

COAL STUDY

helps create a cleaner future

A new study examining the potential for carbon storage to help in the development of low emissions coal technology is currently underway in Western Australia's South West region.

The Lower Lesueur Carbon Dioxide Geosequestration Study, launched by Minister for Mines and Petroleum Norman Moore in May this year, involves a desktop analysis of the suitability of locations to store carbon dioxide in the Southern Perth Basin between Bunbury and Mandurah.

Funding for the study has been provided through a memorandum of understanding (MoU) between the Department of Mines and Petroleum (DMP), Griffin Energy, Verve Energy, BHP Billiton Worsley Alumina, Wesfarmers Premier Coal and Perdaman Chemicals and Fertilisers.

DMP contributed A\$250,000 towards the A\$522,000 analysis, to study seismic data and existing well cores to help identify potential injection points and the migration behaviour of carbon dioxide.

Industry provided the remainder of the funding.

DMP Project Manager Dominique Van Gent said the study's results would determine if work could progress to drilling and accessing a test hole for carbon dioxide storage as well as a pilot injection and monitoring program.

"There is a need to identify a number of carbon sequestration sites in today's carbon constrained world," Mr Van Gent said.

"The Lower Lesueur measures are a geological anomaly that have the potential to be a major onshore carbon sink in the South West area, but it

needs proving up in a rigorous and scientific manner.

"The State Government is very pleased to be able to support industry in the first steps of the process."

Carbon Storage Solutions, a division of international oilfield services provider Schlumberger, is carrying out the 12-month study, which began in May.

The work follows earlier research by the Cooperative Research Centre for Greenhouse Gas Technologies, which identified the geosequestration potential of the Southern Perth Basin.

Mr Van Gent said the study was a valuable investment for Western Australia's coal industry and in striving towards a low emissions future.

"International studies have demonstrated that coal will remain a major fuel source for electricity generation for the next 40 years," he said.

"These studies also show that carbon capture and storage from coal-based industries can provide up to 19 per cent of the reduction in carbon dioxide that will be required in 2050.

"Work needs to be done on a raft of measures and the coal industry has demonstrated its preparedness to make significant contributions.

"What is critical to this local contribution is the identification and subsequent investigations into showcasing how effective local geosequestration sites can be."

Mr Van Gent said examining the sequestration potential of the Lower Lesueur study would therefore help contribute to the long-term viability of

Western Australia's coal industry, the energy security of the State, and to the Government's commitment to a low emissions future.

Verve Energy's Engineering Services Manager Andy Wearmouth said the study would be extremely helpful for his company's key operations.

"Verve Energy is the largest generator of electricity in Western Australia and as a consequence has a large carbon footprint," Mr Wearmouth said.

"The key to addressing this in a meaningful way, in a carbon-constrained environment, will be the ability to sequester carbon dioxide.

"Our company is also the State's single biggest coal consumer, and electricity production from coal has a significantly larger carbon footprint than natural gas or other sources of energy used for the production of electricity.

"The key to reducing the environmental impact on this coal consumption will be the ability to capture and sequester carbon dioxide."

Mr Wearmouth said the science surrounding carbon capture and storage was relatively underdeveloped.

"It's important to build an understanding of the likely feasibility of geosequestration locations and provide confidence in the community that geosequestration is a technically feasible and socially responsible technology," he said.

"The study results will hopefully be positive and encourage the potential for demonstration of the technology at scale and from there, provide critical input into the future generation planning options for Verve Energy." ■

LOWER LESUEUR GEOSEQUESTRATION STUDY AREA

