MEDIA MONITORS
INCISIVE INSIGHT


'Cinderella' gas

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'Cinderella' gas a new gold rush

As the world desperately searches for new energy sources to replace oil, Queensland has suddenly found itself the subject of a global tug of war over its massive reserves of coal seam gas. James McCullough reports

BOB Bryan and Stephen Bizzell are a generation apart but they have both made millions from a new energy source transforming Queensland into a national leader — coal seam gas.

Bryan, aged 74 and Bizzell, 40, have watched the share price of their respective companies, Queensland Gas and Arrow Energy, skyrocket as investors and major international resource companies realised the potential of CSG to power the developing world as oil reserves dwindle.

News yesterday that Origin Energy had done a $9.6 billion deal with US energy giant ConocoPhillips in the coal seam sector only reinforces their beliefs.

It also propels Queensland to the forefront in the new energy source, making the state potentially more significant than the North-West Shelf in terms of gas production and the CSG boom as transformational as the Bowen Basin coal rush.

Long known as the poor cousin to coal and conventional oil and gas, CSG is just as it sounds: natural gas extracted from coal seams, rather than from conventional rock formations.

Naturally odourless, it is the same gas that is a hazard for coalminers and which once doomed canaries to act as an unwary warning system underground.

It is formed as a by-product during the creation of coal and when the seam is perforated it allows the gas to flow to the surface, where it is gathered and processed.

The gas is later cooled and converted into liquid via a liquid natural gas plant, which usually costs about $2 billion per "train", a line of the plant which gives an indication of its total size (ie a three-train or four-train plant).

It is used just like any other form of conventional gas to power water heaters, stoves and space heaters in both domestic and business settings and as a direct source of power for industry and a fuel for electricity generation.

The massive Origin deal with Conoco, a company with a market capitalisation of $US125 billion, had an immediate impact on the sector yesterday with the share prices of all Queensland CSG explorers rising strongly by between 8 and 30 per cent.

It also put a major floor under an industry not long ago battling for credibility and acceptance as a legitimate and viable alternative energy source.

Bryan, who is conservatively worth about $360 million although some suggest his wealth is at least double that, got into CSG via a float of his Queensland Gas group in 2000.

After a long career in the resources sector, it was going to be his swan song. He first became aware of CSG in 1968 when he was drilling for other resources because "we had to drill through the stuff to get other things out".

"We scratched around in 2000 and just managed to raise enough money to get going — $12 million — which was enough to get us over the line," he reflected yesterday. Today the company has a market capitalisation of over $3 billion.

Bizzell entered the market around the same time, his Arrow Energy group having its fair share of sceptics but the company growing well and making him a multi-millionaire many times over as a result.

His total wealth is estimated at anywhere between $30 million and $50 million depending on his other investments.

Bizzell, an accountant originally who co-founded Arrow with old school mate Nick Mather, has always maintained the CSG sector is "an exciting part of the market which has great potential".

As he watched the Arrow share price rise he attributed the surge to renewed international interest.

"We certainly stick out for any player looking at possibly getting a seat at the (CSG) table," he said.

The beginning of this decade was a bad time for Bizzell and Bryan to raise cash for coal seam gas because, ironically, Conoco, Origin's partner in the latest deal, had spent more than $100 million looking for CSG in Queensland. It lost all its money and


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another US group, Amoco, did exactly the same thing.

"Here we were coming along claiming to be able to extract this gas profitably and two of the world's largest oil companies had failed dismally in the exercise so it was very tough indeed and the world was full of sceptics," Bryan said.

He described the latest Origin-ConocoPhillips deal as a wonderful endorsement of the sector and tremendously important for Queensland.

The CSG industry has also been boosted by three other major recent deals:

- British Gas in June made a $13 billion takeover bid for Origin. Given yesterday's news it will now likely not proceed but BG has also entered into an $8 billion agreement to build a liquefied natural gas (LNG) plant at Gladstone with Queensland Gas.
- The Malaysian Petronas group has signed a $7 billion deal with Santos to build an LNG plant at Gladstone.
- The giant Shell group has signed a deal with Arrow Energy which also envisages building a third, smaller, LNG plant at Gladstone.

"In reality we are going to have in all probability as much LNG production and export out of Gladstone as they have managed to have on the North-West Shelf in the past 20 years," Bryan said.

The North-West Shelf has five trains of capacity, each producing 3.5 million tonnes of LNG but with the proposed four new LNG plants for Gladstone, Queensland will have developments of greater size.

Arrow managing director Nick Davies has said that over the medium to long term there was so much CSG in Queensland it could satisfy the state's gas production for the next 300 or 400 years.

Fellow explorer and Sunshine Gas managing director Tony Gilby shares his enthusiasm, pointing out that increased pipeline infrastructure over the past 10 years along with increased demand for gas in general and better technology had put a rocket under the sector.

The news has not been lost on Gladstone.

The Gladstone Economic and Industry Development Board (GEIDB) and local council are bracing for the expected flurry of economic activity.

"In reality we are not going to see four LNG plants in Gladstone but it is likely we will see one or two plants," one analyst said yesterday.

Local Mayor George Creed yesterday said the council was very "supportive and receptive" in relation to the huge development planned for the region, which must also comply with relevant environmental and social guidelines.

