



## There Was Movement In The Basin...

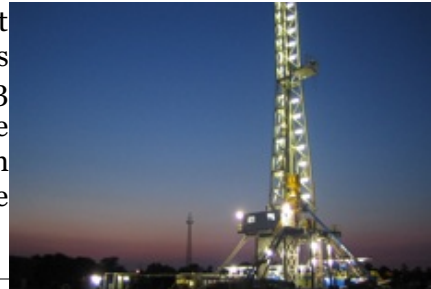
Posted by [Big Gav](#) on March 26, 2008 - 9:00pm in [The Oil Drum: Australia/New Zealand](#)

Topic: [Supply/Production](#)

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The 7:30 report on the ABC had a segment yesterday on the impact of the Garnaut report on [two Cooper basin projects](#) - GeoDynamics' HFR geothermal power experiment (covered before in [Geothermia](#)) and [Santos' proposal](#) to use carbon dioxide injection into [Cooper Basin](#) oil and gas fields to enhance recovery rates - the [Moomba Carbon Storage project](#) (pdf).

GeoDynamics have also been in the news ([The Australian](#)) as it conducted flow tests over the weekend to determine if there is any pressure loss between the Habanero 1 and Habaenro 3 wells. The results are to be announced later this week. The company has also commenced drilling another test well, 9km from Habanero, to test the extent of hot granite rocks within the company's operating permits.



MIKE SEXTON: Deep beneath the hostile desert that straddles the South Australia, Queensland border lies the Cooper Basin. A 130,000 square kilometre geological formation that provides gas and oil to Brisbane, Sydney and Adelaide. And may give Australia a great leap forward in combating climate change. ... In the Simpson desert, not far from where explorers Burke and Wills perished in 1861, Geodynamics is building the most remote power station in the country, one that could provide large amounts of green electricity.

ADRIAN WILLIAMS, GEODYNAMICS: Our first commercial project we're shooting for 500 mega watts, approximately. That will have the annual power output comparable to about one Snowy scheme. That's a significant first project in anybody's language.

MIKE SEXTON: The power will be generated by the heat contained in layers of granite that lie three kilometres underground.... Once the plant is completed water will be pumped into the granite where it will turn into steam. The steam is brought up other shafts with enough pressure to drive turbines and generate emission free power.

ADRIAN WILLIAMS: One of the things I think that's exciting about geo thermal energy is its materiality, sheer size. We know under our feet we have a resource that will support 10,000 mega watts of generating capacity with an annual output of around 15 snowy schemes. We know that resource is here. We've measured temperatures. There's no doubt about that.

PROFESSOR ROSS GARNAUT, CLIMATE CHANGE ECONOMIST: There will have to be large changes about the way we use and generate energy. This will not be costless.

MIKE SEXTON: When Professor Ross Garnaut released his interim report on climate change last month he pulled no punches. Arguing for a 90 per cent cut in emissions by 2050. If this is achieved it had will be a radical turn around for a country so reliant on cheap power from coal. And Professor Garnaut believes geothermal energy will play a role.

PROFESSOR ROSS GARNAUT: The interim report puts a lot of emphasis on support for research and innovation. Work in this area involves companies taking risks, doing a lot of learning, the benefits not only to them, those that spend the money but benefits everyone who is watching them as well. So I think there should be more support for innovation in the low technology industries.

MIKE SEXTON: There is another project in the Cooper Basin that could cut emissions without shutting down the coal fired power plants. For 45 years Santos has pumped oil and gas out of the basin along the way drilling almost 2,500 wells. The company now proposes a bold type of reverse engineering to counter climate change by using the old wells to store carbon dioxide.

JOHN ANDERSON, SANTOS: It's proven technology today. There are a number of projects throughout the world, for example, Algeria, Norway, there is a leading project in Canada, in which CO2 is being stored.

MIKE SEXTON: Initially Santos intends storing CO2 from its own plant but believes it has the storage capacity to hold one billion tonnes of carbon dioxide. A network of pipelines could bring emissions from coal power generation plants from the eastern sea board inland to Moomba.

JOHN ANDERSON: We are seeing a policy setting unfold in Australia at the moment. The Garnaut report certainly alludes to the Federal Court that carbon capture and storage will play a vital role in addressing Australia's needs. Very early days but it appears to be heading in the right direction.

MIKE SEXTON: Santos is not the only company positioning itself for carbon storage, but the project all hinges on a price being put on carbon. It is a significant investment. We're looking at 750 million to a billion dollars of investment. It is having the surety that in fact Australia is up for the challenge in the longer term, that there will ultimately be those pipelines taking CO2 back to the Cooper Basin. It's building confidence around that end game that is vital for us. That involves having a very strong partnership with Australian Government to make this a reality.

MIKE SEXTON: It's a similar story across the Basin at Innamincka where Geodynamics admits it can't compete with coal in the current economic climate.

ADRIAN WILLIAMS: As soon as there is any form of impost on carbon emissions, whether that's through emissions trading or taxes, however that impost takes place, both geothermal energy and gas will be two very attractive options for this country.

MIKE SEXTON: But there are some who believe Governments can't just let the free market dictate industry responses. Ian Dunlop is a former senior executive in the coal, oil and gas industry, he chaired the Australian greenhouse office experts group on emissions training. He believes governments must use incentives and regulation where necessary to bring about change.

IAN DUNLOP, FMR INDUSTRY EXECUTIVE: The risk we're run something very high, we have to look at the science, decide what direction we have to go in, then use the economics to achieve the best mechanism for doing that.

MIKE SEXTON: Professor Garnaut's final recommendations in September will frame a carbon trading policy. Whatever form that takes it will have major impact on activity in the Cooper Basin.

IAN DUNLOP: I believe we can make this change, it's going to require a very major turn around in attitude and enormous investment. It becomes essentially a nation building project, a little bit akin to a 21st century equivalent of the Snowy scheme in the 50s where we really have to radically change the concepts of energy in this country.

The attractiveness of gas for power generation once carbon costs are accounted for is an interesting issue - just how long will Australia's gas reserves hold out if we make a large scale switch from coal to gas ?



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