

Otway Basin CO₂ Storage Test To Start In February

Additional funding of \$6.14 million has enabled the CO₂ Cooperative Research Centre (CO₂CRC) to undertake the most comprehensive pilot project in the world to test the storage and monitoring of concentrated carbon dioxide deep underground in geological formations on a commercial scale in the Otway Basin.

The supplementary funding from the Cooperative Research Centre Programme, announced by federal Education, Science and Training Minister, Julie Bishop, is in addition to \$30 million already obtained for the project by the CO₂CRC.

CO₂CRC Chief Executive Officer, Doctor Peter Cook, said the implementation of this major research project will underpin the early adoption of carbon dioxide capture and geological storage technology in Australia. He said it will make deep cuts in CO₂ emissions to the atmosphere and develop major new business opportunities for Australian industry.

The geosequestration project will involve separating CO₂ from other gases, compressing the CO₂, injecting it in a deep geological formation in western Victoria and long-term monitoring to verify that it is stored securely. Cook said it is supported by industry, the federal government, through the Cooperative Research Centres Programme, the Australian Greenhouse Office, and AusIndustry, the Victorian government, industry and a number of research providers.

"CO₂CRC partners have established a new company, CO₂CRC Pilot Project Ltd, to operate the project, the first company in the world established specifically to undertake a CO₂ capture and geological sequestration project", Cook said.



CO₂CRC researcher Doctor John Bradshaw shows ABC science reporter Mark Horstman how an integrated geological and geophysical dataset from the deep (3000 m) geological subsurface in the virtual world of 3D visualisation can help understand the many technical issues associated with the geological storage of CO₂. Picture courtesy CO₂CRC.

"Drilling of a 2000 m well for the geological sequestration is expected to begin mid-February in the Otway Basin, with the initial injection of a mixture of CO₂ and methane into a deep geological formation around the middle of the year. Stage two of the project will include separation of the CO₂ from the methane before injection of highly concentrated CO₂."

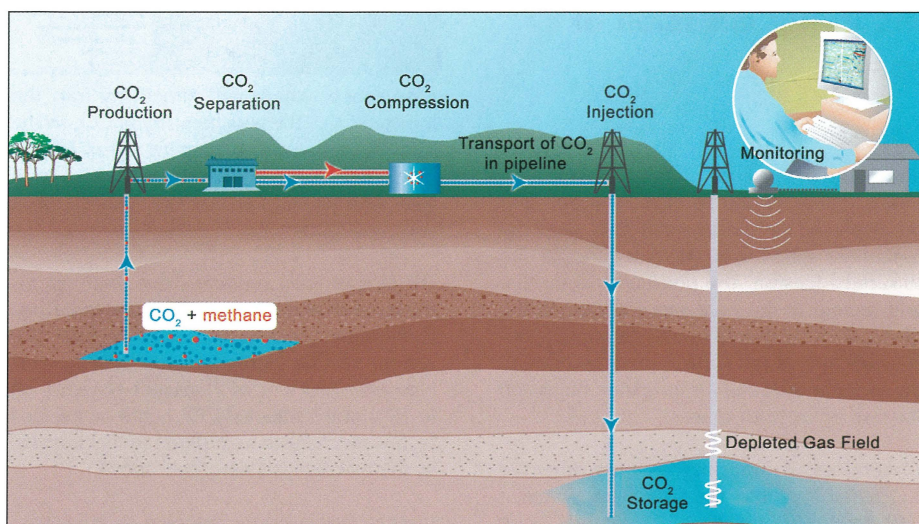
Cook said government and industry recognised that geosequestration has the potential to allow Australia and the rest of the world to continue to use much of the existing energy infrastructure and enabling fossil fuels to be

used in a much smarter and cleaner way, thereby making deep cuts in greenhouse gas emissions.

"This project will demonstrate that geosequestration is technologically feasible and that the CO₂ can be stored safely and effectively monitored under Australian conditions", Cook said. "This will be a first for Australia and the most advanced project of its type in the world. It will lead to outcomes of profound importance – the early deployment of geosequestration in Australia, help safeguard Australian exports, develop new opportunities for industry and produce more jobs, while making deep cuts in greenhouse gas emissions."

Cook said the project would provide a unique new business opportunity for Australian small and medium enterprises (SMEs) to become involved in the early stages of evolution of geosequestration technology. "A large proportion of the work will be undertaken by SMEs", he said. "The CO₂CRC is working closely with one of its supporting companies, the Process Group, an SME focused on gas processing."

Process Group Managing Director, Craig Dugan, said working with the CO₂CRC has been invaluable in allowing his company to develop and demonstrate skills and technologies in CO₂ capture that are in increasing demand around the world. The Process Group expects that CO₂ projects will double its annual turnover by 2009, with a significant proportion of the growth in exports. ■



The Otway Basin CO₂ geosequestration concept. Drilling of the 2000 m well is expected to start mid-February with the initial injection of a mixture of CO₂ and methane into a deep geological formation scheduled for the middle of the year. Diagram courtesy CO₂CRC.