Fuels, with support from the United Nations, IEA member countries, the Australian and Queensland Governments and the United States Department of Energy. It brings together players from government, research organizations, environmental bodies and non-governmental organisations.

For program and speaker details visit <http://www.tmm.com.au/zets/conference.htm>).

For additional media information and arrangements for interviews: contact Doug Holden on 0431 006 044