The Bligh Government has also established a special State Development Area in the city with an estimated $17 billion worth of potential LNG projects on the table for Gladstone and likely long-term benefits to the Queensland economy estimated at $9 billion.

Coal seam gas has been extracted in the US for more than 25 years with production levels now around 1.9 trillion cubic feet a year and on the rise.

That is equivalent to more than two years of production at the North-West Shelf LNG joint venture now that its fifth production train has come on line ahead of schedule.

As early as the 1970s it was clear Australia had the potential to host a large amount of CSG.

But it was early disappointments like Conoco, Amoco and Enron, which lost about $200 million drilling for CSG in Queensland, that made it a slow rise for the sector.

The big boom did not come until 2000 when Bob Bryan and Stephen Bizzell were setting out and, ironically, as a result of the collapse of the $4 billion PNG gas pipeline.

In 2000, to the astonishment of the state's power coal industry, the then Beattie government released an energy policy that mandated 13 per cent of the state's electricity be sourced from gas by 2005.

Analysts and observers at the time suggested that policy was a subsidy for the PNG pipeline, which was finally cancelled last year after years of delays and cost blow-outs.

As the PNG project was continually delayed, CSG explorers kept working to prove up reserves in the Bowen and Surat Basins, signing agreements to supply gas-fired power stations.

Some analysts, such as UBS's Gordon Ramsay, are now predicting eastern Australian gas demand could more than double in the next decade.

But it is not all good news for consumers. While the rise of CSG has proved a boom, prices to the consumer are likely to rise as a result.

Origin managing director Grant King has long said the sector was operating in what he described as a "new world", predicting much higher gas prices than the industry had ever thought of before.

Also boosting the industry and Queensland junior CSG explorers has been a gradual recognition that existing sources of gas supply, such as Bass Strait, have plateaued.

Santos also recently warned that its Cooper Basin production was declining about 8 to 10 per cent a year, making coal seam gas production considerably more attractive.

The sector has grown dramatically in just two years and the growth will flow through to Queensland industry, jobs and economic prosperity.

As Bob Bryan says: "This industry has come a long way from small beginnings and has a long way to go yet."

"An exciting part of the market which has great potential . . . We certainly stick out for any player looking at possibly getting a seat at the (CSG) table"

Stephen Bizzell

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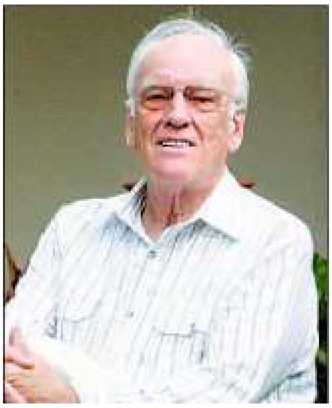


Liquid gold

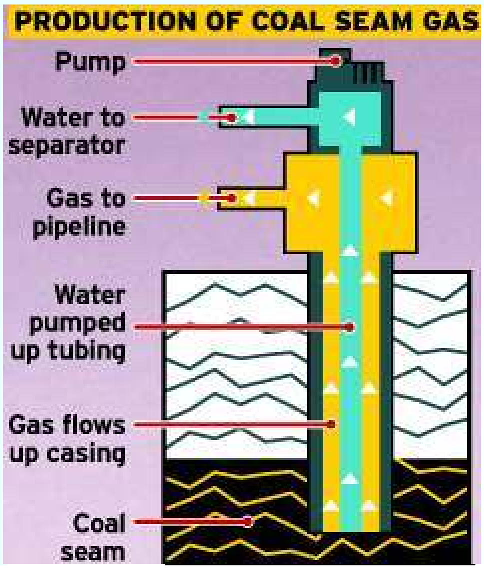
WHAT IS CSG?

CSG is predominantly methane gas which is created and stored naturally within coals. The gas forms and collects in coal seams buried deep underground.

These coal seams are also naturally filled with water, and it is the pressure of the water that keeps the gas as a thin film on the surface of the coal. In this way large amounts of gas may be stored in coals.

The initial phase of CSG production usually involves the extraction of the water from within the coal seams in order to reduce the water pressure and release the CSG from the surface of the coal.

The amount of gas that can be produced economically from a coal seam is dependent on a number of factors including the thickness of the coal, gas content, permeability and the depth of the seam.

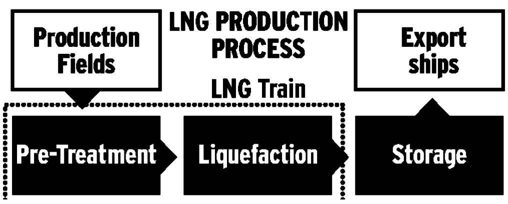


What is LNG?

Liquefied Natural Gas (LNG) is natural gas, either from conventional or Coal Seam Gas (CSG), that has been cooled into a liquid form usually for export by special purpose ships to overseas markets.

What is an LNG Train?

It is the name given to the equipment in the processing facility that liquefies the gas supplied to the CSG to LNG project. A train is sized to a certain volume of gas supply and LNG output.

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A drilling crew works on a rig at Origin Energy's Spring Gully CSG operation near Roma in the Surat Basin and (inset) the distinctive domed tanks of an Australian LNG freighter could soon be a frequent sight off Gladstone.